Willis Towers Watson

Commonwealth Bank Group Super

Actuarial Investigation as at 30 June 2021

Volume 1 of 2

17 December 2021

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Reliance statement and data

This report was prepared for the exclusive use of Commonwealth Bank Officers Superannuation Corporation Pty Ltd (the Trustee) and on the basis agreed with the Trustee under our agreement dated 15 May 2014 as novated on 6 March 2017 and the Scope of Work agreed for the actuarial investigation. It was not prepared for use by any other party and may not address their needs, concerns or objectives. 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, the Bank 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 Bank in this regard. The Trustee should draw the provisions of this paragraph to the attention of its auditors and the Bank when passing this report to them.

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 Fund 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.

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.

The valuation results depend on the valuation assumptions we have adopted being borne out in the future. We refer you to Section 10 where we examine the impact of variations in future experience and Section 12 where we examine material risks.

Section 1: Purpose and Summary

17 December 2021

Our Ref: 3221102.04.01

The Trustee
Commonwealth Bank Group Super
c/- Mr Scott Durbin
Chief Executive Officer
201 Sussex Street
SYDNEY NSW 1155

We are pleased to present our report to the Trustee on the actuarial investigation into Commonwealth Bank Group Super (the Fund) as at 30 June 2021.

Purpose of the Investigation

The actuarial investigation is an important check on the security of benefits offered by the Fund. The main aims of the investigation are:

- to examine the long term funding of the Fund's benefits and to recommend a contribution rate at which the employer should contribute to the Fund;
- to examine the current financial position of the Fund;
- to meet the requirements of the Trust Deed and the relevant superannuation legislation; and
- to meet the reporting requirements of APRA Prudential Standard SPS 160, which require the report on the three yearly actuarial investigation to include certain information.

Membership

At 30 June 2021, there were:

- 1,203 active DB members of the Fund with salaries totalling $105,182,000;
- 3,917 DB pensioners with annual pensions totalling $143,741,000; and
- 631 DB members in the post-employment phase (deferred lump sums and pensioner).

The Accumulation Division (including the post-employment and allocated pension) account balances and expense provisions totalled $10,011,203,000.

Assets

The net market value of assets at 30 June 2021 was $13,653,095,000. Of this amount, $33,537,000 has been set aside for the Operational Risk Financial Requirement (ORFR). Excluding the ORFR, the Accumulation Division assets and expense provisions, the net market value of assets available to support the defined benefit liabilities was $3,518,355,000.

Fund Experience

The main features of the Fund's experience over the three years to 2021 in terms of the effect on the financial position compared with that in the 2018 investigation were:

- Positive effect on financial position:
  - Investment returns earned were higher than the assumed rates of return;
  - Inflationary increases for pensioners were lower than expected;
  - Salary increases for active members were lower than expected;
- Negative effect on financial position:
  - The partial contribution holiday by the Bank over the period.

Assumptions

The key economic assumptions used for this actuarial investigation are:

- The long-term investment earnings rates for Fund assets. The Fund has adopted a liability driven investment (LDI) approach to match pension assets with pension liabilities by establishing a separate portfolio for matching assets (for pension liabilities) and non-matching assets (for active liabilities). We have adopted a long-term net investment earnings rate of 5.5% per annum (2018: 5.8% per annum) for active members in respect of benefits expected to be taken as a lump sum, a long-term gross investment earnings rate of 3.15% per annum (2018: 4.9% per annum) for active members in respect of benefits expected to eventually be taken a pension (but who have not yet emerged as pensioners), and a long-term gross investment earnings rate of 2.2% per annum (2018: 3.4% per annum) on the matched portfolio for current pensioners (noting the pension liabilities are not fully matched).

- The long-term combined inflationary and promotional salary increase rate is 2.9% per annum for all ages. At the previous investigation the combined inflationary and promotional salary increase rate was also 2.9% per annum.

- The long-term pension increase assumption is 2.1% per annum. At the previous investigation this assumption was also 2.1% per annum.

The demographic assumptions used for this investigation have been updated following our analysis of the Fund's experience. The results of our analysis are contained in Section 8 of this report. Of note, we have reduced the rates of withdrawal and retirement for active members and updated the mortality assumptions for pensioners. The demographic assumptions are summarised in Appendix B.

Overall, the changes in the assumptions have reduced the level of surplus when measuring the long-term financial position of the Fund when compared to the position using the assumptions for the 2018 investigation.

Valuation Results

The actuarial investigation of the Fund at 30 June 2021 revealed that it was in a sound financial position. The investigation revealed an actuarial surplus of $207 million for the Fund (determined as the excess of the market value of assets over the present value of accrued benefit liabilities).

At 30 June 2021, the market value of assets was 102% of vested benefits for the Fund as a whole, or 109% for the Defined Benefit section alone, which indicates the Fund was in a satisfactory financial position at that date.

The coverage of the accrued benefit reserves by the Fund's assets at 30 June 2021 was also 102% for the Fund as a whole or 106% for the Defined Benefit section alone. This indicates the Fund's satisfactory progress towards funding benefit liabilities over the longer term.

Events since 1 July 2021

Investment returns over the period from 1 July 2021 to the date of this report have been volatile and equity markets have achieved positive returns over the period. The financial position is likely to have remained stable compared with the position at 30 June 2021. I am not aware of any events since 1 July 2021 that would have had a material adverse effect on the financial position.

Recommended Contribution Rates

Rule A6.1 of the Fund Rules requires the Actuary to report on whether any alteration to the rate of contributions payable by Members or Employers is necessary or desirable. The Trustee is required to provide this report to the Bank. Under Rule A9 the Bank determines the contributions the Bank and any Associated Employers will pay after considering the advice on an Actuary.

Considering those requirements, we do not believe that a change to the Member contribution rates is necessary. We recommend that the Bank pay contributions of no less than:

- Nil for Defined Benefit accruals and expenses for the year to 30 June 2022. Thereafter $27 million per year for Defined Benefit accruals and expenses; plus
- An additional $27 million per year from 1 July 2022; plus
  - The following amounts for accumulation members (including allowance for contributions tax):
    - Basic Employer Credits at SG rate (Rule F4.1(a)(1));
    - Additional Basic Employer Credits (Rule F4.1(a)(2)); and
    - Special Employer Credits (Rule F4.1(b)), for example, under an EBA.

less

- A reduction in Bank contributions of up to a total of $100 million (gross of contributions tax) which could be taken between 1 July 2021 and 31 December 2024 (when the results of the next investigation are available).

The Bank may choose to pay contributions at a higher rate than the minimum recommendation. The Trustee or Bank can also initiate an interim actuarial review and new contribution recommendation at any time if there is concern that the Fund is approaching a level where the VBI is nearing 100% (indeed legislation will require an actuarial review if the VBI falls below the shortfall limit which is currently 100%).

Other recommendations

We have also found in this investigation that:

- there is no actuarial funding reason why alterations to the provisions of the Deed are necessary or desirable;
- there is no reason for alteration to the defined benefit investment strategy given the actuarial funding position;
- a shortfall limit of 100% remains appropriate; and
- the self-insurance arrangements remain appropriate.

The next actuarial investigation of the Fund should be conducted with an effective date of no later than 30 June 2024.

The details required under the SPS 160 are included in Appendix C.

I confirm that this actuarial valuation and report satisfies Willis Towers Watson Professional Excellence standards and meets the requirements of Professional Standard 400 of The Institute of Actuaries of Australia.

Yours sincerely

L Campbell

Louise Campbell
Fellow of The Institute of Actuaries of Australia

17 December 2021

D: MN | TR: EZ | ER,CR: LAC,LC, SPR:TD

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Section 2: Background

Background

Commonwealth Bank Group Super (the ‘Fund’), formerly known as the Officer’s Superannuation Fund, was established with effect from 1 January 1916. Until 19 July 1996, the operations of the Fund were governed by the Rules under the Commonwealth Banks Act 1959 (the Act).

As at 30 June 2021, there were 14 divisions of membership of the Fund, arising from historical arrangements and transfers from other superannuation funds as shown below:

Division	Former arrangements or schemes	Transfer Date
Division B	Old Scheme Members	n/a
Division C	Vesting Scheme Members	n/a
Division D	Division B Members of the State Bank of Victoria Staff Superannuation Fund (SBV SSF)	1995
Division E	Division C Members of the SBV SSF	1995
Division CB1	Division B Part 1 Members of the Colonial Group Staff Superannuation Scheme (CGSSS) (State Bank of NSW contributory members who joined prior to 1 April 1988)	2003
Division CC	Division C Members of the CGSSS (State Bank of NSW contributory members who joined between 1 April 1988 and 30 June 1992)	2003
Division CD	Division D Members of the CGSSS (certain non-contributory members who were State Bank of NSW employees prior to 1 July 1997)	2003
Division CE	Division E Members of the CGSSS (State Bank of NSW members who joined between 1 July 1992 and 30 June 1997)	2003
Division CF	Division F Members of the CGSSS (ex-members of the State Superannuation Fund)	2003
Division CH	Division H Members of the CGSSS (DB members of the Colonial Group Staff Superannuation Fund)	2003
Division CK	Division K Members of the CGSSS (previously Category A members of Prudential Australia Staff Pension Scheme)	2003
Division CN, CO	Division N, Division O Members of the CGSSS (previously Trust Bank Staff Superannuation Fund)’	2003

Division	Former arrangements or schemes	Transfer Date
Division F	Accumulation Members, including: - former Commonwealth Bank of Australia Staff Superannuation Fund members - former CGSSS accumulation members - current and former employees of the Bank and associated employers - spouse members - allocated pension members	1995

The Fund provides defined lump sum and pension benefits to members of Divisions B, C (Basic and Full), D, E, CB, CC, CD, CE, CF, CH, CK, CN, and CO, i.e. benefits for members of these Divisions are related to their period of membership and their salary over the last few years of membership. The Fund provides lump sum accumulation benefits to members of Division F (the Accumulation Division). A detailed description of the benefits valued in this investigation is included in Volume 2 of this report.

The Fund was closed to new members with effect from 1 July 1993. The transfer of the CBA SSF into the Accumulation Division (Division F), of the Fund on 21 July 1995 effectively re-opened the Fund to new accumulation members from that date.

Commonwealth Bank Officers Superannuation Corporation Pty Limited (the Trustee) has been responsible for managing the Fund since 23 June 1995. Prior to 1995, the Fund was an exempt public sector superannuation scheme and hence a complying fund. The Trustee made a formal election for the Fund to be a "regulated" fund under the Superannuation Industry (Supervision) Act with effect from 30 June 1995. The Fund therefore qualifies for concessional tax treatment.

