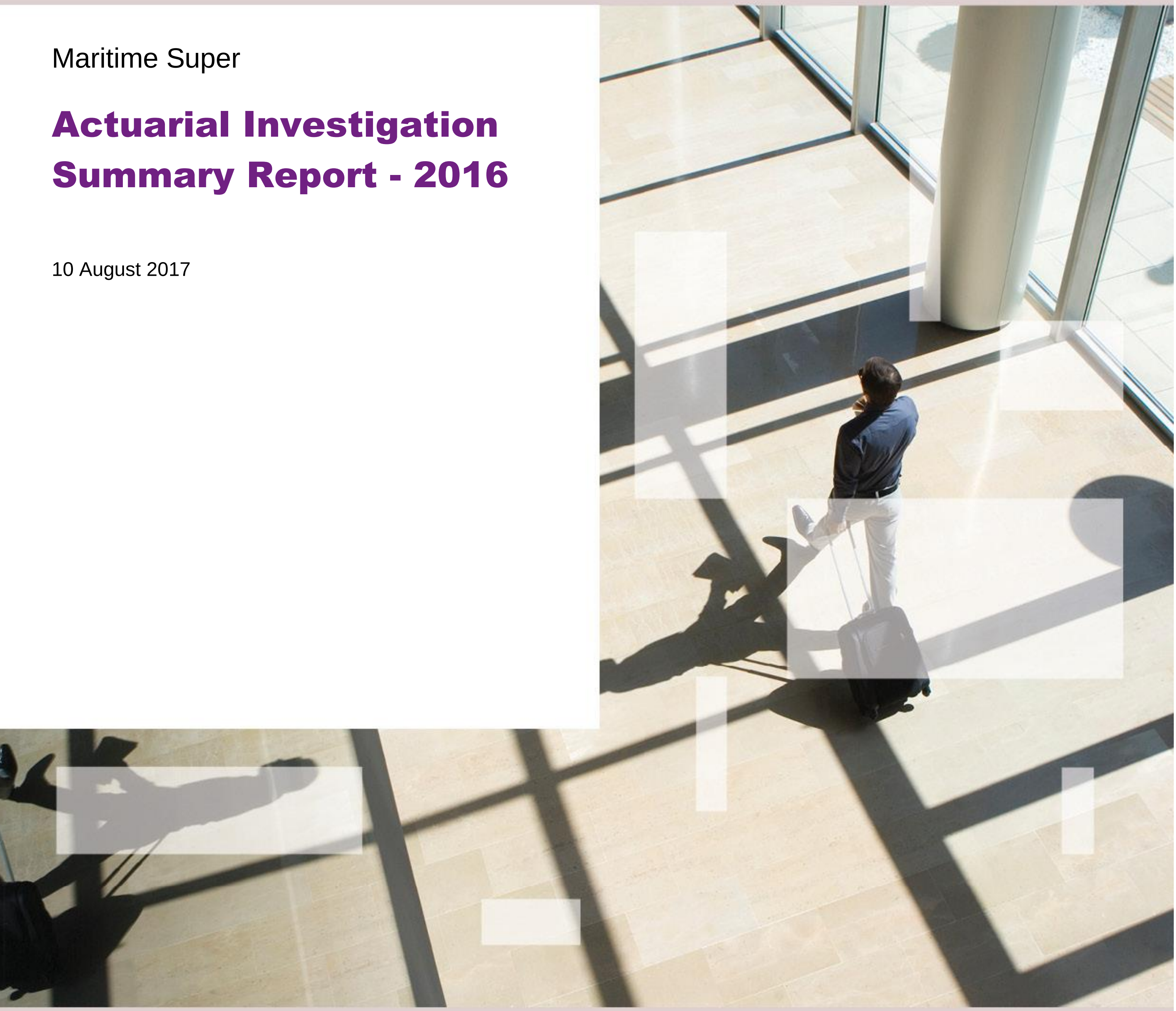
Willis Towers Watson

Maritime Super

Actuarial Investigation Summary Report - 2016

10 August 2017



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Section 1: Executive Summary

1.1 We are pleased to present our summary report to the Trustee of Maritime Super (“the Fund”) in respect of the actuarial investigations carried out of the defined benefit liabilities of the Fund as at 30 June 2016 and 31 December 2016 (as applicable). The previous investigations in respect of the Fund were conducted as at 30 June 2014.

1.2 Separate investigation reports have been prepared in respect of the defined benefit liabilities for each of the Sections of Maritime Super shown in the table below.

1.3 The investigations in respect of Section D and Section E were deferred from 30 June 2016 until 31 December 2016 as a result of material membership movements which arose after 30 June 2016. The deferral is permissible within the applicable legislation as both deferred investigations have been conducted within the three-year time limit for investigations.

1.4 The respective investigation date for each Section are set out below. For the purpose of this report these dates are referred to as the “Investigation Date”:

Section	Investigation Date
Section A	30 June 2016
Section B	30 June 2016
Section C	30 June 2016
Section D	31 December 2016
Section E	31 December 2016
Section F	30 June 2016

1.5 The periods from 30 June 2014 (the previous investigation date) to the above investigation dates are referred to as the “investigation period”.

1.6 A review has been undertaken in respect of the Insurance Reserve of Maritime Super as at 30 June 2016.

1.7 In this report a reference to a particular Section is a reference to the assets attributable to defined liabilities for each of the above separate Sections of the Fund.

