

# Report on the Actuarial Investigation as at 30 June 2014

The City of Melbourne Plan

**Local Authorities Superannuation Fund**

10 DECEMBER 2014

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# 1 EXECUTIVE SUMMARY

## Purpose

- 1.1 We are pleased to present our report on the triennial actuarial investigation of the City of Melbourne plan (“COM plan”) of the Local Authorities Superannuation Fund (the Fund). This report has been prepared for Vision Super, the Trustee of the Fund.
- 1.2 This actuarial investigation report covers the COM plan within the Fund, which is a sub-fund as defined in Superannuation Prudential Standard 160 (“SPS 160”). The actuarial investigations for the Defined Benefit plan and Parks Victoria Plan, which are also sub-funds as defined in SPS 160, are covered in separate reports.
- 1.3 The purpose of this report is:
- (a) to meet the requirements of the Trust Deed and the relevant superannuation legislation;
  - (b) to examine the current financial position of the COM plan;
  - (c) to provide advice to the Trustee on the funding arrangements;
  - (d) to meet the requirements of APRA’s SPS 160.

## Data, Experience and Assumptions

- 1.4 The City of Melbourne plan membership is summarised as at 30 June 2014 in the following table.

SUMMARY OF COM ACTIVE MEMBERSHIP AS AT 30 JUNE 2014	
Number	146
Average Age (years)	54.5
Average Service (years)	27.5
Average Salary (\$)	89,527

- 1.5 The market value of the COM plan assets as at 30 June 2014 used in the valuation was \$60.9 million.

### ***Financial Experience and Assumptions***

- 1.6 The rate of return (net of tax and investment expenses) earned by the COM plan for the period from 1 January 2012 to 30 June 2014 was 11.6% p.a. which was higher than the expected return of 7.5% p.a. in the 2011 investigation.
- 1.7 The full time equivalent salary of COM plan members who remained members as at 30 June 2014 grew by 3.9% p.a.. This is lower than the rate of 4.25% p.a. assumed.
- 1.8 Overall, the financial experience over the last two and a half years has been favourable which has led to an improvement of the COM plan's financial position.
- 1.9 The financial assumptions used in this actuarial investigation are the same as used in the 31 December 2011 actuarial investigation and are summarised below:
- |     |                        |            |
|-----|------------------------|------------|
| (a) | Net investment return: | 7.5% p.a.  |
| (b) | Salary Inflation:      | 4.25% p.a. |
| (c) | Price Inflation:       | 2.75% p.a. |
- 1.10 Given the declining membership, the plan expense as a percentage of the members' salaries has increased over the investigation period. We have increased the plan expense assumption from 2.0% to 3.5% of salaries.

### ***Demographic Experience and Assumptions***

- 1.11 Over the two and a half years to 30 June 2014, the total number of exits was 31 which was lower than the number of expected exits of 44.
- 1.12 Because of the small number of members, for the retirement and resignation rates, we have decided to continue to base the assumptions on the rates used for the main Defined Benefit plan. Therefore, consistently with the Defined Benefit plan 30 June 2014 actuarial investigation we have lowered the retirement rates between ages 55 to 58 to reflect the legislated increases to preservation age and that superannuation benefits become tax free at age 60.
- 1.13 For death and disablement we have decided to adopt the external insurance premium rates as the decrements to ensure an allowance for the cost of insurance is included in the funding arrangements.

### **Funding Position as at 30 June 2014**

- 1.14 The three funding measures of the COM plan's financial position as at a particular date are:

- (a) Vested Benefit Index (VBI): a measure of the financial position if all members were to leave employment at the calculation date;
- (b) Discounted Accrued Benefit Index (DABI): a measure of the financial position of benefits in respect of past service at the calculation date, but assuming an ongoing Fund;
- (c) Minimum Requisite Benefit Index (MRBI): coverage of Superannuation Guarantee minimum requisite benefits.

1.15 The following table shows each of the key indices as at 31 December 2011 and 30 June 2014 for the COM plan.

Funding Position	30 June 2014	31 December 2011
VBI	112%	88%
DABI	125%	96%
MRBI	154%	124%

- 1.16 The funding indices have improved since the last actuarial investigation largely because of the higher than expected investment returns achieved and a top-up contribution of \$8 million made during the financial year ended 30 June 2013.
- 1.17 Because the VBI is currently more than 100%, it means current assets are expected to be sufficient to cover the vested benefit if all members exited the plan on 30 June 2014. The COM plan was not in an unsatisfactory financial position as at 30 June 2014 as defined in SPS 160.
- 1.18 Using the methodology we provided, Vision Super has calculated the VBI as at 30 September 2014 to be 114%. The investment return from 1 October 2014 to 30 November 2014 has been calculated by Vision Super to be 0.79%. Therefore we expect that the COM plan would have remained in a satisfactory financial position at the date of this completing this report.
- 1.19 Section 6 of the report considers the funding indices of the COM plan in more detail.

### **Adequacy of the Funding Plan**

- 1.20 The current funding arrangements for the COM plan comprise of the following:

- (a) Contributions equal to 13% of salary for employee members (including 1% of salary to allow for Salary Continuance Cover); plus
- (b) Top-up payments for exiting members equal to the following amount increased for contribution tax:

***Benefit Payment less (Vested Benefit x VBI)***

Top-up payments are to be calculated and invoiced quarterly in arrears. Top-up payments are required for all retrenchments (VBI capped at 100%), but for other exits only when the VBI is below 100%. Benefit payments exclude the amount of any insurance proceeds.

- 1.21 The COM plan funding seeks to:
- (a) Maintain a VBI of over 100%, because under SPS 160 a plan to restore the VBI to 100% is required in prescribed circumstances; and
  - (b) Ensure that the aggregate of the current assets, plus future member and employer contributions are sufficient to pay all future member benefits (whereby an excess of assets on this basis is called a total liability surplus, or a shortfall is called a total liability deficit).
- 1.22 As at 31 December 2011, the COM plan was in an unsatisfactory financial position with a VBI of 88%. Since then, the City of Melbourne and other employers have contributed additional amounts totaling \$8.0 million in 2012/13.
- 1.23 As at 30 June 2014 the VBI for the COM plan was 112% and is expected to stay above 100% for the next three years under the current funding plan. Furthermore, under the current funding plan, we have determined the actuarial total liability surplus to be \$11.4 million. This means that if future experience is as expected, the assets and future contributions at the current rates are more than are required and excess assets will exist when the last benefit is paid from the COM plan.
- 1.24 Because of the actuarial surplus there are various funding options available to City of Melbourne and Vision Super in respect of the COM Plan. Based on the current assumptions, the actuarial surplus is expected to be sufficient to allow City of Melbourne to not make any future contributions. In this scenario the total actuarial surplus calculated using the current assumptions would reduce to \$3.1 million.
- 1.25 Based on our current assumptions, we expect that the VBI would remain well above 100% if City of Melbourne ceased contributions, but adverse experience may cause the VBI to reduce below 100%. City of Melbourne has advised Vision Super that its preference is to maintain the current contribution rates to reduce the risk of needing to make large additional contributions.

- 1.26 If City of Melbourne maintains the current contribution rate, and all other experience is as expected, we estimate that an investment return of the order of 4.5% p.a. would be required to fund the future benefits while maintaining the VBI above 100% for the foreseeable future. While there is the opportunity to reduce the investment risk in the COM plan investment strategy by targeting a lower investment return, there would remain a risk of additional contributions being required. However, the amount of additional contributions required should there be very poor investment return experience in the markets would probably be reduced (as the assets would be less risky).
- 1.27 Therefore, we recommend that the current funding plan be retained, but suggest that Vision Super consider whether it is appropriate to reduce the investment risk in the investment strategy at this time. The extent to which reducing the investment risk would be possible will depend upon the financial position of the COM plan at that time.
- 1.28 Because the current actuarial surplus is significant and the VBI is at 112%, if Vision Super decides not to de-risk the investments, we recommend that further actuarial advice be obtained and reducing the contribution rates be considered.
- 1.29 Section 7 of the Report considers funding in more detail, including examples of the sensitivity of the results to the assumptions and future experience.

## **Insurance**

- 1.30 In the prior actuarial investigation, as at 31 December 2011, we noted that the COM plan self-insured its death and disablement benefits.
- 1.31 We recommended in that investigation that Vision Super externally insure the death and disablement benefits in the COM plan and we understand that the COM plan has been externally insured by Comminsure since 1 October 2012.
- 1.32 In reviewing the insurance policies we have identified some situations where the full future service component of death and disability benefits is not covered by the policy and situations where there may be some self insurance. While in most cases the differences are not material for funding, we recommend that Vision Super review the insurance policies, and update them where necessary, to ensure that it is satisfied that any self insurance is not material.