The Commonwealth Bank Sale Act 1995 (the Sale Act) amended the Act so that the Fund continued under a Trust Deed after the sale of the Commonwealth Bank of Australia (the Bank) on 19 July 1996. A Trust Deed dated 11 July 1996 was made between the Bank and the Trustee to govern the operations of the Fund. Under the Sale Act, the Commonwealth Government guarantees the payment of benefits from the Fund in respect of a person who was a member, retired member or beneficiary of the Fund immediately before the sale.

We have been provided with a working copy of the Trust Deed dated 3 April 2013 and subsequent amendments via Deed Polls dated 11 June 2013, 24 October 2013, 1 July 2015 and 31 August 2016.

Since the last actuarial investigation as at 30 June 2018, an amendment dated 30 January 2019 was made to create a new deferred member benefit category in Division C for employees affected by divestitures made by the Bank.

Purpose of the Investigation

Rule A6.1 of the Rules governing the Fund requires an actuarial investigation to be undertaken at least every three years. Rule A6.1 also requires the Actuary, as a result of the investigation, to recommend whether:

a. any alteration of the provisions of the Deed; or

b. in view of the state of the Fund, any alteration in the rate of the contributions or the payments made to the Fund by Members or by the Principal Employer or any Associated Employer;

is necessary or desirable.

Rule A9.1 specifies that the Principal Employer shall contribute to the Fund such amounts at such times as the Principal Employer, on the advice of an actuary, determines as being necessary to fund pensions and other benefits payable under the Deed.

Rule 6 specifies that the Principal Employer may amend from time to time any of the provision of the Deed as the Principal Employer sees fit. Notwithstanding this Rule, the provisions of the Deed must not be amended in a way that would have the effect of reducing benefits accrued or payable under the Deed if and to the extent that, by making the amendment, the Fund or the Trustee would fail to comply with the Relevant Law.

Current superannuation legislation and regulations also require that an actuarial investigation be undertaken on an annual basis unless APRA has issued the Trustee with a Determination allowing a period of three years between actuarial investigations. APRA issued a determination for the Fund under SIS Regulation 9.29A(2)(c)(ii) on 14 February 2007 requiring an actuarial investigation as at 30 June 2009 and every three years thereafter.

This investigation is made as at 30 June 2021. It is presented to the Commonwealth Bank Officers Superannuation Corporation Pty Limited, the Trustee of the Fund, by the Actuary to the Fund, Louise Campbell, FIAA.

Previous Actuarial Investigation

The previous actuarial investigation of the Fund was carried out as at 30 June 2018 by me, Louise Campbell. The results of the previous investigation were set out in a report dated 6 December 2018. In that report, I recommended that the Bank make contributions as follows:

- Nil for DB accrual and DB expenses;

plus

- The following amounts for accumulation members (including allowance for contributions tax):
  - Basic Employer Credits at SG rate (Rule F4.1(a)(1));
  - Additional Basic Employer Credits (Rule F4.1(a)(2)); and
  - Special Employer Credits (Rule F4.1(b)), for example, under an EBA.

less

- A reduction in Bank contributions of up to a total of $120 million (gross of contributions tax) which could be taken between 1 July 2018 and 31 December 2021 (when the results of the next investigation are available).

The Bank has made contributions of $815 million in total from 1 July 2018 to 30 June 2021, compared with total contributions due over the period of $843 million before allowance for the reduction. The Bank has therefore contributed in line with the recommendation in the previous actuarial investigation over the inter-valuation period.

Section 3: Membership

Membership Data

Responsibility for maintaining member records, payment of benefits and other administrative tasks of the Fund was delegated by the Trustee to Colonial First State and Mercer ("the Fund administrators"). Membership data was provided by the Fund administrators in respect of members in the Fund as at 30 June 2021 and in respect of members who had left the Fund since 1 July 2018.

We conducted detailed checks on the data to ensure that all dates, salaries and other amounts were internally consistent as well as being consistent with data received in previous years. The data files contained some defined benefit pensioners who were listed as deceased and without a spouse. We have removed these pensioners from the data after verifying the status with the administrators. Our checking is not designed to be exhaustive or to identify all errors or discrepancies in the data. Other than adjustments as noted above, we are satisfied that the data provided is reasonable and that there are no errors in the data which would have a material effect on the results of this investigation. We have relied on the data provided for this investigation.

Active Defined Benefit Members

The number of active members in each Division is shown in the table below.

Division	Members at 30 June 2021	Members at 30 June 2018
B	44	65
C – Full	828	1,078
C – Basic	16	21
D	42	46
E	124	159
CB, CC, CE	110	142
CD	16	17
CF	10	27
CH + Scottish	2	2
CK and CM	0	3
CN and CO	11	12
Total	**1,203**	**1,572**

The changes in the active Defined Benefit membership over the investigation period can be attributed as follows:

Change in Active Defined Benefit Membership	Members
Members at 30 June 2018	1,572
Exits:	
- Retirements	(212)
- Resignations	(70)
- Retrenchments	(73)
- Deaths	(5)
- Disablements	(9)
Members at 30 June 2021	1,203

Key membership statistics for active Defined Benefit members as at 30 June 2018 and 30 June 2021 are shown below.

Key statistics	30 June 2021	30 June 2018
Number of Members	1,203	1,572
Total Salaries	$105,182,000	$127,489,000
Average Salary	$87,433	$81,100
Average Age	54.2 years	52.3 years
Average Membership	33.4 years	31.2 years

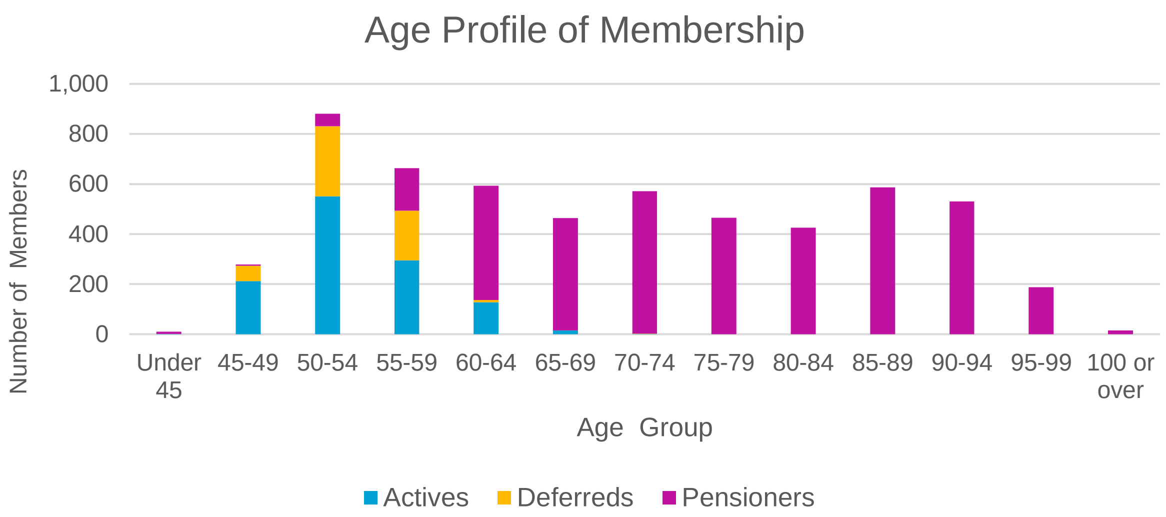
Defined Benefit Pensioners and Post-Employment Members

The number of pensioners and total pensions at 30 June 2018 and 30 June 2021 is shown in the table below, along with the number of Post-Employment members.

Key Statistics	30 June 2021	30 June 2018
Post Employment Members	631	760
Number of Pensioners	3,917	4,222
Total Annual Pension Amounts	$143,741	$146,765,571
Average Annual Pension Amount	$36,697	$34,762
Average Age of Pensioners	77.7 years	77.1 years

Age Profile of Defined Benefit Members

A chart showing the age profile of defined benefit members at 30 June 2021 is shown below.



Accumulation Members

Members of the Accumulation Division are not included in the totals above. For the purpose of this investigation, the Fund's liability in respect of members of the Accumulation Division is taken as the total account balances of those members and any other provisions or reserves set aside in respect of those members. No individual calculations are performed for the Accumulation Division members.

As of 30 June 2021, under the Fund's Funding and Pricing Policy, an expense provision existed for Accumulation members as a notional reserve. This provision is to allow for timing differences between expenses deducted from members' accounts and ultimate payment of costs attributable to Accumulation members. The Trustee has determined that this Accumulation notional reserve should not be available to fund defined benefits.

The total liability for Accumulation members was determined as follows (rounded to nearest thousand):

	30 June 2021	30 June 2018
Total Member Account Balances	$9,984,397,000	$7,966,231,000
Balance of Expense Provision (Accumulation Notional Reserve)	$26,806,000	$16,191,000
Total for Accumulation members	$10,011,203,000	$7,982,422,000

Section 4: Assets and Investments

Data

Financial information was obtained from the audited financial statements for the Fund for the years ending 30 June 2019, 30 June 2020 and 30 June 2021. The financial statements were prepared in accordance with Australian Accounting Standard AAS25 for 30 June 2019 and AASB 1056 for 30 June 2020 and 2021. We are satisfied that the information in the accounts appears to be correct based on our knowledge of the Fund. We have relied on the financial statements for the purpose of the investigation.

Value of Assets

We have valued assets using the net market value of assets as reported in the audited financial statements. A summary of cashflows over the investigation period is provided in Appendix A. For the purposes of the actuarial investigation, we have determined that the net market value of assets available to support the defined benefits is the total assets less the amount set aside for Accumulation members (as set out in the previous section), as shown in the table below.

Net Market Value of Assets	30 June 2021	30 June 2018
Defined Benefits	$3,518,355,000	$3,376,199,000
Accumulation Division	$9,984,397,000	$7,966,231,000
Balance of Expense Provisions/Notional Reserves	$26,806,000	$16,191,000
Operational Risk Financial Reserve	$33,537,000	$28,535,000
Total	**$13,563,095,000**	**$11,387,156,000**

Investment Objectives for Defined Benefit Section

The Trustee’s investment objectives for the defined benefit assets at 30 June 2021 were:

- To have an investment approach that, in combination with the employer sponsor’s contribution policy, will fund the relevant defined benefits.
- To maintain a level of assets that is sufficient to pay the defined benefits as they fall due.
- To reduce the volatility in the reported funding position.
- To target an expected return of CPI + 4.0% per annum in respect of the growth asset allocation.