1.8 The purpose of this report is to provide a summary of the key information and recommendations set out in these reports for the benefit of the Trustee. As such this summary report does not comply with the relevant Professional Standards issued by the Actuaries Institute and does not meet the requirements of a report prepared for the purposes of APRA Prudential Standard SPS 160. We confirm, however, that the separate valuation reports have been prepared in accordance with these requirements with the exception of Section D where a short report has been provided in order to determine the log-term level of contributions required.

Membership

1.9 A breakdown of defined benefit members between each Section is set out in Section 3 of this report.

Assets

1.10 A breakdown of the Fund assets between defined benefit and accumulation benefits for each Section is set out in Section 5 of this report.

Investments

1.11 The assets held in respect of members' accumulation benefits, including Section B members with a defined benefit guarantee, are invested in the investment option chosen by these members.

1.12 The assets held in respect of defined benefits are currently invested according to the selected investment strategy of each Section.

1.13 We consider that the investment objectives and strategies adopted by the Trustee continue to be appropriate for each Section given the size and with the benefit design of these Sections. In reaching this conclusion we have noted that in the first instance the Employer assumes responsibility for making up any funding shortfall.

Financial Position as at 30 June 2016

1.14 The Vested Benefit Index of the Fund as a whole was 107.9% as at 30 June 2016. The Fund was therefore not in an unsatisfactory position as at 30 June 2016 overall.

1.15 The financial position of each Section as at 30 June 2016 with respect to defined benefit liabilities is shown in the table below

Section	Vested Benefit Index	Accrued Benefit Index
Section A	102.2%	120.0%
Section B	107.9%	101.9%
Section C	101.5%	100.1%
Section D*	102.4%	n/a
Section E*	122.5%	n/a
Section F	124.9%	115.9%
Total Defined Benefits	**107.9%**	**n/a**

* As the actuarial investigations for Sections D and E were conducted as at 31 December 2016, we have relied upon calculations performed for APRA reporting purposes for the Vested Benefit Index numbers for these sections as at 30 June 2016. The Accrued Benefit Indices for these sections were not calculated as at 30 June 2016.

For Section D and Section E, the corresponding values at 31 December 2016 were as follows.

Section	Vested Benefit Index	Accrued Benefit Index
Section D	101.5%	n/a
Section E	125.5%	138.2%

1.16 None of the Sections were in an unsatisfactory financial position as at 30 June 2016 (i.e. the Vested Benefit Index was greater than or equal to 100%). I also note that Sections D and E were not in an unsatisfactory financial position as at 31 December 2016.

1.17 The Accrued Benefit Index at 30 June 2016 was greater than 100% for Sections A, B, C and F meaning that the value of assets was in excess of that expected to be required to finance benefits accrued to date, on the basis of the selected actuarial assumptions. The Accrued Benefit Index for the Section E was greater than 100% at 31 December 2016.

1.18 In the case of Section D which only held one remaining member, it is more critical that the Vested Benefit Index be above 100% as this indicates that the Section currently has sufficient assets to meet the benefit requirements of that member. We have determined that Sections A, B, C and F were not technically insolvent as at 30 June 2016 i.e. in no cases were the assets of the Section less than the total of Minimum Requisite Benefits for the Section. The same position applied as at 31 December 2016 for Sections D and E.

Summary of Findings

1.19 The results of the actuarial assessment of each of the Sections are set out in the separate reports for the defined benefit membership groups. In summary these results are as follows.

1.20 In our opinion no events have subsequently occurred since the dates that the reports were finalised which would cause us to alter those findings. We note that new membership information was provided for Section B subsequent to the report being finalised however this new information does not alter our recommendations.

Section A

1.21 The actuarial investigation of Section A as at 30 June 2016 shows that the Division was not in an unsatisfactory financial position. This was demonstrated by a Vested Benefits Index of 102.2%.

1.22 In addition the Section had an actuarial surplus of $2.9 million in respect of the long-term funding position and $6.9 million in respect of benefits accrued to the valuation date.

1.23 The financial position of the Section improved over the period since the last investigation with the main factor influencing that result being a higher assumed long-term real rate of return of 2.9% compared to 2.3% assumed previously.

1.24 However the improved position was not sufficient to indicate that there was scope to adjust contribution rates. Accordingly we recommend that Employer contributions for Permanent Members continue at a rate of 12.6% of Classification Base Wage (CBW) for all Permanent Members and member contributions continue at a rate of 4.8% of CBW.

1.25 We also recommend the continuation of the application of an additional funding strategy under which the reserve of $5.2 million currently held within the Insurance Reserve be utilised for the purpose of ensuring that vested benefits remain fully funded at all times.

1.26 The assets within the Section supporting defined benefit liabilities for active members were invested in the Growth MVP option as at 30 June 2016 ($32.332m) and a small amount in the Fund's Cash Enhanced Option in respect of pensioner members ($0.728m).

1.27 In addition the Trustee has a swap agreement with Goldman Sachs whereby Goldman Sachs agrees to make the required pension payments in respect of the fixed-term and lifetime pensioners in the Section in exchange for a transfer of interest payments and return of capital from a portfolio of index linked US Treasury Bonds (TIPS). The value of the Swap at 30 June 2016 was $8.186m.

1.28 We consider that the investment objectives and strategy adopted by the Trustee continue to be appropriate for the fund of the size and with the defined benefit design of the Section.

1.29 We recommend that the Shortfall Limit of the Section be maintained at 98%.

1.30 We recommend that the Section continue its insurance arrangements.

1.31 In our opinion, expected future life and fixed term pension payments are satisfactorily covered by the assets of the Section set aside for this purpose.

