Local Government Superannuation Scheme

Actuarial Valuation as at 1 July 2015

3 December 2015

TOWERS WATSON

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Section 1: Purpose and Summary

The Local Government Superannuation Scheme (LGsuper or "the Scheme") provides benefits which are of the *"defined benefit"* type where benefits are defined by salary and period of membership. There are two defined benefit arrangements within the Scheme, both of which are closed to new members:

- Regional Defined Benefits Fund (Regional DBF)
- City Defined Benefits Fund (City DBF)

There are also a significant number of Accumulation members of the Accumulation Benefits Fund (ABF) within the Scheme. The ABF is open to new members. Additional accumulation benefits are also provided within the ABF for most Defined Benefit members.

A regular actuarial review of this Scheme is necessary to:

- examine the sufficiency of each DBF's assets in relation to members' accrued benefit entitlements
- determine the recommended employer contribution rate required to ensure that each DBF maintains a satisfactory financial position
- examine the suitability of the insurance and investment arrangements
- satisfy Clause 46 of the Trust Deed, and
- meet legislative and prudential standard requirements, in particular paragraph 23 of Prudential Standard 160 Defined Benefit Matters ("SPS160").

This report has been prepared for the Trustee, Queensland Local Government Superannuation Board, in my capacity as RSE Actuary to the Scheme. The effective date of this actuarial valuation is 1 July 2015.

This report has been prepared in accordance with Professional Standard 400 issued by the Institute of Actuaries of Australia dated July 2015. The previous valuation was conducted by John Smith of Heron Partnership as at 1 July 2012 with the results set out in a report dated 21 March 2013.

Reliance statement and data

This report is provided subject to the terms set out herein and in our engagement letter dated 8 June 2011 and the accompanying Terms and Conditions of Engagement. This report is provided solely for the Trustee's use and for the specific purposes indicated above. It may not be suitable for use in any other context or for any other purpose.

Except where we expressly agree in writing, this report should not be disclosed or provided to any third party, other than as provided below. In the absence of such consent and an express assumption of responsibility, no responsibility whatsoever is accepted by us for any consequences arising from any third party relying on this report or any advice relating to its contents.

The Trustee may make a copy of this report available to its auditors, to employers who contribute to the Scheme and to any person to whom the Trustee may be required to provide a copy under relevant legislation, but we make no representation as to the suitability of this report for any purpose other than that for which it was originally provided and accept no responsibility or liability to the Trustee's auditors or the participating employers or any other parties in this regard. The Trustee should draw attention to the provisions of this paragraph when passing this report to these or any other parties.

In preparing this valuation, we have relied upon information and data provided to us orally and in writing by the Trustee and other persons or organisations designated by the Trustee. We have relied on all the data and information provided, including Scheme provisions, membership data and asset information, as being complete and accurate. We have not independently verified the accuracy or completeness of the data or information provided, but we have performed limited checks for consistency. The data and information we have relied upon is shown in Section 2.

In our opinion, all calculations are in accordance with requirements of applicable legislative requirements, and the procedures followed and the results presented conform to applicable actuarial standards of practice.

Employer Contributions

In the absence of any special circumstances, we recommend that each employer continues to contribute at the following rates for the three year period commencing 1 July 2015:

- **Regional DBF**
  - 12.0% of salaries for members contributing at 6% of salary.
  - 11.0% of salaries for members contributing at 5% of salary.
  - Additional contributions to the ABF for Regional DBF members of 9.5% of the excess of Ordinary Time Earnings over the Regional DBF salary.
- **City DBF** – 14.0% of salaries (inclusive of 3% Occupational Account contribution)

The further steps outlined on page 6 will also have a bearing on the future levels of employer contribution required to each DBF.

The funding position of each DBF, and in particular the coverage of vested benefits by assets within each DBF, should continue to be monitored quarterly and each year at 1 July and more frequently if required. Additional supplementary contributions may be required should the funding position become unsatisfactory.

Funding Status Measures

Vested Benefits

Vested benefits are the benefits payable if all members voluntarily resigned from service. As at the valuation date, the ratio of the net assets to vested benefits within each DBF is as follows:

- **Regional DBF** – 111.9%
- **City DBF** – 119.9%

As at the valuation date, the net assets of the ABF are sufficient to cover the vested benefits of ABF members, which consists of their account balances.

The Scheme is in a *"satisfactory financial position"* if the net realisable value of the assets of the Scheme exceeds the vested benefits. At the valuation date of 1 July 2015, the net assets of the Scheme exceeded the vested benefits and the Scheme was in a satisfactory financial position. Each DBF was also in a satisfactory financial position as at the valuation date.

Assuming in respect of Regional DBF:

a. the benefits described in the Trust Deed remain unchanged,

b. employer contributions are paid at the recommended rate and

c. the future experience is in accordance with the assumptions made in this actuarial valuation

then the net assets of should remain in excess of the corresponding vested benefits of the Regional DBF up to 1 July 2018.

Assuming in respect of City DBF:

a. the benefits described in the Trust Deed remain unchanged,

b. employer contributions are paid at the recommended rate and

c. the future experience is in accordance with the assumptions made in this actuarial valuation

then the net assets of should remain in excess of the corresponding vested benefits of the City DBF up to 1 July 2018.

Similarly it is expected that investment returns will be credited to account balances of members within the ABF so that the assets of the ABF are sufficient to cover total account balances.

On this basis, the financial position of each DBF and the Scheme as a whole is expected to remain satisfactory.

Present Value of Accrued Benefits

The present value of accrued benefits is the actuarial value (using the assumptions and methodology detailed in this report) of the expected future benefits payable from the Scheme to the current members and their dependents in respect of Scheme membership completed up to the date of the actuarial investigation.

As at the valuation date, the ratio of the net assets to the present value of accrued benefits within each DBF is as follows:

- **Regional DBF** – 112.9%
- **City DBF** – 128.3%

The net assets of the Regional DBF are adequate to cover the present value of the accrued benefits of Regional DBF members at the valuation date.

The net assets of the City DBF are adequate to cover the present value of the accrued benefits of City DBF members at the valuation date.

Minimum Benefits

Minimum Requisite Benefits (MRB) include member-financed benefits and the portion of the employer-financed benefit that is defined to meet Superannuation Guarantee requirements as specified in the Scheme's Benefit Certificate.

As at the valuation date, the ratio of the net assets to the MRB within each DBF is as follows:

- **Regional DBF** – 117.7%
- **City DBF** – 140.5%

As at the valuation date, the assets of the ABF are sufficient to cover the MRBs of ABF members.

The Scheme is *"solvent"* if the net realisable value of the assets of the Scheme exceeds the MRBs. As at the valuation date the net assets of the Scheme exceeded the MRBs and the Scheme was in a solvent financial position. Each DBF was also solvent as at the valuation date.

Shortfall Limit

As required under SPS 160, the Trustee has set Shortfall Limits for each DBF which are as follows:

- **Regional DBF** – 98.0%
- **City DBF** – 98.0%

We have reviewed each of these Shortfall Limits as part of this actuarial investigation and consider that they both remain appropriate.

Defined Benefit Pensions

The City DBF pays defined benefit pensions to 3 lifetime pensioners with a further 7 contingent pensions which may become payable. Having regard to the financial position of the City DBF and the reserve set aside to pay these pensions, I consider there is a high probability that the Scheme will be able to pay the pensions as required under the Scheme's governing rules.

Superannuation Guarantee

Superannuation Guarantee obligations of employers are met for members by the minimum benefits provided under the Scheme. The required Benefit Certificate is dated 1 September 2014.

A Funding and Solvency Certificate dated 1 September 2014 has been issued to the Trustee corresponding to the above mentioned Benefit Certificate. The purpose of this certificate is to specify the required Company contributions needed to fund the MRBs used to offset the Superannuation Guarantee charge. All necessary funding and solvency certificates have been issued to the Trustee during the three years to 1 July 2015.

Based on the actuarial assumptions adopted in this valuation being borne out in practice, we expect that an actuary will be able to certify the solvency of the Scheme and each DBF in any Funding and Solvency Certificate required during the three-year period following the valuation date.

Investments

The current investment policy adopted by the Trustee is to have the assets supporting the Scheme's defined benefit liabilities invested 62.8% in return seeking assets such as shares and property and 37.2% in risk controlling assets such as cash and bonds.

The current investment policy is considered suitable to the defined benefit liabilities of Regional DBF and City DBF based on membership at 1 July 2015. While the current investment strategy is within a range of investment strategies considered suitable, it should be reviewed regularly (at least triennially) by the Trustee in the light of changes in membership and age profile. We will be considering this in more detail with the Trustee based on the Asset Liability Modelling study being undertaken at the completion of this valuation.

As part of the Asset Liability Modelling study, the Trustee may wish to consider whether a separate investment strategy is warranted in respect of the lifetime and contingent pension liabilities of City DBF which are valued at $1.0 million at the valuation date.

The Trustee regularly monitors the investment managers' performance and we recommend that this continues.

Insurance

In relation to Regional DBF, the total amount of insurance held to provide the unfunded portion of death and total and permanent disablement benefits and the fully insured temporary disablement benefit is considered adequate as at 1 July 2015.

In relation to City DBF, the total amount of insurance held to provide the unfunded portion of death and total and permanent disablement benefits is considered adequate as at 1 July 2015.

Further steps – Regional DBF

The financial position of the Regional DBF has strengthened over the valuation period with the coverage of vested benefits increasing from 103.5% at the last valuation to 111.9% at this valuation.

The relatively strong investment returns over the valuation period have also resulted in accumulation benefits rising relative to the defined benefits they are compared against when determining vested benefits. This relationship can change depending on the prevailing investment returns and the investment strategy adopted. The Trustee will consider an Asset Liability Modelling study we will be conducting during 2016 which will examine this inter-relationship in further detail for a range of investment strategies.

While there is scope to increase the employer contribution rate to the Regional DBF if a period of low investment returns were to occur in future, this has not occurred to date, with the financial position during those periods being managed by the Trustee through the setting of the Accumulation Comparison Rate applied to some accumulation accounts. If the current financial position continues into 2016, we recommend that the Trustee review the operation of the Accumulation Comparison Rate (including the smoothing policy, the past history of how returns have been released and how this should operate in future) and that this be considered also having regard to the Asset Liability Modelling study.

Further steps – City DBF

The financial position of the City DBF has strengthened over the valuation period with the coverage of vested benefits increasing from 102.6% at the last valuation to 119.9% at this valuation.

The Asset Liability Modelling study being conducted in 2016 will consider the underlying investment strategy for the assets supporting City DBF's defined benefits and the interaction between short-term volatility of investment returns and longer-term funding.

The Trustee may also wish to consider if a separate investment strategy is warranted for the City DBF's lifetime and contingent pension liabilities. I also recommend that the Trustee review the smoothing policy applied to determine the crediting rates applied to some additional accumulation benefits held within City DBF.

