

A decorative graphic on the left side of the page, featuring two overlapping rectangular blocks. The front block is blue with a pattern of diagonal white lines, and the back block is green with a pattern of diagonal white lines.

Bayer Employees' Superannuation Trust

Report on the Actuarial Investigation as at 30 June 2022



Summary

We are pleased to present our report to the Trustee of the Bayer Employees' Superannuation Trust, NULIS Nominees (Australia) Limited, on the actuarial investigation into the Bayer Employees' Superannuation Trust (the Plan) as at 30 June 2022. The Plan is a sub-plan of the MLC Super Fund.

This Summary sets out the key results and recommendations contained in this report.

Solvency

The financial position of the Plan has improved over the intervaluation period, as shown in the increased Vested Benefits Index from 148% as at 30 June 2019 to 556% as at 30 June 2022.

The solvency measures as at 30 June 2019 and 30 June 2022 are also shown below:

Measure	30 June 2019	30 June 2022
VBI	148%	556%
PVABI	163%	620%
MRBI	178%	620%

Funding

The adjusted employer contribution rate determined under the Attained Age funding method is calculated as nil as at 30 June 2022.

Taking into account the projected financial position of the Plan over the next three years, we recommend the Employer contribute nil in respect of the remaining defined benefit member for the period from 1 July 2022 until 30 June 2025, i.e. the date of the next actuarial investigation of the Plan.

In addition, we recommend that the Employer contribute at the required amounts to meet any Superannuation Guarantee, contractual or any other obligations in respect of accumulation liabilities in the Plan.

Contents

Summary

Introduction

Scope
Previous Actuarial Investigation
Limitations

Solvency

Solvency measures
Retrenchment Benefits
Termination Benefits

Funding

Long Term Funding Results
Sensitivity Analysis
Summary

Other Matters

Investments
Shortfall Limit
Insurance

Additional information

Risks
Benefit summary
Summary of Data
Funding Method, Assumptions
and Experience
Statutory Certificate

Throughout this report the following terms are used:

Plan

Bayer Employees'
Superannuation Trust

Trustee

NULIS Nominees (Australia)
Limited

Employer

Bayer Australia Group

Trust Deed or Rules

The Plan's Participation
Agreement dated 9 May 2016
and as amended

The Investigation Date or Valuation Date

30 June 2022

Other Matters involving Actuarial Oversight

We further recommend that:

- Consideration be given to the substantial surplus built up in the Plan. This may influence whether the Plan's target asset allocation should be altered to reduce the allocation to growth assets, having regard to the nature of the liabilities, the funding position of the Plan and any potential distribution of surplus;
- The Trustee retain the shortfall limit of 100% based on the current membership, contribution holiday and investment structure of the Plan;
- The Trustee monitor the financial position of the Plan quarterly throughout the following investigation period;
- Consideration is given to adjusting the insured benefit formula to reduce the level of the Plan's Death/TPD insured benefits.

In line with requirements under legislation and Trust Deed, the next actuarial investigation of the Plan should be conducted with an effective date no later than 30 June 2025. The recommended employer contribution rates will be reviewed at that time or at an earlier date if considered appropriate as a consequence of the regular review of the VBI or as required by legislation.

We are not aware of any event since 30 June 2022 that warrants review of the recommendations in this report.



Hadas Danziger
Fellow of the Institute of Actuaries of Australia
RSE Actuary to the Bayer Employees' Superannuation Trust

19 December 2022

ABN 45 002 415 349 AFSL 229921

Level 4, 555 Bourke Street, Melbourne VIC 3000

DO: HL | TR: TH | CR/ER: HD

Section 1: Introduction

Scope

This investigation has been prepared effective 30 June 2022 for NULIS Nominees (Australia) Limited, the Trustee of the Plan, by the actuary to the Plan, Hadas Danziger, FIAA.

Current legislation and the Trust Deed require an actuarial investigation and report to be due at least every three years for defined benefit funds not paying a defined benefit pension. The main aims of the investigation are to examine the current financial position of the Plan and the long-term funding of the Plan's benefits, and to provide advice to the Trustee on the contribution rate at which the Employer should contribute and on any other matters the actuary considers relevant.

