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NT WorkSafe

Actuarial review of Northern Territory workers compensation scheme as at 30 June 2022

March 2023

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Strictly private and confidential

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Peggy Cheong
Executive Director
NT WorkSafe
Department of Attorney-General and Justice
Northern Territory Government
Ground Floor, Building 3, Darwin Corporate Park
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BERRIMAH NT 0828

21 March 2023

Dear Peggy

Please find our report attached which details our findings from the following analyses for NT WorkSafe:

- Calculation of the funding ratio based on 30 June 2022 outstanding claims liability valuations for insurers and self-insurers
- Calculations of the break-even premium rate for each prior accident year using data to 30 June 2022, including a review of the trends in the required premium and a comparison to the premium rates actually charged by insurers
- An estimate of the break-even premium rate for the 2022/23 underwriting year.

Yours sincerely

Lisa Simpson

Kathryn Cannon

Fellows of the Institute of Actuaries of Australia

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Executive summary

Key findings

The review indicates that the scheme is fairly stable on a financial basis with the break-even premium rate similar to the actual premium rate charged. However, the profitability on a financial year or 'Form A' basis is variable with the most recent three out of five financial years incurring a loss. The insurer funding ratio is 109% this year (112% at the previous valuation), so in aggregate the insurers' reserves may be sufficient.

Funding ratio

The funding ratio measures the liabilities held by the insurers (the notional assets) compared to the aggregate outstanding claims liability calculated by the scheme actuary. This is used to represent the ability of the scheme in aggregate to meet its liabilities.

The following table shows the funding ratio as at 30 June 2022 for insurers, self-insurers and for the whole scheme. The PwC central estimate excludes any risk margin. By comparison, the insurers' provisions include a risk margin, and the self-insurers' provisions are based on the bank guarantee which is 150 per cent of the current central estimate of outstanding claims liability with a minimum of $1 million per self-insurer.

Funding ratio ($000s)	Actual provisions (a)	PwC central estimate (b)	Difference ($000) (a) - (b)	Funding ratio (a) / (b)	Last year's funding ratio
Insurers	317,611	295,473	22,138	107%	111%
Self-insurers	7,139	3,593	3,546	199%	173%
Total	324,750	299,066	25,684	109%	112%

Notes: see section 2 of this report

As at 30 June 2022 the insurers' funding ratio was 107% while the self-insurers' funding ratio was 199%. The insurers' funding ratio decreased from 111% as at 30 June 2021 and the self-insurers' funding ratio increased from 173%.

The decrease in the insurers' funding ratio was due to the insurers' provision decreasing by more than the decrease in our provision compared to 30 June 2021. We are not provided with a reconciliation for the insurers' provisions, so cannot identify the drivers of the insurers' decrease. The increase in the self-insurer funding ratio is due to the self-insurers' provisions having increased by more than the increase in our central estimate compared to 30 June 2021. The increase in the self-insurer provision is partially due to the run-off of Catholic Church from the self-insurer group so a higher percentage of the outstanding claims liabilities relate to the smaller self-insurer which have a minimum bank guarantee of $1 million which is much higher than their outstanding claims liability. We are not provided with a reconciliation for the self-insurers' provisions, so cannot identify the drivers of the self-insurers' increase.

A ratio above 100% implies that, in aggregate, insurers are holding sufficient reserves to be likely to meet our central estimate of future claims costs. This year, the funding ratio has remained above 100%. We make the following comments which should be borne in mind when considering the funding ratio:

