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Report to the Trustee

Actuarial Investigation of the Financial Condition of AvSuper
(under SPS 160)

as at 30 June 2016

Prepared by

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Date: 3 December 2016

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Table of Contents

Section		Page
1	Summary	3
2	Membership Data	11
3	Fund Accounts, Asset Values and Earning Rates	14
4	Valuation Method and Assumptions	20
5	Results: Short Term Funding	24
6	Results: Long Term Funding	28
7	Future Employer Contributions	32
Attachment A	Summary of Fund Provisions – Defined Benefit Members	34

Section 1 – Summary

1.1 Background

Nature of the Advice

This report has been requested by Michelle Wade, Chief Executive Officer of AvSuper. In this report, AvSuper is referred to as the "Fund".

I have provided the advice in the report in my capacity as Actuary (as defined in the trust deed) to the Fund. Further explanation on my advice can be obtained using the contact details set out on the first page of the report.

The advice is provided to the Trustee only and may be inappropriate for any other party to use as the basis of any action or decision it takes.

The previous valuation was carried out as at 30 June 2013 by Jeff Humphreys of CHR Consulting Pty Ltd. The report on that valuation was dated 11 November 2013.

Fund Background

The trust deed governing the Fund is dated 20 December 2012.

The Principal Employer is Airservices Australia. The Associated Employers are Civil Aviation Safety Authority and AvSuper Pty Ltd. The term "Employer" is used throughout this document and should be read as both the Principal Employer and the Associated Employers or only the Principal Employer depending on the context in which it is used.

The Fund is open to new members. However the defined benefit category was closed in 2002.

The Fund is a complying superannuation fund and is taxed at the rate of 15% (nil for pension assets).

Under the trust deed:

- Each Employer must contribute to the Fund the amount or rate of contributions determined by the Principal Employer from time to time after obtaining the advice of the Actuary and consulting the Trustee.

- If the contributions being made and expected to be made to the Fund and the actual and expected assets of the Fund are together inadequate to provide for the actual and expected liabilities of the Fund the Trustee may adjust members' benefits.

Airservices Staffing Changes After the Valuation Date

Since the valuation date the Employer has embarked on a staffing restructure. There has been a large change in the staffing levels of the Employer and some further change is expected. The change is in the nature of a one off downsizing.

The report is based on the Fund's position at 30 June 2016, prior to the change. However, I have included in Section 1.7, comment on the expected impact of the restructure on the report's conclusions and recommendations.

Compliance

The report satisfies the requirements of APRA's Prudential Standard SPS 160.

The report complies with Professional Standard 400 of The Institute of Actuaries of Australia.

Purpose

The major purposes of this report are to:

- Examine the adequacy of the assets to meet the liabilities;
- Advise the Trustee on a suitable minimum Employer contribution rate;
- Review the investment policy and the insurance arrangements.

This report is provided triennially. In addition to this report, the Trustee receives actuarial and other advice on a regular and frequent basis to assist it to monitor the financial position of the Fund. Annual actuarial advice on the financial position of the Fund is included as a component of the Fund's risk management strategy.

1.2 Financial Position of the Fund

The Fund's financial position was very healthy at 30 June 2016:

- There was an excess of assets over the Actuarial Value of Accrued Benefits, in respect of defined benefit liabilities, the margin being 11% of assets. See Section 6.6.
- The Fund was in a Satisfactory Financial Position with a ratio of assets to Vested Benefits (amount of benefits payable if all members left the Fund) of 109% and a ratio of 119% in relation to the amount of the defined benefit vested benefits. See Section 5.1.

The significant feature of the experience (see Section 1.4 below) that has affected the financial position of the Fund has been the investment performance relative to the rate of increase in salaries (the real rate of return) which was better than expected at the last valuation.

Overall, the experience has had a positive impact on the short term and long term financial position of the Fund. Sections 5 and 6 of the report set out in detail the financial position of the Fund.

1.3 Employer Contribution Rate

(a) Current Rate

Over the 3 years to 30 June 2016, the Employers contributed in respect of Defined Benefit members at the following rates:

Employer	Employer Contribution Rate From 1 July 2016 (% of Salaries)		
	Full Non ATC	Full ATC	CSS
Airservices	16.5		3.0
Other	15.0	n/a	3.0

The contributions made were consistent with the recommendations made in our last report.

(b) Recommended Future Contribution Rate

The Trust Deed sets out the process for determining the contributions to the Fund. It is the responsibility of the Employer to decide the appropriate level of contributions, after receiving the advice of the Actuary and consulting the Trustee.

The recommendations in this report in relation to contributions are made only for the Trustee and should assist the Trustee in this consultation process. Our recommendations therefore are minimum contribution recommendations for the circumstance of the Fund at this time.

There are many considerations in relation to an appropriate future contribution rate and these are set out in Section 7.2.

Our recommendation is that the contribution rate could be reduced to 12% of salary for Full members. At this level the Fund can withstand a short term fall in share values of 15% and the financial position would be at or around the Trustee's Target Margin of 110%. Further, if the Fund has no short term net capital losses the financial position will remain at or around the position at 30 June 2016 which is very healthy.

The timing of the reduction is important. While we do not expect that the Employer's current staffing restructure program will adversely affect the Fund (Section 1.7), it is recommended that any reduction in the contribution rate commence after the restructure is complete and following an update on the financial position of the Fund at that time.

Summary of Recommended Rates

The recommended minimum Employer contribution rates from 1 July 2016 are set out in the table below.