## **Material Risks**

- 1.33 The most significant risk facing the COM plan funding is that investment returns will not be as high as expected which might result in additional contributions being required in the future. There is also a risk that the surplus will continue to grow and become large relative to the reducing liabilities, It is

recommended that the funding position of the COM plan continue to be considered in setting investment policy. We suggest that such considerations should include the liquidity requirements (because in the long term full liquidity will be required) and whether reducing investment risk is appropriate at this time.

1.34 In our opinion the current Shortfall Limit of 97.0% remains appropriate, noting that the investment strategy has not changed materially since the Shortfall Limit was set by the Board.

1.35 A more complete discussion of the risks is included in Section 9.

### **Summary of Recommendations**

1.36 A continuation of the following funding plan is recommended, whereby City of Melbourne will pay:

- (a) A contribution rate of 13% (inclusive of 1% salary continuance cover) of salaries for Division D members;
- (b) Top-up amounts for exiting members equal to the following amount increased for contribution tax:

#### ***Benefit Payment less (Vested Benefit x VBI)***

Top-up payments are to be calculated and invoiced quarterly in arrears. Top-up payments are required for all retrenchments (VBI capped at 100%), but for other exits only when the VBI is below 100%. Benefit payments exclude the amount of any insurance proceeds.

- (c) Any additional contributions that may be required in future under SPS 160.

1.37 Under the current assumptions these contributions are expected to be more than required to meet funding requirements, and following discussions with City of Melbourne and Vision Super, we recommend that Vision Super consider whether a lower risk investment strategy is appropriate at this time. If Vision Super decides not to de-risk the investments, we recommend that further actuarial advice be obtained and reducing the contribution rates be considered.

1.38 We also recommend that the Board consider a plan to reduce the exposure to illiquid assets in the COM plan to zero over time given the maturity of the plan and the possibility of large benefit payments. It is very important that other assets within the Fund continue to act as liquidity provider for the COM plan.

1.39 We also recommend that Vision Super review the insurance policies, and update where necessary, to ensure it is satisfied that any self insurance is not material.



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**Other**

1.40 We are not aware of any event since 30 June 2014 that warrants review of the recommendations in this report.



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10 December 2014

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## 2 INTRODUCTION

- 2.1 This report was commissioned by Vision Super Pty Ltd, the Trustee of the Local Authorities Superannuation Fund (the Fund).
- 2.2 The Local Authorities Superannuation Act (1988) (the Act) was proclaimed on 25 May 1988. The Act has been replaced and since 1 July 1998, the Fund has been governed by a Trust Deed.
- 2.3 The Fund is a “regulated fund” under the provisions of the Superannuation Industry (Supervision) Act 1993 (“SIS”). We understand that the Fund is treated as a complying superannuation fund for taxation purposes and is a taxed superannuation fund.
- 2.4 In accordance with the Superannuation Prudential Standard 160 (SPS 160), actuarial investigations are required at intervals of not more than three years. The previous triennial actuarial investigation was conducted as at 31 December 2011 by Mr. Matthew Burgess, FIAA of Russell Investment Pty Ltd, and set out in the “Report on the Actuarial Investigation as at 31 December 2011 dated 25 June 2012” (“previous report”).
- 2.5 This actuarial investigation only covers the City of Melbourne sub-plan (“COM plan”) within the Fund, which is a sub-fund as defined in SPS 160. The actuarial investigations for the main Defined Benefit plan and the Parks Victoria sub-plan which are also sub-funds as defined in the SPS 160, are covered in separate reports.
- 2.6 An annual actuarial investigation of the COM plan was also completed as at 30 June 2013 and set out in my report dated 30 October 2013. SPS 160 does not require annual actuarial investigation of the COM plan as long as it does not commence to pay any life time pensions.
- 2.7 The City of Melbourne Superannuation Fund transferred into the Fund effective from 1 November 1995. A separate sub-plan, known as the City of Melbourne Plan (COM Plan), is operated for these defined benefit members who transferred into the Fund.
- 2.8 Contributions and benefits in respect of the City of Melbourne members are made to (and from) this plan, as are relevant investment earnings and a share of the Fund expenses.
- 2.9 The COM plan is closed to new entrants. New employees of the City of Melbourne join Vision Super Saver. The vast majority of the plan’s members are employed by City of Melbourne but a small number are employed by other Authorities.
- 2.10 The purpose of this report is:
- to meet the requirements of the Trust Deed and the relevant superannuation legislation;

- to examine the current financial position of the plan;
- to provide advice to the Trustee on the funding arrangements;
- to meet the requirements of APRA's Prudential Standard SPS 160.

2.11 This report satisfies the requirements of the following Professional Standards and Guidance Notes of the Actuaries Institute:

- Professional Standard 400
- Professional Standard 402
- Professional Standard 404

### **Actuarial Investigation as at 31 December 2011**

2.12 The report on the actuarial investigation as at 31 December 2011 concluded that the experience of the COM plan over the three year period to 31 December 2011 had been unfavourable. The VBI was 88% as at 31 December 2011.

2.13 As part of the 31 December 2011 actuarial investigation, we recommended that the following funding plan be adopted:

- (a) Contribute 13% of salary for employee members; plus
- (b) Contribute an additional \$2.2 million (inclusive of 15% contribution tax) per annum by 30 June 2013, 30 June 2014 and 30 June 2015.
- (c) Fund the top-up payments for exiting members equal to the following amount increased for contribution tax:

#### ***Benefit Payment less (Vested Benefit x VBI)***

Top-up payments are to be calculated and invoiced quarterly in arrears from 1 July 2012. Top-up payments are required for all retrenchments (VBI capped at 100%), but for other exits only when the VBI is below 100%. Benefit payments exclude the amount of any insurance proceeds.

## Events since the 31 December 2011 Actuarial Investigation

- 2.14 We understand that the proposed funding plan in the 31 December 2011 actuarial investigation was approved by the Trustee and was communicated to the City of Melbourne and the other Authorities. In discussions with the City of Melbourne it was agreed that the City of Melbourne would be invoiced for a single additional contribution effective 31 December 2012 rather than for three yearly installments. I calculated that the additional contribution required that was expected to be sufficient to increase the Vested Benefit Index (VBI) immediately to 100% was \$8.0 million. We understand that the City of Melbourne's share of this contribution has been made. There are several other Authorities that have small numbers of employees within the COM plan and these Authorities were also required to make additional payments equal to their share of the additional contribution. We understand that by the date of this report the top-up contributions had been paid by Authorities.
- 2.15 The City of Melbourne plan's investment return for the period from 1 January 2012 to 30 June 2014 was 11.6%p.a., which is higher than expected and led to an improvement in the financial position of the City of Melbourne plan.
- 2.16 We note that the Government has legislated to increase the Superannuation Guarantee Charge to 12% of Ordinary Times Earnings. Under the current funding plan agreed, the City of Melbourne and the other employers are already contributing 13% of salaries. This legislative change is not expected to have any material impact on the funding of the COM plan.
- 2.17 We also note that the future service death and disablement benefits were externally insured from 1 October 2012. This is consistent with our recommendation in the previous triennial actuarial investigation.
- 2.18 APRA issued SPS 160 relating to defined benefit matters which applied from 1 July 2013 on a mandatory basis. Key requirements of SPS 160 are:
- (a) The Trustee must set a short-fall limit. The Trustee has adopted a limit of 97% for the COM plan. This means that if the Vested Benefit Index (VBI) falls below this percentage then an interim actuarial investigation may be required; and
  - (b) If the VBI falls below 97%, or below 100% at certain times such as when an actuarial investigation is being completed, then the Trustee must put in place a funding plan that is expected to restore the VBI to 100% within three years, irrespective of other funding measures. APRA can approve a longer time frame than three years.
- 2.19 There have been no other legislative changes or changes to benefits that have materially impacted on the funding of the COM plan.

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## Contents of this Report

2.20 The remainder of this report is structured in the following manner:

- Section 3 considers the data used in this investigation and the experience since 31 December 2011;
- Section 4 considers the assets and investment policy of the COM plan;
- Section 5 considers the assumptions and methodology of the valuation;
- Section 6 considers the financial position of the COM plan as at 30 June 2014;
- Section 7 considers the adequacy of the funding plan;
- Section 8 considers insurance;
- Section 9 discusses the material risks;
- Appendices A to C include supporting details of benefits, assets, and actuarial assumptions;
- Appendix D summarises the actuarial surplus/(deficit) as at 30 June 2014;
- Appendix E contains the statements required by under SPS 160.