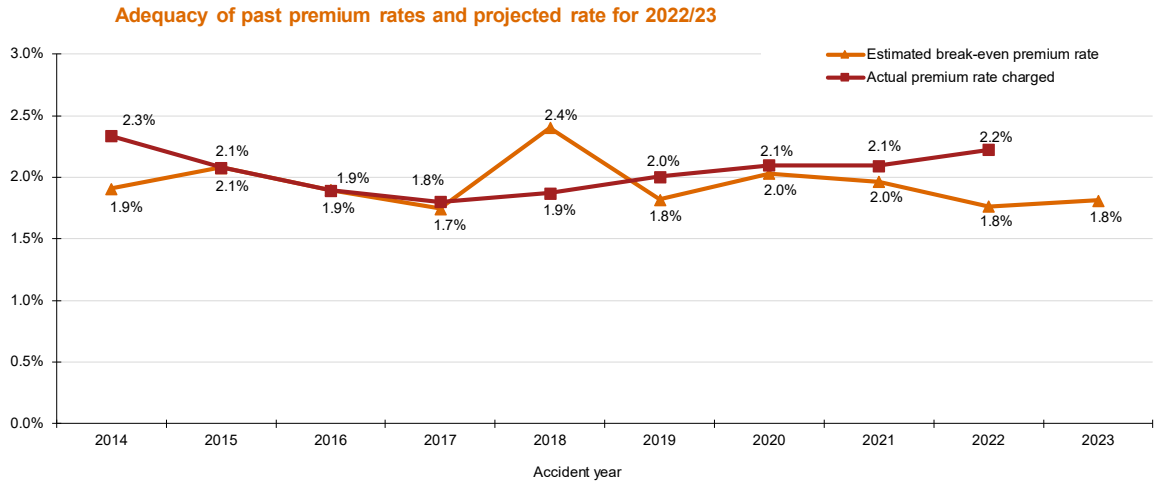
- The insurers' actuaries have access to more detailed claims data than we have to estimate the liabilities
- Insurers hold assets in excess of liabilities due to APRA capital requirements and their own risk appetite

- Some insurers may be holding greater than 100% of our notional allocation to them, while others may be holding less. Of concern would be any insurers who are well below 100%.

The above projections involve assumptions about future uncertain claim events and economic, social and legislative conditions and hence the actual outcome may well be different from the results shown above. This should be borne in mind whenever using the results. In particular, the 2021 and 2022 accident year costs are more uncertain than those for earlier accident years, and hence could ultimately be notably different to those estimated.

Insurer premium adequacy

The following graph shows the estimated break-even premium rates, using all experience to date, and compares this to the actual premium rates charged by insurers. The graph also shows our projected break-even premium rate for 2022/23.



The break-even premium rate is calculated on an inflated and discounted basis, gross of reinsurance, and does not allow for a profit margin.

There has been mixed experience in the sufficiency of actual premium rates charged by insurers over 2014 to 2022 shown in the graph above. Actual premium rates charged by insurers are estimated to have been more than sufficient in 2014. Subsequently, we estimate that actual premium rates were similar or slightly higher compared to estimates of break-even rates in 2015 to 2017 and 2019 to 2021. The actual premium rate for 2018 was not sufficient to cover the estimated break-even cost.

We estimate that the 2022 developed premiums charged of $149.9 million were $30.9 million (26.0%) higher than the estimated break-even premiums of $119.0 million. The 2022 developed premiums charged are higher than the estimated break-even premium rate in last year's report of $140.1 million, which reflects the higher wages than projected, partially offset by the lower premium rate. Overall, insurers increased their premium rates between 2019 and 2022 and are responding to the increasing costs in the scheme over the longer term.

The pattern demonstrated in the actual premium rate charged could be driven by changes in the underwriting or economic cycle.

Our projected break-even premium rate for 2023 is 1.8%, which is similar to the estimated break-even premium rate for 2022. We estimated the 2022/23 break-even premium rate to be similar to the most recent year after considering the economic indicators in the 2022/23 Northern Territory budget report.

The estimated break-even premium rates for accident years 2016 to 2022 include an allowance for the 2015 legislative changes. See Appendix B6 for a summary of the changes.

The change in the break-even premium is the average change across all policies. Actual premiums charged to an employer could have greater volatility each year, particularly for small employers, and their change will depend on their experience and size.

Key scheme trends

Claim statistic	Insurer	Self-insurers
Number of claims incurred	Decreasing trend in claim numbers since peak in 2014 to 2022, with 2022 claim numbers (1,832) slightly lower than 2021 (1,918). Similar to claim numbers, the claim frequency demonstrated a general decreasing trend from 2014 to 2022. Frequency is estimated to be 2.4% in 2022, lower than 2021 (2.7%).	General decreasing trend from high 2014 to 2022. In 2022, there are estimated to be 39 claims incurred which is 40% lower than 2021 and lower than all prior years. The low in 2022 is due to claims incurred for Catholic Church only being included as a self-insurer until 1 December 2020, after which claims incurred are classified as an insurer so 2022 is the first full year without Catholic Church in the self-insurer data.
Average claim size (in 30 June 2022 values)	2022 average claim size is just over $54,500, which is higher than all prior years (except 2018), driven by higher average cost to date and fewer claims reported to 30 June 2022.	Lower than insurers, at $36,775 for the 2022 accident year, which is in line with the past three years.
Incurred cost (in 30 June 2022 values)	2022 incurred cost is $100.0 million, which is slightly lower than 2021 but similar to 2019 and 2020 due to fewer number of claims partially offset by the high average claim size.	The incurred cost for 2022 of $1.4 million, which is lower than the incurred cost for all prior years except 2014. As mentioned above, this is due to Catholic Church not being classified as a self-insurer for the full year.
Gross loss ratio	2022 is 66.3%, which is lower than loss ratio for all accident years, except for 2014.	n/a
Distribution by payment type	Redemption and non-economic lump sums and weekly benefits combined account for just under two thirds of the total incurred cost and payments each financial year. The distribution of payments for the last eight accident years has remained stable.	n/a