This investigation is primarily interested in the defined benefit liabilities of the Plan, and unless otherwise specified, this report relates only to such defined benefit liabilities. The Defined Contribution liabilities of the Plan, including those that relate to the defined benefit member, are fully funded and do not impact upon the Defined Benefit liabilities. No investigation is required regarding the Defined Contribution liabilities, although in our recommendations we have continued to recommend that the Employer contribute to meet any Superannuation Guarantee, contractual or any other obligations in respect of such liabilities.

This report has been prepared in accordance with Professional Standards 400, 402 and 404 and Practice Guideline 499.06, issued by the Institute of Actuaries of Australia.

Previous Actuarial Investigation

The previous actuarial investigation of the Plan was carried out by David O'Keefe, FIAA, of ALEA Actuarial Consulting Pty Ltd as at 30 June 2019, with the results of that investigation set out in a report dated 22 August 2019.

The report concluded that the Plan was not in an Unsatisfactory Financial Position (as defined by SIS legislation) at that date, and recommended that the Employer contribute nil in respect of all defined benefit members from 1 July 2019 to 30 June 2022, i.e. a "contribution holiday".

We understand that the Employer has contributed amounts consistent with these rates.

Experience since 30 June 2022

Since 30 June 2022 the experience of the Plan has been as follows:

- The net return on the Plan's assets from the valuation date to 30 November 2022 was approximately 4.4%; and
- The defined benefit member remains in the Plan.

We have made allowance for the known investment return experience from 30 June 2022 to 30 November 2022 when carrying out the projection of the financial position of the Plan from that date.

Limitations

This report is provided subject to the terms set out herein and in our engagement letter dated 7 September 2022 and the accompanying Terms and Conditions of Engagement. This report is provided solely for the Trustee's use and for the specific purposes indicated above. It may not be suitable for use in any other context or for any other purpose.

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

We consent to the Trustee making a copy of this report available on the Plan's website where required in accordance with the relevant legislation.

The Trustee may make a copy of this report available to its auditors, the Employer 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 the Employer or any third party in this regard. The Trustee should draw the provisions of this paragraph to the attention of its auditors and the Employer 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 Plan provisions, membership data and asset information, as being complete and accurate. We have not independently verified the accuracy or completeness of the data or information provided, but we have performed limited checks for consistency. The data and information we have relied upon is shown in the "Additional Information" section of this report.

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.

Section 2: Solvency

Solvency Measures

When assessing the adequacy of the assets and future contribution rates, both the long-term and short-term solvency positions should be considered. To assess the solvency position, we have considered the following funding solvency measures:

- Vested Benefits Index (VBI), the ratio of assets to the vested benefits, which represent the total amount which the Plan would be required to pay if all members were to voluntarily leave service on the investigation date;
- The Present Value of Accrued Benefits Index (PVABI), the ratio of assets to the present value of accrued benefits, which represents the value in today's dollars, of expected future benefits payable based on membership completed to the valuation date,¹ and
- The MRBI, the ratio of assets to the portion of the Minimum Requisite Benefits as defined in the Plan's Benefit Certificate that relates to defined benefits.²

The following table shows the above indices as at the valuation date, as well as the prior valuation date.

Measure	As at 30 June 2022			As at 30 June 2019		
	Value of Liability	Value of Assets	Index	Value of Liability	Value of Assets	Index
VBI			556%	\$3,525,000	\$5,212,000	148%
PVABI			620%	\$3,195,000	\$5,212,000	163%
MRBI			620%	\$2,926,000	\$5,212,000	178%

Overall, the indices have increased from those at the previous investigation date. This is primarily a result of member exits since the previous investigation date.

The VBI is above 100% as at the valuation date, and as such, the Plan is to be treated as being in a Satisfactory Financial Position as at that date.

The MRBI is above 100% as at the valuation date, and as such, the Plan was not in a position of 'Technical Insolvency' as at that date.

¹ Benefits have been apportioned to past service by calculating the projected benefit payable using only service that is completed to the valuation date in the benefits formula.

² For the remaining employee member, the minimum benefit is as advised by the Plan's administrator.

Retrenchment Benefits

Generally there is no specific retrenchment benefit payable to members who are retrenched by the Employer. The benefit payable under the terms of the Participation Schedule is therefore a member's Vested Benefit.