1.32 Finally, we recommend that the Vested Benefit Index of the defined benefits in the Section continue to be monitored on a quarterly basis.

Section B

1.33 The actuarial investigation of Section B shows that there was an excess of assets over liabilities with a Vested Benefits Index of 107.9% as at 30 June 2016.

1.34 In our opinion there is no current requirement to make additional contributions above the standard contributions required for accumulation members at this time, and find that the potential for additional contributions to be required in future has reduced materially due to the improvement in investment markets since the last investigation.

1.35 In our opinion, on the basis of the actuarial assumptions, Section B has sufficient reserves to meet expected future longer term requirements in respect of the defined benefit guarantee. The projections of the future financial position of the Section show that over the next ten years, the probability that the Section would be in an unsatisfactory financial position and require a funding restoration plan at the end of any particular year is no higher than 4.0%.

1.36 In addition, the projections show that the probability that the Section's assets will be insufficient to meet the value of the Defined Benefit guarantee in ten years' time is 14.0%.

1.37 These results further confirm that while there remains a low probability that the Section's assets may prove to be insufficient at some time in the future, the Section is currently in a sound financial position.

1.38 Since the investigation of the Section was completed it has come to our attention that the average hours worked by members is now materially lower than had previously been assumed. This has the effect of reducing the growth in future liabilities of the Section, further strengthening the financial position of the Section. We have allowed for this change in the values provided in this report, noting that our recommendations in the Section B investigation report were not altered as a result of this new membership data.

1.39 We also recommend that the Vested Benefit Index be monitored on a quarterly basis.

1.40 The member accounts within the Section were invested in accordance with the investment choices made by the members. The Defined Benefit Reserve was invested in the Conservative option. We consider that the investment objectives and strategy adopted by the Trustee continue to be appropriate for the fund of the size and with the defined benefit design of the Section.

1.41 We recommend that the Shortfall Limit of the Section be reduced to 98% to accurately take account of the underlying volatility of the assets and liabilities subject to defined benefit guarantee.

1.42 We recommend that the Section continue its insurance arrangements.

Section C

1.43 We confirm that Section C had an excess of assets over liabilities with a defined benefit Vested Benefit Index of 101.5% as at 30 June 2016. We recommend that the Employer pay the following contributions with effect from 1 July 2016 in respect of defined benefit members:

- 15.0% of salaries; plus
- Additional contributions of $650,000 per annum payable quarterly until 30 June 2018; plus
- Top-up payments in respect of any exiting members with Company consent for a retirement between ages 55 and 60, equal to the unfunded difference between the member’s retirement benefit and vested benefit (if positive) plus applicable contribution tax; plus
- Top-up payments in respect of any exiting members as a consequence of retrenchment equal to the unfunded difference between the member’s retrenchment benefit and vested benefit (if positive) plus applicable contribution tax. In addition to the above contributions the Company is also required to pay a contribution of 3% of Salary for certain members which is to be credited to the member’s 3% Accumulation Account.

1.44 We recommend that the Shortfall Limit of the Section be maintained at 98%.

1.45 We recommend that the Section continue its insurance arrangements.

1.46 The Section’s assets were invested in the Growth MVP option as at 30 June 2016 ($41.266m).

1.47 We consider that the investment objectives and strategy adopted by the Trustee continue to be appropriate for a fund of the size and with the benefit design of the Section.

1.48 The benefit design of Section C is such that the financial condition is impacted by the nature and timing of the benefits actually paid to members. Our projections of the future financial condition of the Section using the selected actuarial assumptions indicate that on the basis of the above recommendations the value of the Vested Benefit Index will remain above 100% for a period of up to 10 years which is a desired outcome.

1.49 We recommend that the VBI position (and other measures of solvency) continue to be monitored on a regular basis throughout the inter-valuation period, to ensure that these contribution recommendations remain sufficient to achieve solvency for Section C by the expected date, and therefore whether any further short-term increases (or decreases) are appropriate.

Section D

1.50 Section D contained only one Defined Benefit member as at the Investigation Date.

1.51 The Section was not in an unsatisfactory financial position at 31 December 2016, with a defined benefit Vested Benefit Index of 101.5%.

1.52 The Section's defined benefit assets were invested in the Moderate Option as at 31 December 2016 ($0.348m).

1.53 We consider that the investment objectives and strategy adopted by the Trustee continue to be appropriate for a fund of the size and with the benefit design of the Section.

1.54 We recommend that Section D pay the following contributions with effect from 1 January 2017 in order to achieve and maintain the funding objective of a VBI of at least 100%:

- 33% of Salaries from 1 January 2017 until 31 December 2020 and 29.2% of Salaries thereafter.

1.55 The investigation noted that this recommendation was dependent on the investment assumption being realised and highlighted the possibility of higher rates being required if investment returns were lower than expected (or by implication, salary increases higher than expected).

1.56 We further recommend that the VBI position be monitored on a quarterly basis throughout the inter-valuation period, to ensure that these contribution recommendations remain sufficient and to assess whether any further adjustments to the recommended contributions are required.

Section E

1.57 Section E was in surplus with a VBI of 125.5% at 31 December 2016.

Value of Assets ($'000)	Vested Benefits ($'000)	Vested Benefits Index
20,135	16,039	125.5%

1.58 The Section's assets were invested in the Moderate Option as at 31 December 2016 ($20.135m).

1.59 We consider that the investment objectives and strategy adopted by the Trustee continue to be appropriate for the fund of the size and with the benefit design of the Section.

