LGIAsuper - City DBF

Actuarial Valuation as at 1 July 2021

7 December 2021

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Section 1: Purpose and Summary

LGIAsuper provides benefits which are of the *"defined benefit"* type where benefits are defined by salary and period of membership. There are three divisions of defined benefit arrangements within LGIAsuper, all of which are closed to new members:

- Regional Defined Benefits Fund (Regional DBF)
- **City Defined Benefits Fund (City DBF)**
- Energy Super Defined Benefits Fund (Energy Super DBF)

This report covers the City DBF arrangements.

There are also a significant number of Accumulation members of the Accumulation Benefits Fund (ABF) within LGIAsuper. 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 LGIAsuper 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 4.28 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 covers the City DBF and has been prepared for the Trustee, LGIAsuper Trustee in my capacity as RSE Actuary to LGIAsuper. The effective date of this actuarial valuation is 1 July 2021.

This report has been prepared in accordance with Professional Standard 400 issued by the Institute of Actuaries of Australia dated March 2021. John Burnett conducted the previous valuation as at 1 July 2018 with the results set out in a report dated 29 November 2018.

Reliance statement and data

This report is provided subject to the terms set out herein and in our engagement letter signed 11 May 2021 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 LGIAsuper 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 LGIAsuper Trust Deed 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 and subject to satisfying any industrial agreements, we recommend that from 1 July 2021 each City DBF employer continues the existing contribution holiday.

We expect that the contribution holiday outlined above may be able to be maintained, subject to the financial experience of City DBF beyond the completion of the next actuarial valuation. However, if the financial experience of City DBF deteriorated significantly over this period, then it may be necessary for contributions to resume. We continue to recommend that the Trustee review the financial position of the City DBF on at least an annual basis.

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 was 139.5%.

The City DBF is in a *“satisfactory financial position”* if the net realisable value of the assets exceed the vested benefits. At the valuation date of 1 July 2021, the net assets of the exceeded the vested benefits and the City DBF was in a satisfactory financial position.

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 City DBF should remain in excess of the corresponding vested benefits of the City DBF up to 1 July 2024.

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 to the current members and their dependents in respect of 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 was 146.7%.

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 LGIAsuper's Benefit Certificate.

As at the valuation date, the ratio of the net assets to the MRB was 144.6%.

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

Shortfall Limit

As required under SPS 160, the Trustee has set Shortfall Limit for the City DBF of 98.0%.

We have reviewed this Shortfall Limit as part of this actuarial investigation and consider that the Shortfall Limit remains appropriate.

Defined Benefit Pensions

The City DBF pays defined benefit pensions to 2 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 City DBF will be able to pay the pensions as required under the LGIAsuper Trust Deed.

Superannuation Guarantee

Superannuation Guarantee obligations of employers are met for members by the minimum benefits provided under LGIAsuper. The latest Benefit Certificate is dated 12 August 2021.

A Funding and Solvency Certificate dated 12 August 2021 has been issued to the Trustee corresponding to the above mentioned Benefit Certificate. The purpose of this Funding and Solvency 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 2021.

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 City 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 City DBF liabilities invested 50% in growth assets such as shares and property and 50% in defensive assets such as cash and fixed interest. The longer term strategic asset allocation is 60% growth and 40% defensive assets.

The current investment policy is considered suitable to the defined benefit liabilities of City DBF based on membership as at 1 July 2021. The Trustee regularly monitors the investment performance of the underlying investment managers and we recommend that this continues.

The strong financial position of City DBF in particular provides an opportunity to consider whether a lower risk/return profile should be adopted for these assets. The Trustee may also 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 $0.9 million at the valuation date.

Insurance

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 2021.

Experience since 1 July 2021

Investment markets have been relatively stable over the 4 months to 31 October 2021.

Given the strong financial position of the City DBF at 1 July 2021 we do not consider any of the recommendations in this report need to be reviewed in the light of recent experience.

Next Valuation

The next valuation should be held no later than 1 July 2024. Vested Benefits coverage should continue to be monitored at least annually and more frequently if warranted.