Termination Benefits

Under the Trust Deed, the benefits required to be paid on termination are amounts determined by the Trustee with the advice of the actuary. In any case, the amounts to be paid would be limited by the amount of assets available in the Plan. As a result, the benefits payable on termination of the Plan do not impose any additional constraints on funding and we therefore confirm that, in our opinion, the assets were sufficient to provide the required benefits if the Plan were terminated on 30 June 2022.

Section 3: Funding

This section considers the long-term funding of the Plan and assesses the contributions required in order to fund benefits payable in future. To determine the long-term contribution rates, we have used the Attained Age funding method as described in the “Additional Information” section of this report.

Long Term Funding results

The long-term Employer contribution rate is calculated in the table below.

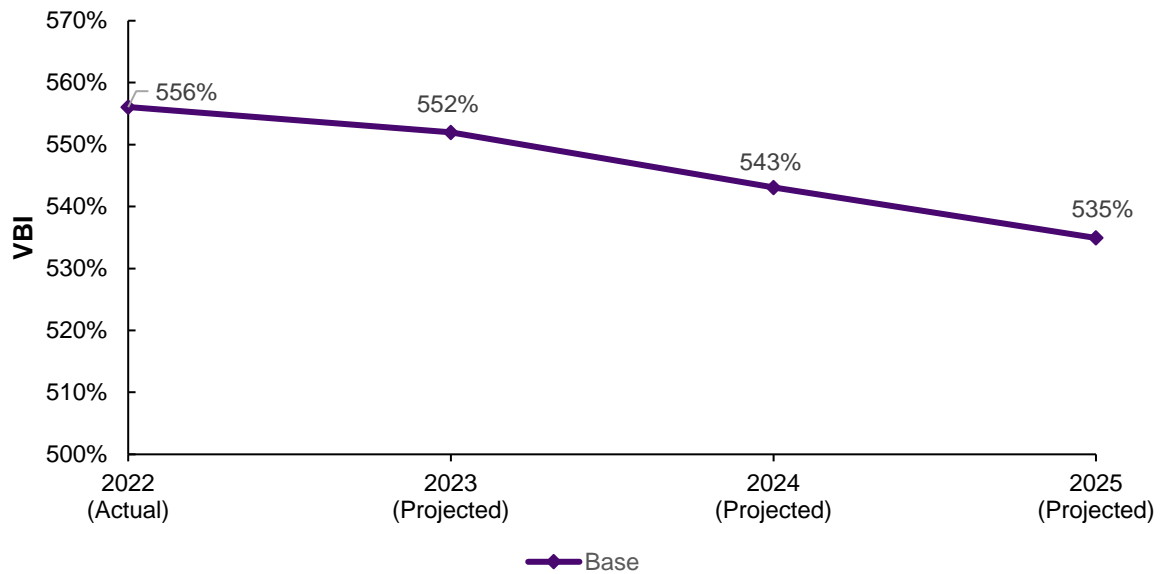
Calculation of Employer Contribution Rate	\$'000
Future Service Liability	69
Less Present Value of Member Contributions	(21)
Liability to be funded by Employer Contributions	48
Present Value of 1% of Salaries	506
Liability to be funded as a % of salaries	0.1%
Long-term employer contribution rate, after allowing for tax (before expenses)	0.1%
Fair Value of Assets	█
Less Present Value of Accrued Benefits	█
Less Present Value of Expenses	(355)
Equals Surplus/(Deficit)	1,619

Given the substantial surplus within the Plan, the Employer contribution rate required to the fund remaining defined benefit remains nil. It continues to be expected that over the longer term, current assets plus future member contributions will be more than sufficient for funding the defined benefit liabilities.

We set out below a projection of the Plan's Vested Benefits Index over the next three years allowing for:

- Nil Employer contributions as calculated above i.e. a contribution holiday;
- Known investment return experience from 1 July 2022 to 30 November 2022 of 4.4%; and
- Assumptions as set out in Section 5.

Projected Plan VBI as at 30 June



As can be seen from the graph, on the basis of the selected actuarial assumptions, the recommended Employer contribution holiday is sufficient to maintain the VBI well above 100%.