### 3 DATA AND EXPERIENCE

#### Membership

- 3.1 For the purposes of this investigation, we were supplied by Vision Super with information on active and retained members of the COM plan as at 30 June 2014. We have also been provided with copies of unit pricing policies, insurance policies and investment information. We have relied on the data and information provided by Vision Super. From our checking processes we believe that the data is sufficiently accurate for the purposes of this investigation.
- 3.2 The membership details of the active members of the COM plan as at 30 June 2014 are summarized in the table below:

SUMMARY OF COM ACTIVE MEMBERSHIP AS AT 30 JUNE 2014	
Number	146
Average Age (years)	54.5
Average Service (years)	27.5
Average Salary (\$)	89,527

- 3.3 As at 30 June 2014, there were 44 retained members with account balances totaling \$8.6 million.

#### Experience since 31 December 2011

- 3.4 Over the investigation period the salary increases were 3.9% p.a.. This is lower than the rate of 4.25% p.a. assumed in the previous investigation which has been favourable for the plan.
- 3.5 It is of interest to compare the average rate of salary increase with the increase in Australian Average Weekly Ordinary Time Earnings (AWOTE). Over the two and a half years to 30 June 2014, AWOTE increased by 3.6% p.a.. Overall, members received salary increases which are higher than those of the wider community. Over the three years to 31 December 2011 the salary increases were 4.7% p.a..
- 3.6 Our previous salary scale assumption assumes that the promotional effect ceases after age 35. It is noted that all active members were over age 35 as at 30 June 2014 and therefore we have decided to remove the salary scale on the basis that the effect of promotion is not expected to be material.

3.7 The investment return was 11.6% p.a. over the investigation period, which is higher than the assumed investment return of 7.5% p.a.. This has led to an improvement in the COM plan's financial position.

3.8 The table below summarizes the number of exits over the two and a half years to 30 June 2014:

<b>Exits during period from 1 January 2012 to 30 June 2014</b>	
<b>Exit Type</b>	<b>Number</b>
Retirement	25
Resignation	2
Retrenchment	1
Disability	2
Transfer to LASF	1
<b>Total</b>	<b>31</b>

3.9 The total number of exits during the investigation period was 31 which was lower than the expected number of exits of 44.

## 4 ASSETS AND INVESTMENTS

### Assets

- 4.1 The market value of assets has been taken from the 30 June 2014 audited financial statements provided by Vision Super. Vision Super also provided additional information in respect of sub-plan assets. We have relied on the financial information provided by Vision Super.
- 4.2 The market value of the COM plan assets as at 30 June 2014 was \$61.0 million. The asset value has been reduced by \$0.1 million to reflect the liability in respect of a member who transferred from the COM plan to the Defined Benefit plan but whose assets had not yet been transferred. Hence the net market value of the COM plan assets as at 30 June 2014 used in this valuation was \$60.9 million.
- 4.3 This asset value excludes \$8.6 million in respect of retained benefit accounts.
- 4.4 All of the City of Melbourne plan's accounting transactions are recorded in a separate sub account. In this way over time the contribution rate will reflect the actual experience of the City of Melbourne plan. Vision Super allocates the balance of this sub account to the COM plan. There was no material contribution receivable as at 30 June 2014 in respect of the COM plan.
- 4.5 We believe the most suitable approach for this investigation is to continue to adopt the market value of assets for all purposes. We note that the funding position of the COM plan may be variable because of the current high volatility in asset valuations.

### Asset Allocation

- 4.6 The Fund invests in a wide range of asset classes such as equity, property and fixed interest investments. The COM plan's asset allocation and the Strategic Asset Allocation are shown in Appendix C.
- 4.7 The Strategic Allocation to Growth Assets as at 30 June 2014 is 68.6%, including Australian Equities, International Equities, Private Equity, Opportunistic Investments, Absolute Return Strategies and a portion of the Multi-Asset, Core Property, Floating Rate Debt and Infrastructure asset classes. This has decreased from 73.5% as at 31 December 2011.
- 4.8 Setting the Strategic Asset Allocation is a balance between:
- (a) A high allocation to growth assets, which is expected to produce relatively high but more variable investment returns and therefore lower but more variable employer contributions; and
  - (b) A low allocation to growth assets, which is expected to produce relatively low but less variable investment returns and therefore higher but less variable employer contributions.



- 4.9 We believe that the 68.6% allocation to growth assets is among a range of allocations that could reasonably be used by the COM plan.
- 4.10 The higher the COM plan's "actuarial surplus", the more attractive it may be to the Board to reduce the allocation to growth assets as a means of reducing the risk of subsequent higher contributions being caused by poor investment experience. An "actuarial surplus" also means that there is more flexibility in respect of the funding plan.

## Liquidity

- 4.11 The Strategic Asset Allocation to illiquid assets is 21.75%, although it is proposed that this allocation be reduced slightly. As at 30 June 2014, 28.9% of the investments are in illiquid asset classes which include Private Equity, Infrastructure, Direct Property, Floating Rate Debt, Opportunistic Investments and Multi-Asset.
- 4.12 Given the size and maturity of the COM plan, and that it pays lump sum benefits, it is inappropriate for the plan to hold illiquid assets unless other Fund assets (particularly the Defined Benefit plan) will continue to act as the "liquidity provider" for the COM plan when members exit the plan.
- 4.13 With our assistance, Vision Super has completed a review of its liquidity profile and stress testing in early 2013. Stress testing showed that should a significant shock occur, the illiquid asset allocation could become a significant portion of the assets of the three defined benefit plans. Because the three defined benefit plans are closed to new members, liquidity modeling showed that the illiquid asset allocation of the three defined benefit plans will become even more sensitive to external events over time. Accordingly, we believe that it is appropriate to reduce the target allocation to illiquid assets over time.
- 4.14 We understand that the Board has determined that currently no further commitments are to be made to illiquid investments. We also understand that it is intended that the illiquid asset allocation will reduce to the Strategic Target of 21.75%. We note that while some of the illiquid assets are in fixed ended funds which will become liquid over time, others such as the Direct Property and Infrastructure investments will need to be sold or transferred from the defined benefit assets in the future.
- 4.15 In the long term the defined benefit plans will require full liquidity. Therefore, we believe that Vision Super should continue to consider the time frame over which they will reduce the exposure to illiquid assets in the defined benefit plans to zero. We suggest that consideration of the liability run off under various scenarios should continue to form part of this consideration.

## Unit Pricing

- 4.16 Within the Fund there are defined contribution members as well as defined benefit members. The assets and liabilities of the defined contribution members are equal with daily unit pricing being used. There is no investment reserving. We have been advised that the assets of the defined contribution members are segregated from the defined benefit assets and Vision Super has in place processes to limit cross subsidies between defined contribution and defined benefit members. The Trustee should continue to satisfy itself that no cross subsidies are occurring or could occur between the defined benefit and defined contribution plans.
- 4.17 The COM plan assets are segregated for accounting purposes as well as unit pricing purposes. We believe that this is appropriate.

## Shortfall Limit

- 4.18 The Trustee has set a Shortfall Limit in accordance with SPS 160 of 97% for the COM plan. This means that between actuarial investigations, a restoration plan to restore the VBI to 100% is required when the COM plan's VBI reduces to below 97%.
- 4.19 A Shortfall Limit is defined in paragraph 10 of SPS 160 as:
- “the extent to which an RSE licensee considers that a fund can be in an unsatisfactory financial position with the RSE licensee still being able to reasonably expect that, because of corrections in the temporary negative market fluctuations in the value of fund assets, the fund can be restored to a satisfactory financial position within one year.”
- 4.20 Given the current and target asset allocation of the COM plan, we believe that the current Shortfall Limit remains appropriate.

## 5 ASSUMPTIONS AND METHOD

### Assumptions

- 5.1 An appropriate set of both financial and demographic assumptions must be determined before values can be placed on the defined benefit liabilities.
- 5.2 The assumptions for this actuarial investigation have been determined on a “best estimate” basis.
- 5.3 “Best estimate” describes assumptions which reflect “mean” estimates for the various factors, rather than choosing assumptions with explicit margins to cope with uncertainty about future experience. These “best estimate” assumptions might be described as being realistic. They are equally likely to prove to be conservative or to be optimistic.
- 5.4 As the COM plan is closed to new members and as a result has declining membership, “best estimate” assumptions continue to be relevant because using conservative assumptions would be expected to eventually result in excess assets. Best estimate assumptions are also required by the Actuaries Institute’s Professional Standards.
- 5.5 Appendix B contains a summary of the assumptions used.