Nick Wilkinson
Fellow of the Institute of Actuaries of Australia

7 December 2021

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Section 2: Background and Data

LGIAsuper was initially established under a Trust Deed first made in 1995 as amended subsequently. LGIAsuper was originally known as the Queensland Local Government Superannuation Scheme. On 1 July 2017 the Scheme was renamed LGIAsuper. On 1 July 2011, the City Super Fund merged with the Scheme and on 1 July 2021, Energy Super merged with LGIAsuper.

Under Clause 23.3 of the Trust Deed, the City DBF employers are required to contribute in line with the rates as specified by the Trustee from time to time.

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

The City DBF is closed to new defined benefit members.

A summary of the main benefits of the City DBF is included in Appendix A of this report.

Previous Recommendations

John Burnett conducted the previous valuation as at 1 July 2018 with the results set out in a report dated 29 November 2018. Employer contributions paid to the City DBF over the three year period ending 1 July 2021 have been in line with the recommendations made at the previous valuation, as follows:

- 14.0% of salaries (including the Occupational Account contribution) from 1 July 2018 to 31 December 2018.
- 0.0% of salaries (including the Occupational Account contribution) from 1 January 2019 to 31 December 2021.
- 14.0% of salaries (including the Occupational Account contribution) from 1 January 2022 onwards.

Changes to benefits since the last valuation

There have been no changes to the benefits of City DBF members considered in this valuation over the three years ending 1 July 2021.

From 1 July 2021, the Superannuation Guarantee (SG) rate, being the minimum rate of superannuation employers must provide for its employees increased from 9.5% to 10.0% and is set to increase further to 12.0% over the period to 1 July 2025. We have allowed for these future changes to the SG rate in the projections covered later in this report.

Sources of Information

We have relied on the administrative records at 1 July 2021, as currently stored on LGIAsuper's administration system.

We have relied on the audited accounts for the three years ending 1 July 2021 together with information set out in the LGIAsuper annual reports in each of these years.

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 there were 121 employed defined benefit members of the City DBF as at 1 July 2021 with total salaries of $9.8 million. In addition, there were 2 lifetime pension members and 7 contingent pension members at 1 July 2021.

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 City DBF members has increased from 56.1 years to 57.5 years.

All members of the 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 2.2% p.a. for City DBF members.

Section 3: Assets and Investment Strategy

Accounts

We have been supplied with audited accounts covering the 12 month periods to 1 July 2019, 1 July 2020 and 1 July 2021. These accounts were audited by PricewaterhouseCoopers and no material qualifications were identified in the audit report dated 28 September 2021. We have also been provided with details of the breakdown of these accounts for each of the three Defined Benefit Funds.

Fair value of Assets or Net Assets

These accounts for the City DBF have been combined to produce the following consolidated accounting statement for the period 1 July 2018 to 1 July 2021.

		City DBF $000
Net Assets available to meet liabilities as at 1 July 2018		**98,141**
Plus:		
	Employer Contributions	3,816
	Member Contributions	1,520
	Transfers from other funds	289
	Insurance claim proceeds	78
	Investment returns (net of investment tax)	17,691
Less:		
	Benefit payments	(22,910)
	Expenses	(1,907)
	Insurance costs	(604)
	Contribution tax	(1,028)
Net Assets available to meet liabilities as at 1 July 2021		**95,088**

We have adopted the net asset value of $95.09 million for City DBF in determining the contribution recommendations and Funding Status Measures at the valuation date.

We note that at 1 July 2018, the Trustee maintained a separate Operational Risk Reserves (ORR) for the City DBF to meet the Operational Risk Financial Requirement. We note that during 2021, the Trustee merged the ORR for each DBF into the main ORR for LGIAsuper and no longer maintains separate reserves for each DBF.

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 bear 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 entire fund 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.

Defined Benefits – Investment Objective

The Trustee's principal investment objective for the 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 City DBF and the investment guidelines under which LGIAsuper's investment managers operate in setting our actuarial assumptions in Section 4 of this report.