Employer Contribution Rate From Completion of the Employer Staffing Restructure ^ (% of Salaries)	
Full	**CSS**
12.0	3.0

^ subject to review at the time of completion

Salary sacrifice member contributions are made by the Employer for some employees and the member contribution rate is increased by 17.6% to allow for the taxation of these contributions.

In addition, the Employer is contributing at the rate agreed in respect of Accumulation members.

1.4 Experience

The significant items of experience during the three years ended 30 June 2016 were:

a) The average rate of increase in members' salaries was 3.8% p.a., which was lower than the previous three-year period. It was also slightly lower than, though not inconsistent with, that expected at the previous valuation, an average of 5% p.a. – See Section 2.4;

b) The investment return, net of fees and taxes on the defined benefit assets was 7.2%, slightly higher than the assumed rate. See Section 3.2; and

c) The real rate of return was 3.3% p.a. which was higher than the assumed rate. See Section 3.3.

1.5 Insurance Arrangements

The Fund does not self-insure.

Insurer

The Fund's insurer over the period since the last valuation was Hannover Life Re of Australasia Ltd, one of five significant group risk insurers in the Australian market.

Insurance of the Defined Benefit Liability

The Fund insures the future service component of the death and TPD benefit and the whole of the Temporary Disability Income Benefit for Full members. The future service component for Full members is:

20% x Salary x Future membership to age 60

This is appropriate while the value of the assets is at or around the amount of vested benefits but should be reviewed if assets become out of line with vested benefits.

The future service component for CSS members is nil.

Insurance for Accumulation Members

Accumulation members who are employees of the Employer receive cover at the level of Full members.

Members who leave the Employer and retain their membership of the Fund have their cover maintained at the level that applied at the time of exit.

Members may apply for additional cover and may opt out of cover.

Conclusion

The insurance arrangements are appropriate to the circumstances of the Fund.

1.6 Investment Policy

Overall the Investment Policy of the Fund is appropriate to the nature of the Fund's design and liabilities. The Employer has committed to supporting the Fund with additional contributions in those times where short term investment performance deteriorates and this results in members' minimum benefit entitlements not being fully covered by those assets.

1.7 Changes in Airservices Staffing levels

As noted in Section 1.1, since the valuation date the Employer has embarked on a staffing restructure.

The full impact is not known at the date of this report. However, from what is known, the impacts are likely to be:

- Financial position – the restructure will improve the financial position of the Fund marginally with key Funding Status measures increasing slightly. For example, the defined benefit vested benefits ratio is expected to increase by approximately 2%.

- In addition, the restructure will not impact on the Fund's long term viability provided a large proportion of the members who receive a benefit, retain their benefit within the Fund. Initial indications are that this is the most likely scenario.

- Contribution rate – the restructure is not expected to have a significant impact on the contribution rate recommendation.

- Liquidity – liquidity issues may arise if members leave the Fund rather than retain their benefit within the Fund and this requires assets to be sold quickly. Initial indications are that members will not leave the Fund in significant numbers and there should not be liquidity issues for the Fund.

- Decrement rates – post change decrement rates may be impacted. Redundancies are assumed to bring forward exits from future years and we may expect lighter exit rates in 2017 and 2018. This is likely to vary by age. The full impact of the age structure changes created by the restructure is not yet know.

- Mean term – the mean term of the defined benefit liabilities may move if a disproportionate number of members in the younger or older age group receive a benefit.

- The mean term impacts the investment policy which in turn may affect the valuation assumption in respect of future investment returns.

Overall it is not expected that the changes will impact the conclusions or recommendations in this report. Nevertheless, it is prudent to consider the financial position of the Fund again at the completion of the change.

1.8 Sensitivity Analysis

Sensitivity analyses have been undertaken in relation to the material risks set out in Section 1.9 a) and b). These form part of Sections 5 and 6.

1.9 Material Risks

The material risks for the Fund are:

a) The rate of investment return relative to the rate of salary increase is lower than that expected over the long term. This will most likely mean that the contribution rate will have to be increased, though not necessarily in the short term.

b) Short term investment return volatility (down) associated with the current state of the world economy and the impact of uncertainty created by the Trump Presidency, particularly in relation to trade. The Fund has a significant asset buffer and has put in place a more defensive asset structure. It is therefore in a reasonable position to absorb poor (relative to that expected in this report) investment performance.

c) The impact of the changes to the Airservices workforce over the year ended 30 June 2017.

d) The Employer withdraws its support to make additional contributions.

e) A downturn in the Australian or international economy to the extent this impacts investment returns at the same time it impacts the Employer's ability or willingness to make necessary topup contributions.

f) Regulatory and policy risks. These are numerous, examples include:

- the effect of continually increasing regulatory and accounting rules and oversight making the costs of running the Fund prohibitive or uncompetitive; and

- the effect of changes to the rules relating to superannuation or retirement incomes policy which increase the rate of exit of members particularly if the Fund is in an unsatisfactory financial position at that time.

The material risks are primarily associated with the investment outlook.

1.10 Previous Recommendations

The Trustee has addressed all the recommendations made in the Previous Report.

1.11 Next Valuation

The next actuarial valuation of the Fund is required by the SIS Regulations and the trust deed to be carried out no later than as at 30 June 2019.

1.12 Recommendations

Recommendations are made in this report in relation to the contribution rate in Section 1.3 above.

No other recommendations are made.

Section 2 - Membership Data and Experience

2.1 Category Definitions

The following category definitions are used for the purpose of this report.