Risks and uncertainties

The key risks and uncertainties to the Northern Territory (NT) scheme are:

- **COVID-19**

  There is also a degree of uncertainty given the current economic environment and COVID-19.

  Up until 30 June 2022, we were advised of 33 COVID-19 related claims (that are not government self-insurer claims), which was an increase compared to the 4 claims at 30 June 2021. Out of the 33 claims, 17 had a status of rejected,3 do not appear in the claims data and 13 are accepted. Of the 13 accepted claims all have received payments with an average payment to date of $39,338. The total paid to date on COVID -19 related claims $525,700 including for rejected claims where some rejected claims had minor costs. See section 7.3.3 for a graph of the claims reported, accepted claims and payments by incident quarter.

  In December 2021, NT had reopened its borders to interstate travellers. This reopening of borders as well as the presence of the new Omicron strain of COVID-19 had caused a spike in the number of COVID-19 cases, though the majority of these claims were rejected. The increases in the number of positive cases since December 2021 is likely the reason for the increase the number of COVID-19 related claims in the 2021/22 underwriting year.

  The ultimate impact of COVID-19 will depend upon the percentage of people who can prove they obtained it through work. There may be an increase in claims reported for long term illness, either long COVID or mental stress. There could also be additional mental stress claims from employees who are taking on additional workload while other staff are absent.

  Other potential impacts due to COVID-19 include lengthening claims durations if there are delays in accessing services or delays in the ability for people to return to work. Over time, other impacts may also emerge.

  The overall impact of COVID-19 is still unknown for the projection of 2022/23 injuries. Given the low number of claims to date and average payments to date not being similar to other claims we have not included an explicit allowance for COVID-19 in our 30 June 2022 valuation or our projection of 2022/23 injuries and have not made any adjustments to the risk margin assumptions.

- **Inpex project**

  Significant increases in wages up to 2018 were driven by the Inpex project and the associated contracts. Since then, wages have decreased by 13% for 2019 and a further 11% decrease for 2020. Up to and including 2017, the number of claims incurred and claims cost have not reflected the increase in wages, causing the claim frequency and premium rate to reduce. In 2018, the average claim size and incurred cost increased. We understand that over the 2018 financial year the construction phase wound down with production starting in October 2018. Therefore, the number of workers reduced significantly in the 2019 financial year. The premium pool also decreased as the project moved into production phase. This is observed from the decrease of 3% in premium pool for 2019.

  As per the previous valuation, we had continued to estimate that the 2018 accident year would be significantly higher than prior years. The payments over the 2022 financial year were similar to expected, but the case estimates development was lower than expected.

- **Changing economic environment**

  There is considerable uncertainty associated with the current economic environment especially under COVID-19 environment and what it will mean for Australia over the near future. The 2022/23 Northern Territory budget report has observed an improvement in outlook for the economy compared to last year. NT Government continues to focus its investment on bringing more investment to the Territory and backing

the best opportunities for growth in mineral exploration and processing and thus, creating more job opportunities across the state, which we have reflected in the estimates for the 2022/23 premium rate.

- **Large claims**

  The incurred cost and break-even premium for each accident year are heavily influenced by the presence or absence of any large claims. This is particularly prevalent in the NT due to the small scheme size and the prevalence of very large settlements. Future claims costs will continue to be impacted by very large settlements, with net costs to insurers impacted by the nature and adequacy of any reinsurance arrangements in place.