In periods of low investment returns in the past, the employer has made additional contributions to support the financial position of the City DBF. If the current financial position which is relatively strong continues into 2016, we suggest that the Trustee consider whether it is possible to reduce the employer contributions required for a limited period of time and that this be considered also having regard to the Asset Liability Modelling study.

Next Valuation

The next valuation should be held no later than 1 July 2018. Vested Benefits coverage within each DBF and for the Scheme in total should continue to be monitored at least annually and more frequently if warranted.

John Burnett
Fellow of the Institute of Actuaries of Australia

3 December 2015

Review:

Towers Watson Australia Pty Ltd
Level 14, 60 Margaret Street
Sydney NSW 2000
Australia

T +61 2 9253 3333
F +61 2 9253 3199

Towers Watson Australia Pty Ltd
ABN 45 002 415 349 AFSL 229921

http://aptct.internal.towerswatson.com/clients/650525/BENAUSLG15/Documents/04.01_Actl_Valn/Deliverables/Actuarial Report FINAL Dec 2015.doc

Section 2: Background and Data

The Scheme was initially established under a Trust Deed first made in 1995 as amended subsequently. On 1 July 2011, the City Super Fund merged with LGsuper.

The Scheme is a regulated complying superannuation fund under the SIS Act and for taxation purposes.

A summary of the main benefits of Regional DBF and City DBF which are the two defined benefit sections of LGsuper is included as Appendix A to this report.

Previous Recommendations

The previous valuation was conducted by John Smith of Heron Partnership as at 1 July 2012 with the results set out in a report dated 21 March 2013. Employer contributions paid to each DBF over the three year period ending 1 July 2015 have been in line with the recommendations made at the previous valuation, as follows:

- Regional DBF
  - 12% of salaries for members contributing at 6% of salaries, and
  - 11% of salaries for members contributing at 5% of salaries, and
  - Additional contributions to the ABF for Regional DBF members of 9.0% of the excess of Ordinary Time Earnings over the Regional DBF salary. The 9.0% rate has increased to 9.5% over the valuation period as outlined below.
- City DBF – 14.0% of salaries (inclusive of 3% Occupational Account contribution)

As City DBF includes some lifetime pension liabilities, an annual actuarial valuation of the Scheme would normally be required. However APRA has provided the Trustee with an exemption from this requirement dated 24 December 2013 which allows a triennial actuarial valuation to be conducted in the normal course of events. This valuation is being conducted as at 1 July 2015 on this basis.

Changes to benefits since the last valuation of the Scheme

- The Superannuation Guarantee (SG) rate increased from 9.0% to 9.25% from 1 July 2013 and then to 9.5% from 1 July 2014. The rate is set to increase further to 12.0% in 0.5% annual steps over the period 1 July 2021 to 1 July 2025. Minimum benefits have been adjusted to reflect the SG increases over the valuation period.
- From 1 July 2015 onwards for Regional DBF members, insurance costs are being deducted from the MRB account and the equivalent account which receives the Accumulation Comparison Rate applying prior to age 55.

Sources of Information

We have relied on the administrative records at 1 July 2015, as currently stored on LGsuper's administration system.

We have relied on the audited accounts from Pricewaterhouse Coopers for the three years ending 1 July 2015 together with information set out in the Scheme's annual report in each of these years. We have also relied on investment information from the Scheme's custodian.

Where possible the information provided has been checked for reasonableness and is considered suitable for the purposes of this investigation.

Data

The membership details are summarised in Appendix B. In brief the membership as at 1 July 2015 was as follows:

- Regional DBF – there were 2,837 Defined Benefit members with total salaries of $203.6m
- City DBF – there were 199 Defined Benefit members under age 70 with total salaries of $13.8m, 3 crystallised DB members over age 70, 3 lifetime pension members and 7 contingent pension members.

In total there were 3,049 members as at 1 July 2015, of which 3,036 were active Defined Benefit members with total salaries of $217.4m.

We have checked a sample of the membership data for internal consistency and are satisfied as to the accuracy of this sample.

Since the previous valuation, the average attained age of Regional DBF members has increased from 55.7 years to 56.4 years.

Since the previous valuation, the average attained age of City DBF members has increased from 53.7 years to 54.4 years.

All members of the Regional DBF and City DBF at the current valuation date were present at the previous valuation. Salaries over the period since the last valuation have increased on average by 3.7% p.a. for Regional DBF members and 2.2% p.a. for City DBF members

Section 3: Assets and Investment Strategy

Accounts

We have been supplied with accounts covering the twelve month periods to 1 July 2013, 1 July 2014 and 1 July 2015. These accounts have been combined to produce the consolidated accounting statement for the period 1 July 2012 to 1 July 2015 shown in Appendix C to this report for each DBF.

Market Value of Net Assets

The net market value of the Scheme's total assets at 1 July 2015 is summarised below.

	$'000
Total Investments	9,396,126
Current Assets	95,457
Current Liabilities	314,854
Market Value of Net Assets	**9,176,729**

This can be broken down into the Accumulation Benefits Fund, Regional DBF, City DBF and related reserves as follows:

	$'000
ABF account balances	7,905,650
Regional DBF assets	1,119,951
City DBF assets	93,952
General Reserve	31,318
ABF Operational Risk Reserve (ORR)	22,223
Regional DBF ORR	3,353
City DBF ORR	282
Market Value of Net Assets	**9,176,729**

We have adopted the net market value of $1,119.951 million for Regional DBF and $93.952 million for City DBF in determining the contribution recommendations and Funding Status Measures at the valuation date.

The Trustee maintains operational risk financial reserves as shown in the table above. The target ORR for both Regional DBF and City DBF is 30 basis points. The actual ORRs at 1 July 2015 are in line with these targets.

Accumulation benefits – Member Investment Choice

Members can choose from an extensive range of investment options in which to invest their accumulation accounts. The investment options are unitised and distribute investment returns to members through daily interest rates which are also subject to monthly and annual reconciliation measures.

Suitability of Crediting Rate and Investment Reserving Policy in ABF

The Trustee credits members' accumulation accounts held in the ABF with actual investment returns (net of fees and taxes) from the underlying assets. I consider this crediting rate policy to be suitable.

At the previous valuation in 2012, the ABF held a smoothing reserve in respect of one investment option Diversified Growth plus Reserves. This investment option is no longer offered with the smoothing reserve having been fully allocated by 30 June 2013.

Defined Benefit Liabilities in general

The level of the Defined Benefit liabilities does not bear the same direct relationship with the defined benefit assets as exists with accumulation liabilities (where the assets and liabilities are generally matched).

The Defined Benefit liabilities reflect membership and salary growth, whereas the supporting assets depend on a range of factors including:

i. the level of employer contributions, and

ii. the level of investment returns.

In this case it is the employers who bears the investment risk as the level of contributions required depends on the level of investment returns achieved.

An investment strategy to provide defined benefits which is framed to take a long-term view will often adopt relatively high levels of equity investment in order:

i. to secure attractive long term investment returns, and

ii. to provide an opportunity for capital appreciation and dividend growth, which gives some protection against inflation (as benefits are linked to Salary growth which is also influenced by inflation).

The main constraint is that potential fluctuations in asset values mean the total asset value could fall below the level of Vested Benefits, placing the DBF concerned and possibly the Scheme in an unsatisfactory financial position.

While the impact of a sudden sharp fall in asset values can be limited by maintaining a buffer of assets over and above the level of vested benefits, the level of the buffer may never be sufficiently high to safeguard against all possible investment outcomes. However, the buffer should be at a level where the risk of the asset values falling below the level of vested benefits under a particular investment strategy is acceptable to the Trustee and the sponsoring employers.

In this regard, a lower buffer may be acceptable where the sponsoring employers are willing and able to accept short-term variations in contributions as part of underwriting the defined benefits of the DBF they participate in. In this case, short-term variations in employer contributions may result from:

i. reducing a buffer that has grown too large, or

ii. rebuilding a buffer that has fallen or become negative.

An alternative to consider if a DBF does not have a sufficient asset buffer above the level of Vested Benefits is to adopt a more conservative investment strategy. While this may reduce short-term fluctuations in asset values, it is also likely to reduce long-term returns and hence result in increased employer contributions in the long-term. In summary, a balance needs to be achieved between these short-term and long-term considerations in funding the defined benefit liabilities.

We will prepare a separate Asset Liability Modelling report for the Trustee following this valuation which considers this further.

Regional DBF liabilities

The Regional DBF provides 'greater of' benefits where the defined benefit is compared to one or more accumulation benefits and the higher amount is the benefit payable.

As the level of the accumulation benefit depends on the investment strategy adopted, this affects how the defined benefit and accumulation benefit correspond to each other and so is an important consideration when reviewing the investment strategy adopted under such a design. We will address this further in the Asset Liability Modelling report.

City DBF liabilities

The City DBF provides defined benefits which are not compared to one or more accumulation benefits and so the same considerations do not apply as outlined for Regional DBF.

Defined Benefits – Investment Objective for Regional and City DBFs

The Trustee's principal investment objective for both Regional DBF and City DBF is to achieve returns in excess of salary inflation plus 1.5% p.a. over rolling 3 year periods.

We have taken account of the investment objectives of the Scheme and the investment guidelines under which the Scheme's investment managers operate in setting our actuarial assumptions in Section 4 of this report.

Investment Strategy for Regional and City DBFs

In order to meet the investment objectives set for the Regional and City DBFs, the Trustee has adopted a specific long term strategic allocation and ranges for each asset class as shown in the table below. The strategic asset allocation and ranges shown below were set out in the Annual Report as effective at 1 July 2015.

Asset Class	Strategic Asset Allocation %	Range %	Actual Allocation as at 1 July 2015 %
Australian shares	15.1	7.6 to 22.6	15.7
International shares	15.1	7.6 to 22.6	18.1
Property	15.0	7.5 to 22.5	12.5
Infrastructure	5.3	0.0 to 12.8	4.1
Other	12.3	4.8 to 19.8	10.5
Commodities	0.0	0.0 to 7.5	0.0
Return-seeking assets	**62.8**	**55.3 to 70.3**	**60.9**
Fixed Interest	37.2	29.7 to 44.7	36.2
Cash	0.0	0.0 to 5.0	2.9
Risk-controlling assets	**37.2**	**29.7 to 44.7**	**39.1**
Total	**100.0**		**100.0**

Suitability of Investment Strategy for Regional and City DBFs

At the valuation date of 1 July 2015, the average age of the employed members with defined benefits is 56.4 years within Regional DBF and 54.4 years within City DBF, indicating that a medium-term time horizon should still apply for investment purposes.