Corporate Member - A member of the Fund who is an employee of an Employer and for whom the Employer is contributing. The Corporate member categories are:

- Full Member – a person admitted to the Fund under Section 1.15.2 (b) of the Trust Deed who is accruing a defined benefit under Division 2 of the Trust Deed.
- CSS Member - a person admitted to the Fund under Section 1.15.2 (a) of the Trust Deed who is accruing a defined benefit under Division 2 of the Trust Deed and who is also a member of the Commonwealth Superannuation Scheme (CSS).
- Accumulation Member - a person admitted to the Fund under Section 1.15.6 who is accruing an accumulation benefit under Division 4 of the Trust Deed.

Public Offer Member - A member of one of the following categories:

- Deferred Benefit Member - has ceased to be an employee of the Employer and who has elected to retain all or part of his or her benefit within the Fund under Division 3 of the Trust Deed.
- Spouse Member – a person who is the spouse of an existing member, who is not an employee of the Employer and who joins the Fund under Division 5 of the Trust deed.
- Family Law Member – a person who has become a member under a family law benefit split.
- Public Offer Member – a person who joins the Fund under Division 6 of the Trust deed, including other standard employer sponsored members.

Income Stream Member – a member who has elected to receive all or part of his or her benefit as an income stream under Division 3 of the Trust Deed.

Defined Benefit Member - A Full member or a CSS member.

A member may be in more than one category.

2.2 Membership Data

The membership data has been provided by the Fund's administrator. The administrator is Link Super Pty Ltd.

Data Integrity

Membership data is audited. We have undertaken reasonableness checks on the data in respect of defined benefit members and we are satisfied with its accuracy for the purposes of this report.

The membership data in relation to accumulation accounts has been taken as correct without applying reasonableness checks to it.

Data Summary

At 30 June 2016 there were:

- 6,580 members of whom, 1,264 were defined benefit members; and
- The vested benefits of all members as shown in the accounts totalled $1,816.1m.

2.3 Significant Features in Membership Experience

Defined Benefit – Full Members

The Full member category is the key driver of the financial position of the Fund. Movements in other membership categories are not material to the financial position.

Full members exited at low rates, around 5% p.a. over the period since the last valuation. This was a slight increase on prior experience and was consistent with that assumed at the previous valuation.

The number of Full members at the valuation date was 1,139, down from 1,315 at the last valuation.

2.4 Salary Escalation

The rate of salary escalation for Defined Benefit members has a direct effect on the liabilities of the Fund. Salaries increased at a rate of 3.8% p.a. over the 3 years ended 30 June 2016. This was lower than the prior 3 year period, 5.3% p.a.. It was also lower than, though not inconsistent with, that expected at the previous valuation, 5% p.a..

Looking forward, it is reasonable to expect that:

- the salary increase rate for the defined benefit category will in general be lower than for all employees of the Employer. This is because the closure of the category to new members removes, over time, the experience of younger members who are expected to have the highest percentage promotional increases; and

- general salary increase rates will be low with continuing very low inflation and low interest rates.

Section 3 – Fund Accounts, Asset Values and Earning Rates

3.1 Fund Accounts and Asset Valuation

The Fund accounts as at 30 June 2016 were produced by the Fund's administrator, Link Super Pty Ltd. The accounts are audited.

The accounts show that the value of the assets of the Fund at 30 June 2016 was $1,982,527,451.

The assets that are available to meet the liabilities of the Fund after excluding the amount held to meet the Operational Risk Financial Requirement and the Administration reserve was $1,973,587,103.

The assets have grown by 33% since the last valuation.

The value of the Assets adopted for the purposes of the short term and the long term valuation, the determination of the contribution rate recommendations and the Funding Status Measures is $1,973,587,103.

The accounts also set out the amount held with each investment manager and within each major asset sector.

3.2 Investment Return on Defined Benefit Assets

The rate of investment return on the defined benefit assets is derived from the movement in the unit price of the Defined Benefit investment option over the period plus 0.23% p.a. being the administration fee deducted from the unit price.

The rate of return on the defined benefit assets over the 3 years since the last valuation is set out in the table below:

Year ended 30 June	Rate of Return (% p.a.)
2014	12.0
2015	7.3
2016	2.5
Average	**7.2**

The average return of 7.2% p.a. was slightly lower than the prior 3 year period, 9.1% p.a.. It was consistent with that assumed at the previous valuation, 6.5% p.a..

3.3 Real Rate of Return

The real rate of return on the Fund's defined benefit assets is the excess of the rate of return over the rate of increase in salaries of defined benefit members. This is one of the critical factors in the determination of the required contribution rate (see also Section 6.5).

The real rate of return for the three years ending 30 June 2016 was 3.3% p.a which is very similar to the prior period, 3.7% p.a.. It is higher than that assumed at the last valuation, 1.5% p.a..

The healthy real return has been the most significant reason for the improved financial position of the Fund.

3.4 Investment Policy

Background

The Fund has an investment strategy, which is set out in the Investment Governance Framework Policy (the Policy) dated November 2015.

The Policy is reviewed at least annually by the Trustee.

The Policy includes amongst other things:

- the investment philosophy and objectives of each section of the Fund;
- the strategy for achieving these objectives; and
- the procedure adopted for the monitoring of the performance of the Fund's investments.

The Investment objectives of the Defined Benefit Section are:

- To achieve a return after tax and fees that exceeds Average Weekly Ordinary Times Earnings (AWOTE) increases by at least 1.5% pa over rolling 5 year periods;
- To outperform the return of the 'benchmark' portfolio after fees and tax over rolling 5 year periods; and
- To achieve no more than two negative annual returns in every 10-year period.