  Large claims can also have an impact on superimposed inflation. While superimposed decreased this year, it can be volatile due to the impact of large settlements and the relatively small scheme size. Superimposed inflation should be monitored to make sure increases in costs are understood and ensure that a payment type is not unexpectedly driving an increase in costs.

- **2015 legislative amendments**

  The 2015 legislative amendments impacted prospective claims only and were introduced in two stages. The main changes are effective from 1 July 2015, with additional changes effective from 1 October 2015. This creates additional uncertainty in the outstanding claims liabilities for the 2016 to 2022 accident years and the future costs for the 2023 accident year. See 6.5.1 for more details.

  The 2020/21 financial year was the first year where weekly benefits for claims with less than 15% whole person impairment (WPI) will cease for those who have reached 260 weeks of wages and had an accident date after 1 July 2015. We have performed a high-level review to see what impact this has had. For further detail see B6.1.

  For the 2016 and 2017 accident years around 23% of claims have a weekly benefit payment in development year one which is higher than 19% to 22% of claims for 2015 and earlier accident years. However, the percentage of claims with a weekly benefit payment in development years three to six for the 2016 and 2017 accident years is lower than most years prior to 2016. The lower percentage of claims in development year three and four may reflect some of the high settlement activity seen for 2016 and 2017 (see below) and the lower percentage in development years five and six may reflect the capping of weekly benefits to five years for claimants with a whole person impairment of less than 15%.

  The percentage of claims with a redemption commutation lump sum payment has a general increasing trend, with most years from 2016 to 2022 higher than the previous years. This could be influenced by a number of aspects including the 2015 legislation changes, the economic circumstances and the general mix in claim numbers. The average redemption payment in development year three onwards is noticeably lower in 2016 onwards compared to 2015 and earlier.

  The impairment non-economic lump sum payment appears to be paid earlier than historically but there does not appear to be a change in the cumulative percentage of claims receiving an impairment payment in later development years. The average impairment non-economic lump sum is similar before and after the 2015 legislation amendments.

  We recommend NT WorkSafe and insurers closely monitor the experience to ensure that there are no unintended consequences.

- **2020 legislative amendments**

  Most of the 2020 legislative amendments are not retrospective. They are effective from 29 July 2020 so will only impact the 2021 and 2022 accident years for the 30 June 2022 outstanding claims liability and the 2022/23 projections. Some of these changes are a reversal of the 2015 legislative amendments. For the changes that are a reversal, none of them were included in our original costing as their impact was considered to be minimal. The more material changes will mainly affect the government self-insurance

claims which are out of scope for the report. The changes to catastrophic injuries may have an impact if the settlements were previously significantly less than the actual lifetime cost.

We have not made any specific allowance for the 2020 legislative amendments for the 30 June 2022 outstanding claims valuation and 2022/23 projections.

We recommend NT WorkSafe and insurers closely monitor the experience to ensure that there are no unintended consequences. See Appendix B6 for more information.

- **Silicosis claims**

  There have been a significant number of silicosis claims in other Australia states that have been reported over the past year. In the NT, there have been no new silicosis claims over the year to 30 June 2022. Therefore, there are three silicosis claims (that are not government self-insurer claims) reported in the NT to date, of which the total paid on these claims were around $32,000.

  Therefore, due to the lack of historical claims and small percentage of business with potential exposure, we have not made a special allowance for these claims in our valuation, as they are unlikely to have a material impact on the total scheme outstanding claims liability or scheme break-even premium rate. Any silicosis claims could impact the premium rates for industry classes and individual employers.

- **Psychological injury**

  Primary psychological injuries are increasing in number and as a proportion of total claims in other state workers compensation schemes and their costs are often higher than for other injury types. The Safe Work Australia Comparative Performance Monitoring Report shows that NT has lower rates of primary psychological injury than most other states.

  Sequela psychological injuries are also increasing nationally, though it can be difficult to accurately identify claims with sequela psychological injuries as the data doesn't clearly capture this.

  We do not separate our analysis by nature of injury, but we monitor the proportion of claims by nature of injury to understand any changes in the claims experience. We will continue to monitor the claims experience to understand if there are any changes in the percentage of claims with primary psychological injuries.

  We recommend NT WorkSafe and insurers also closely monitor the psychological injury experience and explore ways to better capture data on sequela psychological injuries.