Investment Strategy

In order to meet the investment objectives set for the City DBF, 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 actual allocation at 1 July 2021 are shown below:

Asset Class	Strategic Asset Allocation	Actual Allocation
Australian shares	8.0%	8.0%
International shares	12.0%	8.1%
Property	9.0%	9.5%
Private Capital	10.0%	13.9%
Infrastructure	11.0%	4.3%
Diversifying Strategies	10.0%	6.9%
Diversified Fixed Interest	37.0%	36.0%
Cash	3.0%	13.3%
Total	**100.0%**	**100.0%**

Suitability of Investment Strategy

At the valuation date of 1 July 2021, the average age of the employed members with defined benefits is 57.5 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 the City DBF. The Trustee is able to take this into account the broader fund level cash-flow profile when considering how the liquidity needs of the City DBF will be met.

The current investment strategy of the City DBF is within a range considered suitable but should be reviewed regularly (at least triennially) by the Trustee in the light of changes in membership and age profile.

The Trustee regularly monitors the investment performance of the underlying investment managers and it is recommended that this continues.

Suitability of crediting rate

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 if it is still warranted.

Considerations relating to Lifetime Pensions

The City DBF pays lifetime pensions to 2 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 $0.9 million as at 1 July 2021.

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 of 60% (actual at 1 July 2021 of 50%) to return-seeking assets such as shares and property with the remainder invested in fixed interest 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 strong financial position as at 1 July 2021. 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, the Trustee may wish to consider whether a separate investment strategy is warranted in respect of these pension liabilities and whether a lower risk profile than currently should be adopted.

Section 4: Valuation Method, DBF Experience and Actuarial Assumptions

To carry out an actuarial valuation of the defined benefit liabilities of the City 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.

Attained Age funding method

The funding method adopted at the previous valuation was the Attained Age method. This funding method remains appropriate for the City DBF, given the declining nature of the active/employed membership. We have retained the Attainted Age method for 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.

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 C.

Investment Return

The assumption for investment returns at the last valuation was 4.8% p.a. (net of administration and investment fees and investment tax). The City DBF's investment returns over the three years to 1 July 2021 (net of administration and investment fees and investment tax) have been as follows:

Year Ending 30 June	Investment Return (net of administration and investment fees and investment tax)	Crediting rate applied to smoothed additional account balances
2019	6.72%	7.47%
2020	2.11%	5.83%
2021	7.91%	5.74%
Average over the 3 years	5.55% p.a.	6.34% p.a.

The average investment return over 3 years of 5.6% p.a. was 0.8% p.a. higher than the assumed rate. This has had a positive effect on the City DBF's financial position in relation to defined benefit style liabilities and the City DBF's surplus.

The Crediting Rate applied to smoothed additional accounts over the 3 year period of 6.34% p.a. has been 0.8% p.a. higher than the return earned by the City DBF assets. This gap is due to the smoothing formula applied in determining the smoothed crediting rate and will have resulted in a minor strain on the City DBF financial position over the 3 year period to 1 July 2021.

We also note that from 1 July 2021 onwards, the expense deduction from the City DBF assets has been increased from 0.18% pa to 0.33% pa.

For this valuation, we have adopted a lower long term future investment return equal to 4.5% 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 Willis Towers Watson's investment model.

Salary Inflation

The assumed rate of salary inflation was 3.0% 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 was 0.8% p.a. lower than the assumed rate. This has reduced the growth in accrued liabilities of the City DBF, which has had a positive effect on the City DBF's financial position.

At this valuation we have retained the assumption of 3% 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 decreased the "gap" of 1.8% p.a. used in the previous valuation to 1.5% p.a. Over the review period the actual "gap" was 3.4% 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 2015-2017, 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
2019	1.7%
2020	1.7%
2021	-1.0%
Average over the 3 years	0.8% p.a.

We have assumed future indexation of pensions indexed in line with CPI to be at 2.0% 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 5.0% p.a. (gross of tax, net of fees) on pension assets, resulting in an assumed a “gap” of 3.0% p.a. for CPI-indexed pensions.

Rates at which Members Leave Service

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

	Actual	**Expected**
Total attrition over 3 years to 1 July 2021	9% p.a.	12% p.a.

For this valuation we have not changed the assumptions used at the previous valuation.

Insurance Premiums

The projected cost of insurance premiums are included in our valuation and the estimate of the long term cost of benefits. The cost of insurance premiums are modelled based on the projected insurance coverage and prevailing premium rates in the latest insurance policy.

We note that there are increases applicable to defined benefit premium rates from 1 July 2022 of the order of 11-12%. We have included these increases in the projected insurance costs in our valuation results.