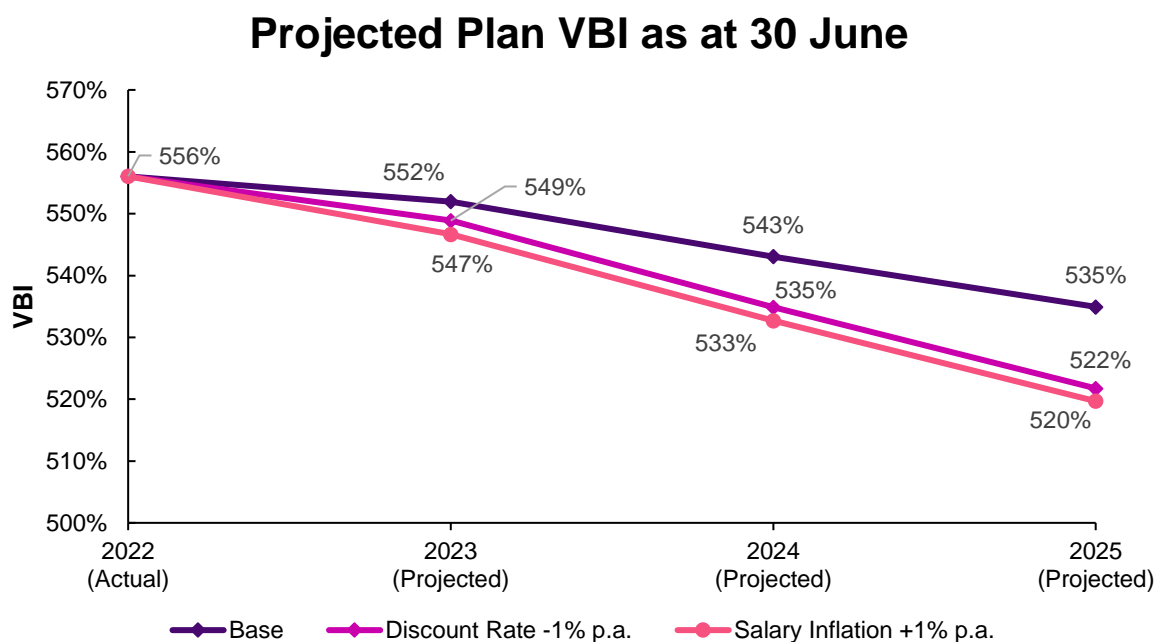
Sensitivity Analysis

Professional Standards issued by the Institute of Actuaries of Australia require funding valuation reports to assess the impact of varying valuation assumptions and material risks to the Plan. The following table shows the long-term contribution rate calculated, if key assumptions had been varied as described below:

	Valuation Basis	Scenario 1 (Lower Discount Rate)	Scenario 2 (Higher Salary Growth)
Discount Rate	6.5% p.a.	5.5% p.a.	6.5% p.a.
Expected Salary Growth	██████	██████	██████
Present Value of Accrued Benefits Index	620%	620%	620%
Long Term Contribution Rate (before any adjustment for surplus or deficit)	0.1%	0.1%	0.1%
Surplus/(Deficit) after expenses	1,619	1,609	1,619

The above results show that the Plan's financial position (on an Accrued Benefits basis) and the expected Employer contribution rate are not very sensitive to small changes in the long-term actuarial assumptions.

Similarly, the Plan's projected VBI over the next three years under the varied assumptions are shown in the graph below:



Projecting the VBI using the valuation assumptions and allowing for the Employer's contribution holiday, the Plan's projected financial position is expected to remain strongly above 100% over the next 3 years. While the sensitivities have been selected to be illustrative of reasonable changes in the valuation assumptions, they do not represent the upper or lower bounds of possible outcomes and more extreme outcomes are possible.

Summary

On the basis of the above results, we believe it is reasonable for the Employer to continue its contribution holiday from 1 July 2022 until at least 30 June 2025, in respect of the remaining defined benefit member.

We also recommend that the Employer contribute at the required amounts to meet any Superannuation Guarantee, contractual or any other obligations in respect of accumulation liabilities in the Plan.

We further recommend that the VBI position (and other measures of solvency) continue to be monitored quarterly throughout the following investigation period, to ensure that these contribution recommendations remain appropriate.

Section 4: Other Matters involving actuarial insight

Investments

Investment Strategy

The return objective of the Plan's Investment Strategy for assets supporting defined benefits is to achieve a return (net of fees and tax) of at least 3% p.a. in excess of inflation over rolling 10 year periods. To meet this objective, the assets supporting defined benefits are invested proportionately more in growth assets than defensive assets to achieve medium to high long-term returns, with moderate to high volatility.