Investment Strategy for Defined Benefit Section

The Trustee’s investment strategy in respect of the Defined Benefit assets at 30 June 2021 was to manage pension and non-pensioner liabilities through separate asset pools.

Pensioner liabilities are managed using a liability driven investment (LDI) approach, aimed at reducing the risk of mismatch between the defined benefit (DB) assets and DB pensioner liabilities. The DB section's defensive assets consist of a "matching portfolio", comprised mainly of bonds (including a substantial allocation to index linked bonds), and a cash component to meet liquidity needs.

The defensive portfolio covers a substantial portion of the pension liabilities, that is, over 95%. The remaining DB assets are invested in growth assets, with the following benchmark asset allocation:

Asset Class	Benchmark as at 30 June 2021 (%)
Equities	53
Real Assets	27
Alternatives	10
Multi-Asset	10
Total Growth Assets	**100**

As at 30 June 2021, the growth portfolio held approximately $1.4 billion and defensive portfolio approximately $2.2 billion in assets (before adjustment for other current assets and liabilities to arrive at the net asset position).

We consider the Trustee's overall investment objectives and strategy to be appropriate given the nature and term of the defined benefit liabilities of the Fund.

Fund Investments

Overall, the Fund's defined benefit assets were invested as follows:

Asset Allocation	30 June 2021 %	30 June 2018 %
Australian Equities	6.2	7.5
International Equities	15.6	16.9
Property	8.2	9.9
Alternatives	3.7	4.2
Multi-Asset	4.1	1.6
Fixed Interest Securities	59.3	57.3
Cash	2.9	2.6
Total	**100.0**	**100.0**

Crediting Rate Policy

For the Defined Benefit Divisions' accumulation-style benefits where applicable, the earnings credited to members' accounts in Divisions B, C, D and E is based on a smoothed, three-year average net earning rate of the Group Super Balanced option. For the remaining DB Divisions, it is based on the Group Super Balanced Option without averaging. For crystallised defined benefits awaiting transfer out, earnings are applied with reference to a short-term cash rate. There are no reserves set aside for the impact of smoothing or investment mismatch. We have no concerns with this approach as the crediting rates described above apply to a small portion of the defined benefit liability (less than two percent) and therefore any mismatch is not considered to be material for funding purposes.

We consider the crediting rate policies adopted by the Trustee to be appropriate.

Accumulation Members

The Fund offers member investment choice to Accumulation Division members. For the Accumulation Division, the earnings credited to members' accounts reflect the actual daily returns, net of fees and taxes, on the investment options underlying members' accounts.

Section 5: Funding Method

General

In a defined benefit fund, a pool of assets is built up over time which is available to meet benefit and expense payments as they arise. The pool of assets is built up by member and employer contributions and investment income on assets already accumulated. The pool is reduced by benefit payments, tax and expenses.

The actuarial funding method is the method of determining the rate of employer contributions required so that it is expected that the assets of the fund will be sufficient to meet future benefit payments as they fall due.

Funding Method

The last actuarial valuation was carried out using the Projected Unit Credit (PUC) funding method. This funding method remains appropriate for the Fund and we have retained this approach for this investigation. The PUC funding method involves:

- calculating a Normal Cost which is the employer contribution required to fund the present value of benefits accruing over the next year (excluding those which are to be funded by the members), ignoring any over or under funding of the present value of accrued benefits at the investigation date; and
- calculating an adjustment to the Normal Cost to take account of any over or under funding of the present value of accrued benefits at the investigation date.

As a percentage of salary, this Normal Cost is an approximation of the employer contribution required. Generally, the Normal Cost for an individual member is reasonably stable but increases slightly from year to year with gradual ageing of the membership where the fund is closed to new members, however the dollar cost will tend to reduce as the number of Defined Benefit members reduces.

The second part is the adjustment to the Normal Cost that is required to amortise any surplus or deficiency in respect of the actuarial present value of benefits arising from membership completed up to the valuation date. The surplus or deficit in respect of completed membership is calculated as the difference between:

i. the actuarial value of the Fund's assets, and

ii. the actuarial present value of all benefits accrued to the date of the valuation (this is calculated allowing for salary increases and the probability of leaving service due to withdrawal, death, disability or retirement).

The total Company contribution for the year is the Company's Normal Cost less (plus) any amortisation of surplus (deficit). Adjustments are also made to allow for tax and expenses.

Section 6: Experience and Assumptions

The valuation of the Fund’s liabilities is an essential part of examining the long-term financial position of the Fund, as described in Section 5. In order to value the liabilities, it is necessary to make assumptions regarding the timing and amount of future benefit payments, expenses and contributions since these cannot be known in advance. These assumptions are divided into two categories:

- financial assumptions relating to the rates of salary growth, inflation and investment income; and
- demographic assumptions relating to the rates of retirement, resignation, death and disablement.

While each of the assumptions used is normally the actuary’s best estimate of future experience, in practice, the Fund’s actual experience in any (short) period can always be expected to differ from the assumptions to some extent. However, it is intended that over longer periods, and when all of the assumptions are combined, they will provide a reasonable estimate of the likely future experience and financial position of the Fund.

In setting the financial assumptions to be used in this investigation, we have compared the Fund’s experience over the three year period ending 30 June 2021 to the assumptions used in the last investigation. In setting the demographic assumptions, we have compared the Fund’s experience over the two years and six month period ending 31 December 2020 to the assumptions used in the last investigation. The results of our analysis are contained Sections 7 and 8 of this report.

When the Fund’s actual experience differs from the assumptions used in the actuarial investigation, this will result in the current financial position of the Fund being different from that expected. Comparing actual experience to that expected based on the assumptions used in the last investigation also allows an explanation of changes in the financial position of the Fund.

It should be noted that any change in the assumptions will itself have an impact on the financial position of the Fund as measured by the long-term funding calculations described in Section 5. In order to maintain as much consistency as possible in the employer contribution rate over time, it is therefore appropriate to change the actuarial assumptions only when there is sufficient evidence to suggest that the previous assumptions are significantly different from the Fund’s expected long-term future experience.

A summary of the assumptions used in this investigation is included in Appendix B.

Section 7: Experience and Assumptions – Financial

In this section, we have compared the actual experience of the Fund for the three year review period to the financial assumptions made in the actuarial investigation in 2018. A summary of our review of the main assumptions is set out below:

Assumption (p.a.)	Applies to future benefits:	30 June 2021 Assumption	30 June 2018 Assumption	Experience (3 years to 30 June 2021)
Discount Rate	Actives – pre-retirement (net of tax)	5.50%	5.80%	7.8%
Discount Rate	Actives – post-retirement (gross of tax)	3.15%	4.90%	n/a
Discount Rate	Pensioners (gross of tax)	2.20%	3.40%	6.6%
Salary Increases	Pre-retirement	2.90%	2.90%	2.5%
CPI Inflation	Pension indexation	2.10%	2.10%	1.5%

* 3 years to 31 March 2021. Annual Pension indexation is set by reference to the change in CPI over the year to 31 March.

Further detail on these assumptions is set out in the rest of this section.

Investment Returns

The actual investment return earned each year during the investigation period is shown in the following table.

Year ending 30 June	Return on Defensive Portfolio % p.a.	Return on Growth Portfolio (Net of Tax) % p.a.	Weighted Return on Total Portfolio % p.a.
2019	10.6	7.8	9.2
2020	3.8	-1.3	1.8
2021	5.4	17.9	9.7
3 years to 30 June 2021	**6.6**	**7.8**	**6.8**

Movements in the defensive portfolio have been largely matched by movements in the pensioner liabilities due to changes in the underlying discount rates, hence the defensive portfolio returns do not significantly impact the financial position. The actual return on the growth portfolio was more than assumed in the previous investigation and this has had a positive effect on the financial position of the Fund.

While short-term differences between actual investment returns and the actuarial assumption can affect the financial position of the Fund as measured by the actuarial investigation, the assumption used in the investigation must be based on long-term expectations. This is because the investigation involves valuing payments 40 years or more into the future.

We have adopted a long term investment return assumption in respect of active pre-retirement member liabilities of 5.5% per annum (net of taxation and investment management expenses). This is based on our long-term expected returns for each asset class and the target asset allocation for the growth portfolio.

We have adopted a long term investment return assumption in respect of current pension liabilities of 2.2% per annum (gross of taxation and net of investment management expenses). This has been determined with reference to the current yield on the matching portfolio and market inflation expectations.

The long term discount rate for benefits expected to eventually be paid as a pension in respect of members who are assumed to still be in active employment at each projection year (ie are assumed to have not yet emerged as new pensioners) has been set at 3.15% per annum (gross of taxation and net of investment management expenses). This has been determined using a blend of the Active pre-retirement (25% weighting) and Pensioner (75% weighting) discount rates to reflect the lower returns expected to be earned on assets backing benefits which will be in pension phase at a future point. A blended approach was also used in the 2018 investigation, however the weightings used in 2018 were 50% and 50% respectively.

Pension Increases

The rate of pension increases will also affect the financial position of the Fund. Pension increases are based on the CPI increase over the year to 31 March. Over the three years to 31 March 2021, increases in CPI have been 1.5% per annum. At the last actuarial investigation, a pension increase assumption of 2.1% per annum was adopted, hence actual pension increases have been lower than expected. Based on current market conditions effective at 30 June 2021 and the underlying matching portfolio of inflation linked bonds, we have maintained the pension increase assumption of 2.1% per annum which we believe is also consistent with our economic assumptions and with expected long-term future levels of price inflation.

Salary Increases

Salary increases are generally considered in three components, namely inflationary, productivity and promotional (or career advancement) increases. Combined inflationary and productivity increases are generally assumed to be in line with increases in Average Weekly Earnings or award pay rates over time while promotional increases are often related to age, the industry in which members are employed and the type of work performed.

Over the period 30 June 2018 to 30 June 2021, the average observed rate of salary increases for DB members was 2.6% per annum overall. At the last actuarial investigation, the total combined (inflationary, productivity and promotional) salary increase assumption was 2.9% per annum for all ages, therefore actual salary increases over the last three years have been lower than expected.

The average national salary inflation over the investigation period (measured by the increases in Average Weekly Ordinary Time Earnings for full time adults) was 3.1% per annum. The increases agreed under the Commonwealth Bank Enterprise Bargaining Agreement (EBA) and increases for non-award staff averaged 3.1% per annum and 1.9% per annum respectively over the period 1 July 2018 to 30 June 2021.

Consistent with the assumption for expected long-term future levels of price inflation, the inflationary component of the salary inflation assumption has been maintained at 2.1% per annum.