Contents

1 About this report

1.1 Context for our review

This report has been prepared for NT WorkSafe and the Scheme Monitoring Committee in accordance with contract number D19-0182, dated 1 October 2019. Under this contract we have conducted the following analyses which are detailed in this report:

- Calculation of the funding ratio based on 30 June 2022 outstanding claims liability valuations for insurers and self-insurers
- Calculations of the break-even premium rate for each prior accident year using data to 30 June 2022, including a review of the trends in the required premium and a comparison to the actual premium rates charged by insurers
- An estimate of the break-even premium rate for 2022/23 based on historic data and future inflation assumptions.

This is the tenth time we have prepared this report for the NT workers compensation scheme. Our previous valuation was conducted using data as at 30 June 2021, the findings of which are detailed in our 9 May 2022 report titled *Actuarial review of Northern Territory workers compensation scheme as at 30 June 2021*.

Our review is for the following five insurers:

- Allianz Australia Insurance Limited (including Territory Insurance Office (TIO))
- CGU Insurance Australia (Part of Insurance Australia Limited)
- GIO Insurance Australia (also known as AAI)
- QBE Insurance Australia
- Catholic Church Insurance (for claims incurred from 1 December 2020)

and the following five self-insurers:

- Coles Supermarkets Australia Pty Ltd
- Wesfarmers Retail Holdings Pty Ltd
- Westpac Banking Corporation
- Woolworths Supermarkets.
- Catholic Church of the NT (Darwin Diocese) (for claims incurred up to 30 November 2020)

The analysis excludes Government Self Insurance and uninsured claims.

At 30 June 2014, TIO was a separate insurer. However, over the 2015 financial year it was purchased by Allianz. Over the 2019 financial year, Wesfarmers Retail Holdings Pty Ltd separated from Coles Supermarkets Australia Pty Ltd as a result of its demerger.

At 1 December 2020, Catholic Church changed from a self-insurer to an insurer in the NT. This change meant that claims incurred up to 30 November 2020 are categorised under Catholic Church of the NT (Darwin Diocese) (self-insurer), while claims incurred from 1 December 2020 onwards are categorised under Catholic Church Insurance Limited (Insurer).

The report is structured as follows:

- Sections 2 and 3 of this report present the outstanding claims liability valuations for insurers and self-insurers respectively
- Section 4 analyses the break-even premium rates for past underwriting years and the adequacy of the rates actually charged by insurers
- Section 5 details the data and methodology we have used
- Section 6 and section 7 outline the assumptions adopted in this review and considers the uncertainty in the work we have carried out, including some key risks faced.

1.2 Compliance with standards

1.2.1 Outstanding claims liabilities

The approach for calculating the outstanding claims liabilities is consistent with that required by the Accounting Standards for private and State Government general insurers (AASB1023), and APRA's prudential standard CPS320 Actuarial and Related Matters and GPS340 Insurance Liability Valuation where applicable. It also complies with the Institute of Actuaries of Australia's Professional Standard PS302 to the extent possible given the data available.

We have not performed a full review of asbestos liabilities due to lack of available data.

1.2.2 Premium rates

Our advice to you complies with the Institute of Actuaries of Australia Code of Conduct.

2 Insurer outstanding claims liabilities

2.1 Outstanding claims liability

2.1.1 Our estimates

The table below shows our central estimate results by payment type group in current values, including 2015 legislative amendments and excluding claims handling expenses:

Estimates of outstanding claims at 30 June 2022 ($000s) (a) (b)										
	By payment type method							All payments		
Accident year	Weekly Benefits	Medical And Hospital	Allied Health, Vocational Rehabilitation, Non-Compensation Payments (Other), Death	Other Goods And Services	Legals	Redemptions And Non-Economic Lump Sum	Sum of individual payment methods (c)	Combined PCE method (d)	Allowance for active large claims	Total (e)
2022	21,617	7,672	9,562	3,472	5,089	30,514	77,926	73,226	0	77,926
2021	10,340	2,634	3,740	1,660	3,619	25,247	47,241	38,212	0	47,241
2020	4,940	1,222	1,607	1,047	2,353	17,797	28,967	28,315	7,515	36,482
2019	3,192	935	1,288	975	1,997	13,895	22,283	10,227	0	22,283
2018	3,063	1,018	1,169	1,192	2,039	16,583	25,065	17,458	1,477	26,542
2017	799	219	311	453	571	4,182	6,536	6,372	1,592	8,046
2016	1,128	272	411	679	717	5,046	8,253	11,316	5,073	15,624
2015	2,911	692	1,093	1,892	833	5,647	13,069	9,821	3,333	13,966
2014	2,680	655	1,013	1,952	767	5,113	12,180	3,899	0	5,969
2013 & earlier	13,633	3,595	5,449	10,944	3,533	26,634	63,788	40,342	5,060	51,263
Total	**64,304**	**18,915**	**25,644**	**24,265**	**21,517**	**150,661**	**305,307**	**239,188**	**24,050**	**305,342**