1.60 The long-term funding target is a VBI of 110%. The table above shows that the current funding position was in excess of this funding target.

1.61 We note that as at 31 December 2016 the Section included 8 members who had elected on retirement to take a portion of their benefit as a lifetime pension payable from the Section. We also note that two of the employer sub-divisions underlying the Section no longer had active members as at 31 December 2016.

1.62 Having regard to the above results we recommend that the following contribution rate 30% of Salaries is paid by each employer with effect from 31 December 2016 in order to achieve or maintain the relevant funding target.

1.63 We further recommend that the VBI position be monitored on a quarterly basis throughout the inter-valuation period, to monitor the surplus position within this fund and to ensure that these contribution recommendations remain sufficient to meet the funding targets.

Section F

1.64 Section F is in surplus and has a VBI of 124.9% at 30 June 2016. This funding level was above the desired target of a VBI of 110%.

1.65 The Section's assets were invested in the Fund's Conservative option as at 30 June 2016 ($14.293m).

1.66 We consider that the investment objectives and strategy adopted by the Trustee continue to be appropriate for the fund of the size and with the benefit design of the Section.

1.67 We note that as at 31 December 2016 the Section included one member who had elected on retirement after the date of the investigation, to take a portion of their benefit as a lifetime pension.

1.68 Factoring in this election, we recommend that a contribution rate of 22.5% of Salaries is paid with effect from 1 July 2016 in order to achieve or maintain the revised funding target.

1.69 We further recommend that the VBI position be monitored on a quarterly basis throughout the inter-valuation period, to monitor the surplus position within this fund and to ensure that these contribution recommendations remain sufficient to meet the funding target.

Summary of Recommended Contributions Rates

1.70 In summary the recommended contribution rates for each of the Sections are set out below:

Section	Recommended Contributions
Section A	Employer: 12.6% of Classification Base Wage Employees: 4.8% of Classification Base Wage
Section B	Agreed contributions to be made for the accumulation arrangement, with no additional employer contributions being required for the defined benefit guarantee
Section C	15.0% of Salaries; plus Additional Contributions of $650,000 per annum payable quarterly until 30 June 2018; plus Top-up payments in respect of members taking early retirement benefits between age 55 and 60 with Company consent; plus Top-up payments in respect of members who exit the as a consequence of retrenchment
Section D	33.0% of Salaries until 31 December 2020 29.2%% of Salaries from 1 January 2020; plus Top-up payments in respect of deficit between the assets and benefit payments for exiting members
Section E	30% of Salaries
Section F	22.5% of Salaries

Events Occurring since Investigation Dates

1.71 We note that since the investigation the investment of the Defined Benefit Reserve of Section B was altered from the Conservative Option to the Cash Enhanced Option in order to further reduce investment risk for that reserve.

1.72 We are not aware of any other matters arising or events occurring in relation to the Fund or the Sections between the respective investigation dates and the date of signing this report which would cause us to alter our findings or change our recommendations.

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10 August 2017

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DO: TK | TR: SU | CR: TM/SU | ER: TM/SU

Section 2: Introduction

2.1 This report to the Trustee of Maritime Super ("the Fund") is prepared in accordance with Rule 14 of the Fund's Trust Deed, which states the Trustee shall cause the Actuary to make an actuarial investigation of the Fund at intervals of not more than three years. The timing of the actuarial investigation for the Fund is consistent with the requirements of the Superannuation Industry (Supervision) ("SIS") Act.

2.2 This report presents a summary of the results of the actuarial investigations of the Fund which were undertaken by Tony Miller as at 30 June 2016 for Section A, Section B, Section C and Section F of the Fund with the results presented in reports dated 22 December 2016, and at 31 December 2016 for Section E and Section D of the Fun with the results presented in reports dated 1 March 2017 and 22 February 2017 respectively.

2.3 The previous actuarial valuation of Maritime Super was conducted as at 30 June 2014 by Tony Miller of Russell Investments with the results presented in reports dated 6 March 2015.

2.4 The Fund is governed by a Trust Deed, which was consolidated as at 1 March 2009 and subsequent amendments. The Fund is a complying superannuation fund for the purposes of the SIS Act and the Tax Act respectively.

2.5 The Fund is composed of the following Divisions

- General Division
- Division 1
- Division 2

These divisions provide a mixture of accumulation based benefits, defined benefits, allocated pensions, fixed term pensions and lifetime pensions. This actuarial investigation is conducted with respect to the members with defined benefits within the following divisions.

General Division

- Section E members
- Section F Members

Division 1

- DB Contributing and DB Non-Contributing Members of Section A

Division 2

- Section B members
- Section C members
- Section D members

2.6 In addition Division 1 includes a number of fixed-term pensioners while Division 2 contains both fixed-term and lifetime pensioners and these pensioners are also included within the scope of the investigations. Because the pensioners share a common investment structure they have been assessed together as part of the review of Section A.

2.7 By their nature, liabilities in respect of accumulation accounts do not require an actuarial investigation as the value of the assets underlying those accounts matches the value of the accounts. The Fund contains separately identifiable assets in respect of each of the defined benefit divisions set out above and each has been subject to a separate actuarial investigation. The following reports have been prepared from these investigations:

As at 30 June 2016:

- Permanent Members in Section A, including fixed-term pensioners from Division 1 and fixed-term and lifetime pensioners from Division 2.
- Members with Defined Benefits in Section B
- Section C; and
- Section F.