Taking into account current long-term expectations for wage inflation and expectations for Fund members based on their type of employment and the Bank's salary budget forecasts, we have assumed a total salary increase rate of 2.9% per annum (allowing for inflation, productivity changes and promotion) for this actuarial investigation.

"Gap" Between Investment Returns and Pension or Salary Growth

The assumption of major significance in the valuation of the Fund's future benefit liabilities and contributions is the difference (or 'gap') between the assumed future rate of investment earnings and the assumed rate of future growth in pensions or salaries, i.e. the real rate of return on invested assets. These factors are offset against each other in their financial effect – hence the difference between the rates is important rather than the absolute values ascribed to them. The higher the real rate of return assumed, the lower the value placed on the liabilities and the lower the resulting estimated required employer contribution rate. It is appropriate to value long term superannuation liabilities based on expectations for real rates of return over the long-term.

- **Investment returns and salary increases:** The 'gap' over salary inflation resulting from the assumptions used at the last actuarial investigation was 2.9% per annum. The actual real rate of return achieved by the Fund, based on the difference between the return on the net market value of defined benefit assets in the growth portfolio and salary increases over the three years to 30 June 2021 has been around 5.2% per annum. For this investigation, the gap between the net investment return and salary increase assumptions (of 5.5% per annum and 2.9% per annum respectively) results in a gap of 2.6% per annum for active members' liabilities. The gap has reduced for this investigation and in isolation will have the effect of increasing active member liabilities.

- **Investment returns and pension increases:** The 'gap' over pension increases resulting from the assumptions used at the last actuarial investigation was 1.3% per annum. The actual real rate of return achieved by the Fund, based on the difference between the return on the net market value of defined benefit assets in the matching portfolio and pension increases over the three years to 30 June 2021 has been around 5.1% per annum. For this investigation, the gap between the gross investment return and pension increase assumptions (of 2.2% per annum and 2.1% per annum respectively) results in a gap of 0.1% per annum for pensioner liabilities. The gap has reduced for this investigation and in isolation will have the effect of increasing pensioner liabilities.

Expenses

In the previous actuarial investigation, the expenses borne by the Defined Benefit assets were allowed for at the rate of $9 million per year. For this investigation, we have adopted an allowance for defined benefit expenses of $8 million per year and this is assumed to remain constant over the inter-valuation period.

Fund expenses in respect of the Accumulation Division members are assumed to be fully covered by specific deductions from member accounts and/or asset-based fees from the Accumulation Division.

Insurance

The Fund is fully self-insured in respect of death and total and permanent disablement benefits at risk for Defined Benefit members. The salary continuance benefits for members of Divisions CH, CK, CM and CO (Part A) are fully insured. The cost of the self-insurance has been allowed for when determining the contribution rates to be paid by the employer sponsor. The Trustee holds a catastrophe policy to cover the risk of a large number of deaths or disabilities amongst self-insured members and the cost of this policy is allowed for in our expense allowance.

The cost of insurance premiums for the Accumulation Division is met by members, so there is no need to make any assumptions regarding insurance for this actuarial investigation of the Fund.

Further comments on the Fund's insurance arrangements in respect of death and disablement benefits are included in Section 11.

Taxation

Any change in the taxation regime applying to superannuation funds in Australia will have an impact on the financial status of the Fund. We have assumed that the current regime will continue and that the tax rate presently applying to the Fund will be maintained in future i.e. that the Fund will remain a regulated and complying fund under SIS and the Tax Act respectively and have a concessional tax rate of 15% applied to net deductible contributions and non-exempt investment earnings.

Since the cost of the surcharge or excess contributions tax is met by reducing the benefits of affected members, no assumptions have been made regarding surcharge or excess contributions tax for this investigation.

Section 8: Experience and Assumptions – Demographic

We have analysed the Fund's demographic experience over the two years and six months since the effective date of the previous valuation. The main findings of our analysis are set out below. Details of the assumptions are included in Appendix B.

Reason for Exit	Actual Exits	Expected Exits	Ratio (Actual/Expected)	Expected under new assumptions
Retirements	160	273	59%	191
Deaths	4	4	93%	No change
Disablements	5	8	66%	No change
Resignations	36	98	37%	49
Retrenchments	83	No allowance	n/a	No allowance

Retirement

The occurrence of retirements before the normal retirement age (early retirements) may have a small negative effect on the financial position of the Fund. This is due to the benefit paid being slightly greater than the money built up in the Fund in respect of the member at that time (i.e. the member's actuarial reserve). It is therefore important not to underestimate the rate of early retirements in making assumptions about the Fund's future experience.

The rates of early retirement experienced were lower than the expected rates adopted for the 2018 valuation. The assumed retirement rates were reduced in the 2018 investigation and we have made further reductions given the continued lower rates over recent years.

Deaths and Disablements

There is not sufficient data for active (employed) defined benefit members to allow for a statistically meaningful comparison of death and disability experience over the investigation period. Mortality and disability experience over the investigation period were lower than expectations (refer to section 11 for more detail). We were provided with the insurance premium rates for the Accumulation Division members covering current Bank employees and these did not change since 2018. We have therefore maintained the previous assumptions.

Resignation

Resignation rates for defined benefit members were significantly lower than the expected rates adopted for the 2018 valuation. We note that there were 44 retrenchments of members under the age of 55 over the investigation period and it may be the case that retrenchments replaced some of the natural turnover that would come through resignations. No explicit allowance is made for retrenchments in our valuation assumptions given the number of retrenchments is unpredictable and the retrenchment benefits are at a similar level to a member's resignation or retirement benefit.

Given the difference between actual and expected resignation experience, we have adopted a flat rate of 2% across all ages for defined benefit members which is more consistent with actual experience over the period and will result overall in a lower number of expected resignations.

Pensioner Mortality

As at 30 June 2021, pensioners and defined benefit post-employment members make up a large proportion of the accrued liabilities of the Fund. Therefore the most material demographic assumption is pensioner mortality. The 2018 valuation assumptions for pensioner mortality were:

- For male pensioners and male spouse pensioners, Australian Life Tables (ALT) 2010-12 Male scaled by 50%, with this scaling increasing linearly by 1.5% for each year over age 65 (subject to maximum of 100% of ALT2010-12 Male).
- For female pensioners and female spouse pensioners, ALT 2010-12 Female scaled by 50%, with this scaling increasing linearly by 1.0% for each year over age 65 (subject to maximum of 100% of ALT2010-12 Female).
- In addition to the rates above, a mortality improvement of 2% each year from 30 June 2011, with these improvements reducing by 0.05% for each year over age 65.

For this investigation, we examined the mortality experience of male and female pensioners (both original staff and spouse) over the investigation period. A summary of actual number of pensioner deaths compared with the number expected under both old and new assumptions is shown in the table below:

	Exposed to Risk	Actual Deaths	Expected Deaths	Ratio (Actual/Expected)	Ratio under New Assumptions
Male pensioners	4,666	221	247	90%	93%
Female pensioners	5,443	258	284	91%	92%

For males and females, the actual mortality experience has been lighter than the assumption adopted in the 2018 valuation, however the number of pensioners at each age is still relatively small for meaningful statistical analysis. We have therefore updated the underlying mortality rates to use the most recently published Australian Life Tables, ALT 2015-17 instead of ALT 2010-12. The new tables have slightly reduced mortality overall compared with ALT 2010-12.

Both male and female rates are scaled by 50%, with this scaling increasing linearly by 1.5% each year over age 65. We have retained the additional mortality improvement assumption of 2% each year from

30 June 2016 (updated from 2011), with these improvements reducing by 0.05% for each year over age 65.

Pension Take-Up Rate

We also make assumptions about the proportion of members taking the pension option where available (primarily for members in Division C). After age 55, members can choose to take a pension or a lump sum, however if a pension is chosen, at least 50% of the benefit must be taken as a pension. In the 2018 investigation, we assumed a pension take-up rate of 75%. Based on our analysis, the actual money-weighted rate of members taking their benefit as a pension was around 71% and that rate has remained fairly stable at that level since 2015. It is important to not underestimate the rate of pension take-up as pension benefits are expected to be more valuable than lump sum benefits. We have therefore retained the assumed pension take-up proportion of 75% for this investigation.

Proportion Married

We make assumptions on the proportion of active members who are married. We have reviewed our assumptions against married data of the general population from the 2016 Census of Population and Housing Australia, released by the Australian Bureau of Statistics, and the differences are not material. Therefore we have retained our assumptions on the proportion of members who are married for this investigation.

Other Statistics

We also make assumptions about Members' dependants in order to value reversionary pensions. These assumptions are set out in detail in Appendix B.

Section 9: Solvency and Other Measures of Financial Position

When assessing the adequacy of the assets and future contribution rates, both the long-term funding and short-term solvency positions should be considered. Legislation and actuarial professional standards also require the calculation of several measures of the financial position at the investigation date. The measures we have calculated and a brief explanation of their purpose are set out below.

- **Vested Benefits Index** – a fund is in a “satisfactory financial position” under superannuation law if the ratio of the fund assets to the vested benefits is 100% or more. The value of vested benefits represents the total amount the fund would be required to pay if all members were to voluntarily leave service on the valuation date. This a short-term solvency measure and is the focus of the superannuation regulator, APRA.

- **Minimum Benefit Index** – a fund is “technically solvent” under superannuation law if the Minimum Benefits Index is 100% or more. This index represents the ratio of the assets at market value to the Minimum Benefits on the valuation date. The Minimum Benefits are the benefits that must be paid under Superannuation Guarantee legislation. If a fund’s assets are insufficient to cover the Minimum Benefits, there are significant consequences for the management of payment of benefits from the fund.

- **Retrenchment Benefits Index** – This index represents the ratio of the assets at market value to the “retrenchment benefits”. The value of retrenchment benefits represents the total amount which the members are entitled to on the valuation date if they were retrenched by the Bank.

- **Accrued Benefits Reserve Index** – this is a measure of progress towards fully funding the benefits on a going concern basis and is a long-term measure rather than an immediate solvency test.

All funding position indices show the Fund is a sound financial position, and the funding position has generally improved since the previous investigation.

Long term solvency is considered in more detail in the next section.

Vested Benefits Index (VBI)

This index represents the ratio of the assets at market value to the "vested benefits". The Vested Benefits were taken as the amount of the resignation benefit, or the early retirement benefit for members who are eligible to retire. An allowance is made for pension liabilities for those members who would be eligible for a pension benefit if they were to voluntarily leave service on the valuation date.

The following table shows the progression of the Vested Benefits Index, for both the whole Fund and the defined benefit section only, over the review period.