### Financial assumptions

- 5.6 Financial assumptions for investment earnings, salary inflation and pension increases are required to value the liabilities.
- 5.7 The factor of major significance in the investigation of the COM plan’s active member benefit liabilities is the differential between the assumed future rate of investment earnings and the assumed rate of salary growth due to inflation. (These factors are almost exactly compensating in their effect upon the present value of the COM plan’s future benefit liabilities - hence, the difference between the rates is important, rather than their absolute values.)
- 5.8 For valuing the retained benefit, the differential between investment earnings and the rate of price inflation is relevant because the retained benefit underpin is indexed semi-annually to the change in the Consumer Price Index (CPI). The historical long-term differential between the changes in CPI and AWE (salary inflation) has generally ranged between 0% and 2% p.a.
- 5.9 The “best estimate” financial assumptions adopted at the 31 December 2011 actuarial investigation were:
- 3.25% p.a. real investment return over salary inflation. This comprised a 7.5% p.a. net of tax investment return assumption and a 4.25% p.a. salary inflation assumption.

- 4.75% p.a. real investment return over price inflation. This comprised a 7.5% p.a. net of tax investment return and a 2.75% p.a. CPI assumption.

### ***Investment Return***

- 5.10 In order to determine the best estimate assumptions for this investigation, we have considered the capital market assumptions of Russell and the Fund's asset consultants, Frontier. A net investment return of 7.5% p.a. has been adopted for this investigation.
- 5.11 We have decided to retain the net investment return assumption of 7.5% p.a. for this investigation. The assumptions are net of investment management fees.

### ***CPI Increases***

- 5.12 Russell and Frontier's CPI estimate is of the order of 2.0% - 3.0% p.a. which is consistent with the Reserve Bank's target CPI range of 2.0% p.a. to 3.0% p.a.. Therefore, we have retained the CPI assumption of 2.75% p.a. for the investigation.

### ***Salary Inflation***

- 5.13 The actual salary increases of COM plan members have been broadly in line with AWOTE (refer 3.4-3.5).
- 5.14 A salary increase assumption of 4.25% p.a. is 1.5% p.a. above the assumed 2.75% p.a. CPI, which is within the historical long term 0% to 2% p.a. differential. Given recent experience and the maturity of the COM plan, this is appropriate

### ***Expenses***

- 5.15 In the 31 December 2011 investigation, the administration expense was assumed to be of the order of 2.0% of salaries.
- 5.16 We have reviewed the plan expenses for the period from 1 January 2012 to 30 June 2014 and noted that the plan expenses as a proportion of the members' salaries has increased over time as the membership continues to decline.
- 5.17 Therefore we have increased the assumed level of expenses to 3.5% of salaries to reflect this trend.

## Demographic Assumptions

- 5.18 A detailed analysis of the COM plan's demographic experience was not undertaken due to the small size of membership. Overall exits were lower than expected as set out in Section 3.9.
- 5.19 We have decided to continue to apply the same resignation and retirement rates for the COM plan members as are used for the main Defined Benefit plan. These are the same rates that were adopted in the last triennial actuarial investigation as at 31 December 2011 except that the rates of retirement between ages 55 to 58 were reduced to reflect the legislated increases to preservation age and that superannuation benefits become tax free at age 60.
- 5.20 For death and disablement we have decided to adopt the external insurance premium rates as the decrements. It is likely that this will overstate the number of death and disability benefits because the insurer's rates will include an allowance for administration expenses and a profit margin. The insurer may also have made other pricing decisions that mean actual experience would be expected to be higher or lower than implied by the premium rates. However, given the small number of members, very few death or disablement benefits are expected and the impact of the simplification of using the insurer's rates is not expected to be material. It also automatically ensures an allowance for the cost of insurance is included in the funding arrangements without having to make a separate allowance.
- 5.21 The demographic assumptions used are detailed in Appendix B.

## Actuarial Funding Method

- 5.22 Clause A.20.1 of the Trust Deed gives the Trustee the ability to determine "the amount or rate of contributions" that City of Melbourne must contribute, after obtaining the advice of the actuary. In recommending a funding plan which aims to be sufficient to fund the members' benefits in the long-term, it is necessary to project the operation of the COM plan into the future, using the actuarial assumptions set out above.
- 5.23 Briefly the projection operates in the following manner:
- (a) project total benefits and expenses expected to emerge in all future years in respect of current members. The projection is based on the long-term actuarial assumptions including allowance for the contingencies under which benefits can be paid (retirement, death, disablement and resignation) and salary increases;
  - (b) discount these projected benefits to a present value at the assumed long-term investment return;

- (c) in a similar manner to (a) and (b), project the ongoing employer contribution and member contributions over all future years for current members, and discount them to present values; and
- (d) determine the additional funding required by the COM by comparing (b) with (c) plus the appropriate value of the assets at the investigation date.
- 5.24 The former COM plan retained benefit members have fully funded accumulation accounts, but also have guaranteed minimum benefits that, if they apply, must be funded from the COM plan assets. It should be noted that the retained benefits are included in these calculations, but only to the extent that there is an additional liability when the guaranteed minimum benefits apply (i.e. the value of the liabilities exceed the assets).
- 5.25 This projection is known as the aggregate funding method, or total service liability funding, which is considered to be appropriate for a closed fund. The purpose of the calculation is to assess if the existing contribution rates and assets are sufficient to provide all future benefits on current assumptions.
- 5.26 Under SPS 160, APRA requires superannuation funds to put in place a plan that is expected to fully fund their vested benefits within three years if the fund's assets are less than the vested benefits at an actuarial investigation, also known as being in an "Unsatisfactory Financial Position".
- 5.27 The shortfall or surplus relative to vested benefits is likely to vary from the actuarial shortfall or surplus calculated using method set out in 5.23. It is possible that the recommended funding amount under this funding method may not be sufficient to restore the fund's Vested Benefits Index (VBI) to 100% within the timeframe required by APRA if it drops below 100% due to adverse experience in the future. Additional contributions can be made to target a VBI of 100% but where these contributions are higher than any actuarial shortfall calculated using the aggregate funding method described above a surplus would be expected to result in the long term if experience is as expected. Vision Super may also be able to manage any such shortfalls or surpluses through a combination of changes to funding and investment strategy.

## 6 FUNDING POSITION OF CITY OF MELBOURNE PLAN

### Financial Position at 30 June 2014

- 6.1 The financial position of the COM plan at the investigation date provides some insight into the progress towards fully funding members' benefits.
- 6.2 A convenient means of assessing the financial position of the COM plan involves the calculation of various indices of benefits compared to assets.

#### Vested Benefits Index

- 6.3 Vested Benefits are defined as the benefits that would be due and payable if all the members voluntarily terminated their service with their employers at the investigation date. For active members, the Vested Benefits are thus the resignation benefit or the early retirement benefit (if aged 55 or more).
- 6.4 The Vested Benefits Index is calculated as follows:

$$\text{VBI} = \frac{\text{market value of assets}}{\text{total of vested benefits}}$$

- 6.5 Vested Benefits as at 30 June 2014 are:

Vested Benefits	(\$m)
COM assets	\$60.9
<u>Vested Benefits</u>	
Active Members	\$54.2
Present Value of Additional Retained Benefit	\$0.2
Total Vested Benefits	\$54.4
Vested Benefit Index	112%

- 6.6 The calculated VBI for the COM plan at 30 June 2014 is 112%. This compares with a VBI of 88% as at 31 December 2011. The improvement in VBI has occurred primarily because of the higher than expected investment return and the additional contributions received.

6.7 The COM plan was not in an unsatisfactory financial position as at 30 June 2014. Because the VBI is currently greater than 100%, it means current assets are expected to be sufficient to cover the vested benefit if all members exited the fund on 30 June 2014.

### **Discounted Accrued Benefits Index**

6.8 Discounted Accrued Benefits means the present value of the benefit payable in the future (based on the assumptions) accrued in respect of service to the investigation date. The method of apportioning active members' benefits to past service for the COM plan is as follows, effectively recognising the portion of future benefits arising due to service to date:

- (a) Retirement– the past service benefit (based on accrued lump sum multiples) at the calculation date, with allowance for future salary growth to the assumed exit date.
- (b) Death and Disablement benefits – the total projected death benefit at the assumed exit date multiplied by the ratio of service to the calculation date divided by service to assumed exit date.
- (c) Immediate Resignation Benefit – the past service benefit at the calculation date (based on the multiples at the calculation date) with allowance for future salary growth and vesting up to the assumed resignation date.