Since the last valuation, the Trustee considered our recommendations to reduce the exposure of the defined benefit assets to 'growth' assets. The Trustee has implemented a gradual change over the period and this can be seen in the table below.

Sector	30 June 2013		30 June 2016	
	Benchmark (%)	**Range** Above/Below **(%)**	**Benchmark (%)**	**Range** Absolute **(%)**
Australian Equities	29	+ 16 - 14	14	10 – 35
Overseas Equities	26	+ 19 – 11	16	10 – 35
Property	10	+10 - 10	8	0 – 15
Infrastructure	5	+10 - 5	5	0 – 15
Growth Alternatives	10	+10 - 10	7	0 – 15
Total Growth	**80**	**+ 10- 30**	**50**	**20 - 70**
Fixed Interest	10	+ 20- 10	20	0 - 30
Cash, Bills and Deposits	5	+ 15 - 5	10	0 - 20
Defensive Alternatives	5	+10 - 5	20	0 - 30
Total Defensive	**20**	**+ 30 - 10**	**50**	**20 - 70**
Total	**100**		**100**	

The defined benefit liabilities of the Fund are approximately 47% (down from 52%) of total liabilities which is a slight reduction since the last valuation. The defined benefit liabilities remain a dominant feature of the Fund. However, the proportion is expected to continue its long term path of reduction as defined benefit members continue to exit the Fund and a large proportion retain their benefit within the accumulation options provided by the Fund.

The unit pricing reports set out the amount held with each investment manager and within each major asset sector.

The investment policy is discussed below.

Nature of the Liabilities – Defined Benefit

The term of the defined benefit liabilities has shortened over the period and is now around 9 years.

The average age of defined benefit members in the Full category is 53 (last report 49) and the average period of employment is around 23 years. Full members are exiting at low rates (around 5% p.a.) and in Australia it is expected that people will be working to older ages in the future. However, as a larger proportion of members are approaching retirement ages it is expected that the exit rate will gradually start increasing.

The liabilities are "real" i.e. will vary with movements in salaries. The defined benefit assets should include exposure to those asset sectors that include a high likelihood of positive real returns over the long term. These assets are generally considered to be equities as the growth in salaries is determined to a significant extent by the inflation rate and GDP growth, both of which impact on dividends.

The Fund can afford to bear short term fluctuations in investment returns from equities while the liabilities remain long term and the Employer is able to meet short term additional contributions when necessary. The Employer has shown that it is willing to do this when required.

The current investment policy reflects the nature of the liabilities.

Nature of the Liabilities – Accumulation

A growing proportion of the liabilities of the Fund is in respect of members with accumulation accounts including defined benefit members. From 1 October 2002, these members have had investment choice and the members effectively determine their own investment strategy from the options provided by the Trustee. The Trustee's focus here is on providing an appropriate range of choice and appropriate investment managers within each investment option.

Members are advised in the Fund's communication material about the nature of each investment choice option.

The MySuper investment option holds most of the accumulation account liabilities and this is expected to continue.

Investment earnings are credited using a weekly unit pricing mechanism which allows for taxation and expenses. This crediting rate strategy is appropriate for the Fund.

Liquidity

The Fund's liquidity risks are low. This is because:

- the Fund has a strong positive cash flow with contributions in excess of net benefit payments, tax and expenses. The major risks to this are:

  a) a large retrenchment programme, but only to the extent that members were not willing to retain their benefit within the Fund's product range – and see Section 1.7,

  b) heavy switching activity by members in or out of one investment option;

  c) significantly lower retention rates of members when they cease employment with the Employer, or

  d) significantly higher exit rates from the Public Offer and/or Income Stream categories;

- the provision of competitive retirement and rollover products (Income Stream and rollover facility) means that a large proportion of benefit payments remain within the Fund. In particular, a high proportion of the benefit payments for Corporate members are expected to remain in similar assets (in one of the Growth portfolios);

- most of the Fund's investments are held in investment facilities with short redemption notice periods; and

- the Fund carries no self-insurance for death and TPD benefits.

Liquidity issues will become more significant in the long term when the current generation of defined benefit members starts to draw down on these retirement and rollover products.

Diversification

The investments are appropriately diversified, spreading risk across asset sectors, within sectors and by investment style of manager. This will assist in reducing short term fluctuations in returns.

Defined Benefit Margin Policy

The Trustee has in place a policy in respect of the margin of assets over defined benefit liabilities. The policy is:

- The Trustee has set a Target Margin of 10% of assets over vested benefits in relation to Defined Benefit liabilities.

- The Trustee generally monitors movements in the margin of assets over vested benefits annually. The Trustee will advise the Principal Employer when it becomes aware that the margin of assets over vested benefits has fallen below the Target Margin and will raise the potential for the Employer to make additional contributions if deemed appropriate.

The margin of 10% provides a healthy buffer for the expected level of asset fluctuation inherent in the current investment policy. When considered together with the commitment to additional funding made by the Employer, this reserving policy is suitable for the Fund's circumstances.

3.5 Previous Recommendations

We have previously recommended that the Trustee review the investment policy in relation to the defined benefit assets. The Trustee has completed this review and implemented appropriate changes.

3.5 Conclusion

Overall the current Investment Policy of the Fund is appropriate to the nature of the Fund's design and liabilities.