As at 31 December 2016:

- Section D; and
- Section E

Other Information

2.8 The liabilities of Maritime Super are divided between Defined Benefit liabilities, Accumulation accounts (including accounts held in respect of allocated pensioners) and fixed-term and lifetime pensioner liabilities.

2.9 These investigations cover:

- The financial position and funding at the selected investigation date individually for each of the defined benefit parts above including the adequacy of the reserves within Section B to meet the cost of the guaranteed defined benefits provided in respect of the members of that division; and
- The adequacy of assets held in respect of pensioner liabilities.

2.10 Separate actuarial investigations have been conducted with respect to each Section. A separate report has been prepared in respect of each of those investigations. This report provides a summary of the results emerging from the separate investigations.

Previous Actuarial Valuation

2.11 The last actuarial investigation of the Fund was conducted as at 30 June 2014.

2.12 As part of this investigation, assessments of the financial condition of the Fund were conducted and in particular, an assessment of the Vested Benefit Index (VBI) of the Fund and the respective defined benefit parts was made.

2.13 The VBI measures the amount of coverage of the Fund's vested benefits by the market value of assets and for this purpose, is defined as follows:

$$\text{VBI} = \frac{\text{Net Market Value of Assets}}{\text{Total Vested Benefits}}$$

2.14 At 30 June 2014 the values of VBI with respect to defined benefit liabilities were determined to be as follows:

Section	Assets ($000's)	Vested Benefits ($000's)	Vested Benefit Index 30 June 2014
Section A	41,421	41,011	101.0%
Section B	697,018[1]	674,077	103.4%
Section C	40,611	39,274	103.4%
Section D	2,616	2,728	95.9%
Section E	34,327	27,738	123.8%
Section F	14,939	11,940	125.1%
Total Sections	**830,932**	**796,768**	**104.3%**
Total Fund	**4,303,490**	**4,225,281**	**101.9%**

1. A deduction of $595,000 has been made from the assets held in Section B Part in respect of pending claims

2.15 In relation to these results it was noted that:

- None of the Sections were in an unsatisfactory financial position as at 30 June 2014 (i.e. the Vested Benefit Index was greater than or equal to 100%) with the exception of Section D. Section D was in an unsatisfactory financial position with a VBI of 95.9%.
- None of the Sections were technically insolvent as at 30 June 2014 i.e. in no cases were the assets of the Section less than the total of Minimum Requisite Benefits for the Section.

Recommendations from 2014 Investigation

2.16 The following funding recommendations were made as a result of the 2014 investigation:

Section A

- The employer contribution rate in respect of Permanent Members was retained at 12.6% of CBW and member contributions at a rate of 4.8% of CBW.
- It was further recommended that the contingency funding reserve of $5.2m established within the Insurance Reserve for the purpose of ensuring that the VBI remained above 100%, to the extent possible at all times be maintained.

Section B

- No additional contributions were required to increase the reserve held for the purpose of meeting the guaranteed defined benefits.
- It was noted that the probability that the defined benefit reserve may not be sufficient at the end of 10 years to meet the defined benefit guarantee had reduced over the review period to 19.9%.

Section C

- The employer to continue to contribute at a rate of 15% of Salaries, plus
- Additional contributions of $850,000 per annum payable quarterly until 30 June 2018, plus
- Top-up payments in respect of any exiting members with Company consent for a retirement between ages 55 and 60, equal to the difference between the member's retirement benefit and vested benefit (if positive); plus
- Top-up payments in respect of any retrenchment benefits equal to the difference between the member's retrenchment benefit and their vested benefit increased for applicable contribution tax.

Section D

- The employer to contribute at a rate of:
  - 28.0% of Salaries from 1 July 2014 to 31 December 2014,
  - 32.0% of Salaries thereafter, plus
  - Top up payments in respect of the deficit between assets and benefit payments for exiting employees.

Section E

- Employer contribution rate of 30.0% of Salaries

Section F

- Employer contribution rate of 22.5% of Salaries

Section 3: Membership Data and Demographic Experience

Membership Data

3.1 The data for the investigation was supplied by the Fund's Administrator. We have relied on the accuracy of the data provided. In addition we have undertaken checks of this data as at the respective investigation dates in relation to membership reconciliation and reasonableness checks and other ongoing checks over the period under review in relation to the data for the purpose of other actuarial tasks We are satisfied that the data provided is suitable for the purpose of this valuation.

3.2 A breakdown of the membership between each Section is set out in the table below (membership numbers as at 30 June 2014 are also shown for comparison):

Section	As at 30 June 2014	As at Investigation Date
Section A (incl pensioners)	286	267
Section B	2,131	1,826
Section C	74	62
Section D	8	1
Section E (incl pensioners)	37	14
Section F	12	10
Total	**2,548**	**2,180***

*Total combines membership data at 30 June 2016 and 31 December 2016.

Other Experience

3.3 Full details of the experience and the assumptions used in valuing the liabilities for each of the Sections are set out in the separate reports for the defined benefit membership groups.

Section 4: Financial Experience

Investment Returns

4.1 The investment returns achieved by each of the Sections' investments from 1 July 2014 to the investigation date and the corresponding assumed returns were as shown in the following table. The returns shown for Section B are the average returns on members' accounts as these members are able to select their own underlying investment option.