Given the age profile and the number of members expected to retire over the next three years as outlined in Appendix B, it is expected that benefit outgo will exceed contribution inflow to each DBF. Within the broader Scheme, the cash-flow to the ABF is likely to be positive over most periods and the Trustee is able to take this into account when considering how the liquidity needs of each DBF will be met.

The current investment strategy is still considered suitable but should be reviewed regularly (at least triennially) by the Trustee in the light of changes in membership and age profile. As mentioned earlier, we will be considering this in more detail with the Trustee based on the Asset Liability Modelling study being undertaken at the completion of this valuation.

It is also important that the Trustee regularly monitors the investment managers' performance and it is recommended that this continues.

Suitability of crediting rates adopted in Regional DBF

The crediting rate applied to the Minimum SG accumulation benefit outlined in Appendix A is based on the actual investment returns (net of fees and taxes) from the underlying assets. I consider this crediting rate policy to be suitable.

The crediting rate known as the Accumulation Comparison Rate applied to other accumulation benefits held within the Regional DBF is subject to smoothing. The Trustee also has regard to the financial position of the DBF when setting this rate. While I consider this crediting rate policy is also suitable, I recommend that the Trustee conduct a review of the smoothing approach to confirm it is still warranted. When conducting this review, I recommend the Trustee also consider the past history of how returns have been released under the Accumulation Comparison Rate and how this should operate in the future.

Suitability of crediting rate adopted in City DBF

The crediting rate applied to some additional accounts of members held within the City DBF is subject to smoothing using a 3 year average. I recommend that the Trustee conduct a review of the smoothing approach to confirm it is still warranted.

Considerations relating to Lifetime Pensions in City DBF

The City DBF pays lifetime pensions to 3 lifetime pensioners and there are also 7 contingent lifetime pensions which may become payable. The liability relating to the pensioners and contingent pensioners is valued at $1.0 million as at 1 July 2015.

The assets supporting this liability are invested in the same way as the other defined benefits of the City DBF which has a strategic asset allocation to return-seeking assets such as shares and property of 62.8% with the remainder invested in bonds and cash.

The City DBF has sufficient liquidity to make pension payments from regular cash-flows or the ready sale of the DBF's assets from time to time. It is also in a relatively strong financial position as at 1 July 2015. On this basis, I consider the assets held by the City DBF to be suitable for meeting the future expected benefit payments for the pension members of the DBF at the present time.

However, as part of the Asset Liability Modelling study we will be conducting for the Trustee at the completion of this valuation, the Trustee may wish to consider whether a separate investment strategy is warranted in respect of these pension liabilities.

Section 4: Valuation Method, DBF Experience and Actuarial Assumptions

To carry out an actuarial valuation of the defined benefit liabilities of each DBF, it is necessary to decide on:

- the valuation method to be adopted, and
- the assumptions as to the factors which will affect the cost of the benefits to be provided in the future.

4.1 Attained Age funding method

The previous valuation focussed on the funding of vested benefits over the coming years.

We have looked at each DBF separately and considered both the funding of vested benefits and the Attained Age funding method at this valuation.

Under the Attained Age funding method, the calculation of the employer contribution consists of two parts.

The **first part** is the "normal cost". The total normal cost is expressed as a level % of expected future salaries and is equal to the sum of:

- the cost based on actuarial assumptions of the benefits accruing to the members in respect of all future membership following the valuation date, plus
- the cost of employer funded insurance premiums and administration expenses as well as resulting cost of contributions tax.

The **second part** is the adjustment to the employer contribution as a result of amortising any surplus or deficiency at the valuation date arising from the funding of past service benefits.

The contribution rate required to maintain vested benefits coverage above 100% in three years' time based on the valuation assumptions is also considered.

4.2 Regional DBF - Experience and Valuation Assumptions

It is important when setting the valuation assumptions to examine the experience of the Regional DBF to see whether the previous assumptions have been borne out in practice. A summary of the major items of experience over the last three years is given in the following paragraphs.

Further details on the valuation assumptions adopted for Regional DBF are set out in Appendix D.

Investment Return

The assumption for investment returns at the last valuation was 7% p.a. (net of administration and investment fees and investment tax). The Regional DBF's investment returns over the three years to 1 July 2015 (net of investment fees and tax) have been as follows:

Year Ending 30 June	Investment Return
2013	10.29%
2014	10.07%
2015	7.01%
Average over the 3 years	9.11% p.a.

After adjusting for administration fees, the average return over 3 years is 8.90% p.a.

The average investment return was 1.9% p.a. higher than the assumed rate. This has had a positive effect on the Regional DBF's financial position.

For this valuation, we have adopted a lower long term future investment return equal to 5.5% p.a. (net of administration and investment fees and investment tax). This assumption is consistent with the Trustee's current investment strategy having regard to expected returns in the medium-term under Towers Watson's investment model.

Salary Inflation

The assumed rate of salary inflation was 5.5% p.a. at the last valuation. The average rate of salary growth for members who were present at both the last and current valuation dates was 3.7% p.a. The actual increase in salary growth was 1.8% p.a. lower than the assumed rate. This has reduced the growth in accrued liabilities of the Regional DBF, which has had a positive effect on the Regional DBF's financial position.

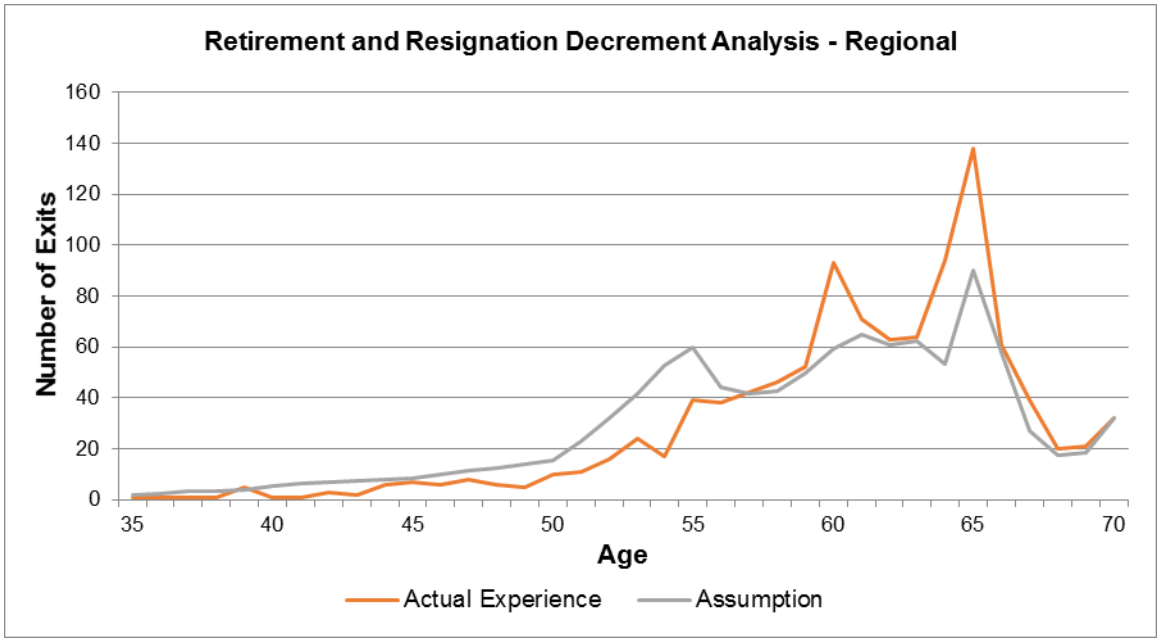
At this valuation we have adopted a revised assumption of 4% p.a. for salary inflation.

Over the long term, it is the "gap" between the investment return (net of tax) and salary inflation assumption that is important when valuing member's liabilities. In this valuation we have maintained the "gap" of 1.5% p.a. used in the previous valuation. Over the review period the actual "gap" was 5.2% p.a. which has had a significant positive impact on the financial position of the Regional DBF.

Rates at which Members Leave Service and Retire

We have analysed the rates at which members resign and retire from the Regional DBF and compared the actual experience to that expected based on the previous valuation assumptions. A summary of the comparison is set out in the table and graph below:

Cause of exit	Actual number of exits	Expected number of exits
Retirement and Resignation	1,045	1,053



While there is some variation between assumed and actual exits at some ages, this is not considered sufficient to vary the assumptions in my view. We have maintained the same assumptions used at the previous valuation.

4.3 City DBF - Experience and Valuation Assumptions

It is important when setting the valuation assumptions to examine the experience of the City DBF to see whether the previous assumptions have been borne out in practice. A summary of the major items of experience over the last three years is given in the following paragraphs.

Further details on the valuation assumptions adopted for City DBF are set out in Appendix D.

Investment Return

The assumption for investment returns at the last valuation was 7% p.a. (net of administration and investment fees and investment tax). The City DBF's investment returns over the three years to 1 July 2015 (net of investment fees and tax) have been as follows:

Year Ending 30 June	Investment Return
2013	10.84%
2014	10.07%
2015	7.01%
Average over the 3 years	9.29% p.a.

After adjusting for administration fees, the average return over 3 years is 9.08% p.a. The average investment return was 2.08% p.a. higher than the assumed rate. This has had a positive effect on the financial position of the City DBF.

For this valuation, we have adopted a lower long term future investment return equal to 5.5% p.a. (net of administration and investment fees and investment tax). This assumption is consistent with the Trustee's current investment strategy having regard to expected returns in the medium-term under Towers Watson's investment model.

Salary Inflation

The assumed rate of salary inflation was 5.5% p.a. at the last valuation. The average rate of salary growth for members who were present at both the last and current valuation dates was 2.2% p.a. The actual increase in salary growth is 3.3% p.a. lower than the assumed rate, which has had a positive effect on the City DBF's financial position.

At this valuation we have adopted a revised assumption of 4% p.a. for salary inflation.

Over the long term, it is the "gap" between the investment return (net of tax) and salary inflation assumption that is important when valuing member's liabilities. In this valuation we have maintained the "gap" of 1.5% p.a. used in the previous valuation. Over the review period the actual "gap" was 6.9% p.a. which has had a significant positive impact on the financial position of the City DBF.

Pensioner Mortality

For this valuation, we have assumed that the mortality relating to lifetime and contingent pensions is in line with Australian Life Tables 2010-2012, the most recently available Australian life tables, including 25 year improving mortality factors.

Pension increases

There are three different categories of lifetime pensioners with different indexation provisions as detailed in Appendix A. Pensions that are indexed in line with CPI have increased since the last valuation as follows:

Year Ending 30 June	CPI Pension Increases
2013	2.0%
2014	3.2%
2015	1.5%
Average over the 3 years	2.2%

We have assumed future indexation of pensions indexed in line with CPI to be at 2.5% p.a. which is in line with our long term inflation assumption at the valuation date.