Section 4 – Valuation Method and Assumptions

4.1 Method

The Fund's design is such that the valuation must be considered on two levels:

Short Term Solvency

The assets of the Fund should be sufficient to cover vested benefits so that:

- Members benefits are fully funded if the Employer ceased contributions, the Fund was to windup or undergo a major membership loss;
- To the extent possible, the Defined Benefit Margin is maintained; and
- the Fund's financial position is not unsatisfactory under the SIS Act.

The valuation must therefore take into account the likely progression of the assets and vested benefits over the short term. We have used a period of 5 years to examine the progression. The method used to examine the short term solvency is to project the assets and vested benefits ignoring membership movements (which make little difference to the results). Appropriate allowance is made for administration, insurance and tax costs.

The method used is the same as that used in last year's report.

Long Term Viability

The long term viability of the Fund is examined to ensure sufficient assets are being accumulated to meet the long term benefit commitments, under the Fund's design, on an ongoing basis. The Attained Age Normal Method is used to estimate the required Employer contribution rate in respect of the future service liability of existing members. It also estimates the amount of any excess of assets over past service liabilities.

The method is the same as that used at the previous valuation except that members aged 65 and over are valued in the same way as all other members rather than at their vested benefit.

4.2 Assumptions – Short Term Solvency

The critical factors affecting short term solvency are:

- the margin of investment returns over the salary increase rate, the real rate of return; and

- the Employer contribution rate.

Assumptions based on expected short term experience have been adopted. These are varied to examine the sensitivity of the short term position to the experience. The assumptions used are set out below:

- Average Salary increase 4% p.a. including a full allowance for the effect of promotional and terms of employment changes. The salary increase rate is very stable and variations in this assumption are not considered necessary for the projections.

- Investment return assumptions are net of tax and investment expenses. The underlying investment assumptions over the year ended 30 June 2017 are:

    - Rate earned to 3 November 2016 is approximately 0.9%;

    - Long term corporate bond rates, 3.5% p.a.;

    - Capital gains on property, 0.0% p.a..

  The most volatile investment sector, shares, is likely to have the greatest effect on the year's return. The assumed capital gain in share values, and return on the defined benefit assets for the year ended 30 June 2017 are set out below:

Scenario	Capital Gain in Share Portfolio * (%)	All Ordinaries Index 30 June 2017	Return for the year (%)
A	-20	4,250	-5
B	-15	4,510	-3
C	-10	4,780	-1
D	-5	5,040	1
E	0	5,310	3

* from 4 November 2016 to 30 June 2017

The All Ordinaries Index is shown to give some context to the estimated investment return. The All Ordinaries Index as at 3 November 2016 was approximately 5,307.

This assumption looks primarily at the downside risk for the Fund with the current economic outlook highly unstable and uncertain.

Investment Return net of tax and investment expenses in years 2, 3, 4 and 5 of 4.5% p.a., being the assumed long term rate.

- The Employer contributes at the current rate. For those members where the Employer makes the member contribution, the member contribution rate is increased by 17.6%;

- Administration expenses are 0.23% p.a. of assets. Investment expenses are accounted for in the investment return assumption. Group life premiums are around $0.6m p.a. in respect of the defined benefit death, TPD and TTD benefits.

The investment assumptions have been changed from those used at the previous valuation to reflect the current economic outlook for the Fund. Salary escalation is reduced from 5% p.a. at the last valuation to 4% p.a..

4.3 Assumptions – Long Term Viability

The valuation assumptions are based on best estimate long term expectations. The assumptions used are summarised below:

Key Financial Assumptions

- Salary increase rate, 4.0% p.a.;

- Earning rate after tax and investment fees on defined benefit assets, 4.5% p.a.; and

- Average real return 0.5% p.a..

Salary increase assumptions are consistent with the current underlying economic fundamentals in the investment earning rate as well as past salary experience and take into account expected salary increases due to promotion (1% p.a.) and the industrial agreements in place or expected to be in place between employees and the Employer in the future. The assumption is lower than at the last valuation, 5.0% p.a., reflecting the fall in inflation rates and the household share of growth both of which are expected to remain lower than historical rates.

The Trustee's objective for investment returns is 1.5% above wage growth (AWOTE). Based on the salary increase assumption, the long term investment return based on the Trustee's objective is 4.5% p.a., being 1.5% above the base salary increase rate (before promotion effects) of 3% p.a..

The Trustee's investment return objective is consistent with current long term economic fundamentals, including the inflation rate, risk free rate and the equity risk

premium. A rate of 4.5% p.a. is consistent with these fundamentals when applied to the defined benefit asset mix.

The assumption is lower than at the last valuation, 6.5% p.a., reflecting the changed asset sector mix and the fall in inflation rates and bond rates over the period which are expected to remain low.

Other Assumptions

- The share of the administration expenses of running the Fund for defined benefit members will be 0.23% p.a. of defined benefit assets. Assuming the Target Margin is maintained on average over the long term, this equates to 0.25% p.a. of liabilities. In addition, all members with accumulation accounts will be charged fees on a fair cost recovery basis.

- Employer contributions will be taxed at 15%. For those members where the Employer makes the member contribution, the member contribution rate is increased by 17.6%; and

- Rates of decrement as set out below. The decrement rate due to retrenchment is assumed to be nil

Age	**Death/TPD**		**Resignation and Retirement**	
	Male	**Female**	**Full**	**CSS**
30	3	2	500	500
35	4	3	280	280
40	6	5	230	230
45	10	8	180	180
50	18	15	200	200
55	31	26	416	3,290
56–59*	40	31	583	2,782
60	n/a	n/a	1,690	1,800
61–64*	n/a	n/a	1,764	1,800
65	n/a	n/a	2,222	1,800
70	n/a	n/a	1,960	1,960
75	n/a	n/a	4,460	4,460
79	n/a	n/a	10,000	10,000

* average over the age group

The Other Assumptions are unchanged from the last valuation.