	This Valuation Defined Benefits Only* ($m)	Last Valuation Defined Benefits Only* ($m)	This Valuation All Benefits ($m)	Last Valuation All Benefits ($m)
Market Value of Assets	3,518	3,376	13,503	11,342
Vested Benefits	3,234	2,956	13,219	10,923
VBI	109%	114%	102%	104%

* The “Defined Benefits Only” figures illustrate the financial position of the Fund in respect of the Defined Benefit liabilities, including additional accumulation accounts for defined benefit members.

The Fund's DB VBI has reduced over the three years since 2018, mainly due to the impact of the contribution holiday and changes in valuation assumptions. The Fund remains in a satisfactory financial position.

Minimum Benefits Index (MRBI)

This index represents the ratio of the assets at market value to the “minimum benefits”. The following table shows the progression of the Minimum Benefits Index over the review period for the whole Fund.

	This Valuation Defined Benefits Only* ($m)	Last Valuation Defined Benefits Only* ($m)	This Valuation All Benefits ($m)	Last Valuation All Benefits ($m)
Market Value of Assets	3,518	3,376	13,503	11,342
Minimum Benefits	2,898	2,654	12,883	10,620
Minimum Benefits Index	121%	127%	105%	107%

* The “Defined Benefits Only” figures illustrate the financial position of the Fund in respect of the Defined Benefit liabilities, including additional accumulation accounts for defined benefit members.

The Fund was technically solvent at 30 June 2021.

Retrenchment Benefits Index (RBI)

This index represents the ratio of the assets at market value to the “retrenchment benefits”. In some divisions, the retrenchment benefit is an immediate lump sum compared with an entitlement to a pension on leaving service due to resignation or retirement. Not all Divisions are entitled to a different benefit on retrenchment, and in those cases the retrenchment benefit is equal to the vested benefit.

The following table shows the progression of the retrenchment benefits and RBI over the review period for the whole Fund.

	This Valuation Defined Benefits Only* ($m)	Last Valuation Defined Benefits Only* ($m)	This Valuation All Benefits ($m)	Last Valuation All Benefits ($m)
Market Value of Assets	3,518	3,376	13,503	11,342
Retrenchment Benefits	3,095	2,974	13,079	10,940
RBI	114%	114%	103%	104%

* The "Defined Benefits Only" figures illustrate the financial position of the Fund in respect of the Defined Benefit liabilities, including additional accumulation accounts for defined benefit members.

Accrued Benefits Reserve Index (ABRI)

This index compares the assets at market value with the present value of the accrued benefits of members at the valuation date. The ABRI is a simple measure of a fund's strength on a continuing or "going concern" basis. The method of calculating the accrued benefit reserves is the same as that used to determine the Fund's benefit liability for the purposes of the Fund's financial statements. Accrued benefit reserves represent the present value of expected future benefit payments arising in respect of membership of the Fund up to 30 June 2021.

The following table shows the progression of the Accrued Benefits Reserve and ABRI, for both the whole Fund and the defined benefit section only, over the review period.

	This Valuation Defined Benefits Only* ($m)	Last Valuation Defined Benefits Only* ($m)	This Valuation All Benefits ($m)	Last Valuation All Benefits ($m)
Market Value of Assets	3,518	3,376	13,503	11,342
Accrued Benefits Reserve	3,311	2,964	13,295	10,930
ABRI	106%	114%	102%	104%

* The "Defined Benefits Only" figures illustrate the financial position of the Fund in respect of the Defined Benefit liabilities, including additional accumulation accounts for defined benefit members.

The ratios above show that the Fund was in an adequate position on a going concern basis at the investigation date. The Accrued Benefit Reserve Index of the Fund reduced over the last three years mainly due to the impact of the contribution holiday and changes in valuation assumptions.

Shortfall Limit

Shortfall Limit is defined in 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".

For this purpose, "satisfactory" or "unsatisfactory" financial position refers to whether assets are sufficient or insufficient to cover vested benefits.

APRA's rationale for the shortfall limit is based on recognition that normal investment market volatility may result in the coverage of vested benefits (or VBI, Vested Benefits Index) temporarily falling below 100%. The shortfall limit is designed to provide some flexibility for funds to manage vested benefit coverage between regular actuarial investigations and to avoid having to take additional and perhaps unnecessary steps and remedial action when it may be reasonably expected that the market value of fund assets will recover sufficiently in the short term. Of course, reductions in the VBI below the shortfall limit will trigger remedial action in the form of a restoration plan.

We note the Trustee has adopted a shortfall limit of 100% for the defined benefit section of the Fund. In our view this shortfall limit remains appropriate. The shortfall limit can be reviewed periodically, and we recommend that such as review should take place in the event of a change in investment strategy or other change in circumstances that the actuary believes warrants a review of the shortfall limit, and as part of each actuarial investigation.

Termination of the Fund

The Trust Deed of the Fund has no specific provision for the termination of the Fund and so we have not assessed the financial position of the fund on a termination basis. We note that the consolidated Trust Deed of the Fund and CGSSS includes some termination provisions for members of Divisions CH and CM. In each case, the Trust Deed states that upon termination of a participating Employer, the portion of assets attributable to the relevant members is to be determined according to a formula. This formula is similar for each Division. Considering the surplus of the Fund on a consolidated basis, we believe the Fund continues to remain in a satisfactory financial position if the Fund were to terminate and the relevant assets were required to be apportioned to the former CGSSS Divisions CH and CM according to the Trust Deed.

Various factors that may impact on Funding and Solvency measures

We comment below on a number of factors that may influence the measures in this Section. These factors are not exhaustive and are not meant to cover all possible factors.

- The net market value of assets does not include any assets, to our knowledge, that materially depend on the employer that have not been paid, nor any materially illiquid assets.
- If the value of pensions in payment was determined including the future expenses of paying and administering these benefits, then the indices in this Section would reduce, by around 3 percentage points.
- If the value of the pensions in payment was determined on an equivalent market value basis, then the indices in this Section would reduce. We would be pleased to investigate this further.

Section 10: Valuation Results

Long Term Funding Results

The valuation result of the Fund using the Projected Unit Credit funding method reveals an excess of the actuarial value of assets over the value of accrued liabilities. These results are set out in the table below, together with the 2018 valuation results for comparison.

Value of Future Benefit Payments in respect of past service	2021 Results ($ m)	2018 Results ($ m)
In force Defined Benefit Members:		
- Retirement	826.1	712.5
- Death	7.6	7.0
- Disablement	19.5	15.8
- Resignation	25.1	83.2
- Old Scheme Accounts[1]	12.2	18.7
- Surcharge accounts	(1.0)	(1.6)
Total in force Defined Benefit Members	889.5	835.6
All Pensioners (including Surcharge accounts)	2,420.5	2,127.4
Self-insurance claims provision[2]	1.0	1.0
Total Value of Accrued Benefits (L)	**3,311.0**	**2,964.0**
Market Value of Assets (A)	**3,518.4**	**3,376.2**
Surplus (A less L)	207.4	412.2

[1] Old Scheme accounts are Division B member, company supplementary and productivity accounts.
[2] See Section 11 for note about incurred but not finalised insurance claims.

Normal Employer Cost

The Normal Employer Cost as a percentage of salaries under the PUC funding method for current members of the Defined Benefit Divisions is set out below.

Division	2021 Normal Cost Net of tax %	2021 Normal Cost Gross of tax %
B	0.7	0.9
C – Full	19.0	22.3
C – Basic	9.0	10.6
D	35.7	42.0
E	8.9	10.5

Division	2021 Normal Cost Net of tax %	2021 Normal Cost Gross of tax %
CB, CC, CE	7.3	8.6
CD	9.5	11.1
CF	15.6	18.4
CH (+ Scottish)	12.6	14.9
CN and CO	15.9	18.8
Total percentage	**16.6**	**19.6**

The net normal cost is our estimate of the cost of employer funding defined benefits without allowing for the contributions tax paid on employer contributions. The net normal cost is the annual impact on surplus when the defined benefits are funded from surplus rather than employer contributions. The gross normal cost includes contributions tax therefore represents the amount the Bank would contribute to provide the funding cost.

Overall, the net normal cost was 12.5% at 30 June 2018. This has increased to 16.6% at 30 June 2021, as a result of the aging of the membership as well as the reduction in the Post-Retirement discount rate for active members. In dollar terms, the gross normal cost for the Defined Benefit divisions (to be funded by the Bank) increased from $17 million in 2018/2019 to approximately $19 million for the 2021/2022 year (excluding DB expenses).

The gross normal cost for employees in the Accumulation Division is the Superannuation Guarantee contribution rate, which is 10.0% of Ordinary Time Earnings for the 2021/22 year.

Sensitivity Analysis – Alternative Scenarios

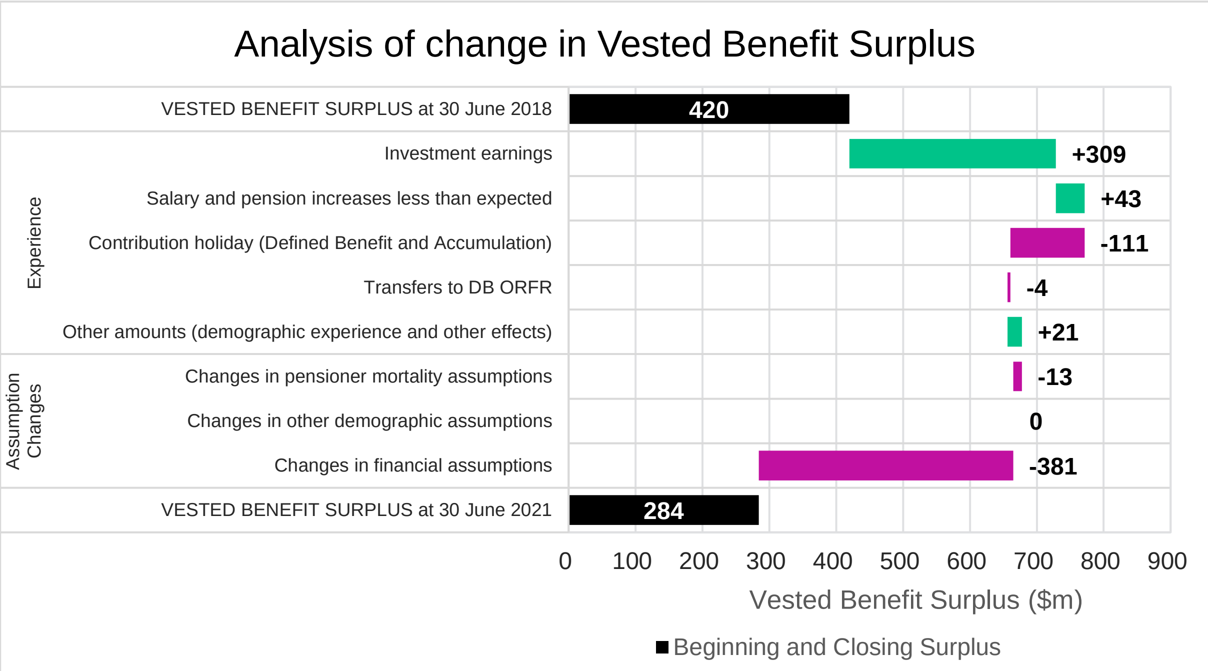
If experience deteriorates over the next three years and our valuation assumptions need to be changed in the actuarial investigation in 2024, we have considered the potential impact on the accrued benefit liabilities by looking at the position at 30 June 2021 under the following alternative scenario assumptions:

Scenario (all assumptions other than indicated below are as set out in Appendix B)	Change in Accrued Benefits (as at 30 June 2021)
Discount rates decrease by 0.5% p.a.	$224 million increase (7%)
Salary growth assumption increases by 0.5% p.a.	$20 million increase (1%)
Pension inflation assumption increases by 0.5% p.a.	$185 million increase (6%)
Assumed life expectancy is on average 1 year longer	$157 million increase (5%)

Given the existing surplus on an accrued benefits basis of $207 million as at 30 June 2021, these scenarios show that the Fund would remain in a sound financial position at 30 June 2021 if the assumptions for salary growth, pension inflation and life expectancy were to be changed as shown above. A discount rate change in isolation would require additional long term funding unless the effect of asset revaluations in the matching portfolio was more than sufficient to offset the change.

Analysis of Change in Financial Position

Having examined the long term funding position, we now turn to the short term funding position considering Vested Benefits. As shown in the previous section, the Vested Benefits surplus has reduced by $136 million since the investigation at 30 June 2018. An approximate analysis of the change in financial position is set out in the table below:



The future funding position is also very sensitive to the asset returns earned on the Growth portfolio. The current pensioner liabilities are largely backed by the Fund's defensive assets, and movements in the defensive assets as a result of changes in expected bond yields in the short term will be quite closely matched by the changes in current pension liabilities with updated return expectations.

Given the level of surplus at 30 June 2021, we believe it is necessary for the Bank to recommence contributions in respect of defined benefit accruals and expenses, and to limit the amount of surplus available for any contribution reduction in respect of Accumulation members.

We have therefore undertaken some deterministic scenario modelling to assess the impact of an adverse investment return outcome on the growth portfolio. The asset return scenarios in the table below show the assumed returns under the valuation assumptions, and a "1-in-20 year poor return" scenario over the 2022/2023 financial year. Based on Willis Towers Watson's asset modelling of the underlying assets in the Growth Portfolio, a return of -11.5% represents a 1-in-20 year "worst case" return scenario. Our other projection assumptions remain unchanged from the 2021 assumption set. Contributions are assumed to be nil for defined benefit accruals and expenses for the year to 30 June 2022 and thereafter $54 million per year. Accumulation credits are assumed to be fully matched by cash contributions.

	Base Assumption			Adverse Return Assumption		
	Growth Return assumed p.a.	Vested Benefits Index	Vested Benefit Surplus ($m)	Growth Return assumed p.a.	Vested Benefits Index	Vested Benefit Surplus ($m)
30 June 2021		109%	285		109%	285
30 June 2022	5.5%	108%	269	5.5%	108%	269
30 June 2023	5.5%	109%	289	-11.5%	102%	71
30 June 2024	5.5%	110%	303	5.5%	102%	73
31 December 2024	5.5%	110%	317	5.5%	103%	81

The table above shows that:

- Under our Base assumption, the vested benefit surplus is expected to increase by the end of the projection period.
- During the year of the adverse return in 2022/2023, the surplus reduces by approximately $200m. The impact on the VBI is a reduction of seven percentage points.

If we were to assume a reduction in the Bank contributions of $100 million evenly over the period shown above, the projected position under the Base Assumption reduces to a VBI of 107%. These are simplified projections and do not take into account other events which may happen in practice, for example a rebound in the Growth returns may occur or the Bank may adjust the level of contributions after such an event. The variations in selected scenarios do not indicate upper or lower bounds of all possible outcomes.

Recommended Contributions

Rule A6.1 of the Fund Rules requires the Actuary to report on whether any alteration to the rate of contributions payable by Members or Employers is necessary or desirable. The Trustee is required to provide this report to the Bank. Under Rule A9 the Bank determines the contributions the Bank and any Associated Employers will pay after considering the advice on an Actuary.

Considering those requirements, I do not believe that a change to the Member contribution rates is necessary. We recommend that the Bank pay contributions of no less than:

- Nil for Defined Benefit accruals and expenses for the year to 30 June 2022. Thereafter $27 million per year for Defined Benefit accruals and expenses; plus
- An additional $27 million per year from 1 July 2022; plus
- The following amounts for accumulation members (including allowance for contributions tax):

  - Basic Employer Credits at SG rate (Rule F4.1(a)(1));
  - Additional Basic Employer Credits (Rule F4.1(a)(2)); and
  - Special Employer Credits (Rule F4.1(b)), for example, under an EBA.

less

- A reduction in Bank contributions of up to a total of $100 million (gross of contributions tax) which could be taken between 1 July 2021 and 31 December 2024 (when the results of the next investigation are available).

We have allowed for a nominal reduction in Bank contributions which would be expected to be used for timing differences in cash contributions compared with Accumulation credits or to offset the build-up of surplus beyond the projected levels.

The Bank may choose to pay contributions at a higher rate than minimum recommendation. The Trustee or Bank can also initiate an interim actuarial review and new contribution recommendation at any time if there is concern that the Fund is approaching a level where the VBI is less than 100% (indeed legislation will require an actuarial review if the VBI falls below the shortfall limit which is currently 100%).

Section 11: Insurance

We have reviewed the Fund's insurance and self-insurance arrangements as set out below.

Accumulation Members

At the valuation date, the Fund insured the excess of the death and disablement benefits for Accumulation Division members over the vested benefits through an external insurer, Colonial Mutual Life Assurance Society Ltd. As such, we understand that there is no self-insurance in respect of the Accumulation members.

Defined Benefit Members

The Fund provides death and disablement benefits for Defined Benefit members which can be in excess of the accrued benefits as determined by the actuary. At the valuation date, the whole amount in excess of the accrued benefits was self-insured.

At 30 June 2021	Death	Permanent Disablement
Number of members covered	1,203 members	1,203 members
Self-insurance exposure	$82 million	$428 million
Actuarial surplus over accrued benefits compared to market value of assets as at 30 June 2021	$208 million	$208 million
Net exposure (i.e. not covered by surplus assets)	Nil	$220 million

The total self-insured amount of death and permanent disablement risk benefits in the Fund at 30 June 2021 was $82 million and $428 million respectively. This compares with the surplus of market value of assets over accrued benefits of approximately $208 million at 30 June 2021. At this date, the Fund's exposure to death risk benefits was completely covered by its assets and there was $220 million of TPD risk benefits not covered by the surplus. However, most of the TPD liabilities are expected to be paid out in the form of a pension, therefore it is unlikely that death and disablement risk benefits payable over a short period would exceed the assets available in the Fund.

We note the value of the permanent disablement benefits at risk is considerably higher than the value of death benefits. This reflects the higher valuation placed on disability pension payments, where both a member and potentially a spouse are entitled to pensions for the rest of their lives[1], compared with death benefits where the pension would only apply for the life of the spouse.

The Fund also holds an insurance policy in respect of Divisions CH and CO (Part A) which provides disability income cover, generally in the form of a monthly benefit payable for up to two years on total

[1] Dependent children may also be eligible for reversionary pension payments under the Rules of some Divisions of the Fund.

and temporary disability (TTD). Based on membership data as at 30 June 2021, a total of five members were insured for TTD cover of approximately $0.5 million per annum in 2021.

Requirements of SPS 160

The relevant paragraphs of SPS 160 in relation to self-insurance are set out below:

"36. An RSE licensee that is permitted to self-insure insured benefits, as that term is defined in Prudential Standard SPS 250 Insurance in Superannuation (SPS 250), must:

- *(a) maintain reserves or have other arrangements approved by APRA in place to fund current and future self-insurance liabilities;*
- *(b) at least every three years obtain an assessment by an RSE actuary of the adequacy of the self-insurance reserves or arrangements;*
- *(c) attest annually that, in formulating and maintaining its policy in relation to self-insurance, the RSE licensee continues to act in the best interests of beneficiaries; and*
- *(d) develop a contingency plan for an orderly transfer of insurance assets and obligations, for activation in the event that the Board has decided that, by self-insuring benefits, the RSE licensee is no longer acting in the best interest of beneficiaries as a whole.*

37. An RSE licensee that self-insures insured benefits must ensure the ongoing actuarial oversight of the self-insurance arrangement via, at a minimum, the regular investigation required under paragraph 14. The actuarial review must provide sufficient information about the maintenance of adequate insurance reserves or other arrangements for funding of self-insured benefits. The actuarial review must also provide sufficient information on the self-insurance arrangements to demonstrate the extent and adequacy of the actuarial oversight undertaken on these arrangements."

We understand the Trustee is permitted to self-insure under the terms of its RSE licence and is not required to maintain a separate self-insurance reserve.

Cost of Self-insurance

By self-insuring the future service component of the death and invalidity benefits, there is a risk that higher than expected claims will occur and impact on the funding levels as a result of paying out more benefits than expected.

All self-insurance risks are backed by the unallocated DB assets in the Fund and the ongoing contributions to be paid by the Bank. The actuarial valuation of accrued and future benefits allows for the self-insurance in the Fund by including the value of death and disablement benefits when determining the contribution rates to be paid by the employer sponsor. All expenses associated with administering the self-insurance are also covered by the administration fees in respect of the Defined Benefit members.

As at 1 July 2021, around 80% of the self-insured liabilities for disability benefits are in relation to members from Division C. These members have a choice of whether to take a lump sum or pension benefit on becoming totally disabled. In our valuation assumptions, we assume part of the disability retirement benefit is mostly taken as a pension.

With such a high proportion of the self-insured liabilities on disablement being expected to be paid out in the form of a pension to a member or their dependants, it is very unlikely that death and disablement risk benefits payable over a short period would exceed the assets available in the Fund.