Over the long term, it is the "gap" between the investment return and pension increase assumptions which is important when valuing the pension liabilities. For this valuation, we have adopted an investment return assumption of 6% p.a. (gross of tax, net of fees) on pension assets, resulting in an assumed a "gap" of 3.5% p.a. for CPI-indexed pensions.

Rates at which Members Leave Service and Retire

We have retained the assumptions used at the previous valuation. Statistically significant results based on actual experience are not available from this smaller membership.

4.4 Summary of Valuation Assumptions

A summary of our valuation assumptions is set out in Appendix D of this report.

Section 5: Insurance Arrangements

Adequacy of Insurance

The insurance coverage is considered adequate if the net assets are sufficient to cover the Death and Total and Permanent Disablement (TPD) benefits of the Scheme after any insured components have been allowed for.

The current level of insurance in respect of Defined Benefit members is calculated as:

Insured Benefit = Death and TPD Benefit less Vested Benefit

The following table shows the adequacy of the insurance cover within each DBF at 30 June 2015:

	Regional DBF	City DBF	
	Death and TPD $M	Death $M	TPD $M
Lump Sum Death and TPD Benefits (A)	1,170.3	108.6	102.3
Less Aggregate Group Life Insurance (B)	169.5	31.3	25.0
Exposure (A – B)	1,000.8	77.3	77.3
Net Assets (excluding assets in respect of Pensioners)	1,120.0	92.9	92.9

For each DBF as at 30 June 2015, the net assets are sufficient to meet the uninsured portion of the death and TPD benefits. The temporary disablement benefit provided by Regional DBF is also insured under an insurance policy.

On this basis the insurance coverage under both DBFs is considered to be adequate at the valuation date.

Section 6: Solvency and Funding Status Measures

There are several methods used to assess the current financial situation (i.e. funding status measures) of the Scheme. These measures are dealt with below.

6.1 Regional DBF

Vested Benefits

Under SPS 160, a fund (or a section of a fund) is in a *"satisfactory"* financial position if the assets cover the corresponding Vested Benefit entitlements of members.

The Vested Benefits represent the benefits payable on the review date if all members voluntarily resigned (if under 55) or retired (if over 55). The following table shows the progression of the Vested Benefits Index for the Regional DBF over the review period.

	Last Valuation $M	This Valuation $M
Net Assets (a)	1,102.3	1,120.0
Vested Benefits* (b)	1,064.4	1,000.8
Vested Benefits Index (a)/(b)	103.5%	111.9%

* Vested benefits have been reduced by offset accounts in the table above

As at 1 July 2015, the net assets exceeded the Vested Benefits and so the Regional DBF was in a satisfactory financial position. The ratio of the net assets to the Vested Benefits was 111.9%. At the previous valuation, this ratio was 103.5%. The ratio has improved mainly due to the favourable financial experience over the three year valuation period, with investment returns being greater than expected and salary increases being less than expected as outlined in Section 4.

The Vested Benefit for each member is the highest amount when comparing a defined benefit amount with two accumulation benefits. As at 1 July 2015, the highest benefit applying in determining Vested Benefits was as follows:

- Defined Benefit – 35.1% of total Vested Benefits
- Accumulation based on Accumulation Comparison Rate – 14.2% of total Vested Benefits
- Minimum SG accumulation benefit – 50.7% of total Vested Benefits

Actuarial Value of Accrued Benefits

Another indication of the funding status is given by the ratio of the net assets to the Actuarial Value of Accrued Benefits (AVAB). This is called the Actuarial Value of Accrued Benefits Index (AVABI).

AVAB represents the value in today's dollars of future benefits based on membership completed to the review date, allowing for future salary increases, investment earnings and expected incidence of payment. *"Accrued Benefits"* has the meaning given in Regulation 9.27 of the SIS Regulations.

Different superannuation funds can be expected to have different Actuarial Value of Accrued Benefits Ratios depending on the age and employment history of the members. A fully secured position is represented by a ratio of 100.0%. At this level, with the DBF being closed to new entrants and if no further benefits were allowed to accrue to current members, assets would be sufficient to meet all future benefit payments if the actuarial assumptions are borne out in practice.

The following table shows the progression of the Actuarial Value of Accrued Benefits Index over the review period.

	Last Valuation $M	This Valuation $M
Net Assets (a)	1,102.3	1,120.0
Actuarial Value of Accrued Benefits* (b)	1,064.4	991.9
Actuarial Value of Accrued Benefits Index (a)/(b)	103.5%	112.9%

* Actuarial Value of Accrued Benefits have been reduced by offset accounts in the table above

As at 1 July 2015, the net assets exceeded the Actuarial Value of Accrued Benefits. AVABI has increased from 103.5% to 112.9% over the valuation period and this can be mainly attributed to the favourable financial experience over this period as outlined in Section 4. If the Actuarial Value of Accrued Benefits was subject to a minimum of the Vested Benefit for each individual member, the AVABI would reduce from 112.9% to 111.2% at 1 July 2015. AVABI was calculated as equal to Vested Benefits at 1 July 2012.

Minimum Benefits

Under SPS 160, a fund (or section of a fund) is *"solvent"* if the net assets exceed the Minimum Requisite Benefits (MRB) of members, where the MRB is the portion of the benefit meeting the Superannuation Guarantee obligations as defined in the Scheme's Benefit Certificate.

The following table shows the progression of the Minimum Benefits Index for the Regional DBF over the review period.

	Last Valuation $M	This Valuation $M
Net Assets (a)	1,102.3	1,120.0
Minimum Benefits (b)	958.5*	951.5
Minimum Benefits Index (a)/(b)	115%	117.7%

* This dollar amount has been calculated based on the Minimum Benefit Index shown in the last valuation.

As at 1 July 2015, the net assets exceeded the Minimum Benefits and so the Regional DBF was "solvent". The Minimum Benefits Index has increased from 115% to 117.7% over the valuation period.

Shortfall Limit

The Trustee has set the Shortfall Limit for the Regional DBF as 98.0%. The 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 to temporary negative market fluctuations in the value of fund assets, the fund can be restored to a satisfactory financial position within one year."

Should the Vested Benefits Index breach the Shortfall Limit, additional interim Actuarial investigations will be required with rectification plans to be put in place to address the unsatisfactory financial position.

We consider the current Shortfall Limit continues to be appropriate given the nature of the assets and liabilities of the Regional DBF.

Benefits payable on Retrenchment

A specific retrenchment benefit is not defined in the Trust Deed for Regional DBF members. The benefit payable on retrenchment is the member's Vested Benefit. Members' Vested Benefits are 111.9% covered by net assets at the valuation date.

Benefits payable on Termination of the Scheme

The Trust Deed does not address the termination of either Regional DBF or the Scheme as a whole.

6.2 City DBF

Vested Benefits

Under SPS 160, a fund (or a section of a fund) is in a *"satisfactory"* financial position if the assets cover the corresponding Vested Benefit entitlements of members.

The Vested Benefits represent the benefits payable on the review date if all members voluntarily resigned (if under 55) or retired (if over 55) and the value of the pension benefits (if applicable) for members who have already left service. Where the member is entitled to a defined benefit pension or a deferred benefit or to exercise an option, then the value of that benefit or option has been determined using the assumptions adopted for this valuation.

The following table shows the progression of the Vested Benefits Index for the City DBF over the review period.

	Last Valuation $M	This Valuation $M
Net Assets (a)	88.7	93.9
Vested Benefits DB members under age 70 (b)	87.1	76.8
Vested Benefits for crystallised DB members over age 70 (c)	0.2	0.5
Vested Benefits for Lifetime and Contingent Pensioners (d)	1.2	1.0
Vested Benefits Index (a)/ [(b)+(c)+(d)]	102.6%	119.9%

As at 1 July 2015, the net assets exceeded the Vested Benefits and so the City DBF was in a satisfactory financial position. The ratio of the net assets to the vested benefits was 119.9%. At the previous valuation, this ratio was 102.6%. The ratio has improved due mainly to the favourable financial experience over the valuation period as outlined in Section 4.

As at 1 July 2015, there are accumulation accounts amounting to $14.9 million which receive smoothed crediting rates which are part of the Vested Benefits shown in the table above.

If the Trustee were to purchase commercial annuities to support the Lifetime and Contingent pensions, then based on some broadly indicative annuity rates we have examined, we expect the purchase price could be 50% to 100% higher than the liability of $1.0 million currently being held in City DBF. Detailed quotations would be needed to examine this further should such a step be considered.

Actuarial Value of Accrued Benefits

Another indication of the funding status is given by the ratio of the net assets to the Actuarial Value of Accrued Benefits (AVAB). This is called the Actuarial Value of Accrued Benefits Index (AVABI).

AVAB represents the value in today's dollars of future benefits based on membership completed to the review date, allowing for future salary increases, investment earnings and expected incidence of payment. *"Accrued Benefits"* has the meaning given in Regulation 9.27 of the SIS Regulations.

Different superannuation funds can be expected to have different Actuarial Value of Accrued Benefits Ratios depending on the age and employment history of the members. A fully secured position is represented by a ratio of 100.0%. At this level, with the DBF being closed to new entrants and if no further benefits were allowed to accrue to current members, assets would be sufficient to meet all future benefit payments if the actuarial assumptions are borne out in practice.

The following table shows the progression of the Actuarial Value of Accrued Benefits Index over the review period.

	Last Valuation $M	This Valuation $M
Net Assets (a)	88.7	93.9
Actuarial Value of Accrued Benefits DB members under age 70 (b)	87.1	71.7
Actuarial Value of Accrued Benefits for crystallised DB members over age 70 (c)	0.2	0.5
Actuarial Value of Accrued Benefits for Lifetime and Contingent Pensioners (d)	1.2	1.0
Actuarial Value of Accrued Benefits Index (a)/ [(b)+(c)+(d)]	102.6%	128.3%

As at 1 July 2015, the net assets exceeded the Actuarial Value of Accrued Benefits. AVABI has increased from 102.6% to 128.3% over the valuation period and this can be mainly attributed to the favourable financial experience over the valuation period as outlined in Section 4. If the Actuarial Value of Accrued benefits was subject to a minimum of the Vested Benefit for each individual member, the AVABI would reduce from 128.3% to 119.2% at 1 July 2015. AVABI was calculated as equal to Vested Benefits at 1 July 2012.

Minimum Benefit

Under SPS 160, a fund (or section of a fund) is *"solvent"* if the net assets exceed the Minimum Requisite Benefits (MRB) of members, where the MRB is the portion of the benefit meeting the Superannuation Guarantee obligations as defined in the Scheme's Benefit Certificate.

The following table shows the progression of the Minimum Benefits Index for the City DBF over the review period.