4.2 As can be seen, during the investigation period the average investment returns were lower than the assumed rates of return used at the previous actuarial valuation. Taken by itself this had an adverse effect on the financial condition of the Sections, but needs to be considered along with lower than expected rates of salary growth as set out in Section 4.3.

Section	Expected Investment Return	Actual Investment Return 1 July 2014 to Investigation Date
Section A	6.3% p.a.	4.9% p.a.
Section B*	6.2% p.a.	5.2% p.a.
Section C	6.3% p.a.	4.9% p.a.
Section D	5.5% p.a.	4.1% p.a.
Section E	5.5% p.a.	4.6% p.a.
Section F	4.6% p.a.	3.7% p.a.

*Average returns on member accounts

Rate of Salary Increases

4.3 For the period from 30 June 2014 to the respective investigation dates, the annualised rate of Salary Growth for the defined benefit members of each Section of the Fund were as follows (the assumptions used for the previous valuation as at 30 June 2014 are also shown for comparison):

Section	Expected Salary Growth	Actual Salary Growth 1 July 2014 to Investigation Date
Section A	4.0% p.a.	2.0% p.a.
Section B	4.0% p.a.	2.6% p.a.
Section C	5.0% p.a.	3.3% p.a.
Section D	6.0% p.a.	1.2% p.a.
Section E	6.0% p.a.	2.3% p.a.
Section F	6.0% p.a.	1.4% p.a.

4.4 As can be seen, for each of the Sections, the actual rates of salary growth were significantly below the assumed growth rates which has had a positive effect on the financial condition of the Sections.

4.5 In practice it is the difference or “gap” between the investment result and the rates of salary growth that is of most importance, rather than the absolute values. The following table shows this difference along with the assumed gap for each of the Sections.

Section	Expected Gap	Actual Gap
Section A	2.3% p.a.	2.9% p.a.
Section B	2.2% p.a.	2.6% p.a.
Section C	1.3% p.a.	1.6% p.a.
Section D	-0.5% p.a.	2.9% p.a.
Section E	-0.5% p.a.	2.3% p.a.
Section F	-1.4% p.a.	2.3% p.a.

4.6 The above results show that for each Section, the Actual Gap is greater than the Assumed Gap. Overall this has had a positive effect on the respective financial position of the Sections.

Section 5: Assets

Valuation of Assets as at Investigation Date

5.1 The apportionment of the market value of the assets towards defined benefits for each Section as advised by Maritime Super, is as follows:

Section	Investigation Date	Asset Value ($000's)
Section A	30 June 2016	41,246
Section B	30 June 2016	338,165
Section C	30 June 2016	41,266
Section D	31 December 2016	348
Section E	31 December 2016	20,135
Section F	30 June 2016	14,293
Insurance Reserve	30 June 2016	32,822

5.2 We are satisfied that the above values are suitable for the purpose of measuring the each sections financial position and is consistent with the method and assumptions used to determine the liabilities.

Section 6: Investments

6.1 As at 30 June 2016 and 31 December 2016, members of the Fund with accumulation benefits, including Section B members with a defined benefit guarantee, have the choice of the following investment options for their benefit accounts:

- Australian Shares Option
- International Shares Option
- Growth Option and Growth MVP Option
- Balanced Option
- Moderate Option
- Conservative Option
- Cash Enhanced
- Cash
- Fixed Term Investment

6.2 As at the respective investigation dates the defined benefit assets of the Fund were invested as follows:

Section	Investment Option
Section A	Growth MVP
Section B (DB Reserve)	Conservative
Section C	Growth MVP
Section D	Moderate
Section E	Moderate*
Section F	Conservative
Life and Fixed Term Pensioners	Goldman Sachs Swap plus Cash Enhanced

*Part of the Surplus assets in respect of Section E are invested in the Cash Option.

Note that following the investigation date, the DB Reserve in Section B was transferred from the Conservative option to the Cash Enhanced Option.

6.3 The investment objectives of the core investment options are as follows:

- Conservative Option – to outperform the annual rate of inflation (CPI) by around 1% pa after fees and taxes over rolling 10-year periods.
- Moderate Option – to outperform the annual rate of inflation (CPI) by around 2.5% p.a. after fees and taxes over rolling 10 year periods.

- Balanced Option – to outperform the annual rate of inflation (CPI) by around 2.75% pa after fees and taxes over rolling 10-year periods.
- Growth Option – to outperform the annual rate of inflation (CPI) by around 3.5% pa after fees and taxes over rolling 10-year periods.

The Growth MVP is structured to invest 95% of funds according to the target asset allocation of the Growth Option with the remaining 5% of funds used to actively manage risk during periods of market volatility.

6.4 With the exception of certain money market deposits, the Fund's investments are managed by external investment managers.

6.5 The strategic asset allocations of the Conservative, Moderate, Balanced and Growth Options are summarised in the following table:

Asset Class	Conservative	Moderate	Balanced	Growth
Australian Equities	10%	24%	25%	35%
International Equities	10%	24%	25%	35%
Property	3%	7%	8%	8%
Private Equity	2%	5%	5%	6%
Infrastructure	4%	4%	4%	4%
Growth Alternatives	1%	3%	3%	2%
Total Growth Assets	30%	67%	70%	90%
Defensive Alternatives	10%	10%	10%	2%
Fixed Interest	20%	11%	12%	5%
Cash Enhanced	40%	8%	8%	3%
Total Defensive Assets	70%	29%	30%	10%
Total	**100%**	**95% (plus 5% overlay)**	**100%**	**100%**

6.6 We are satisfied that these portfolio structures will be reasonably expected to achieve the investment return objectives set out above. We further believe that this objective is consistent with the long-term investment assumptions used for the purpose of this investigation.