As the cost of self-insurance is incorporated into the recommended Bank contributions, under reasonable and foreseeable circumstances, the Fund's assets are expected to cover the insurance benefits that emerge over time.

Claims History

The Fund's claim history has been consistently low or in line with expectations, with 18 deaths and 31 disablement claims over the past 9 years. The value of these claims totalled approximately $0.4 million and $8.5 million respectively. Over the same period, we expected 18 deaths and 48 disablement claims. It is noted that experience has not been sufficient to allow for a meaningful statistical analysis due to the very low probabilities of death and disablement and relatively small numbers of members and claims involved.

For this investigation, we have retained the death and disablement rates used in the 2018 investigation as described in Section 8. Over the next three years, we expect approximately seven disablement claims and four deaths. The value of these benefits has been allowed for in determining the funding requirements.

Catastrophe Cover

As at 30 June 2021, the Fund held a catastrophe insurance policy arranged by Guy Carpenter with certain reinsurers in respect of the self-insured amounts. That policy provides cover of $50,000,000 (with an excess of $7,500,000) per event. A minimum of 10 lives must be involved in an event for a claim and the event must occur within a 36 hour period and a 40 kilometre radius. The policy may be reinstated once after an event. Externally insuring for a catastrophe is a cost effective way of protecting the Fund from such risks. The cost of the catastrophe cover is included in the general allowance for expenses for defined benefit members.

We note the catastrophe policy would not cover an event that occurred over a longer period of time than 36 hours such as a pandemic. However, if there was a pandemic that resulted in a significantly increased number of deaths compared to those expected, the financial position of the Fund is strong enough to meet those claims. Based on the financial position of the Fund as at 1 July 2021, if all members had to be paid a death benefit, the Fund assets were more than sufficient to cover those claims.

In the event of a pandemic where, say, half the members were to receive a death benefit and half the members became disabled, the assets were also more than sufficient to cover those claims as at 30 June 2021. However in this scenario, we would also expect the values we have placed on disablement benefits payable as pensions to be overstated, as we have made no allowance for the possible impairment to survivors' health as a result of the pandemic.

Claims incurred but not finalised

The valuation of liabilities allows for current members who may become disabled or die in future. It does not allow for members who may already be in the process of a claim (claims incurred but not yet finalised). We have made an allowance of $1 million for such claims in determining the liability for accrued benefits, based on the small number of claims we expect each year and the time we expect it to take to finalise those claims.

Sensitivity analysis

We have performed sensitivity analyses under two scenarios to analyse the sensitivity of the Fund's funding level to adverse experience in claims. We have considered invalidity claims in this testing as their value is typically higher than the value of the death benefits.

The first scenario assumes that the number of claims in a year is three standard deviations from the mean (on the basis that claims are independent), where the mean is the experience over the nine years to 30 June 2021. This equates to approximately 5.6 claims in a year, resulting in self-insured benefit payments with a lump sum present value of $2.8 million. This was calculated based on the average self-insured permanent disablement benefit of approximately $504,000 at 30 June 2021. If this scenario were to occur, the value of additional claims at $2.8 million would be covered by the Fund's assets as at 30 June 2021.

The second scenario assumes that a pandemic leads to 10% of the lives insured with a permanent disablement claim (we have not considered a catastrophic event given the Fund has a catastrophe insurance policy). This equates to approximately 112 invalidity claims in a year, resulting in total self-insured permanent disablement benefits with a lump sum present value of up to $56.4 million.

The Fund had surplus assets (measured by market value of assets over accrued benefits) of $207 million as at 30 June 2021 which would mean that if this scenario were to occur, the claims would be covered by the Fund assets. We also note that a high proportion of the self-insured liabilities are expected to be paid out in the form of a pension to members or their beneficiaries. Therefore, it is extremely unlikely that the self-insured benefits payable over a short period would exceed the assets available to the Fund.

Underwriting and claims management

As part of this review, we have been provided with the latest version of the Fund's Insurance Management Framework (Defined Benefit) which was effective from 20 November 2020.

The DB divisions have been closed to new members since 1993 and there is no discretion for the member or the Trustee to provide a different benefit than what is defined in the Trust Deed. Therefore, there has not been a need for the Fund to maintain an underwriting process.

We understand that assessment of self-insured disablement claims has been outsourced to Mercer's Claims Advisory Service, acting as an independent claims consultant. The Trustee reviews Mercer's claims assessment before deciding whether to admit a claim. The Trustee has delegations in place for the payment of disablement claims and the allocation of death benefits.

Obtaining insurance

We note that the Trustee's contingency plan for an orderly transfer of insurance assets and obligations, as required by paragraph 36 (d) of SPS 160, is to tender the self-insurance arrangement, in the event the Board, in consultation with the Bank, decides that self-insuring benefits is not in the best interests of beneficiaries as a whole.

It may be possible for the Trustee to obtain insurance for the death and invalidity benefits that are self-insured by the Fund. However we note the death and permanent disablement benefits for members of the Fund can be paid in pension form and this adds a level of complexity to the nature of the insurance cover required. This could make it more difficult to completely insure against the risks for death and permanent disablement benefits. For example the insurer may pay the fund a capital sum on the death of a member, which can then be used to support the payment of a pension to the surviving spouse. The fund would bear the risk that the capital sum (along with the other fund assets) would be insufficient to provide the pension over the life of the spouse. This leads us to conclude that, given the nature of the Fund and the imperfect matching of benefits provided by purchasing insurance, it may not be worth the extra time and expense involved to arrange that insurance. On that basis, self-insurance arrangements may be considered appropriate for the Fund.

Conclusion

The Fund is large enough to retain some risk relating to death and disability benefits and we are not concerned about the current level of self-insurance.

We believe that the funding arrangements for self-insurance are adequate and we are of the opinion that the Fund should not be required to maintain a specific reserve for self-insurance.

We have concluded that the level of self-insurance remains reasonable given that:

- At 30 June 2021 the Fund had sufficient assets to cover the value of claims;
- In certain circumstances where the assets of the Fund are not sufficient to cover claims, e.g. in the event of a catastrophe, the Fund holds a policy for catastrophe insurance;
- There is regular monitoring of the self-insurance arrangements (ie at least annually);
- The nature of the insured benefits provided means that it may be difficult to fully insure all the death and invalidity risks; and
- The Fund's claims history has been consistently low or in line with expectations.

We see no reason as to why the Trustee would not be able to attest that, in formulating and maintaining their policy for self-insurance, the Trustee continues to act in the best interests of the Fund beneficiaries.

Section 12: Material Risks

The purpose of this section of this report is to identify the material risks for the Fund which are associated with the actuarial assumptions or actuarial management of the Fund, of which we are aware as Actuary. We also comment on the way in which the identified financial risks are being managed by the Trustee. Our comments are set out below.

Underperformance of Investments

The risk faced by the Fund is that the investment returns earned on the assets will not be as high as expected over the long term. This means that the financial position of the Fund could deteriorate and employer contributions may need to increase. There is some risk of short term volatility in investment performance from the mismatch between some of the Fund's defined benefit assets and liabilities. However, we note that the matching asset portfolio under the LDI strategy for pension liabilities has the effect of reducing the mismatch risk. This investment strategy remains appropriate on the basis that the Bank continues to support the mismatch risk.

Inflation

The defined benefit liabilities for in-service employees are linked to salary and therefore a higher than expected rate of inflation could have a negative impact on the financial position. Salary increases should continue to be monitored at each triennial valuation, in order to determine if adjustments to the employer contribution levels are required.

Similarly, pension liabilities are linked to Consumer Price Index and increases above those assumed could lead to an increase in the pension liabilities and therefore a higher cost in providing those benefits. We note that the steps taken by the Trustee to put in place the LDI asset/liability strategies will have the effect of partially mitigating these risks.

Increasing Life Expectancy

The majority of the Fund liabilities relate to current or future pensioners. The assumptions regarding pensioner mortality that were used for this valuation allow for future improvements in mortality. However, a future breakthrough in medical diagnosis or treatment which leads to a significant increase in life expectancy could increase Fund liabilities and require increased employer contributions. Mortality experience should continue to be monitored at each triennial valuation, in conjunction with relevant population data, to assess whether adjustment to the employer contribution rates are necessary.

Self-Insurance

By self-insuring the future service component of the death and invalidity benefits, the Fund runs the risk of higher than expected claims occurring and therefore an impact on the funding levels from the cost of paying out more expensive death and disability benefits than expected. The self-insurance risk is considered in each triennial actuarial investigation. At the present time the Fund is in a sound financial position and is able to cope with non-catastrophic variations in claim numbers.

Catastrophe Risk

The Fund self-insures part of the death and disablement benefits. There is a risk that a pandemic affecting the general population could lead to a significant number of deaths or disablements (although the impact could be offset to some extent by deaths among the current pensioners). If a pandemic of this nature were to happen, there could be a requirement for additional funding. This will require the Bank's continued commitment to funding any shortfalls arising from catastrophes.

Funding Risk

The continuation of the Fund is dependent on the continued funding support of the Bank. If the Bank was unwilling or unable to pay contributions the Fund, that may affect the ongoing viability of the Fund. Given the financial strength of the Bank we do not believe that funding risk should be seen as a material issue. As noted in Section 2, some benefits are also subject to a Government guarantee.

Credit risk from the investments of the Fund is generally managed by holding a diversified portfolio of assets.

Liquidity Risk

As at 30 June 2021, the Fund held approximately $1.4 billion in unlisted equity, property and unit trusts which we understand are the only illiquid assets held by the Fund. The majority of those assets supported accumulation members' investments choices with the balance in the DB growth portfolio. The LDI matching portfolio does not hold illiquid assets. The illiquid assets represent approximately 12% of the Fund assets excluding the LDI matching portfolio.

Benefit payments from the Fund over recent years have been comparable with the value of contributions and inward rollovers. The Fund's cashflows currently support a holding of illiquid assets given the long term nature of the liabilities.

Other Risks

The Fund faces a variety of operational and other risks which may in some circumstances lead to cost increases. We understand that the Trustee monitors and takes action on such risks as part of the risk management framework. An Operational Risk Financial Reserve (ORFR) has been established to help mitigate any loss arising from operational risks.