	Last Valuation $M	This Valuation $M
Net Assets (a)	88.7	93.9
Minimum Benefits DB members under age 70 (b)	74.6	65.3
Minimum Benefits for crystallised DB members over age 70 (c)	0.2	0.5
Minimum Benefits for Lifetime and Contingent Pensioners (d)	1.2	1.0
Minimum Benefits Index (a)/ [(b)+(c)+(d)]	117%	140.5%

*This dollar amount has been calculated based on the Minimum Benefit Index shown in the last valuation.

As at 1 July 2015, the net assets exceeded the Minimum Benefits and so the City DBF was "solvent". The Minimum Benefits Index has increased from 117% to 140.5% over the valuation period.

Shortfall Limit

The Trustee has set the Shortfall Limit for the City DBF as 98.0%. The 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 to temporary negative market fluctuations in the value of fund assets, the fund can be restored to a satisfactory financial position within one year."

Should the Vested Benefits Index breach the Shortfall Limit, additional interim Actuarial investigations will be required with rectification plans to be put in place to address the unsatisfactory financial position.

We consider the current Shortfall Limit continues to be appropriate given the nature of the assets and liabilities of the City DBF.

Benefits payable on Retrenchment

A specific retrenchment benefit is not defined in the Trust Deed for City DBF members. The benefit payable on retrenchment is the member's Vested Benefit. Members' Vested Benefits are 119.9% covered by net assets at the valuation date.

Benefits payable on Termination of the Scheme

The Trust Deed does not address the termination of either City DBF or the Scheme as a whole.

Section 7: Valuation Contribution Results

It should be emphasised that the funding measures shown in Section 6 relate to the current position at the review date. A valuation which projects the benefits of each DBF is required to assess the adequacy of current contribution rates to provide defined benefits in the future. The results of the valuation are summarised in this Section.

7.1 Regional DBF

Contribution Rates for future service benefits of Regional DBF

Using the Attained Age funding method outlined in Section 4, we have calculated the present value of all expected benefits payable in respect of future membership after the valuation date ("future service benefits"). After allowing for the value of future member contributions, we then calculate the balancing employer contribution rate expected to be required (inclusive of contributions tax) to meet these future service benefits, as shown in the table below:

		$000
Future Service Benefit Liabilities		163,081
Less	Value of future member contributions	62,722
Benefit Liability to be funded from future employer contributions		100,360
Value of 1% future employer contributions		10,454
Future employer contribution rate calculated (before tax)		9.6%
Plus	Allowance for 15% contributions tax	1.7%
Total Employer Contribution Rate calculated		**11.3% of salary**

While the employer contribution rate of 11.3% of salary shown above looks only at future service benefits, it is nonetheless influenced by which of the accrued benefits (defined benefit or accumulation) is applying for each member at the valuation date. If this is not taken into account, the total employer contribution rate is 12.5% of salary.

Adjustment for financial position at 1 July 2015

As the net assets of the Regional DBF exceed the value of past service benefits shown in Section 5, there is potential to reduce the employer contribution rate shown above.

The financial position of the Regional DBF has strengthened over the valuation period with the coverage of vested benefits increasing from 103.5% at the last valuation to 111.9% at this valuation.

The relatively strong investment returns over the valuation period has also resulted in accumulation benefits rising relative to the defined benefits they are compared against when determining vested benefits. This relationship can change depending on the prevailing investment returns and the investment strategy adopted. The Trustee will consider the results of an Asset Liability Modelling study we will be conducting during 2016. This study will examine the relationship between accumulation benefits and defined benefits in further detail for a range of investment strategies.

While there is scope to increase the employer contribution rate to the Regional DBF if a period of low investment returns were to occur in future, this has not occurred to date, with the financial position during those periods being managed by the Trustee through the setting of the Accumulation Comparison Rate applied to some accumulation accounts.

If the current financial position continues into 2016, we suggest that the Trustee review the operation of the Accumulation Comparison Rate (including the smoothing policy, the past history of how returns have been released and how this should operate in future) and that this be considered also having regard to the Asset Liability Modelling study.

While these matters are considered, we recommend maintaining the current employer contribution rates to Regional DBF.

Recommended Contribution Rates – Regional DBF

We recommend that the current employer contribution rates to Regional DBF be maintained as follows:

- 12.0% of salaries for members contributing at 6% of salary.
- 11.0% of salaries for members contributing at 5% of salary.
- Additional contributions to the ABF for Regional DBF members of 9.5% of the excess of Ordinary Time Earnings over the Regional DBF salary.

Projection of vested benefits coverage for Regional DBF

We have tested the impact of adopting the recommended employer contribution rates above, by projecting the cash flows and the build-up of the assets over the next three years, and comparing the assets to the projected levels of the Vested Benefits within the Regional DBF.

Projection Date	DBF Assets $'000s	Vested Benefits $'000s	VBI %
1 July 2015	1,119,952	1,000,788	111.9%
1 July 2016	1,077,032	947,494	113.7%
1 July 2017	1,028,891	890,001	115.6%
1 July 2018	976,980	828,284	118.0%

The projection shows a gradual increase in the Vested Benefits Index to 118.0% at 1 July 2018.

If the recommended employer contribution rates shown in this Section are paid, then I expect the Vested Benefits Index (VBI) to increase and to also remain above 100% over the 3 years to 1 July 2018, assuming the valuation assumptions are borne out in practice.

The financial experience over the next 3 years may differ from the valuation assumptions we have adopted and we have considered the sensitivity of these projections further in Section 8 following.

The projection above may also change following any decisions made by the Trustee in regard to either the Regional DBF investment strategy or how the Accumulation Comparison Rate will operate in future. Further projections of vested benefits coverage should be conducted as part of considering any such changes.

7.2 City DBF

Contribution Rates for future service benefits of City DBF

Using the Attained Age funding method outlined in Section 4, we have calculated the present value of all expected benefits payable in respect of future membership after the valuation date ("future service benefits"). After allowing for the value of future member contributions, we then calculate the balancing employer contribution rate expected to be required (inclusive of contributions tax and insurance costs) to meet these future service benefits, as shown in the table below:

		$000
Future Service Benefit Liabilities (including 3% Occupational Account contribution)		16,568
Less	Value of future member contributions	4,690
Benefit Liability to be funded from future employer contributions		11,878
Value of 1% future employer contributions		938
Future employer contribution rate required		12.7%
Plus	Allowance for 15% contributions tax	2.2%
Plus	Allowance for insurance costs	1.1%
Total Employer Contribution Rate required		**16.0% of salary**

Adjustment for financial position at 1 July 2015

As the net assets of the City DBF exceed the value of past service benefits shown in Section 5, there is potential to reduce the employer contribution rate shown above.

The financial position of the City DBF has strengthened over the valuation period with the coverage of vested benefits increasing from 102.6% at the last valuation to 119.3% at this valuation.

The Asset Liability Modelling study being conducted in 2016 will consider the underlying investment strategy for the assets supporting City DBF's defined benefits and the interaction between short-term volatility of investment returns and longer-term funding.

The Trustee may also wish to consider if a separate investment strategy is warranted for the City DBF's lifetime and contingent pension liabilities. I also recommend that the Trustee review the smoothing policy applied to determine the crediting rates applied to some additional accumulation benefits held within City DBF.

In periods of low investment returns in the past, the employer has made additional contributions to support the financial position of the City DBF. If the current financial position which is relatively strong continues into 2016, we suggest that the Trustee consider whether it is possible to reduce the employer contributions required for a limited period of time and that this be considered also having regard to the Asset Liability Modelling study.

While these matters are considered, we recommend maintaining the current employer contribution rates to City DBF.

Recommended Contribution Rates for City DBF

We recommend that the current employer contribution rate of 14% (11% + 3% Occupational Account contribution) of salaries be maintained at present.

Projection of vested benefits coverage for City DBF

We have tested the impact of adopting the recommended employer contribution rates above, by projecting the cash flows and the build-up of the assets over the next three years, and comparing the assets to the projected levels of the Vested Benefits within the City DBF.

Projection Date	DBF Assets $'000s	Vested Benefits $'000s	VBI %
1 July 2015	93,952	78,363	119.9%
1 July 2016	90,224	72,400	124.6%
1 July 2017	90,239	71,176	126.8%
1 July 2018	90,531	70,097	129.1%

The projection shows a gradual increase in the Vested Benefits Index to 129.1% at 1 July 2018.

If the recommended employer contribution rates shown in this Section are paid, then I expect the Vested Benefits Index (VBI) to increase and to also remain above 100% over the 3 years to 1 July 2018, assuming the valuation assumptions are borne out in practice.

The financial experience over the next 3 years may differ from the valuation assumptions we have adopted and we have considered the sensitivity of these projections further in Section 8 following.

The projection above may also change following any decisions made by the Trustee in regard to either the City DBF investment strategy or how the smoothing policy used to determine the crediting rates applied to some additional accumulation benefits held within City DBF will operate in future. Further projections of vested benefits coverage should be conducted as part of considering any such changes

7.3 Recommended Future Review of Financial Status

The financial status of each DBF is sensitive to actual financial experience (principally, investment returns and salary increases) and membership movements. We therefore recommend that a check is placed on the Vested Benefits Index quarterly and at each annual review date, and more frequently if required, in order to monitor the ongoing coverage of vested benefits.

The next actuarial valuation is due at 1 July 2018.

Section 8: Sensitivity Analysis and Material Risks

Sensitivity Analysis – Regional DBF

The "gap" adopted in this valuation between the investment return (net of administration and investment fees and investment tax) and salary inflation assumptions is 1.5% p.a. Other assumptions could be used and the table below shows the impact of varying the "gap" between these assumptions on the Regional DBF's financial position and the contribution rate calculated to provide future service benefits under the Attained Age funding method. No changes have been made to the demographic assumptions adopted for this valuation in the scenarios below.

	This Valuation Basis	Scenario 1	Scenario 2
The "gap" between net investment return and salary inflation assumptions	1.5% p.a.	(1.5 + 1)% p.a.	(1.5 – 1)% p.a.
Actuarial Value of Accrued Benefits Index	112.9%	113.8%	111.5%
Attained Age Employer Contribution Rate to provide future service benefits	11.3%	11.1%	11.9%

Sensitivity Analysis – City DBF

The "gap" adopted in this valuation between the investment return (net of administration and investment fees and investment tax) and salary inflation assumptions is 1.5% p.a. Other assumptions could be used and the table below shows the impact of varying the "gap" between these assumptions on the City DBF's financial position and the contribution rate calculated to provide future service benefits under the Attained Age funding method. No changes have been made to the demographic assumptions adopted for this valuation in the scenarios below.

	This Valuation Basis	Scenario 1	Scenario 2
The "gap" between net investment return and salary inflation assumptions	1.5% p.a.	(1.5 + 1)% p.a.	(1.5 – 1)% p.a.
Actuarial Value of Accrued Benefits Index	128.3%	134.7%	121.9%
Attained Age Employer Contribution Rate to provide future service benefits	16.0%	15.1%	17.1%

It should be noted that the variations selected in the sensitivity analysis above do not indicate upper or lower bounds of all possible outcomes. Further analysis can be carried out if required.