Notes: (a) to (e) from appendix C4

The table shows that the largest component of the outstanding claims liability relates to the redemptions and non-economic lump sum payment group (49% of the total for individual payments), followed by weekly benefits (21% of the total for individual payments).

Further detail on the parameters adopted to calculate the outstanding claims can be found in Appendix C. For further analysis on the composition of the incurred cost of claims by payment group see Appendix E2.

To generate the gross central estimates, the current value estimates are inflated and discounted, as follows:

Gross estimates at 30 June 2022 excluding expenses ($000s)			
Accident year ending 30 June	30 June 2022 values	Inflated values	Infl/disc values
2022	77,926	83,617	75,985
2021	47,241	51,416	45,905
2020	36,482	40,443	35,246
2019	22,283	25,190	21,438
2018	26,542	30,536	25,387
2017	8,046	9,130	7,718
2016	15,624	17,340	15,070
2015	13,966	15,801	13,391
2014	5,969	6,992	5,667
2013 & earlier	51,263	59,161	48,813
Total	**305,342**	**339,626**	**294,618**

An allowance for reinsurance recoveries, claims handling expenses and a risk margin are included in the gross inflated/discounted estimates to arrive at the net outstanding claims provision:

Estimates at 30 June 2022 ($000s)							
	Gross o/s liability (a)	Reinsurance recoveries (b)	Net o/s liability (c)	aims handling expenses (d)	Net central estimate (e)	Risk margin (f)	Net Provision (g)
Total	294,618	15,870	278,748	16,725	295,473	35,668	331,141

Notes: (a) from table above

(b) based on the reinsurance information provided by insurers on large claims

(c) = (a) – (b)

(d) = (c) x 6%, see section 6.3 for details of the claims handling expenses

(e) = (c) + (d)

(f) = (e) x 12.07%, see section 7.2.2 for details on the risk margin

(g) = (e) + (f)

The inflated and discounted gross central estimate of $294.6 million is $31.6 million (9.7%) lower than the equivalent estimate as at 30 June 2021. This decrease is mostly driven by favourable experience, lower payments and case estimate development across all accident years except for 2015 that had 2 new large claims. We reduced the allowance after reviewing the historical case estimate development and observed that there had been lower development on large claims in the older years, compared to expected.

Net results have only been provided in total, as reinsurance recoveries depend on the large claims experience in each accident year and individual insurers' reinsurance treaties. The net provision at 30 June 2022 is $331.1 million, which is $35.5 million (9.7%) lower than 30 June 2021.

Since the 2016 financial year, insurers have provided us with more information about which claims are likely to receive a reinsurance recovery, to better allow for the estimate of reinsurance recoveries. However, we are not providing this information on an accident year basis in the report for commerciality reasons.

2.1.2 Comparison with insurers

We have compared our gross and net outstanding claim estimates to the insurers' estimates in total. As mentioned above, we have not compared the results by accident year, for insurer commerciality reasons.

Gross estimates at 30 June 2022 excluding expenses ($000s)	Insurers' estimate (a)	PwC estimate (b)	Difference ($000) (b) - (a)	Difference (%) (b) / (a) - 1
Total	297,462	294,618	-2,844	-1.0%

Notes:(a), (b) = gross inflated and discounted values excluding claims handling expenses

As at 30 June 2022, our gross estimate is $2.8 million (1.0%) lower than that of the insurers. This compares to our estimate being $7.5 million (2.3%) higher than that of the insurers at 30 June 2021. The difference is due to different underlying methods and assumptions used by the insurers compared to us in the valuation. A key driver of this difference may relate to the uncertainty associated with large claims and future development on these.

Our net provision is higher than that of the insurers due to different reinsurance recoveries and risk margin assumptions. Individual insurers would be expected to have a lower risk margin than the scheme, due to diversification benefits from writing other classes of business.