6.7 We consider that the investment objectives and strategies adopted by the Trustee continue to be appropriate for each Section given the size and with the benefit design of these Sections. In reaching this conclusion we have noted that in the first instance the Employer assumes responsibility for making up any funding shortfall. However, the Trustee may wish to continue to review these investment options and consider a reduction in the investment risk profile once a Section's funding objective has been achieved.

Section 7: Funding Method and Assumptions

Valuation of Benefit Liabilities

7.1 As in previous valuations, projection methods were used to value the benefit liabilities and assess long-term contribution requirements. In addition short-term funding targets were also applied where appropriate to assess the capacity of the Sections to provide greater than 100% coverage of vested benefits and to meet funding targets.

Funding Methods and Funding Objectives

7.2 The funding method and funding objectives vary between for each Section. Full details of the funding method and funding objectives used in valuing the liabilities and determining the contributions payable for each of the Sections are set out in the separate reports for the defined benefit membership groups.

Long-term Funding Assumptions

7.3 The following table summarises the key financial assumptions used for the valuation of each Section

Before Retirement

Section	Expected Long Term Investment Return	Expected Rate of Salary Growth
Section A	5.9% pa	3.0% pa
Section B	Accumulation Balances: 5.3% pa Reserves: 3.6% pa	3.0% pa
Section C	5.4% pa	3.0% pa
Section D	5.3% pa	3.0% pa
Section E	5.4% pa	2.5% pa
Section F	3.3% pa	3.0% pa

After Retirement

Section	Expected Long Term Investment Return	Expected Pension Increases
Section E	6.1% p.a.	0.0% p.a.
Section F	4.1% p.a.	0.0% p.a.

Section 8: Financial Position at the Investigation Date

8.1 The “solvency” of a superannuation fund generally relates to the ability of the Fund to meet its obligations, and therefore involves a measure of the assets against accrued liabilities at a particular date of measurement.

8.2 There are a number of measures of solvency, which involve measures of assets (e.g. Market Value) and different measures of liabilities (e.g. voluntary withdrawal benefits, accrued retirement benefits). Appropriate combinations of these measures are made to consider various aspects of solvency and funding within each Section and for the Fund in aggregate.

Relevant Legal Requirements

8.3 There are two solvency measures in the SIS Regulations for a regulated fund which provides Superannuation Guarantee benefits. These are:

Unsatisfactory Financial Position

Under the applicable legislation, a defined benefit fund is considered to be in an unsatisfactory financial position if the net assets are less than the vested benefits. This is measured by the Vested Benefits Index (VBI) which is the ratio of the net realisable value of assets to the vested benefits. The vested benefits are the aggregate withdrawal benefits (or, where eligible, the retirement benefits or the value of pensions) payable should all members choose to leave the fund on the measurement date. A VBI of less than 100% implies that the assets do not cover its vested benefits.

Technical Insolvency

Where the assets of a fund do not cover the Minimum Requisite Benefits (i.e. the minimum benefits required to be provided under the Superannuation Guarantee legislation) the fund is technically insolvent.

8.4 In addition, the SIS Regulations also require the Actuary to include a statement (which is to be available to members if they so request):

> *“of the actuary's opinion regarding the likelihood of an actuary being able to certify the solvency of the fund in any funding and solvency certificate that may be required under these Regulations during the 3-year period immediately following the valuation date”*

8.5 Hence, not only is the solvency position at the valuation date important, but also the likelihood of this position being maintained over the subsequent three years.

Value of Accrued Benefits

8.6 In practice, there will be a mix of members who exit in the short term and members who remain until retirement. There will also be some death and TPD benefits payable. A second measure to assess the adequacy of assets is the value of accrued benefits, which represents the actuarial present value of the accrued benefits - taking account of the expected exits from various causes by using appropriate decrement assumptions. The Accrued Benefits Index (ABI) is the ratio of the market value of assets to the present value of accrued benefits.

Vested Benefit Index

8.7 The DB Vested Benefit Index (DB VBI) as at the investigation date for each defined benefit Section as well as the Fund as a whole is set out in the table below:

Section	Investigation Date	Assets ($000's)	DB Vested Benefits ($000's)	DB VBI
Section A	30 June 2016	41,426	40,372	102.2%
Section B	30 June 2016	338,165	313,524	107.9%
Section C	30 June 2016	41,266	40,657	101.5%
Section D	31 December 2016	348	343	101.5%
Section E	31 December 2016	20,135	16,039	125.5%
Section F	30 June 2016	14,293	11,441	124.9%

8.8 For all Sections, the vested benefits exceed the minimum requisite benefits, and since the VBI is greater than 100% for all Sections, no Section is technically insolvent at 30 June 2016

Accrued Benefit Index

8.9 The Accrued Benefit Index (ABI) as at the investigation date for each defined benefit Section is set out in the table below:

Section	Investigation Date	Assets ($000's)	Accrued Liability ($000's)	ABI
Section A	30 June 2016	41,426	34,373	120.0%
Section B	30 June 2016	338,025	331,585	101.9%
Section C	30 June 2016	41,266	41,217	100.1%
Section D	31 December 2016	348	n/a	n/a
Section E	31 December 2016	20,135	14,565	138.2%
Section F	30 June 2016	14,293	12,331	115.9%

8.10 As can be seen from the above tables, all indices are above 100%. As a result of the values of DB VBI being above 100%, none of the Sections were in an unsatisfactory financial position (as defined in the applicable legislation) at the investigation date.