Material Risks – Regional DBF

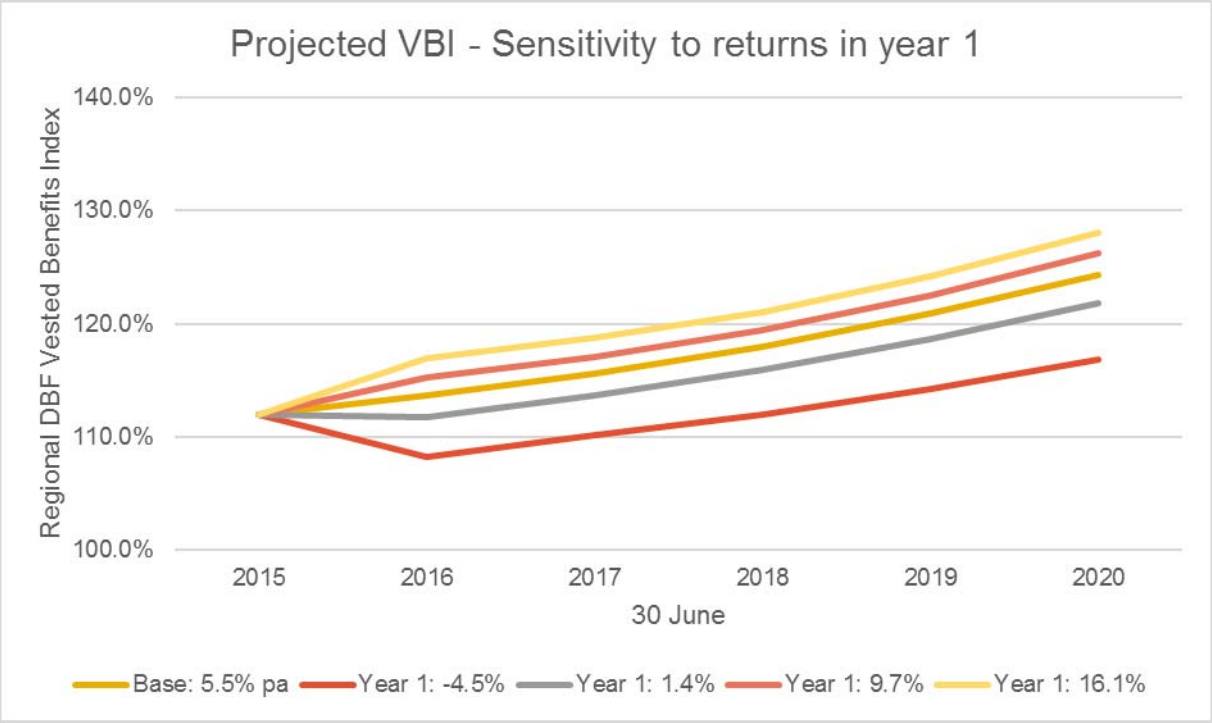
Salary Inflation

For this valuation we have adopted a salary inflation assumption of 4.0% p.a. However if actual salary increases are greater than this, with all other actuarial assumptions borne out, then the funding position (Vested Benefits Index) will reduce which may then affect future funding requirements. Given the extent to which the various accumulation underpin benefits are applying at the valuation date, the Regional DBF funding position is currently not overly sensitive to salary inflation experience. Further analysis can be carried out if required.

Investment Returns

For this valuation we have adopted an investment return assumption (net of tax and investment management expenses) of 5.5% p.a. However if actual investment returns are less than this, with all other actuarial assumptions borne out, then the funding position (Vested Benefits Index) will reduce which may then affect future funding requirements.

For example, the following graph highlights the sensitivity of the Regional DBF funding position (Vested Benefits Index) to an investment return different to that expected in the year to 30 June 2016 (year one of the projection). The investment return used for the year to 30 June 2017 (year two of the projection) and onwards is assumed to be the long term expected return of 5.5% p.a.



Further quantitative analysis on this aspect will be provided as part of the Asset Liability Modelling study we are conducting for the Trustee during 2016.

Change to investment strategy

Any change to the investment strategy that impacts future expected return on assets supporting the defined benefit liabilities will potentially have a material impact on the financial position of the Regional DBF. This will be addressed further as part of the Asset Liability Modelling study we are conducting for the Trustee during 2016.

Material Risks – City DBF

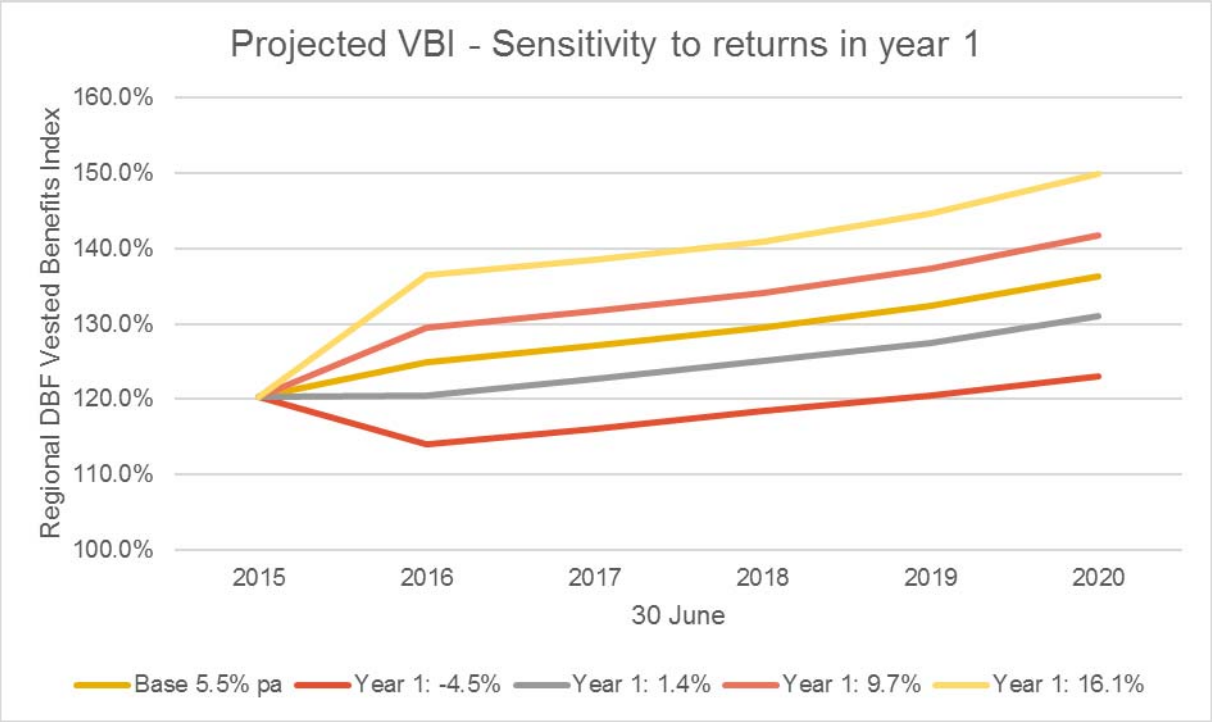
Salary Inflation

For this valuation we have adopted a salary inflation assumption of 4.0% p.a. However if actual salary increases are greater than this, with all other actuarial assumptions borne out, then the funding position (Vested Benefits Index) will reduce which may then affect future funding requirements. Further analysis can be carried out if required.

Investment Returns

For this valuation we have adopted an investment return assumption (net of tax and investment management expenses) of 5.5% p.a. However if actual investment returns are less than this, with all other actuarial assumptions borne out, then the funding position (Vested Benefits Index) will reduce which may then affect future funding requirements.

For example, the following graph highlights the sensitivity of the City DBF funding position (Vested Benefits Index) to an investment return different to that expected in the year to 30 June 2016 (year one of the projection). The investment return used for the year to 30 June 2017 (year two of the projection) and onwards is assumed to be the long term expected return of 5.5% p.a.



Further quantitative analysis on this aspect will be provided as part of the Asset Liability Modelling study we are conducting for the Trustee during 2016.

Change to investment strategy

Any change to the investment strategy that impacts future expected return on assets supporting the defined benefit liabilities will potentially have a material impact on the financial position of the City DBF. This will be addressed further as part of the Asset Liability Modelling study we are conducting for the Trustee during 2016.

Appendix A: Summary of Benefits

A.1 Regional DBF – Summary of benefits as at 1 July 2015

Membership

Queensland local government employees other than Brisbane City Council, Queensland Urban Utilities and associated employers. The Regional DBF is closed to new members.

Member Contributions

6% of salary after-tax, or 7.06% by salary sacrifice if the employer agrees.

A small number of members contribute 5% of salary, or 5.88% by salary sacrifice if the employer agrees. These members receive lower benefits (see Accrued Benefit Multiple below).

Final Average Salary (FAS)

FAS is generally the average of the member's superannuation salary over the final 12 months of employment.

Unless otherwise determined by the Board, FAS cannot be greater than 120% of the member's superannuation salary 3 years prior, unless the member's average salary over the last 3 years of employment is greater than 120% of their superannuation salary 3 years ago. In this situation, the 3 year average salary applies.

Accrued Benefit Multiple

The Accrued Benefit Multiple is equal to:

- 18% x Years of Scheme Membership after 1 January 1986; plus
- 13.5% x Years of Scheme Membership before 1 January 1986.

Where members contribute 5% of salary rather than 6% of salary, the 18% defined benefit scale is reduced to 15.75%.

Normal Retirement Benefit

Normal retirement is at any time from age 55 until attaining age 70.

The benefit payable is a lump sum equal to the greater of:

- FAS x Accrued Benefit Multiple; and

- The member's minimum retirement benefit, which is defined as the sum of:
  - the greater of FAS x Accrued Benefit Multiple from 1 January 1986 and the accumulation of member contributions plus 11% employer contributions (less deductions for fees and taxes) at the "accumulation comparison rate", and
  - the greater of FAS x Accrued Benefit Multiple to 1 January 1986 and the prior scheme accumulation together with the "accumulation comparison rate".

Resignation Benefit

A lump sum equal to the greater of:

- FAS x Accrued Benefit Multiple from 1 July 1992 x Discount Factor; and
- The accumulation of member contributions plus employer contributions at the Superannuation Guarantee rate from 1 July 1992 with interest at the "accumulation comparison rate" and deductions for taxes, fees and premiums.

The Discount Factor is equal to 100% less 2% for each year prior to age 55, subject to a minimum of 60%. For members prior to 30 June 1992 an additional benefit is provided based on a similar calculation.