New Members

The City DBF is closed to new entrants.

Summary of Valuation Assumptions

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

Section 5: Insurance Arrangements

Adequacy of Insurance

LGIAsuper currently has death, total and permanent disablement (TPD) and income protection insurance with TAL.

The insurance coverage within the City DBF is considered adequate if the net assets are sufficient to cover the Death and TPD benefits after any insured components have been allowed for.

The following table is based on the information provided to us and shows the adequacy of the insurance cover as at 1 July 2021:

	Death $M	TPD $M
Lump Sum Death and TPD Benefits (A)	84.0	82.8
Less Aggregate Group Life Insurance (B)	17.5	15.1
Exposure (A – B)	66.5	67.7
Net Assets (excluding assets in respect of Pensioners)	94.2	94.2

For the City DBF as at 1 July 2021, the net assets are sufficient to meet the uninsured portion of the death and TPD benefits.

On this basis the insurance coverage 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 a defined benefit arrangement. These measures are dealt with below.

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 City DBF over the review period.

	Last Valuation $M	This Valuation $M
Net Assets (a)	98.1	95.1
Vested Benefits* (b)	75.0	68.2
Vested Benefits Index (a)/(b)	130.8%	139.5%

* Vested benefits includes $0.9m in respect of lifetime pension liabilities

As at 1 July 2021, 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 139.5%. At the previous valuation, this ratio was 130.8%. 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.

As at 1 July 2021, there are accumulation accounts amounting to $14.3 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 10% to 15% higher than the liability of $0.9 million currently being held in City DBF which we do not consider material in context of the overall financial position of the 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 membership 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)	98.1	95.1
Actuarial Value of Accrued Benefits* (b)	70.2	64.8
Actuarial Value of Accrued Benefits Index (a)/(b)	139.7%	146.7%

* Actuarial Value of Accrued Benefits includes $0.9m in respect of lifetime pension liabilities

As at 1 July 2021, the net assets exceeded the Actuarial Value of Accrued Benefits. AVABI has increased from 139.7% to 146.7% over the valuation period and this can be mainly attributed to the favourable financial experience over this period as outlined in Section 4. If calculated using the assumptions at the previous valuation, AVABI would be 148.3% at this valuation.

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 LGIAsuper'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)	98.1	95.1
Minimum Benefits (b)	66.1	65.8
Minimum Benefits Index (a)/(b)	148.5%	144.6%

As at 1 July 2021, the net assets exceeded the Minimum Benefits and so the City DBF was "solvent". The Minimum Benefits Index has decreased from 148.5% to 144.6% 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 have reviewed this Shortfall Limits as part of this actuarial investigation and consider that the Shortfall Limit remains appropriate.

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 139.5% covered by net assets at the valuation date.

Benefits payable on Termination

The Trust Deed does not address the termination of either City DBF or fund 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 the 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.

Contribution Rates for future service benefits

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		8,737
Less	Value of future member contributions	2,387
Benefit Liability to be funded from future employer contributions		6,350
Present Value of future salaries		47,736
Future employer contribution rate calculated (before tax)		13.3%
Plus	Allowance for 15% contributions tax	2.4%
Plus	Allowance for insurance costs	2.2%
Total Employer Contribution Rate calculated		**17.9% of salary**

Adjustment for financial position at 1 July 2021

The financial position of the City DBF has strengthened over the valuation period with the coverage of vested benefits increasing from 130.8% at the last valuation to 139.5% at this valuation. In periods of low investment returns in the past, the employer has made additional contributions to support the financial position of the City DBF. The strong financial position at 1 July 2021 means it is possible for a continuation of the existing contribution holiday arrangements.

As the net assets of the City DBF of $95.1 million exceed the actuarial value of past service benefits of $68.2 million by $26.9 million at 1 July 2021, this past service surplus is more than sufficient to meet the future contributions expected to be required as shown in the table above. There is therefore scope to extend the current contribution holiday on this basis, subject to any industrial agreements being met.

We have recommended this contribution holiday be extended and it is likely to be continued if future financial experience is as expected.

Recommended Contribution Rates

In the absence of any special circumstances and subject to satisfying any industrial agreements, we recommend that from 1 July 2021 each City DBF employer continues the existing contribution holiday.