Section 5 – Results: Short Term Funding

5.1 Short Term Funding Status Measures

Vested Benefits

The ratio of the Fund's assets to vested benefits (VBI) is set out in the tables below:

At 30 June 2016 the Fund was not in an Unsatisfactory Financial Position with the ratio of assets to vested benefits greater than 100%.

Fund as a Whole		Ratio of Assets to Vested Benefits at 30 June (%)	
Value of Assets ($m)	**Value of Liabilities ($m)**	**2016**	**2013**
1,973.6	1,816.1	109	106

Defined Benefit Liabilities Only		Ratio of Assets to Vested Benefits at 30 June (%)	
Value of Assets ($m)	**Value of Liabilities ($m)**	**2016**	**2013**
1,004.9	847.4	119	110

The vested benefit is the benefit the member is entitled to under the Trust Deed on exit. For defined benefit members, this is the Retirement benefit for those eligible (by age) and the Resignation benefit for all others. With the closure of the Fund to new members, the Retirement benefit and Resignation benefit are equal for all members.

For Public Offer, Income Stream and Accumulation members, the vested benefit is the value of their account balance.

The ratios show the short term position of the Fund if all members exited or there was a large reduction in membership.

The ratios indicate that the Fund's financial position has improved over the 3 years. This was due principally to:

- higher than expected investment returns; and
- lower than expected salary increases.

The Trustee's Target Margin is a defined benefit vested benefits ratio of 110% and the Fund sits comfortably above this margin.

Minimum Benefits

The Minimum benefit is the Minimum Requisite Benefit (as defined in the Benefit Certificate) in accordance with the Superannuation guarantee legislation. The Minimum Benefit for all members is in the nature of an accumulation benefit.

The value of the liabilities of the Fund in respect of the Minimum Benefits of the members of the Fund was $1,538,411,664.

The ratio of the Fund's assets to the Minimum Benefits in relation to defined benefit members only is set out in the table below:

Defined Benefit Members Only		**Ratio of Assets to Minimum Benefits at 30 June 2016 (%)**
Value of Assets ($m)	**Value of Liabilities ($m)**	
1,055.1	619.9	170

The ratio is very healthy with Minimum Benefits very well covered by the assets. As all Minimum Benefits are in the nature of accumulation benefits, this ratio is expected to remain strong provided the minimum contributions set out in the funding and Solvency Certificate are made by the Employer.

The Fund is used to meet obligations under the Superannuation Guarantee Administration Act 1992. All necessary funding and solvency certificates were obtained during the three-year period to 30 June 2016. The current Funding and Solvency certificate was issued with effect from 1 July 2014 and was dated 7 August 2014.

An actuary is highly likely to be able to certify the solvency of the Fund in any Funding and Solvency Certificate that may be required over the three years commencing 1 July 2016.

5.2 Projection of Defined Benefit Vested Benefits Ratio

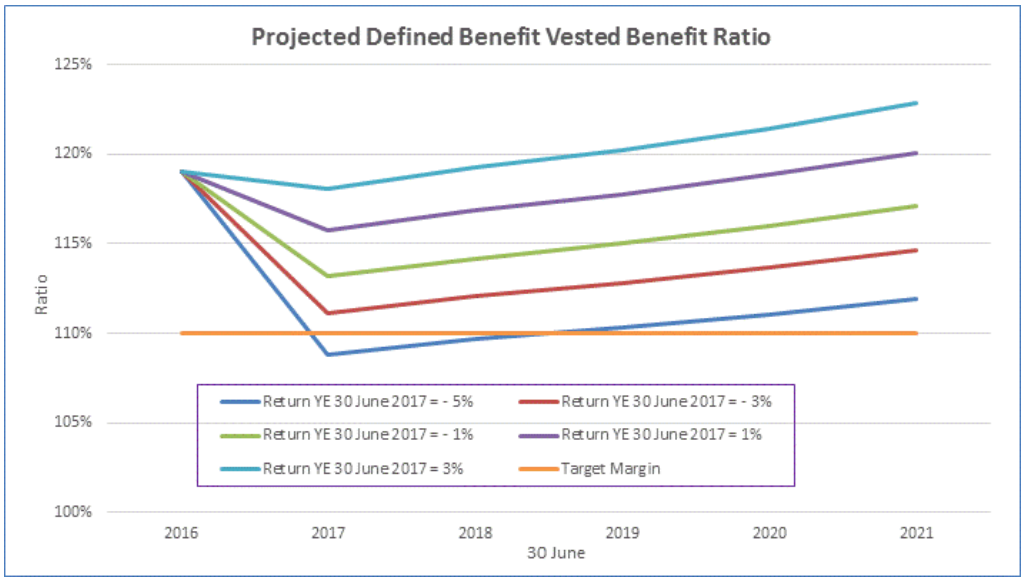
The projection is for 5 years based on short term realistic assumptions set out in Section 4.2. For the purpose of the projection, the value of the benefits of:

- Public Offer members and Income Stream members;
- Accumulation members; and
- Accumulation accounts of defined benefit members,

has been taken from both the value of vested benefits and the value of the assets as these liabilities are fully matched by the assets (liabilities move in proportion to investment returns).