Appendix A: Summary of Cashflows from 1 July 2018 to 30 June 2021

Whole Fund $'000	Year ending 30/06/2019	Year ending 30/06/2020	Year ending 30/06/2021	Three years ending 30/06/2021
Fund at start (Market Value)	11,387,156	12,123,771	12,107,315	11,387,156
PLUS				
Member Contributions	51,529	57,801	68,365	177,695
Employer Contributions	384,139	467,502	455,282	1,306,923
Transfers from Other Funds	183,589	205,817	182,478	571,884
Investment Revenue	1,013,445	121,562	1,727,173	2,862,180
Proceeds from Insurance Policies	22,257	26,465	32,152	80,874
LESS				
Transfers to Other Funds	(368,335)	(356,016)	(335,943)	(1,060,294)
Benefits Paid	(285,642)	(352,047)	(345,316)	(983,005)
Investment Expenses	(69,056)	(69,015)	(69,854)	(207,925)
Insurance Premiums	(32,522)	(32,135)	(33,949)	(98,606)
General Administration Expenses	(17,394)	(17,995)	(20,810)	(56,199)
Income Tax Expense	(145,395)	(68,395)	(203,798)	(417,588)
Fund at end (Market Value)	**12,123,771**	**12,107,315**	**13,563,095**	**13,563,095**

Appendix B: Summary of Actuarial Assumptions

FINANCIAL ASSUMPTIONS

Rate of Investment Return

Active members:

- 5.5% per annum (net of tax and investment management expenses)

Deferred members and future pensioners:

- 3.15% per annum (gross of tax and net of investment management expenses)

Pensioners:

- 2.2% per annum (gross of tax and net of investment management expenses)

Rate of Salary Increases

Salaries are assumed to increase by 2.9% per annum.

This includes an allowance for further promotional increases.

Rate of Pension Increases

A long-term rate of general CPI increase for pensions of 2.1% per annum has been assumed.

Expenses

We have made an allowance for defined benefit expenses to be $8 million per year and this is assumed to remain constant over the intervaluation period.

DEMOGRAPHIC ASSUMPTIONS

The demographic assumptions are set out below.

Mortality, Disablement and Resignation in Service

The table below shows specimen rates at various ages:

	Mortality in-service		Disability Retirement		Resignation	
Age	**Male %**	**Female %**	**Male %**	**Female %**	**Male %**	**Female %**
40	0.03	0.02	0.05	0.04	2	2
45	0.05	0.04	0.07	0.06	2	2
50	0.09	0.06	0.13	0.11	2	2
55	0.17	0.11	0.24	0.21	n/a	n/a

Retirement

The table below shows rates at ages 55 to 65.

Age	Proportion of Members Expected to Retire (%)
55 - 59	10
60 - 63	15
64	50
65	100

OTHER ASSUMPTIONS FOR ACTIVE MEMBERS

Proportion of Members Assumed to Take the Pension Option

The pension take-up rate is assumed to be 75% for this investigation.

Age Difference

The age of a spouse is assumed to be three years less than the member's age for male members and three years more than the member's age for female members.

Proportion Married, Average Number and Age of Children

The table below shows specimen proportions married, average numbers of dependent children and their average age, at various ages.

	PROPORTION MARRIED		AVERAGE NUMBER OF CHILDREN		AVERAGE AGE OF CHILDREN	
Age	Males %	Females %	Males	Females	Males	Females
40	73	73	2.79	0.11	9.70	10.71
45	74	72	2.29	0.04	12.20	13.06
50	75	72	1.05	0.00	13.60	15.40
55	76	70	0.45	0.00	14.60	17.26
60	77	69	0.16	0.00	15.60	18.00

Pensioner Mortality

The table below shows specimen rates at various ages and these are based on ALT 15-17, with scaling of 50% applied, with this scaling increasing linearly by 1.5% for each year over age 65.

	MEMBERS		SPOUSE	
Age	Males %	Females %	Males %	Females %
65	0.48	0.28	0.48	0.28
70	0.89	0.55	0.89	0.55
75	1.71	1.09	1.71	1.09
80	3.40	2.29	3.40	2.29
85	6.94	5.02	6.94	5.02
90	13.29	10.68	13.29	10.68
95	21.30	19.40	21.30	19.40

In addition, an allowance for mortality improvement has been made as follows: 2.0% per annum reduction to these rates for each year from 30 June 2016, with these improvements reducing by 0.05% p.a. for each year over age 65.

Assumed mortality for widows is the same as for spouses.

In the above table, members' mortality for ages below 55 are used for members assumed to retire through ill-health. In-service mortality is used for deferred members before age 55.

OTHER ASSUMPTIONS

Division B Members

We assume that:

- the non-indexed pension option is ignored on retirement and disablement;
- all members who die have spouses;
- on withdrawal all members choose the deferred benefit;
- no deferred members "cash-out" their entitlements voluntarily before age 55;
- no deferred members take the non-indexed pension option when they reach age 55; and
- on the death of a deferred member the spouse does not take the non-indexed pension option.

Division C Members

We assume that:

- all members will continue to contribute at their current contribution rate, except those who reach the maximum multiple;
- the average proportion of all retirement benefits taken in pension form (including those people who take all of their benefits as a lump sum) will be 75%; and
- the disability retirement benefit is always taken as a pension if that option is more valuable, except for the accumulated member and productivity contributions, which are taken as lump sums;
- members with deferred pensions will commence their pension at age 55; and
- the death benefits is always taken as a lump sum.

Division D Members

We assume that:

- the average proportion of all retirement benefits taken in pension form (including those people who take all of their benefits as a lump sum) will be 75%; and
- all death and disability benefits will be taken as lump sums.

Division E Members

We assume that Members will continue to contribute at their current contribution rate, except for members who are currently contributing 8% and reach their maximum accrued benefit multiple. The contribution rate for these members will reduce to 6% when this occurs.

Division CB – Part 1, CC and CE

All members opt for the Preserved Benefit rather than their benefit entitlement prior to age 65.

Division CF

We assume that:

- the average proportion of all retirement benefits taken in pension form will be 75%;
- Members who die have a spouse in accordance with the assumptions regarding Proportion Married, Average Number and Age of Children above;
- the disability retirement benefit is always taken as a pension, except for those members who have a Division CD benefit which is taken as a lump sum;
- all members elect to take their retrenchment or resignation benefit rather than the voluntary preserved benefit.

Division CH Members

We assume that the average proportion of all retirement benefits taken in pension form will be 75%.

Division CO – A Members

We assume that:

- all members will continue to contribute at their current contribution rate; and
- the retirement and disability retirement benefit is always taken as a pension, except for the voluntary contribution account and the additional 3% benefit which are taken as lump sums.

UK Members

All assumptions for UK members (who were either current or deferred pensioners) are the same as for their Australian counterparts.

Child Pensioners

It was assumed that all children's pensions are paid to age 25. The total allowance for the children's pension liability is assumed to be $500,000 in view of the small number of child pensions and low annual payment that applies to a maximum age of 25. We will assume the liability remains at this amount until the next actuarial investigation.

Appendix C: Requirements under Prudential Standard SPS 160

COMMONWEALTH BANK GROUP SUPER (THE FUND)

ACTUARIAL VALUATION AS AT 30 JUNE 2021

I have carried out an actuarial valuation of the Fund, as at 30 June 2021. For the purposes of Prudential Standard SPS 160, I certify that:

a. **Fund Assets**

At 30 June 2021 the market value of the assets of the Fund was $11,342,430,000. This value was used for the value of assets for the purpose of the actuarial valuation and excludes the amount held to meet ORFR and the expense reserves held for Accumulation members.

b. **Projection of Vested Benefits**

I have projected that, based on my reasonable expectations, it is likely that during the three years following the valuation date the assets of the Fund will exceed the liabilities of the Fund in respect of both accrued benefits and vested benefits:

Period to:	Vested Benefits Index
30 June 2021	109%
30 June 2022	107%
30 June 2023	107%
30 June 2024	107%

This projection assumes the allowable contribution reduction is taken in full.

c. **Accrued Benefits**

In my opinion, the value of the assets of the Fund at 30 June 2021 (excluding the amount held to meet ORFR and the reserves held for Accumulation members) were adequate to meet the liabilities of the Fund in respect of accrued benefits in the Fund. The value of accrued benefits for active and deferred members has been taken as the present value of future benefit payments which are attributable to service prior to the valuation date of 30 June 2021. A minimum of vested benefits has not been applied at an aggregate or individual level. The value of accrued benefits for pensioners has been taken as the present value of pension payments on the valuation assumptions. The assumptions adopted to calculate accrued benefits are best estimate assumptions. In my opinion, these methods and assumptions are appropriate for the purpose of determining accrued benefits.

d. **Vested Benefits**

The financial position of the Fund as at the valuation date of 30 June 2021 is not unsatisfactory and, in my opinion, the current shortfall limit of 100% does not need to be reviewed.

e. **Minimum Benefits**

The value of the liabilities in respect of the minimum benefits of the members of the Fund as at the valuation date of 30 June 2021 was $12,882,681,000. The assets of the Fund exceeded this amount therefore the Fund was technically solvent as at 30 June 2021.

f. **Recommended Company Contributions**

I recommend that the Bank pay contributions at least at the following rates until the results of the next actuarial investigation are known:

- Nil for Defined Benefit accruals and expenses for the year to 30 June 2022. Thereafter $27 million per year for Defined Benefit accruals and expenses; plus
- An additional $27 million per year from 1 July 2022, plus the following amounts for accumulation credits (including allowance for contributions tax):
  - Basic Employer Credits at SG rate (Rule F4.1(a)(1));
  - Additional Basic Employer Credits (Rule F4.1(a)(2));
  - Special Employer Credits (Rule F4.1(b), for example, under an EBA); less
- A reduction in Bank contributions of up to a total of $100 million (gross of contributions tax) which could be taken between 1 July 2021 and 31 December 2024 (when the results of the next investigation are available).

g. **Funding and Solvency Certificates**

All necessary Funding and Solvency Certificates for the Fund were obtained during the period from 1 July 2018 to 30 June 2021. In my opinion, the solvency of the Fund will be able to be certified in any Funding and Solvency Certificate required under the Superannuation Industry (Supervision) Regulations during the three year period to 30 June 2024, based on the assumptions used in this valuation and assuming the Bank pays contributions at least at the rates set out above and subsequent contributions determined in accordance with the Trustee’s funding approach are paid.

h. **Defined Benefit Pensioners**

In my opinion, as at 30 June 2021 there is a high degree of probability (i.e. more than 70% as indicated by APRA as being the required probability) that the Fund will be able to pay Fund pensioners as required under the Trust Deed and Rules.

We also recommend that:

- there is no reason for alteration to the defined benefit investment strategy given the actuarial funding position;
- a shortfall limit of 100% remains appropriate and does not need to be reviewed; and
- the self-insurance arrangements remain appropriate.

Yours sincerely

LCampbell

Louise Campbell
Fellow of The Institute of Actuaries of Australia

17 December 2021

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