The actual and target asset allocation as 30 June 2022 of such assets is shown in the below table:

Asset Class	Long-term Benchmark Allocation
Australian Equities	25%
International Equities	28%
Private Equity	5%
Property	6%
Infrastructure	6%
Alternative Assets	4%
Total Growth Assets	74%
Fixed Interest	19%
Cash	7%
Total Defensive Assets	26%

In our opinion an investment strategy as described above is suitable for a Plan of this type having regard to its financial position, the underlying liabilities and the capacity of the Employer to meet any funding shortfall.

Crediting Rate Policy

For defined benefit assets, the Plan's crediting rate policy is based on actual earnings and uses quarterly crediting rates based on the change in underlying unit prices, where those unit prices reflect actual earnings on assets. In our view, this remains appropriate.

Liquidity

Taking into account the ready sale of the Plan's assets from time to time, in our opinion the Plan has sufficient liquidity to meet payments.

Shortfall Limit

The Trustee currently has an approved shortfall limit of 100%.

Based on the Plan's benefit design, current contribution holiday and its target asset allocation described above, in our opinion the 100% shortfall limit remains reasonable for the Plan.

Insurance

Death and Disablement Benefits

At the investigation date, the Plan has insurance with MLC in respect of the future service portion of their death and total and permanent disablement (TPD) benefits.

The formula used to calculate the level of insurance is:

$$\text{Death Benefit less Accrued Benefit}$$

As at the investigation date, the amounts over/(under) insured in the Plan are shown in the table below:

	(\$'000)
Approximate Death/TPD Benefits (DB Only) (A)	■
Less Insurance Cover (B)	■
Plan's Exposure (A)-(B)	■
Less Fair Value of Assets	■
Shortfall/(Excess) in Insurance	(1,930)

The table above shows that the defined benefit assets are more than sufficient to meet the Plan's exposure.

On this basis we consider the current insurance arrangement adequate. As the Plan's exposure is less than the value of the Plan's assets of ■ which suggests there is scope for a reduction in the level of the Plan's insured benefits.

Total and Temporary Disablement (TTD) Benefits

TTD benefits are no longer provided to members under the Plan.

Section 5: Additional Information

Risks

The table below summarises the main risks to the financial position of the Plan.

Risk	Approach taken to risk
Investment returns on the existing assets could be insufficient to meet the Trustee's funding objectives	<p>The Trustee takes advice from the Plan Actuary on possible assumptions for future investment returns. In setting the future contributions, the Plan Actuary considers the effect on the future financial position if investment returns are less than expected.</p> <p>The Trustee is able to agree further contributions with the Employer at subsequent valuations if future returns prove insufficient.</p>
Price inflation or salary increases could be different from that assumed which could result in higher liabilities	<p>Salary increases are generally linked to price inflation. The Trustee invests in assets that are expected to be correlated to future inflation in the longer term (sometimes referred to as "real" assets). This means that, over the longer term, such assets are expected to keep pace with inflation. Such assets include equities, property and index-linked bonds.</p> <p>Similar to investment returns, the Plan's future financial position would also be sensitive to salary increases that are significantly different to that expected. If actual salary increases are greater than assumed, then the funding position (Vested Benefits Index) would deteriorate and increased Employer contributions may be required.</p>
Falls in asset values might not be matched by similar falls in the value of the Plan's liabilities	<p>The Trustee considers this risk when determining the Plan's investment strategy. It consults with the Employer in order to understand the Employer's appetite for bearing this risk and takes advice on the Employer's ability to make good any shortfall that may arise.</p> <p>To the extent that such falls in asset values result in deficits at future valuations, the Employer would be required to agree a recovery plan with the Trustee to restore full funding over a period of time.</p>
Plan members remain employed longer than assumed	The Trustee adopted withdrawal assumptions that it regards as prudent estimates of the future working lifetime of members. To the extent the member continues to accrue benefits within the Plan for longer than expected, this could cause the Plan's financial position to be lower than expected.
Legislative changes could lead to increases in the Plan's liabilities	The Trustee takes legal and actuarial advice on changes in legislation and consults with the Employer, where relevant.

Economic risk

Demographic risk

Legal risk

Benefits summary

The Plan commenced as a sub-plan of the MLC Super Fund on 1 September 2004 following the decision to transfer from the Aventis CropScience Super Plan. All members' benefit entitlements under the Previous Plan were transferred to the MLC Super Fund and generally members receive defined benefits based on their Final Average Salary with additional benefits provided on an accumulation basis as set out in the Participation Schedule.