The projection therefore shows the effect on the margin of assets over vested benefits for those benefits independent of investment returns and dependent on salary changes. The experience in relation to these benefits is the major risk to the Fund of failing the Satisfactory Financial Position test.

The results of the projections are set out in the graph below. The graph shows the defined benefit VBI at the end of each year through to 30 June 2021 based on the scenarios set out in Section 4.2., the key variable being the return in the current year. The graph includes the Trustee's Target Margin.



The significant conclusions arising from the projections are:

a) The Trustee's Target Margin of 10% is highly likely to be exceeded through to 30 June 2017.

b) Based on expected medium term returns and the current contribution rate, the buffer above the Target Margin is expected to improve after the assumed initial fall in the first year.

c) The Fund is in a very healthy financial position and able to withstand a large fall in share values over the remainder of the year ended 30 June 2017 before it would be in an Unsatisfactory Financial Position at that date.

d) The Employer is highly unlikely to have to make additional top up contributions in June 2017 under the Rectification Strategy.

5.3 Fund Wind-Up

On Fund wind up, or if the Employer ceases to contribute at sufficient rates, the assets are apportioned among the members. There are no underlying guarantees of benefits. The funding method aims to ensure that the value of accrued benefits or vested benefits if greater is covered by the assets at all times.

Section 6 – Results: Long Term Funding

6.1 Introduction

The Fund's long term financial position and Employer contribution rate are examined in this Section.

The liabilities have been valued using the assumptions set out in Section 4.3. The funding method used is the Attained Age Normal method. Under this method the normal Employer rate is calculated as sufficient on a best estimate assumption basis to finance future service liabilities of existing members.

The best estimate assumption basis is set using assumptions which:

a) are made using professional judgement, training and experience;

b) are made having regard to relevant statistics, experience and other information; and

c) are neither deliberately overstated nor deliberately understated.

As such the results of the valuation using these assumptions are expected to be equally likely to overstate as understate the actual cost of the benefits. Sensitivity analysis is used to quantify the effect of the actual experience moving away from that expected.

The assets have been valued in Section 3.

6.2 Normal Employer Contribution Rate for Existing Full Members

The Normal Employer contribution rate is the level rate required, based on the valuation assumptions, to fund the benefit liabilities accruing in respect of members' future service with the Employer.

The valuation produced a normal Employer contribution rate for existing Full members of 15.1% of salaries of these members.

In addition, the Employer contribution rate for CSS members is 3% of the salaries of these members.

The valuation results are set out below:

		$
Value of Future Service Liabilities		**347,610,241**
Value of Future Contributions	Member	107,196,936
	CSS Employer *	2,540,193
Value of net Future Service Liability of Full Members		**237,873,112**
Value of 1% of salaries of Full members		**18,510,742**
		(% of salaries)
Employer Contribution Rate after expenses and before tax		12.9
Tax on Employer contributions		2.2
Required Normal Employer contribution rate for Full members		**15.1**

* at 3% of salaries for these members less tax

The required rate disclosed in the calculation has increased since the last valuation (12.4% of salaries) due to the change in the defined benefit asset mix and the flow on impact on the expected investment return.

6.3 Assets and Past Service Liabilities (Actuarial Value of Accrued Benefits)

The valuation shows that the value of the assets exceeds the value of past service liabilities by $191m. The Fund is in a strong financial position.

The excess has increased since the last valuation which showed an excess of assets over liabilities of $179m.

The results are set out below:

	$
Value of DB Past Service Liabilities for DB Members less Surcharge Accounts	813,459,751
Value of accumulation accounts of all members	968,722,638
Total Past Service Liability	**1,782,182,389**
Value of Assets	**1,973,587,103**
Excess of the Value of Assets over Past Service Liabilities	**191,404,714**

At the valuation date, the value of the assets of the Fund is adequate to meet the liabilities in respect of the accrued benefits of the members of the Fund.

6.4 Employer Contribution Rate for Future New Full Members

The long term rate of Employer contribution for new entrants is no longer relevant as the Fund has been closed to new Full members.

6.5 Variation in Assumptions

The major determinant of the adequacy of the assets of the Fund and the stability of the required Employer contribution rate is the extent to which the rate of return on the Fund's assets exceeds the rate of increase in salaries. This is referred to as the real rate of return for the Fund. The valuation assumes the real rate of return will be 0.5% p.a..

The effect of a 0.5% p.a. reduction in the real rate of return is to:

- increase the normal rate by around 0.8% of salaries (to 15.9% of salaries); and
- reduce the excess of assets over past service liabilities by $40m, from $192m to $153m.

The variation is shown to provide an understanding of the effect of an actual outcome that varies from the expected. It does not imply that this is a likely result or a lower bound on the possible actual investment return of the Fund over the long term.

6.6 Long Term Funding Status Measure – Actuarial Value of Accrued Benefits

The ratio of the Fund's assets to the Actuarial Value of Accrued Benefits is set out in the tables below:

Fund as a Whole		Ratio of Assets to Actuarial Value of Accrued Benefits at 30 June (%)	
Value of Assets ($m)	**Value of Liabilities ($m)**	**2016**	**2013**
1,973.6	1,782.2	111	114

Defined Benefit Liabilities Only		Ratio of Assets to Actuarial Value of Accrued Benefits at 30 June (%)	
Value of Assets ($m)	**Value of Liabilities ($m)**	**2016**	**2013**
1,004.9	813.5	124	126

The Actuarial Value of Accrued Benefits is set out in Section 6.3.