6.9 The Discounted Accrued Benefits are not subject to a minimum of the Vested Benefits. The approach to valuing death and disablement benefits includes a portion of the future service benefit which is not necessary given the external insurance, but the impact on the recommendations in this actuarial investigation is not material.

6.10 The index is more a measure of the COM plan's on-going capacity to meet Accrued Benefits in the long run.

6.11 The "Discounted Accrued Benefits Index" (DABI) is calculated as follows:

$$\text{DABI} = \frac{\text{market value of assets}}{\text{total of discounted accrued benefits}}$$



6.12 Discounted accrued benefits as at 30 June 2014 are:

<b>Discounted Accrued Benefits</b>	<b>(\$m)</b>
COM assets	\$60.9
<u>Discounted Accrued Benefits</u>	
Active Members	\$48.6
Present Value of Additional Retained Benefit	\$0.2
Total Discounted Accrued Benefits	\$48.7
Discounted Accrued Benefits Index	125%

6.13 The calculated DABI for the COM plan at 30 June 2014, based on the “best estimate” assumptions, used in this investigation is 125%. This compares with a DABI of 96% as at 31 December 2011.

6.14 The increase in DABI is mainly due to higher investment returns than expected and the additional contributions received.

6.15 Because the DABI is greater than 100%, it means current assets are expected to be sufficient to provide the benefits of members’ accrued benefits based on service to 30 June 2014.

#### **Minimum Requisite Benefits Index**

6.16 We have also considered the asset coverage of members’ Minimum Requisite Benefits (i.e. Superannuation Guarantee Benefits).

6.17 The Minimum Requisite Benefits (MRBs) are the minimum amount of benefit that must be provided to enable the City of Melbourne and other the employers to satisfy their Superannuation Guarantee obligations. The method to calculate the amount of MRBs for the active members is specified in my Benefit Certificate.

6.18 The Minimum Requisite Benefit Index is calculated as follows:

$$\text{MRBI} = \frac{\text{market value of assets}}{\text{total of Minimum Requisite Benefits}}$$

6.19 Minimum Requisite Benefits as at 30 June 2014 are:

Minimum Requisite Benefits	(\$m)
COM assets	\$60.9
<u>Minimum Requisite Benefits</u>	
Active Members	\$39.5
Present Value of Additional Retained Benefit	\$0.2
Total Minimum Requisite Benefits	\$39.6
Minimum Requisite Benefits Index	154%

6.20 As at 30 June 2014 we estimate that the ratio of the market value of assets to the amount of Minimum Requisite Benefits was 154%. This compares with a MRBI of 124% as at 31 December 2011.

6.21 The increase in MRBI is mainly due to higher investment returns than expected and the additional contributions received.

6.22 If this ratio for the entire Fund falls below 100%, the Fund becomes Technically Insolvent as defined in the SIS Regulations. If this occurs the Trustee must take certain steps to restore solvency. The Trustee needs to continue to monitor the “Notifiable Events” defined in the Funding and Solvency Certificate to identify if the Fund is at risk of becoming, or becomes, Technically Insolvent so appropriate action can be taken.

**Other Measures of Financial Position**

6.23 In accordance with Clause A.21.1(a) of the Trust Deed, an Employer requires the approval of the Board to terminate its contributions to the Defined Benefit plans. We assume this approval would not be provided unless any future funding risk is adequately managed.

6.24 However, if the City of Melbourne does terminate its contributions, Clause A.21 of the Trust Deed states that:

*“the Trustee, after obtaining the advice of the Actuary and subject to A.21.5, may adjust any benefit which is or may become payable to or in respect of any person whom the Trustee may*

*consider is affected by that termination to the extent and in the manner the Trustee considers appropriate and equitable”*

6.25 Further it states in Clause A.21.5 that:

*“...Unless otherwise agreed between the Trustee and the Employer, an adjustment made ...must not increase the amount of any benefit which, in the opinion of the Trustee after obtaining the advice of the Actuary, has accrued in respect of a person immediately prior to the effective date of that adjustment in respect of the period up to that date or improve the basis upon which benefits accrue during or in respect of any period after that date.”*

6.26 Therefore, in the case of the termination of contributions by the City of Melbourne, the Trustee has some flexibility in respect of the benefits provided, subject to superannuation law, and there is no alternative measure of financial position that needs to be calculated in respect of this situation.

6.27 On retrenchment, members' are entitled to the accrued retirement lump sum. This benefit may also be payable on partial disablement. As at 30 June 2014 the accrued retirement benefits were \$56.6 million, and as that date, the ratio for the market value of assets to the amount of retrenchment benefits was 108%. The corresponding index as at 31 December 2011 was 83%. The increase in the index is mainly due to higher investment returns than expected and the additional contributions received.

6.28 An additional contribution is required from City of Melbourne in respect of each retrenchment under the current funding plan, where a greater benefit than the vested benefit is paid, so that there is no additional financial strain on the City of Melbourne funding plan. On other modes of exit no top-up contribution is required unless the VBI is below 100%.

6.29 In certain situations some members can elect a pension, subject to the approval of Vision Super. While there are no current pensioners, a member electing a pension may cause a strain on funding.

6.30 In Appendix C the COM plan's asset allocation is shown and there is currently a 28.9% allocation to illiquid assets. The funding indices have been calculated based on the valuation of these assets at market value from the 30 June 2014 audited financial statements. In the unlikely event that these assets had to be quickly liquidated it is possible that this could occur at discounted values resulting in lower funding ratios. For example, a 20% discount on the forced sale of illiquid assets would reduce the funding indices by of the order of 6%.

6.31 There was no material deferred tax asset in the Fund as at 30 June 2014. Therefore the funding is not significantly dependent upon being able to utilize such an amount.

## 7 ASSESSING THE ADEQUACY OF THE FUNDING ARRANGEMENT

### The Present Funding Arrangements

7.1 The funding arrangements for the COM plan now comprise the following components:

- (a) Contributions equal to 13% of salary for employee members; plus
- (b) Funding the top-up payments for exiting members equal to the following amount increased for contribution tax:

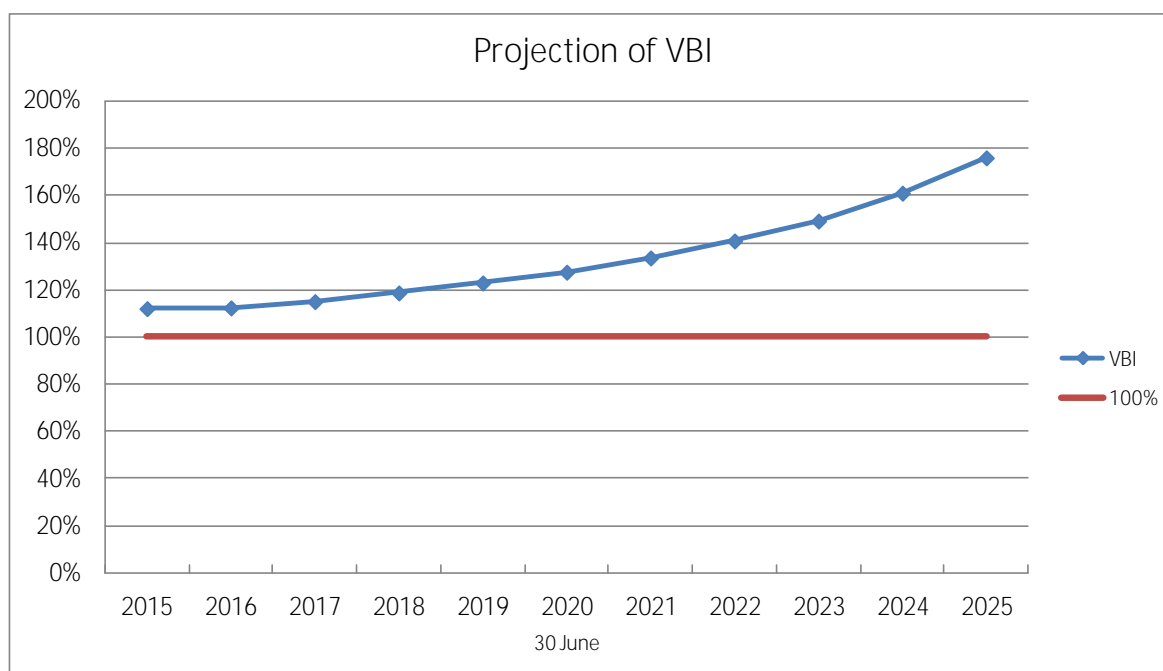
$$\text{Benefit Payment less (Vested Benefit x VBI)}$$

Top-up payments are to be calculated and invoiced quarterly in arrears. Top-up payments are required for all retrenchments (VBI capped at 100%), but for other exits only when the VBI is below 100%. Benefit payments exclude the amount of insurance proceeds.