The Plan is a regulated complying superannuation fund under the Superannuation Industry (Supervision) Act and qualifies for concessional tax treatment.

The defined benefit categories of the Plan are closed to new entrants.

Reference should be made to the Participation Agreement, dated 9 May 2016 and as amended, for a full statement of the Plan's terms and conditions. The summary below contains the main features applicable to the remaining Defined Benefit member.

Category I

Normal Retirement Age ("NRA")	■												
Final Average Salary ("FAS")	The Member's Annual Salary at the date of leaving service (subject to a minimum for members who joined the Previous Plan prior to 1 October 1994 of the average of the three(3) Review Date salaries immediately preceding the Normal Retirement Date assuming salary remains unaltered until the Normal Retirement Date).												
Member's Reserve	Accrued Retirement Benefit Multiple times FAS, discounted by 2% each year of age less than 60, with a maximum discount of 60%.												
Accrued Retirement Benefit Multiple ("ARBM")	<p>The period of membership of a Category at which a particular rate of contribution was made times the Benefit Accrual Rate for that period of membership, where Benefit Accrual Rate is based on contribution rate as follows:</p> <table><tr><th>Category</th><th>Member Contribution Rate</th><th>Benefit Accrual Rate</th></tr><tr><td>I:0*</td><td>0.0%</td><td>9.00%</td></tr><tr><td>I:2.5</td><td>2.5%</td><td>10.50%</td></tr><tr><td>I:5</td><td>5.0%</td><td>18.00%</td></tr></table> <p><i>*(5.0% for each year prior to 30 June 1995, 6% for each year between 1 July 1995 and 30 June 1998, 7% for each year between 1 July 1998 and 30 June 2000 and 9% for each year after 1 July 2000)</i></p>	Category	Member Contribution Rate	Benefit Accrual Rate	I:0*	0.0%	9.00%	I:2.5	2.5%	10.50%	I:5	5.0%	18.00%
Category	Member Contribution Rate	Benefit Accrual Rate											
I:0*	0.0%	9.00%											
I:2.5	2.5%	10.50%											
I:5	5.0%	18.00%											

Benefits

Normal Retirement Benefit (“NRB”)

The benefit payable on retirement is equal to the member’s ARBM times the member’s FAS.

Early Retirement Benefit (“ERB”)

Early retirement is permitted within five (5) years of a member’s NRA, or within ten (10) years of their NRA with the approval of the Employer. The benefit payable on early retirement is calculated in the same manner as the member’s NRB using only completed membership to the date of retirement.

Late Retirement Benefit (“LRB”)

The benefit payable on late retirement between the age of ■ and ■ is calculated in the same manner as the member’s NRB using completed membership to the actual date of retirement. The benefit payable on late retirement after age ■ is equal to the benefit payable at age ■ plus interest over the period to retirement.

Death/Total & Permanent Disablement (“TPD”) Benefit

The benefit payable on death or TPD is equal to:

- the member’s ARBM times the member’s FAS; plus
- the Death Benefit Accrual from the date of death/TPD to age 65, times the Member’s FAS;

where

the Death Benefit Accrual is based on their contribution rate:

Member Contribution Rate	Death Benefit Accrual
0.0%	0.00%
2.5%	7.50%
5.0%	15.00%

(Note: The benefit is subject to a minimum of two (2) times FAS.)

Withdrawal Benefit

The benefit payable on leaving the Plan is equal to the member’s Accrued Retirement Benefit Multiple times the member’s FAS times a discount factor,

where

The discount factor is equal to 100% at age 60 reducing by 2% for each year (and complete month) that the member’s age at exit is less than 60 subject to a minimum discount factor of 40% for a member aged less than 30.

Accumulation Benefits

In addition to the above defined benefits a member may be entitled to receive a further amount in respect of any voluntary/rollover accounts less any surcharge amounts.

Minimum Benefits

All benefits payable to members are subject to a minimum of the amount of their Minimum Benefit as defined in the Plan's current Superannuation Guarantee Benefit Certificate.

Members Contribution Rates

Members contribute to the Plan at varying rates according to their category of membership.