Late Retirement Benefit

The retirement benefit is crystallised at age 70 and transferred to an accumulation account. All subsequent contributions go to this accumulation account.

Death and Total and Permanent Disablement (TPD) Benefit

A lump sum equal to:

- Salary at date of exit x Accrued Benefit Multiple (if over age 60); or
- Salary at date of exit x Benefit Multiple projected to age 60 (if under age 60).

For some members, the age for projections is age 55 instead of age 60 above.

Total and Temporary Disablement (TTD) Benefit

Members under age 60 (or for some members age 55) who are working 14.5 or more hours per week on a permanent basis are eligible for a total and temporary disablement benefit based on 12.5% p.a. of the member's TPD benefit. This is paid as a monthly sum for up to 2 years after a 90 day waiting period. TTD benefits do not reduce the member's resignation or retirement benefits.

Failure of Health Benefit

Failure of health is defined as an injury or illness which, in the opinion of the LGsuper Board, permanently incapacitates the member from carrying out his/her ordinary work with the employer, and any reasonably available and suitable alternative work with the employer, but does not constitute TPD.

The Failure of Health benefit is equal to the retirement benefit calculated at the date of retirement due to failure of health, inclusive of the Age Discount Factor.

Superannuation Guarantee Minimum Benefit

On all forms of exit, the benefit paid is subject to the Minimum Requisite Benefit which is an accumulation benefit as outlined in the Trust Deed.

Additional Accounts

Additional voluntary, rollover and surcharge offset accounts are paid in addition to all of the above benefits.

A.2 City DBF – Summary of benefits as at 1 July 2015

Membership

Former defined benefits members of City Super. The City DBF is closed to new members.

Member Contributions

5% of salary or 5.88% if the member chooses to salary sacrifice.

Normal Retirement Date

Normal retirement is at any time from age 55 to reaching age 70.

Final Average Salary

The average of the member's annual salary at each salary review date (1 April and 1 October) in the last three years.

Retirement Multiple

The Retirement Multiple is equal to 17.5% per year of membership.

Normal Retirement Benefit

A lump sum benefit equal to Final Average Salary x Retirement Benefit Multiple.

Late Retirement Benefit

The retirement benefit is crystallised to age 70 and transferred to an accumulation-style account.

Resignation Benefit

A lump sum benefit equal to Final Average Salary x Accrued Retirement Multiple x Discount Factor, where the Discount Factor is equal to 100% less 1% for each year prior to age 55.

Death and Terminal Illness Benefit

A lump sum equal to Salary at date of exit x Retirement Multiple projected to age 65.

Total and Permanent Disablement

A lump sum equal to Final Average Salary at date of exit x Retirement Multiple projected to age 65.

Superannuation Guarantee Minimum Benefit

On all forms of exit, the benefit paid is subject to the Minimum Requisite Benefit as set out in the Plan's Benefit Certificate.

Accumulation Accounts

The employer pays an additional 3% of salary into an Occupational plan account. The Occupational plan account and any additional voluntary, rollover and surcharge offset accounts are paid in addition to all of the above benefits.

A.3 Lifetime and Contingent Pensions in City DBF

Lifetime Pensioners are certain former Brisbane City Councillors and their spouses that are currently in receipt of a lifetime pension payable from LGsuper. Contingent Pensioners are spouses of former Councillors whom previously elected to commute their lifetime pension to a lump sum. Contingent Pensioners are entitled to a pension on the death of the former Councillor.

Pensions are payable fortnightly and are indexed as follows:

- No indexation applies if the pension payable to the former Councillor first commenced prior to 27 March 1975;
- 3% per annum indexation applies if the pension payable to the former Councillor first commenced on or after 27 March 1975 up to 30 June 1976;
- Indexation in line with the Consumer Price Index (CPI) applies if the pension payable to the former Councillor first commenced on or after 1 July 1976.

A Contingent Pension becomes payable to the spouse of a former Councillor upon the former councillor's death, regardless of whether they were in receipt of a Lifetime Pension. The amount of the pension payable is equal to 5/8th's of the Lifetime Pension that would have been payable.

Once in payment, pensions are payable fortnightly and are indexed on the basis outlined above.

Appendix B: Details of Membership

Membership as at 1 July 2015 – Regional DBF

	Number of Members	Total Salaries	Average Salary	Average Age	Average Completed M'ship	Average Entry Age
Regional DBF	2,837	$203.6m	71,767	56.4	26.3	30.1

There were 18 members making lower member contributions of 5% of salary at the valuation date. Other members contribute at 6% of salary as outlined in Appendix A.

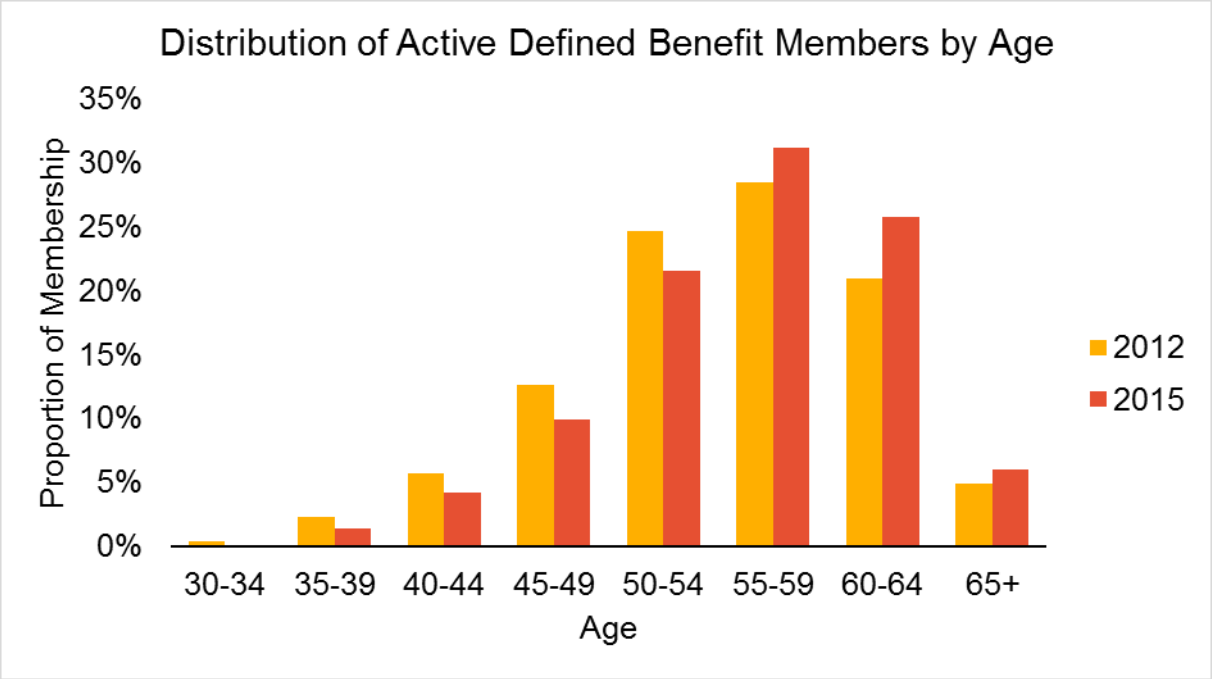
Approaching Retirements – Regional DBF

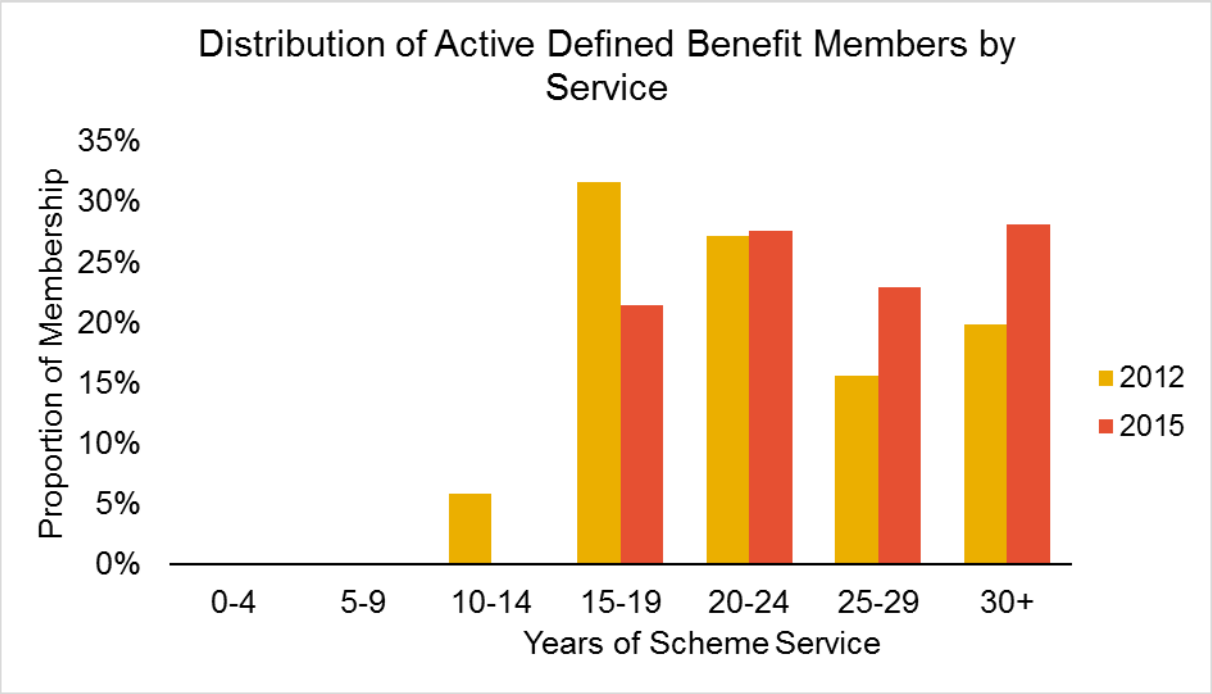
In the next three years, 573 members of Regional DBF are expected to reach their Normal Retirement Date. The total of their vested benefit at 1 July 2015 is $282.7m.

As at 1 July 2015, there are 170 members of Regional DBF who have passed their Normal Retirement Date. The total of their vested benefits as at 1 July 2015 is $87.3m.