### Projection of Funding Levels

7.2 This section considers the adequacy of the funding by projecting the City of Melbourne plan's future funding levels. This projection is based on the "best estimate" funding assumptions set out in Appendix B. It also assumes that the City of Melbourne's contribution rate remains unchanged.

7.3 The following graph shows the projected VBI for the next 10 years.



- 7.4 The chart shows that the VBI is expected to remain above 100% for the next 10 years. Therefore, the current funding plan meets the requirements of SPS 160.
- 7.5 The VBI is expected to increase and remain well above 100% in the long term. This means that if the assumptions are borne out in practice in the long term, either a contribution rate reduction will be required, a more conservative investment strategy or a combination of both.

### **Actuarial Surplus/(Shortfall)**

- 7.6 Based on the methods described in Section 5.23-5.24, we have calculated the actuarial surplus as at 30 June 2014 to be \$11.4 million.
- 7.7 As at 31 December 2011, there was an actuarial surplus of \$2.5 million under the proposed funding plan.
- 7.8 The actuarial surplus has increased since 31 December 2011 due to the higher than expected investment returns and the additional contributions (in excess of the contributions in the proposed funding plan) received during the period. The increase in the assumption in respect of future administration expenses reduced the actuarial surplus by \$0.9 million. The net impact of the change to the decrement rates was not material.
- 7.9 A surplus of \$11.4 million means that the current assets together with the future contributions would be \$11.4 million more than adequate to fund the benefits in the long term if experience is as expected. As set out above, this means that in the long term either a contribution rate reduction will be required, a lower risk and return investment strategy could be adopted or both. However, given the maturity of the plan, the funding requirement is highly dependent on the actual experience.

### **Other Considerations**

- 7.10 Given the maturity of the plan, the funding requirement is highly dependent on the actual experience. Under SPS 160 which places a greater emphasis on the short term solvency (ie VBI), the future contributions are likely to be volatile if experience is poor and the VBI reduces to below 100%. It would be prudent to allow for some margin in the VBI in order to reduce the need for additional funding.
- 7.11 This risk of volatile contributions may also be managed by reducing the exposure to growth assets. However, de-risking the investments may reduce the expected return and hence increase the funding cost.
- 7.12 As at 30 June 2014, the long-term cost of funding the future service benefits was determined to be 13.4% of members' salaries. This is the employer contribution rate required assuming that assets at the

valuation date were equal to the present value of accrued benefit liabilities. This reflects the ongoing cost to the employer of providing the defined benefits accruing in respect of future service.

- 7.13 The current contribution rate of 13% of salary for the City of Melbourne was originally set to include an additional 1% of salary allowed for to cover the salary continuance cover. We have not considered whether this 1% of salary is sufficient to cover the salary continuance cover because it is clear that the current contributions are expected to be significantly more than sufficient to provide members' future benefits if experience is as expected.
- 7.14 As there is an actuarial surplus of \$11.4 million, contributions at the long term cost of funding future service benefits are not required. Because of the actuarial surplus, there are various funding options available to the City of Melbourne and Vision Super in respect of the COM Plan. Based on the current assumptions, the actuarial surplus is expected to be sufficient to allow COM to not make any future contributions. In this scenario the total actuarial surplus calculated using the current assumptions would reduce to \$3.1 million and based on the current assumptions, we expect the VBI would remain above 100%.
- 7.15 If the City of Melbourne maintains the current contribution rates, and all other experience is as expected, we estimate that an investment return of the order of 4.5% p.a. is required to fund the future benefits. The VBI would be expected to remain above 100% if this approach was adopted and experience is consistent with the assumptions. While there is the opportunity to reduce the investment risk in the COM plan investment strategy, there would remain the risk of additional contributions being required. However, the amount of additional contributions required should there be very poor investment return experience in the markets would probably be reduced (as the assets would be less risky).
- 7.16 We understand that the City of Melbourne's preference is to reduce risk rather than to reduce its employer contributions. Therefore, we recommend that the current funding plan be retained, but suggest that Vision Super consider whether it is appropriate to reduce the investment risk in the investment strategy at this time.
- 7.17 Because the current actuarial surplus is significant and the VBI is at 112%, if Vision Super decides not to de-risk the investments, we recommend that further actuarial advice be obtained and reducing the contribution rates be considered.
- 7.18 In the present funding plan, top up contributions on retrenchment have been replaced by top-up contributions for all exits, but only if the VBI is less than 100%. This is necessary because with a VBI of less than 100%, the amount of assets paid from the City of Melbourne Plan exceeds the amount available. If no top up contributions were made the funding position would deteriorate with each exit.

When the VBI is above 100% as is currently the case, the amount of the top-up contributions would reduce to zero in all cases except where a retrenchment benefit greater than the vested benefit is paid.

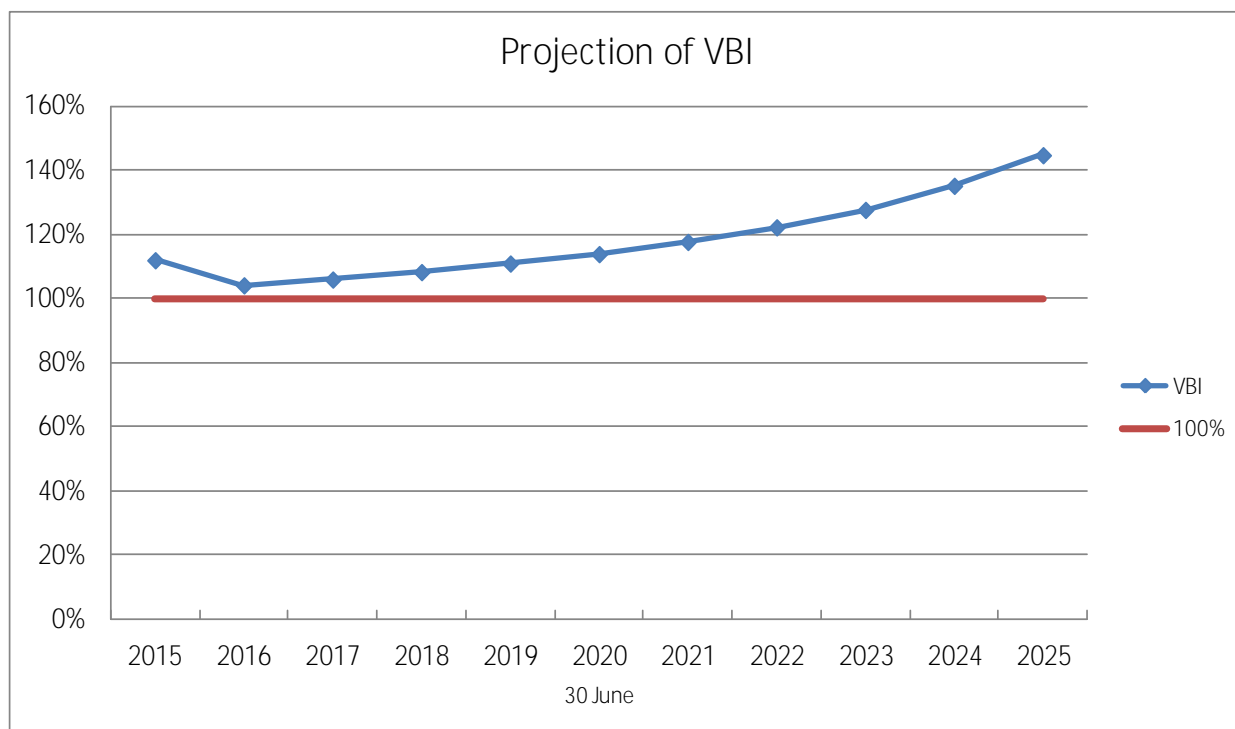
## Sensitivity Analysis

- 7.19 The factors affecting the ultimate funding cost depends on future experience of the plan and are generally split into two broad categories. They are the financial assumptions and the demographic assumptions. The funding cost is more sensitive to changes in the financial assumptions. Accordingly, the sensitivity of the actuarial surplus (shortfall) to the financial assumptions is considered below.
- 7.20 The key financial assumption is the differential or “gap” between the investment return and the growth in salaries. If the actual experience for the “gap” varies from the assumed “best estimate” assumption of 3.25% p.a. (i.e. 7.5% p.a. less 4.25% p.a.), it can have a very significant effect on the ongoing contribution rate and any unfunded liability contributions (as demonstrated in this investigation relative to the last investigation).
- 7.21 To quantify the potential impact of variations in financial experience, the following table shows the impact of changing the gap on the “actuarial surplus/(shortfall)” as at 30 June 2014.