Changes to the benefits

Since the valuation as at 30 June 2019 no changes have been made to the Plan's benefits.

Summary of Data Used in this Investigation

Membership Data

Based on information provided by the administrator, Plum, the table below provides a summary of the membership details as at 30 June 2019 and 30 June 2022:

	30 June 2019	30 June 2022
	Active	Active
Number of Members	6	1
Average Age	58.5	■
Average Membership in Plan	31.7	■
Total salaries	\$837,211	■

Membership Reconciliation

A reconciliation of the membership for the period from 1 July 2019 to 30 June 2022 is shown below:

	Total
Number of members as at 30 June 2019	6
Less: Exits during the period	(5)
Plus: Entrants during the period	-
Number of members as at 30 June 2022	1

The number of defined benefit members has decreased over the period since 30 June 2019 where there were a total of 6 members.

During the period from 1 July 2019 to 30 June 2022 the salary of the defined benefit member who remains in the Plan throughout the period [REDACTED] which was [REDACTED] than the rate of salary growth assumed in the previous investigation (4.0% p.a).

We have carried out various reasonableness checks of the member data provided by the administrator and are satisfied that the data is suitable for the purpose of this investigation.

Assets Data

We have been supplied with asset and cash flow information covering the three-year period from 1 July 2019 to 30 June 2022. We understand that the data forms part of the overall accounts for the MLC Super Fund.

As at 30 June 2022, the Plan's defined benefit assets continue to be invested in the Pre-Mixed Moderate Portfolio. The fair value of assets as disclosed, [REDACTED], was used in this valuation to determine contribution recommendations and Funding Status Measures.

We understand that the Operational Risk Financial Requirement (ORFR) for the Plan is held in a separate reserve by the Trustee, reflecting the ORFR for the master trust in total. For this reason, for the purpose of this investigation, we have not allowed for further adjustment to the Plan's assets for the ORFR.

We are satisfied that there are no material data discrepancies and that the data provided is suitable for the purpose of this investigation. We have relied on the information provided for the purposes of this investigation. Although we have no reason to doubt the quality of asset information provided, the results of this investigation are dependent on the quality of the asset information. Any changes to the asset value above will have an impact on the outcome of the investigation and any resulting recommendations.

Additional voluntary amounts and their assets have been excluded from this valuation.

Funding Method, Assumptions and Experience

Funding Method

In this valuation, we have used the Attained Age method. Under this method, the employer contributions is calculated as the cost of benefits accruing to members in respect of all future membership plus other relevant costs (such as administration expenses), with an adjustment to allow for the amortisation of surplus or deficit existing in the Plan in respect of benefits accrued at the valuation date. These contributions are expressed as a percentage of salaries, by comparing the amount against the expected present value of 1% of members' salaries.

This funding method is suitable for a defined benefit plan closed to new members such as this Plan.

In producing our recommendations, we have also taken into account the pace of funding required to maintain certain short term solvency measures, in particular, that legislation requires the VBI to be above 100%.

In the previous actuarial investigation, the Attained Age Funding Method was used to determine the level of contributions. In our view this method remains appropriate.

Assumptions

In order to determine the value of expected future benefits and Plan assets, it is necessary to make assumptions regarding the timing and amount of future benefit payments, expenses and contributions. In doing so it is important to examine the experience of the Plan since the last valuation to see whether the previous assumptions have been borne out in practice.

While each of the assumptions used is normally the actuary's best estimate of future experience, in practice, the 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, they will provide a reasonable estimate of the likely future experience and financial position of the Plan.

In the short-term, as the actual experience emerges differently to the experience implied by the assumptions, the financial position of the Plan will also vary from that expected. However, adjustments to Employer contribution rates, if any, can be made to reflect these differences in the following actuarial investigation.

Financial Assumptions

Valuation assumptions can be broadly divided into demographic assumptions, which relate to characteristics of current and future members of the Plan, and financial assumptions, which are assumptions other than demographic assumptions. The following sections first consider the financial assumptions that are to be adopted for this valuation.

Investment Returns

Over the three-year period to 30 June 2022 the assets held in the Plan returned an average annual rate of return of 5.7% p.a. which is slightly lower than the rate assumed in the previous investigation of 6.0% p.a. (net of tax). This has had a negligible impact on the financial position of the Plan.