8.11 All Sections are expected to remain solvent over the next three years, on the basis of the actuarial assumptions and assuming the Employers contribute at the recommended rates with the respective values of DB VBI expected to remain above 100%.

8.12 Values of the ABI above 100% are an indication that on the basis of the selected assumptions, the assets are sufficient to meet all benefits expected to arise in respect of service to date. A comparison of the ABI results with the corresponding values at 30 June 2014 shows an improvement in the financial position. While there are a number of contributing factors to this outcome, the most important relates to the economic assumptions with a generally larger expected gap between expected investment earnings and expected salaries and wages growth in the future.

Section 9: Long-Term Funding

Projection of Long-Term Financial Position

9.1 We have projected the long-term financial position for each Section in order to determine whether the current contributions will be sufficient to meet the Section's funding objective. Where the contributions are deemed to be insufficient we have recommended an alternative rate of contributions that is expected to achieve the funding objectives.

9.2 Details of these long-term projections, recommended contributions and sensitivity analyses are set out in the separate reports for each Section.

Contribution Recommendations

9.3 The recommended contribution rates for each of the Sections are set out in the table below:

Section	Recommended Contributions from 1 July 2016
Section A	Employer: 12.6% of Classification Base Wage Employees: 4.8% of Classification Base Wage
Section B	Agreed contributions to be made for the accumulation arrangement, with no additional employer contributions being required for the defined benefit guarantee
Section C	15% of Salaries; plus Additional Contributions of $650,000 per annum payable quarterly until 30 June 2018; plus Top-up payments in respect of members taking early retirement benefits between age 55 and 60 with Company consent; plus Top-up payments in respect of members who exit the Section as a consequence of retrenchment
Section D	33.0% of Salaries until 31 December 2020 29.2%% of Salaries from 1 January 2020; plus Top-up payments in respect of deficit between the assets and benefit payments for exiting members
Section E	30% of Salaries
Section F	22.5% of Salaries

Ongoing Monitoring of Solvency

9.4 For each Section we recommend that the VBI position continue to be monitored on a quarterly basis throughout the inter-valuation period to ensure that the above contribution recommendations remain sufficient to achieve the solvency (or maintain it where VBI is currently above 100%) and to assess whether any further short-term increases (or decreases) are appropriate

Section 10: Insurance

10.1 The Fund's insurance arrangements in respect of each of the membership groups are examined in detail in the separate reports for the defined benefit membership Sections.

10.2 In summary:

- For all members, benefits paid on death and total and permanent disablement are insured by American International Assurance Company (Australia) (AIA).

- For members in Section A, this arrangement commenced on 1 January 2010. Prior to that date death and Total and Permanent Disablement Benefits were self–insured.

- For members in Section B Part, Incurred but not Reported (IBNR) claims that arose prior to 30 June 2008 but were reported after that date are also externally insured. A similar arrangement applies for IBNR claims arising prior to 1 January 2010 in respect of members in Section A.

- The Fund has retained an Insurance Reserve of approximately $32.8 million. This reserve has been managed by the Trustee for a range of approved purposes including meeting the cost of any previously self-insured claims in respect of current or former Section A Members not covered by insurance policies. No portion of this reserve has been applied as an asset of a Section for the purpose of preparing the recommendations arising from this actuarial review.

- There is also a small self-insured liability in relation to members in Section C who receive a total and temporary disablement benefit which is paid for more than two years. In practice, the probability of paying such a benefit for longer than two years is very small, and we are not aware of any TTD payments which have been ongoing for more than two years for the four years to 30 June 2016.

- We note that the insurance cover for Section D is not adequate to cover the total risk not covered by the assets. However having regard to the overall circumstances of Section D, we have not recommended that any change be made to the current insurance arrangements.

- Overall, we consider that the Fund's insurance arrangements in respect of death, TPD and TTD benefits to be appropriate.

Appendix A: Membership Summary

Summary of Fund Membership at 30 June 2016

The number of active members and retained benefit members as at 30 June 2016 totalled 28,263. A breakdown of these members between defined benefit and accumulation for each Part of the Fund is set out in the table below (membership numbers as at 30 June 2014 are also shown for comparison):

Number of Members	As at 30 June 2014			As at 30 June 2016		
Division/Section	DB	Accum	TOTAL	DB	Accum	TOTAL
Accumulation Advantage	-	9,393	9,393	-	8,698	8,698
Accumulation Basic	-	2,635	2,635	-	2,381	2,381
Accumulation Plus	-	3,999	3,999	-	3,561	3,561
Allocated Pensions	-	2,702	2,702	-	3,345	3,345
AMOU	-	11	11	-	10	10
Reliance	-	3	3	-	22	22
All other Accumulation Categories	-	9	9	-	67	67
Retained	-	6,255	6,255	-	5,889	5,889
Section A	164	-	164	156	-	156
Section B	2,131	1,676	3,807	1,826	1,776	3,602
Section C	74	160	234	62	152	214
Section D	8	67	75	1	11	12
Section E	37	283	320	19	118	137
Section F	12	46	58	10	40	50
Fixed term and Lifetime Pensioners	122	-	122	111	-	111
FTP Pensioners	-	9	9	-	8	8
Total	**2,548**	**27,248**	**29,796**	**2,185**	**26,078**	**28,263**