We expect that the contribution holiday outlined above may be able to be maintained, subject to the financial experience of City DBF beyond the completion of the next actuarial valuation. However, if the financial experience of City DBF deteriorated significantly over this period, then it may be necessary for contributions to resume. We continue to recommend that the Trustee review the financial position of the City DBF on at least an annual basis.

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.

Projection of vested benefits coverage

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	City DBF Assets $million	Vested Benefits $million	VBI %
1 July 2021	95.1	68.2	139.5%
1 July 2022	86.6	58.6	147.8%
1 July 2023	81.1	52.3	155.1%
1 July 2024	76.2	46.5	163.8%

The projection shows a further increase in the Vested Benefits Index to 163.8% at 1 July 2024 if future experience of City DBF is in line with our assumptions.

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 2024, 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.

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 at least 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 2024.

As the City DBF matures and membership continues to decline, surplus is projected to strength further within the City DBF. We recommend that the Trustee continue to monitor emerging levels of surplus and explore approaches/mechanisms through which the surplus can be effectively managed.

Section 8: Sensitivity Analysis and Material Risks

Sensitivity Analysis

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 +1%	Scenario 2 -1%
The “gap” between net investment return and salary inflation assumptions*	1.5% p.a.	2.5% p.a.	0.5% p.a.
Actuarial Value of Accrued Benefits Index	146.7%	152.1%	141.3%
Attained Age Employer Contribution Rate to provide future service benefits	17.9%	17.1%	18.7%

* The results shown above vary the discount rate by 1% p.a.

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

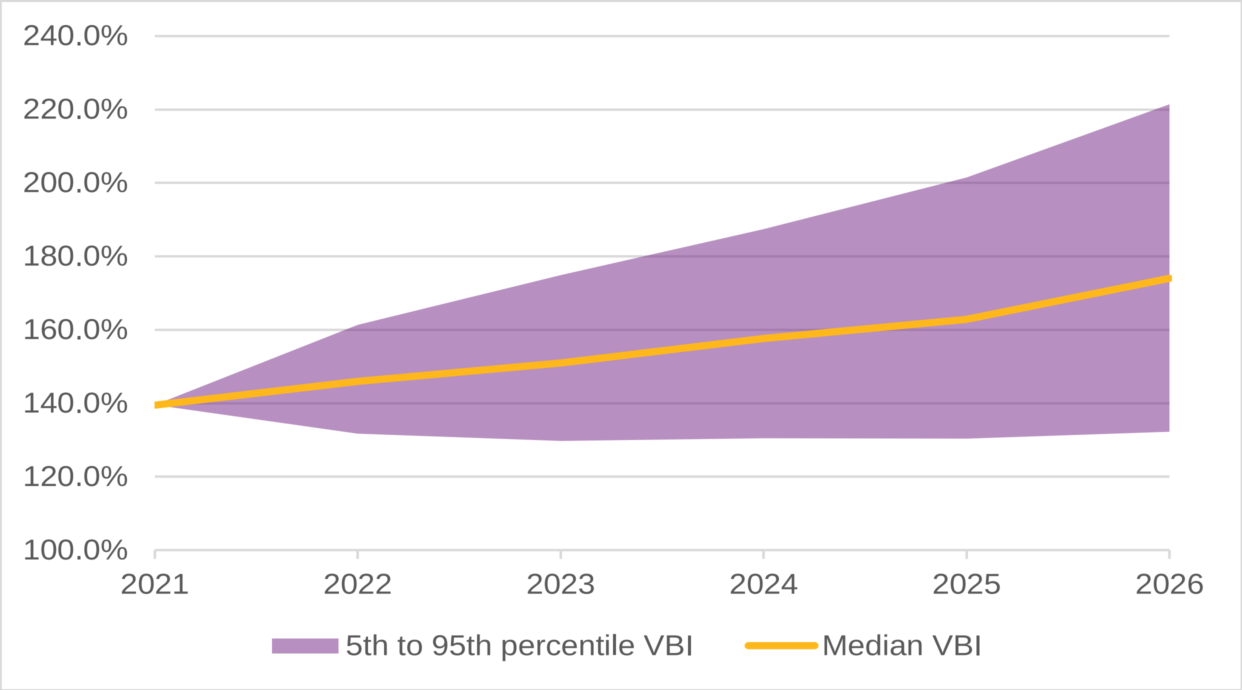
Salary Inflation

For this valuation we have retained a salary inflation assumption of 3.0% 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 City 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 4.5% 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 different investment returns over the next five years. The purple area shows the variability of VBI for returns between the 5th and 95th percentile of our modelled returns.