The ratio of assets to the Actuarial Value of Accrued Benefits has fallen since the last valuation. Although the Fund's experience has had a positive impact on the financial position, the change in the defined benefit asset mix and its flow on to the expected investment return has increased the liabilities and reduced the ratio. Nevertheless, the ratio is very healthy and indicates the Fund is in a very strong financial position.

6.7 Shortfall Limit

The Trustee's Shortfall Limit is 95%. The Shortfall Limit is appropriate for the Fund in its circumstances.

Section 7 – Future Employer Contributions

7.1 Introduction

This Section discusses the results of the short and long term financial position of the Fund and sets out the significant considerations in determining the recommended minimum Employer contribution rate as set out in Section 1.3.

7.2 Recommended Contribution Rate - Considerations

The following considerations should be taken into account when determining the overall minimum Employer contribution rate:

i) The Trust Deed requires the Employer to determine the contribution rate, after obtaining the advice of the Actuary and consulting the Trustee.

ii) The financial position of the Fund is strong (Section 5 and 6) with a healthy level of reserves relative to the current investment policy. The Fund can withstand a significant fall in share values of the order of 15% and still retain the Trustee's Target Margin of 110%. The Target Margin has been agreed with the Employer and reflects the risk profile (trade-off between the level of the contribution rate and the variability of the contribution rate) of the Employer.

iii) The short term projections (Section 5.2) show that the Fund can absorb a period of poor investment returns.

iv) Around 75% of the total liability of the Full members is funded. The Employer contribution rate has a relatively small impact on the financial position of the Fund. For example, a 0.5% of salaries reduction in the Employer rate has a present value cost $8m; a 0.5% p.a. reduction in investment returns will cost $40m or 5 times as much as the reduction in the contribution rate.

v) The Employer has made a long term commitment to funding any shortfalls in assets over appropriate periods of time. This considerably enhances members' security and provides very good underlying support to the investment strategy of the Trustee.

vi) At the time of the last valuation, the Trustee was in the final stages of reviewing the investment strategy of the defined benefit assets. This was expected to impact the best estimate contribution rate and it was felt prudent to leave the contribution rate unchanged until the outcome of this review was known. The review and implementation is finalised. The long term contribution rate is able to be moved with some certainty that it will remain appropriate for a considerable period.

vii) The Trustee receives annual advice from the Actuary on the financial condition of the Fund as well as internal monthly monitoring of the vested benefits ratio. This allows the Trustee to react quickly to any change in circumstances, including discussing the contribution rate with the Employer.

viii) The long term valuation indicates a best estimate rate of 15.1% of salaries of Full members. The rate may be adjusted to allow for one or more of:

- the short term position of the Fund;
- a margin to help ensure a higher probability of sufficiency of contributions (see Section 6.5); and
- any shortfall or excess assets over past service liabilities.

Attachment A – Summary of Fund Provisions – Defined Benefit Members

A.1 Eligibility

Employees became members of the Fund from the first day of service.

Employees who are members of the CSS are eligible for award benefits only.

A.2 Contributions

Full members may contribute at the rate of 0% to 10% of salary, in whole multiples. The rate may be varied at any time during the year.

Salary means salary at the date of the member's last birthday.

CSS members do not contribute to the Fund.

The Employer contributes at the rates necessary to finance the balance of the cost of benefits and running the Fund.

A.3 General Benefit Provisions

Air Traffic Controllers and Flight Information Service Officers may retire from age 50. Other members may retire from age 55.

The general benefit formula is:

{Accrued Benefit Multiple} times {Final Average Salary}

where:

- Accrued Benefit Multiple is the sum of the individual benefit accruals over the relevant periods of membership and any multiple for previous fund membership. The benefit accrual rates are set out in Section A.4. Part time employees receive a prorata accrual rate.

  For death and TPD before age 60 for Full members, the Accrued Benefit Multiple is the multiple that would have accrued at age 60.

  For resignation for Full members, the Accrued Benefit Multiple is reduced in the first 4 years of membership by a vesting scale (Section A.6).

- Final Average Salary is the average of the member's salary on the 3 birthdays preceding exit date. For part time employees, the equivalent full time salary is used.

Where a Surcharge liability arises in respect of a member, the amount is accumulated at the Fund earning rate and deducted from the member's benefit on exit.
All benefits are subject to the minimum amount required to comply with the Superannuation Guarantee legislation.

A.4 Retirement and Retrenchment Benefit

For Full members, the accrual rate depends on:

- The current rate of member contribution; and
- The average rate of contribution since joining the Fund.

This is shown in the following table:

Member Contribution Rate (% of salary)	Benefit Accrual Rate (%)	
	Standard (average member contribution rate since joining more than 5%)	Catchup (average member contribution rate since joining less than 5%)
0	10.0	
1	12.0	
2	14.0	
3	16.0	
4	18.0	
5	20.0	
6	21.2	22.0
7	22.4	24.0
8	23.6	26.0
9	24.8	28.0
10	26.0	30.0

The accrual rate for CSS members is 3% p.a.

A.5 Death and TPD Benefit

For Full members before age 60, the death and TPD benefit is increased by 20% for each year from the date of exit to age 60. For CSS members the benefit is the accrued retirement benefit.

A.6 Resignation Benefit

For Full members in the first 4 years of membership, a vesting scale applies to the difference between the multiple accrued in respect of membership of the Fund and the vested benefit multiple (the average member contribution rate plus 3%, times years of membership). The vesting scale is 25% for each year of membership. Part years count proportionately after the first year. For all other members the benefit is the accrued retirement benefit.

Currently vesting does not apply as all members have more than 4 years of membership in the Fund.