Impact of Changes in Key Assumption	
	Actuarial Surplus/(Shortfall)
	\$ Million
Best estimate assumptions	11.4
Increase the gap by 1%	14.1
Decrease the gap by 1%	8.3

- 7.22 The table shows that a variation in the “gap” has a significant impact on the actuarial surplus or shortfall. It is possible that the actual “gap” may vary from our best estimate assumption by significantly more than 1% and the impact would be greater than what was shown in this sensitivity analysis.
- 7.23 The variations selected in the sensitivity analysis do not indicate the upper and lower bounds of all possible outcomes.

- 7.24 We have also considered the investment risk in the short term. The chart below shows the impact on the VBI if the investment return is 0% in the year to 30 June 2015. The investment return is assumed to return to 7.5% p.a. from 1 July 2015 and all other experience is assumed to be as expected.



- 7.25 As shown in the chart, the VBI is expected to stay just marginally above 100% if the return is 0% in the year ending 30 June 2015. If the experience was worse than this scenario then additional top-up contributions may be required.
- 7.26 The chart in 7.24 does not take into account the impact on the retained members. Our analysis shows that if the return is 0% next year, the additional liability for retained members will increase by approximately \$46,000.

#### Events subsequent to 30 June 2014

- 7.27 Vision Super has advised that the COM plan VBI was 113.7% as at 30 September 2014. Since 1 October 2014 the investment return to 30 November 2014 has been 0.79%. We are not aware of any other event subsequent to 30 June 2014 that would materially impact upon the results of the actuarial investigation of the COM plan.



## Funding Recommendations

- 7.28 We recommend that the City of Melbourne continues to contribute according to the following funding plan:
- (a) Contribute 13% (inclusive of 1% salary continuance cover) of salaries for Division D members;
  - (b) Fund the top-up payments for exiting members equal to the following amount increased for contribution tax:  
  

***Benefit Payment less (Vested Benefit x VBI)***

Top-up payments are to be calculated and invoiced quarterly in arrears. Top-up payments are required for all retrenchments (VBI capped at 100%), but for other exits only when the VBI is below 100%. Benefit payments exclude the amount of any insurance proceeds.
  - (c) Make additional contributions that may be required under SPS 160.
- 7.29 The City of Melbourne must also make any salary sacrifice contributions on behalf of members.
- 7.30 Under the current assumptions these contributions are expected to be more than required to meet funding requirements, and following discussions with the City of Melbourne and Vision Super, we recommend that Vision Super consider whether a lower risk investment strategy is appropriate at this time. Because the current actuarial surplus is significant and the VBI at 112%, if Vision Super decides not to de-risk the investments, we recommend that further actuarial advice be obtained and reducing the contribution rates be considered.

## 8 INSURANCE

- 8.1 The COM plan provides death and disablement benefits that are significantly higher than the resignation/retirement benefits.
- 8.2 As at the 31 December 2011 valuation, the COM plan was self-insured. Therefore, at that time it was COM that ultimately bore the financial risk if the amount of death and disablement benefits paid was significantly higher than expected. Variation in the claims experience could also have a large impact on the plan's funding position and increase the likelihood of more variable contributions.
- 8.3 We recommended in the triennial actuarial investigation as at 31 December 2011 that the Trustee externally insure the death and disablement benefits in the COM plan in order to mitigate the various risks involved.
- 8.4 We understand that the COM plan has been externally insured by Comminsure since 1 October 2012, which we continue to believe is appropriate.
- 8.5 Given the small number of COM plan members, the risk of a self insured claim emerging from prior to 1 October 2012 is small. If this were to occur and the VBI was below 100% at the prior quarter end, City of Melbourne would be required to make top-up contributions in respect of the unfunded self insured component of the benefit on the basis that it would make top-up contributions for the unfunded element of all benefits on exit. The funding is not expected to be put at risk from the emerging claims.
- 8.6 We have broadly reviewed the terms of the cover and the formulas used to determine the sums insured. We have identified some situations where the full future service component of death and disability benefits is not covered by the policy and situations where there may be some self insurance. While in most cases the differences are not material for funding, we recommend that Vision Super review the insurance policies, and update them where necessary, to ensure that it is satisfied that any self insurance is not material. We have separately provided Vision Super with a list of possible issues that we identified.

## 9 MATERIAL RISKS

9.1 The funding of the COM plan is dependent upon future experience. I have briefly considered below the material risks in respect of funding. If adverse outcomes occur then the COM plan's VBI may drop to below 100% or even fall further to below the shortfall limit. If this occurs, additional contributions may be required from the City of Melbourne in accordance with SPS 160.

9.2 Please also refer to the section entitled sensitivity analysis in Section 7 of this report.

### Technical Insolvency

9.3 As the MRBI is currently 154% as at 30 June 2014, there is a low risk that the COM plan could become Technically Insolvent in the short term.

### Investment Risk

9.4 The most significant risk facing the COM plan is that investment returns will not be as high as expected. There is also a risk a surplus could arise that could be difficult to utilize if not managed carefully. A change to the assumed investment return could also have an impact on contribution requirements in the short term, but would not be expected to impact the ultimate cost of funding benefits. This also applies for other assumptions.

9.5 The impact of variations in future experience is considered in Section 7.

9.6 The Trustee should continue to consider the liabilities and the funding position when determining the COM plan's investment strategy. Because the COM plan is currently in actuarial surplus and the City of Melbourne has indicated it would prefer a lower risk of future top-up contributions than a reduction in contribution rate, in Section 7 we have recommended that Vision Super consider whether a lower risk investment strategy is appropriate at this time. Because the actuarial surplus is significant, if Vision Super decides not to reduce the investment risk then it would be appropriate to consider reducing the City of Melbourne's contributions.

### Salary and Price Inflation Risk

9.7 Salary increases or price inflation exceeding expectations will have a negative impact on funding.

9.8 It is the excess of the investment return above the rates of salary and price inflation increases that is most important because the assets increase with the investment return and the liabilities with salary or price inflation.

## Liquidity Risk

- 9.9 In Section 4 liquidity risk is discussed. Also, Section 6.30 considered the potential impact on funding of having to liquidate investments at a discount.
- 9.10 A review of the cash flows and sensitivity of the liquidity position to adverse scenarios is completed for Vision Super periodically. We understand that the COM plan shares liquidity risk with the other defined benefit plans within the Fund. We understand that Vision Super considers the long term liquidity requirements in setting its strategic asset allocation and plans to reduce exposure to illiquid assets in the COM plan to zero in the long term given the maturity of the plan, which we believe continues to be appropriate.

## Retrenchments Risk

- 9.11 The retrenchment benefit is larger than the resignation benefit for many members. A significant number of retrenchments would have a negative impact on funding and liquidity.
- 9.12 The current funding plan includes top-up contributions by the City of Melbourne to manage this risk, although there could be a timing issue with additional contributions to fund the retrenchment benefits only being made after the retrenchments.
- 9.13 Furthermore, a large number of exits would temporarily reduce the funding position, if the VBI was to drop below 100%, until the additional contributions to fund the deficiency with respect to the exits are made.

## Legislation Risk

- 9.14 There is a risk that legislation changes could impact on funding. For example:
- (a) Changes to legislation may impact investment returns or other aspects of experience; and
  - (b) Changes to tax may impact funding.

## Other

- 9.15 Operational risks (e.g. unit pricing, segregation of defined benefit assets and administration) are not considered in this report.
- 9.16 There is a selection risk that members may take more expensive benefit options than expected.

- 
- 9.17 The retained members have an inflation indexed guaranteed minimum benefit. If investment markets produce materially negative returns the guarantee could apply for more members significantly increasing the funding cost for the City of Melbourne.
- 9.18 There is a risk that the City of Melbourne will not pay recommended contributions, however it should be noted that the City of Melbourne is a local government council that we understand has a contractual obligation to pay the contributions.
- 9.19 There are many other risks in respect of the funding of the COM plan but we have not included those that we do not consider to be currently material.