Distribution of Active Defined Benefit Membership – Regional DBF

Age Band	Number of Members at 1 July 2012	Number of Members at 1 July 2015
30-34	16	2
35-39	92	40
40-44	227	118
45-49	498	282
50-54	978	612
55-59	1,127	884
60-64	829	729
65+	1,195	170
Total	3,962	2,837


Distribution of Active Defined Benefit Members by Age
Proportion of Membership
35%
30%
25%
20%
15%
10%
5%
0%
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65+
Age
2012
2015


Distribution of Active Defined Benefit Members by Service
Proportion of Membership
35%
30%
25%
20%
15%
10%
5%
0%
0-4
5-9
10-14
15-19
20-24
25-29
30+
Years of Scheme Service
2012
2015

Membership as at 1 July 2015 – City DBF

	Number of Members	Total Salaries	Average Salary	Average Age	Average Completed M'ship	Average Entry Age
City DBF	199	$13.8m	69,185	54.4	27.8	26.7

In addition to the Defined Benefit members shown above, there are 3 crystallised DB members over age 70, 3 current pensioners and 7 contingent pensioners within the City DBF.

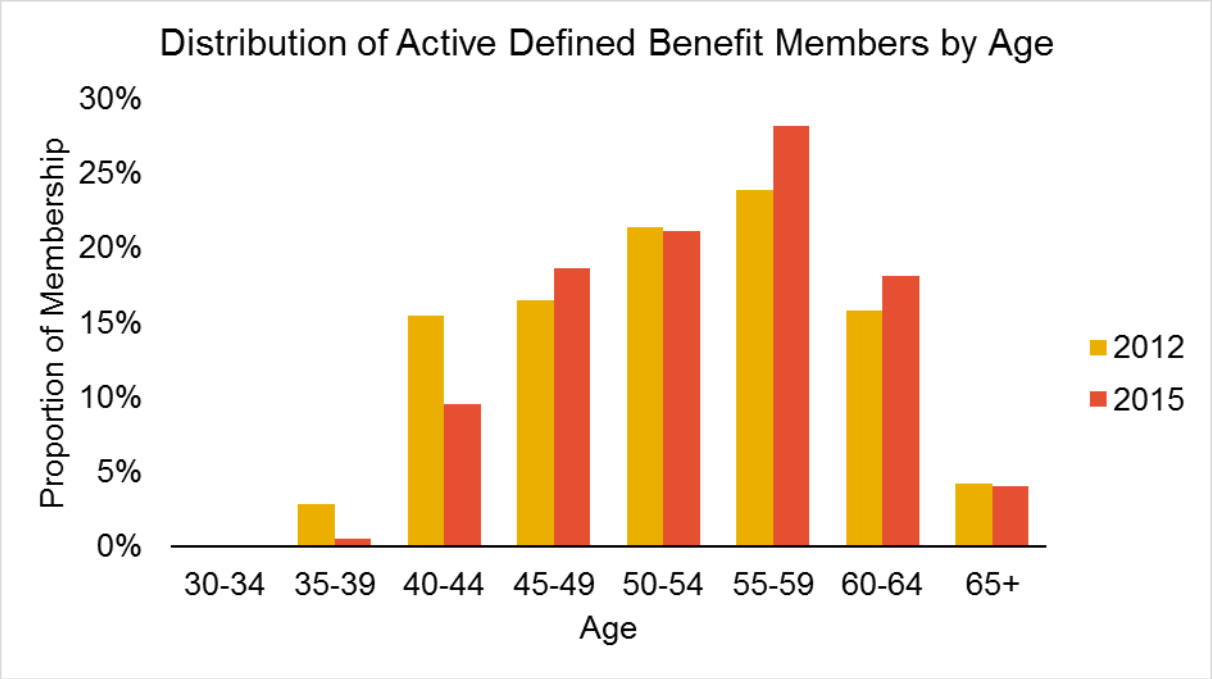
Approaching Retirements – City DBF

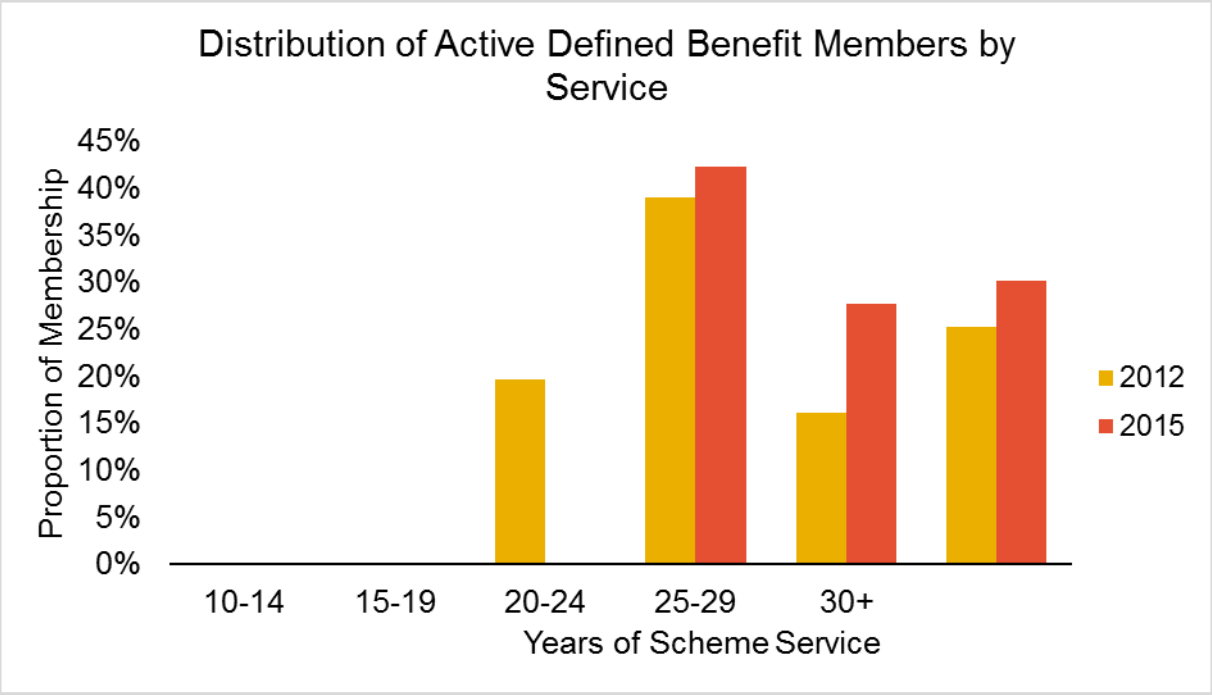
In the next three years, 26 members of City DBF are expected to reach their Normal Retirement Date. The total of their vested benefit at 1 July 2015 is $10.2m.

As at 1 July 2015, there are 8 Defined Benefit members of City DBF who have passed their Normal Retirement Date. The total of their vested benefit at 1 July 2015 is $0.5m.

Distribution of Active Defined Benefit Membership – City DBF

Age Band	Number of Members at 1 July 2012	Number of Members at 1 July 2015
30-34	0	0
35-39	8	1
40-44	44	19
45-49	47	37
50-54	61	42
55-59	68	56
60-64	45	36
65+	12	8
Total	285	199


Distribution of Active Defined Benefit Members by Age
Proportion of Membership
30%
25%
20%
15%
10%
5%
0%
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65+
Age
2012
2015


Distribution of Active Defined Benefit Members by Service
Proportion of Membership
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
10-14
15-19
20-24
25-29
30+
Years of Scheme Service
2012
2015

Appendix C: Consolidated Revenue Accounts

Consolidated Revenue Accounts for the period from 1 July 2012 to 1 July 2015 for Regional DBF and City DBF

	Regional DBF $000	City DBF $000
Net Assets available to meet liabilities as at 1 July 2012	**1,102,294**	**88,687**
Transfer (to)/from reserves	(12)	-
Inter fund transfers	(2,875)	(197)
Plus:		
Contribution revenue	127,469	12,900
Benefits retained	-	233
Transfers from other funds	-	-
Insurance claim proceeds	1,239	781
Net investment revenue	304,517	25,223
Less:		
Benefit payments	(383,002)	(30,789)
Surcharge Tax	(6,534)	(497)
Expenses	(4,015)	(543)
Insurance costs	-	(4)
Income tax expense	(15,777)	(1,560)
Net Asset value as at 1 July 2015	**1,123,304**	**94,234**
Less: Operational Risk Reserve	(3,353)	(282)
Net Assets available to meet liabilities as at 1 July 2015	**1,119,951**	**93,952**

Appendix D: Valuation Method and Assumptions

Valuation Method

The Attained Age Funding Method has been adopted, having regard also to the projected coverage of vested benefits. Further details are set out in Section 4 of this report.

Asset Value

Market value taken from the financial statements of LGsuper at the valuation date.

Investment Returns

5.5% p.a. compound (net of investment and administration expenses and taxes)

Inflationary Salary Increases

4% p.a. compound

Promotional Salary Increases

Nil

Rates of Mortality and Total and Permanent Disability (TPD)

Examples of rates at which members leave the Scheme per year per 10,000 members:

Age Next Birthday	Death	Regional DBF - TPD		City DBF - TPD	
		Male	Female	Male	Female
25	6.7	2.2	2.1	2.0	2.1
30	8.3	2.9	1.4	2.5	1.4
35	10.3	4.5	2.9	3.9	2.9
40	13.4	8.2	6.2	6.2	6.2
45	19.0	16.4	12.0	12.6	12.0
50	28.7	31.2	22.1	24.2	22.1
55	43.8	54.0	39.7	44.3	39.7
60	66.0	93.8	58.6	75.2	58.6

Rates of Early Retirement

The number of members reaching a given age who are expected to retire are as follows:

Age Next Birthday	Regional DBF Number per year per 10,000 members	City DBF Number per year per 10,000 members
55	1,000	1,000
56	700	500
57	700	500
58	700	500
59	800	500
60	1,000	1,500
61	1,200	1,500
62	1,300	1,500
63	1,500	1,500
64	1,500	3,000
65	4,000	10,000
66	4,000	
67	3,000	
68	2,500	
69	4,000	
70	10,000	

Rates of Leaving Service

Age Next Birthday	Regional DBF Number per year per 10,000 members	City DBF Number per year per 10,000 members
25	750	310
30	750	310
35	750	310
40	750	220
45	525	160
50	450	140
55	0	0

Rates of Retrenchment

A retrenchment rate of nil per 10,000 members has been assumed.

Future Expense Allowance

Investment expenses are allowed for in the investment returns shown above which are assumed to be net of investment expenses.

New Entrants

No allowance for new entrants.

Taxes

Tax on investment income is allowed for in the Investment Returns shown above.

Tax on contributions has been allowed for as 15% of Company contributions reduced by allowable deductions (administration and insurance costs). No allowance has been made for GST or Reduced Input Tax Credits.

Surcharge Tax and Excess Contributions Tax

No allowance has been made for the Surcharge Tax and Excess Contributions Tax as it is assumed the Trustee will offset any tax payable against the benefits of the relevant member, if the member does not reimburse the Scheme for the tax payable.

Investment returns on pension assets in City DBF

6.0% p.a. compound (net of expenses).

Pension indexation

2.5% p.a. compound on CPI-indexed pensions in City DBF.