While short-term differences between actual investment return experience and the actuarial assumption can affect the long term financial position of the Plan as measured by the accrued benefits, the assumption used in the investigation must be based on long-term expectations since the investigation involves valuing payments in the future.

Based on models of future investment returns developed by WTW and the current strategic asset allocation of the Plan, the current long term expectation of investment returns net of tax and investment management expenses is 6.5% p.a. On this basis, we have adopted a long-term investment earning rate of 6.5% p.a. for this investigation, which is higher than the assumed long term earning rate used for the previous investigation of 6.0% p.a.

Salary Increases

The average salary increases during the investigation period for the member remaining in the Plan as at 30 June 2022 was [REDACTED]. This is [REDACTED] than the salary increase assumption adopted for the previous actuarial investigation of 4.0% p.a. This has had a positive impact on the financial position of the Plan.

The Employer has confirmed that it expects long-term salary increases for the remaining member to average [REDACTED]. We have therefore adopted this rate for the purpose of this investigation.

Administration Expenses and Insurance Costs

For this investigation, we have assumed:

- Fixed expenses of \$46,000 p.a. in line with the Plan's experience over the last 3 years, and expected expenses going forward. We have also assumed an additional \$17,000 of expenses to be incurred in each triennial year to cover the expected costs of conducting the actuarial investigation and associated actuarial certificates, i.e. expected expenses of \$63,000 for the year ending 30 June 2023. Expenses are assumed to be indexed in line with salary increases. This is lower than the rate of \$64,800 p.a. allowed for in the previous investigation.

Demographic Assumptions

In the previous investigation, it was assumed that members remained in the Plan until age 65. There were no other demographic assumptions adopted due to the small size of the defined benefit membership, i.e. only one remaining member. For this investigation, we have assumed that the last member will remain in the Plan until age [REDACTED] i.e. their [REDACTED]

Statutory Statements Under SPS 160
Bayer Employees' Superannuation Trust
Actuarial Investigation as at 30 June 2022

The statements required under paragraphs 23(a) to (i) of SPS 160 for interim and regular investigations are set out below:

Plan Assets

At 30 June 2022 the net market value of assets of the Plan, excluding any amount held to meet the Operational Risk Financial Requirement (ORFR), was [REDACTED]

Projection of Defined Benefit Vested Benefit Index

Based on the actuarial assumptions we project that the likely future financial position of the Plan over the three years following the investigation date will be as follows:

Date	Defined Benefit Vested Benefits Index
30 June 2022	556%
30 June 2023	552%
30 June 2024	543%
30 June 2025	535%

Accrued Benefits

The value of the accrued liability of the remaining defined benefit member as at 30 June 2022 was [REDACTED]

In our opinion, the value of the assets of the Plan at 30 June 2022 was adequate to meet the liabilities in respect of accrued benefits in the Plan (measured as the present value of members' accrued entitlements using the actuarial assumptions).

This assessment has been made using assumptions and a valuation method which we regard as reasonable.

Vested Benefits

The value of the vested benefit of the remaining defined benefit member as at 30 June 2022 was [REDACTED]

In our opinion, the financial position of the Plan is not unsatisfactory and the shortfall limit does not need to be reviewed at this time.

Minimum benefits

The value of the liability in respect of the minimum benefit of the remaining defined benefit member as at 30 June 2022 was [REDACTED] which is less than the value of assets held at that date.

Funding and Solvency Certificates

Funding and Solvency Certificates for the Plan covering the period from 30 June 2019 to 30 June 2022 required by the Superannuation Industry (Supervision) Act have been provided. In our opinion, we are likely to be able to provide Funding and Solvency Certificates for the Plan covering the period from 30 June 2022 to 30 June 2025.

Employer Contributions

The report on the actuarial investigation of the Plan at 30 June 2022 recommends the Employer to contribute nil in respect of the single remaining defined benefit member, until at least 30 June 2025.

In addition, we recommend that the Employer contribute at the required amounts to meet any Superannuation Guarantee, contractual or any other obligations in respect of accumulation liabilities in the Plan.

Payment of Pensions

The Plan does not have any lifetime pension members.



Hadas Danziger
Fellow of the Institute of Actuaries of Australia
RSE Actuary to the Bayer Employees' Superannuation Trust

19 December 2022

ABN 45 002 415 349 AFSL 229921

Level 4, 555 Bourke Street, Melbourne VIC 3000