Appendix A: Summary of Benefits

A.1 City DBF – Summary of benefits as at 1 July 2021

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 at 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 LGIAsuper'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.2 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 LGIAsuper. 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 Eligible Spouse (as defined in the Trust Deed) 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 at valuation dates

Membership as at:	Number of Members	Total Salaries	Average Salary	Average Age	Average Completed M'ship	Average Entry Age
1 July 2021	121	$9.8m	$81,001	57.5	32.5	25.1
1 July 2018	160	$12.0m	$74,847	56.1	30.2	25.8

In addition to the Defined Benefit members shown above, there are 2 current pensioners and 7 contingent pensioners within the City DBF.

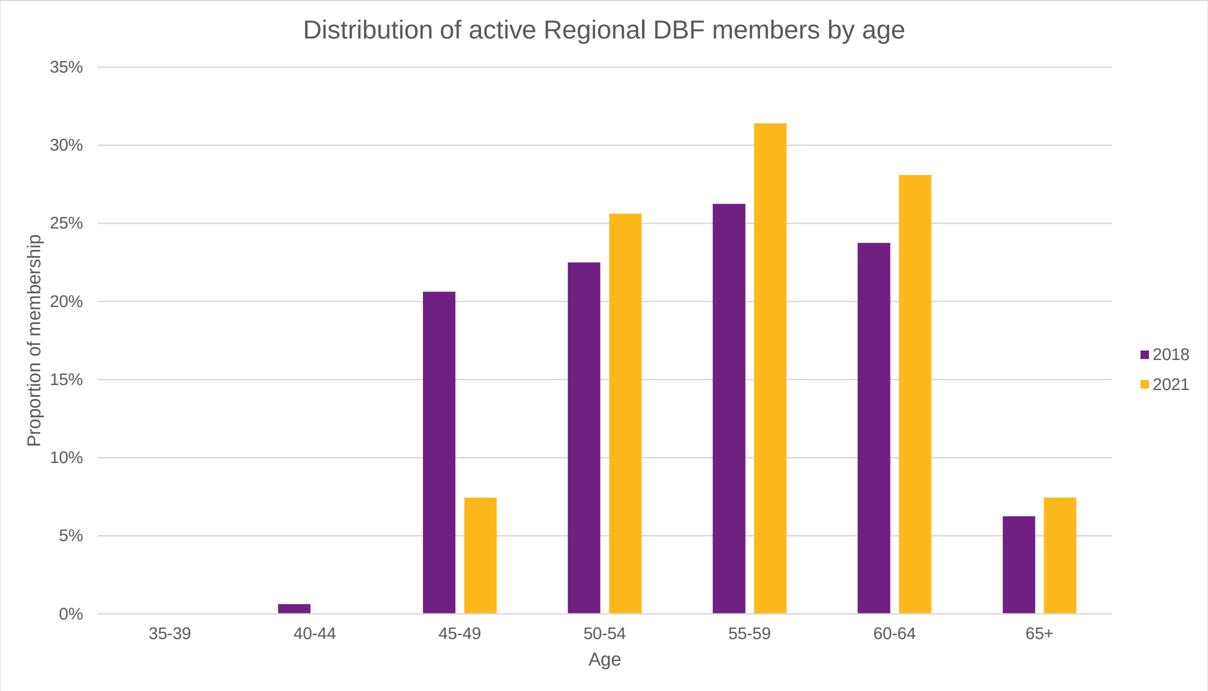
Approaching Retirements

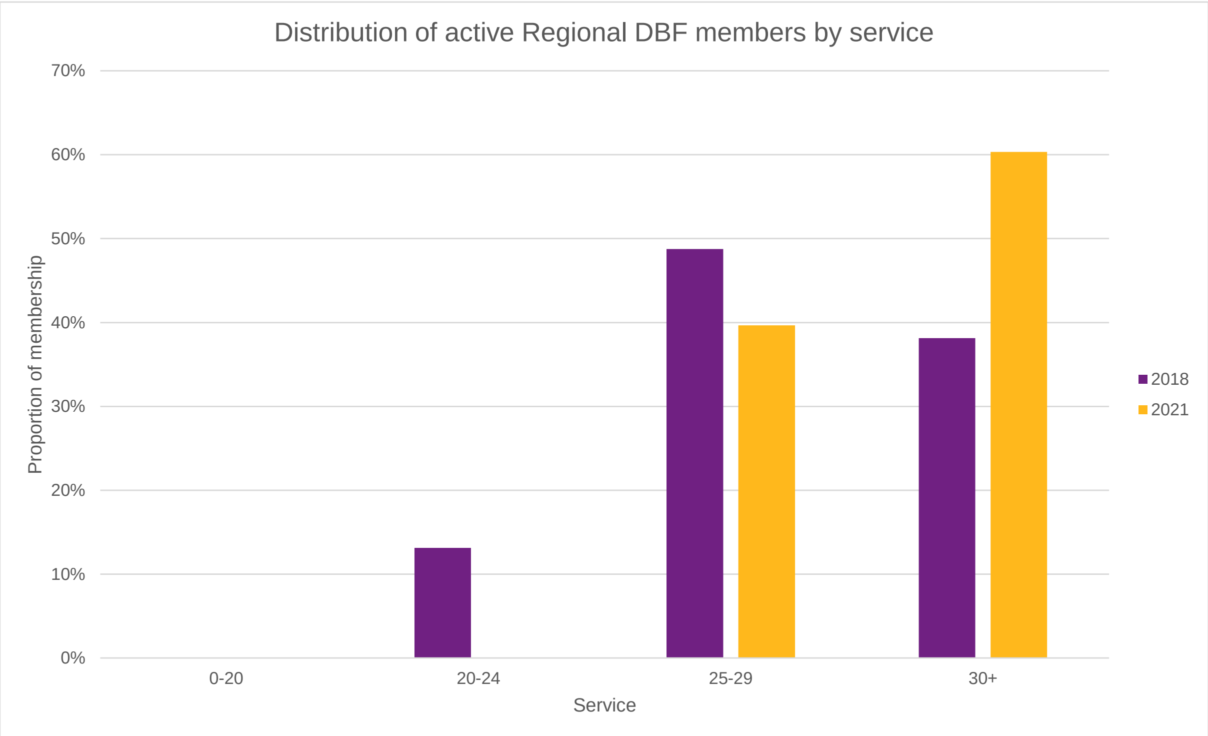
In the next three years, 22 members of City DBF are expected to reach their Normal Retirement Date. The total of their vested benefit at 1 July 2018 is $15.5m.

As at 1 July 2021, there are 9 Defined Benefit members of City DBF who have passed their Normal Retirement Date. The total of their vested benefit at 1 July 2021 is $5.4m.

Distribution of Active Defined Benefit Membership

Age Band	Number of Members at 1 July 2018	Number of Members at 1 July 2021
40-44	1	0
45-49	33	9
50-54	36	31
55-59	42	38
60-64	38	34
65+	10	9
Total	**160**	**121**


Distribution of active Regional DBF members by age
35%
30%
25%
20%
15%
10%
5%
0%
Proportion of membership
35-39
40-44
45-49
50-54
55-59
60-64
65+
Age
2018
2021


Distribution of active Regional DBF members by service
70%
60%
50%
40%
30%
20%
10%
0%
Proportion of membership
0-20
20-24
25-29
30+
Service
2018
2021

Appendix C: 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 audited financial statements and DBF breakdown data at the valuation date.

Investment Returns

4.5% p.a. compound (net of investment and administration expenses and taxes).

Inflationary Salary Increases

3% p.a. compound.

Promotional Salary Increases

Nil.