## Appendix A - SUMMARY OF BENEFITS AND CONDITIONS

The benefits are set out in the Fund's Trust Deed. The Fund has been governed by the Trust Deed originally dated 26 June 1998 on and from 1 July 1998. The Trust Deed has subsequently been amended numerous times. This report is based on a copy of the Trust Deed including amendments up to 1 July 2014.

### Membership

The City of Melbourne Plan was established in 1995 following the transfer of the City of Melbourne Superannuation Fund into Vision Super. The benefits are set out in the City of Melbourne Fund Trust Deed, and now incorporated in the Fund's Trust Deed in Division D. This plan is closed to new members.

### Contributions and Accrual Rate

Members are allowed to contribute at a rate between 0% and 9% of salary. The accrual of member's benefit multiple is dependent on member contribution rate, as follows:

Contribution Rate (%)	Accrual Rate Post 30 June 1993 (%)	Accrual Rate Pre 30 June 1993 (%)
0	7.7	9.00
1	9.50	11.00
2	11.25	13.00
3	13.00	15.00
4	14.75	17.00
5	16.50	19.00
6	18.25	21.00
7	20.00	23.00
8	21.75	25.00
9	23.50	27.00
6.5%*	19.00	22.00

\* Ex-officer only

### **Accrued Benefit Multiple (ABM)**

The sum of accrual rate for each year of membership in accordance with the table above.

### **Retirement Benefit**

The accrued retirement benefit calculated as Accrued Benefit Multiple x Final Average Pay (FAP).

### **Death Benefit**

The lump sum benefit is calculated as the sum of:

- (ii) ABM based on pre 30 June 1993 accrual rate x FAP; and
- (iii) 21% x Prospective Service to age 60 x FAP

### **Total and Permanent Disablement Benefit**

The lump sum benefit is calculated as the sum of:

- (i) ABM x FAP; and
- (ii) 21% x Prospective Service to age 60 x FAP

### **Retrenchment Benefit**

The accrued retirement benefit.

### **Resignation Benefit**

The lump sum benefit of either:

- (a) Immediate benefit equal to:
  - If member resigns before reaching age 50:
 
$$ABM_5 \times FAP + C_5$$
  - If member resigns between age 50 and 55:
 
$$\frac{[(ABM_5 \times FAP + C_5) \times (55 - \text{age}) + (ABM \times FAP) \times (\text{Age} - 50)]}{5}$$

Where

ABM5 – Accrued Benefit Multiple five years ago

C5 – contributions over the last five years plus credited investment returns

(b) Retained Benefit

Members can elect to retain their benefit within the fund and upon reaching age 55 members are entitled to the greater of the two benefits below:

- Resignation Benefit adjusted with investment earnings; or
- Accrued Retirement Benefit at the date of exit adjusted with CPI indexation

### **Salary Continuance Benefit**

On temporary disablement or illness, members may receive 70% of salary payable up to two years after a 90-day waiting period.

### **Superannuation Guarantee**

The benefits are subject to a superannuation guarantee minimum. Like all defined benefit members, the minimum is based on salary as defined in the Trust Deed. If Ordinary Time Earnings is higher than salary then top-up contributions are made to an accumulation account within the Fund and do not need to be considered from a funding perspective.

### **Other Benefits**

Other benefit provisions exist, including the ability to request a pension in specified circumstances.



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## Appendix B - SUMMARY OF VALUATION ASSUMPTIONS

### Financial Assumptions

- Investment returns (net of tax; expenses) 7.5% p.a.
- Salary inflation growth 4.25% p.a.
- CPI increases 2.75% p.a.
- Administration expenses 3.5% of salaries

## Other Assumptions

The table below illustrates the decrement rates for active members. The decrement rates represent the percentage of members leaving the plan each year by each cause.

Year of Age	Deaths %	Disabilities %	Resignations %	Retirements %
20	0.10	0.02	13.42	-
30	0.09	0.06	6.48	-
40	0.12	0.13	3.77	-
50	0.27	0.40	2.44	-
60	0.76	1.43	-	15.0
64	-	-	-	15.0

## Appendix C - ASSET ALLOCATION

Asset Class	Actual Asset Allocation	Strategic Asset Allocation
	30 June 2014	30 June 2014
	(%)	(%)
Australian Equity	25.1	25.0
International Equity	23.0	20.0
Private Equity	7.5	2.0
Infrastructure	10.4	9.0
Absolute Return Strategies	3.3	6.0
Direct Property	4.9	9.0
Opportunistic Investments	3.6	0.0
Multi-Asset	3.6	7.0
Floating Rate Debt	3.3	7.0
Fixed Interest	11.0	10.0
Cash	4.4	5.0
Total	100.0	100.0
Allocation to Illiquid Assets	28.9%	21.8%
Allocation to Growth Assets	73.8%	68.6%

## Appendix D - ACTUARIAL SURPLUS/(DEFICIT) AS AT 30 JUNE 2014

	(\$m)
Present Value of Active Member Liabilities	
• Retirement	51.5
• Death	2.6
• Disablement	1.7
• Resignation	<u>2.7</u>
Total	58.6
Less Surcharge and Family Law Balance	(0.6)
Plus Present Value of Future Expenses	2.4
Plus Allowance for Contribution Tax	0.8
Plus Allowance for Salary Continuance Cover	0.7
Plus Additional Retained Liability	<u>0.2</u>
Total Benefit Liability	62.0
Compared to:	
Net Assets	60.9
Plus Present Value of Member Contributions	3.4
Plus Present Value of Employer Contributions (13% of salaries)	<u>9.0</u>
Total Assets	73.4
Surplus/ (Deficit) as at 30 June 2014	11.4

## Appendix E - REQUIREMENTS UNDER PRUDENTIAL STANDARD SPS 160

### City of Melbourne Plan – Division D (COM Plan)

As the Actuary to the Fund, I hereby confirm that in my opinion:

- a) At 30 June 2014, the value of the assets of the COM plan, excluding the amount held to meet the Operational Risk Financial Requirement (ORFR), was \$60.9 million.
- b) The projected likely future financial position of the COM plan during the three years following the valuation date and based on my best estimate assumptions is as follows.

Date	Assets (\$m)	Vested Benefits (\$m)	Vested Benefits Index (%)
30 June 2014	60.9	54.4	112.1
30 June 2015	60.6	53.9	112.4
30 June 2016	60.3	52.4	115.1
30 June 2017	58.2	49.0	118.8

The projected financial position is shown only for the defined benefit members of the City of Melbourne plan.

- c) In my opinion, the value of the assets of the City of Melbourne plan at 30 June 2014, excluding the amount held to meet the ORFR, was adequate to meet the liabilities in respect of the accrued benefits of members of the sub-fund (measured as the value of members' accrued entitlements using the valuation assumptions). I consider that the assumptions and valuation methods set out in this report are appropriate for determining the accrued benefit liability.
- d) At 30 June 2014 the COM plan was in a satisfactory financial position, as defined in SPS 160. In my opinion the COM plan does not need to be treated as being in an unsatisfactory financial position. The shortfall limit does not need to be reviewed.
- e) At 30 June 2014 the value of the liabilities of the COM plan in respect of minimum benefits of the members of the sub-fund is \$39.6 million. Minimum benefits are as defined in Regulation 5.04 of the Superannuation Industry (Supervision) Regulations.
- f) Funding and Solvency Certificates for the Fund covering the period from 30 June 2013 to 30 June 2014 have been obtained. The Fund was solvent, as defined in the Superannuation Industry (Supervision)

Regulations, at 30 June 2014. In my opinion, I expect that the solvency of the Fund will be able to be certified in any other Funding and Solvency Certificate required under the Regulations during the three year period to 30 June 2017.

g) It is recommended that the Employers make contributions on the basis set out below for the period to 30 June 2017.

- Contributions equal to 13% of salary for employee members; plus
- Funding the top-up payments for exiting members equal to the following amount increased for contribution tax:

***Benefit Payment less (Vested Benefit x VBI)***

Top-up payments are to be calculated and invoiced quarterly in arrears. Top-up payments are required for all retrenchments (VBI capped at 100%), but for other exits only when the VBI is below 100%. Benefit payments exclude the amount of insurance proceeds.

- Any salary sacrifice contributions should be made in respect of members in accordance with the Trust Deed.



Matthew Burgess  
Fellow of the Institute of Actuaries of Australia



Gabrielle Baron  
Fellow of the Institute of Actuaries of Australia

10 December 2014

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