Pension indexation

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

Rates of Mortality and Total and Permanent Disability (TPD)

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

Age Next Birthday	Death	TPD	
		Male	Female
35	10.3	3.9	2.9
40	13.4	6.2	6.2
45	19.0	12.6	12.0
50	28.7	24.2	22.1
55	43.8	44.3	39.7
60	66.0	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	Number per year per 10,000 members	Age Next Birthday	Number per year per 10,000 members
55	1,000	60	1,500
56	500	61	1,500
57	500	62	1,500
58	500	63	1,500
59	500	64	3,000
60	1,500	65	10,000

Rates of Leaving Service

Age Next Birthday	Number per year per 10,000 members
35	310
40	220
45	160
50	140
55	0

Rates of Retrenchment

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

Pensioner mortality

Examples of pensioner mortality rates per year per 10,000 members:

Age Next Birthday	Female	Male
65	57	97
70	96	155
75	168	263
80	316	469
85	628	868
90	1,221	1,519
95	2,042	2,242
100	3,083	3,027

These rates reflect the mortality rates published in the ALT 2015-2017. The rates are then assumed to reduce each year beyond 2016 in line with the published 25 year improvement factors in the ALT 2015-2017, a sample of which are shown below.

Age Next Birthday	Female % improvement pa	Male % improvement pa
65	2.43%	2.97%
70	2.40%	2.99%
75	2.33%	2.77%
80	2.03%	2.35%
85	1.45%	1.61%
90	0.80%	0.89%
95	0.34%	0.52%
100	0.00%	0.08%

Future Expense Allowance

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

Premium rates

Premium rates for the Regional DBF are assumed to be paid in line with the premium rates outlined in the most recent policy schedule dated 1 May 2021. A sample of the premium rates for Death and Total and Permanent Disablement cover are shown in the table below.

Age	Premium rate per $1,000 of sum insured $
40	2.40
45	3.90
50	6.20
55	12.41
60	26.16

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 LGIAsuper for the tax payable.

Appendix D: Actuarial Statements required under SPS 160 for City DBF

The following statements are made for the City Defined Benefit Fund (DBF) which is part of LGIAsuper in response to Prudential Standard SPS 160:

1. These statements relate to the City DBF as at 1 July 2021.

2. The value of the assets at 1 July 2021 used to assess the long term employer contribution rates to the City DBF was $95.1 million based on audited financial statements. This asset value excludes any amount held to meet the Operational Risk Financial Requirement.

3. It is my opinion that the value of the City DBF's assets in point 2 are sufficient to meet the value of the City DBF's liabilities in respect of Accrued Benefits at the review date. These liabilities are 146.7% covered while vested benefits are 139.5% covered.

4. The assumptions and valuation methods used to determine the Accrued Benefit liabilities shown in point 3 are considered appropriate for this purpose.

5. In the absence of any special circumstances and subject to satisfying any industrial agreements, it is recommended that from 1 July 2021 each City DBF employer continues the existing contribution holiday in respect of Defined Benefit members.

6. Within the meaning of SIS Regulation 9.03, I consider that the financial position of the City DBF is satisfactory at 1 July 2021 and, provided employer contributions are made at the recommended rates above and the valuation assumptions adopted are borne out in practice, the City DBF is likely to remain in a satisfactory financial position over the three years following 1 July 2021.

7. In my opinion there is a high degree of probability that the City DBF will be able to pay the lifetime pension liabilities of the City DBF as required under the governing rules.

8. The current Shortfall Limit of 98% for the City DBF is considered to still be suitable.

9. As at 1 July 2021, the City DBF's assets were sufficient to cover the corresponding Minimum Benefits of $65.8 million by 144.6%.

10. All Funding and Solvency Certificates that were required or were material during the period of the investigation have been obtained.

11. The projected likely future financial position of the City DBF during the three years following the valuation date and based on my best estimate assumptions and recommended contribution rates is as follows:

Projection Date	DBF Assets $millions	Vested Benefits $millions	VBI %
1 July 2021	95.1	68.2	139.5%
1 July 2022	86.6	58.6	147.8%
1 July 2023	81.1	52.3	155.1%
1 July 2024	76.2	46.5	163.8%

12. I consider that an Actuary is likely to be able to certify the solvency position of the City DBF in any Funding and Solvency Certificate that may be required under the Superannuation Industry (Supervision) Regulations during the three year period commencing from 1 July 2021 based on the current level of Superannuation Guarantee and increases from 10.0% to 12.0% over the period to 1 July 2025.

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7 December 2021

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