Funding ratio

The funding ratio measures the liabilities held by the insurers (the notional assets) compared to the aggregate outstanding claims liability calculated by the scheme actuary. This is used to represent the ability of the scheme in aggregate to meet its liabilities.

For insurers, the funding ratio compares the insurers' net provision (i.e., including risk margin) with our central estimate (i.e., excluding risk margin). This is shown in the table below:

Funding ratio ($000s)	Actual provisions (a)	PwC central estimate (b)	Difference ($000) (a) - (b)	Funding ratio (a) / (b)
Insurers	317,611	295,473	22,138	107%

Notes: (a) as per table above, net provision including risk margin

(b) net central estimate, excluding risk margin

The aggregate funding ratio is 107%, which is a decrease from 111% last year. The decrease in the insurers' funding ratio was due to the insurers' provision decreasing by more than the decrease in our provision compared to 30 June 2021. We are not provided with a reconciliation for the insurers' provision so we cannot identify the drivers of the insurers' decrease. Part of this may be due to differences in allowances for the valuations by payment type and future large claims development.

A ratio above 100% implies that, in aggregate, insurers are holding sufficient reserves to be likely to meet our central estimate of future claims costs. We make the following comments which should be borne in mind when considering the funding ratio:

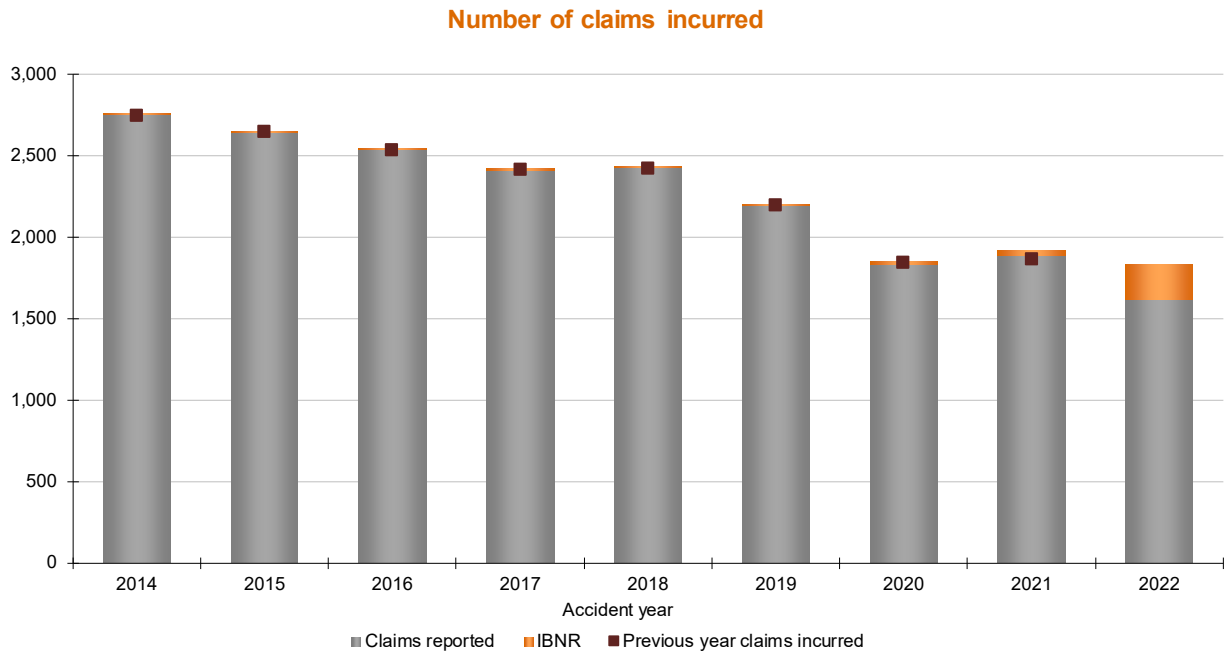
- The insurers' actuaries have access to more detailed claims data than we have to estimate the liabilities
- Insurers hold assets in excess of their liabilities due to APRA capital requirements and their own risk appetite
- Some insurers may be holding greater than 100% of our notional allocation to them, while others may be holding less. Of concern would be any insurers who are well below 100%.

2.2 Claims statistics

The following sub-sections show the claims experience by accident year. For more graphs of claims statistics, including by financial year, see appendices D and E.

2.2.1 Number of claims incurred

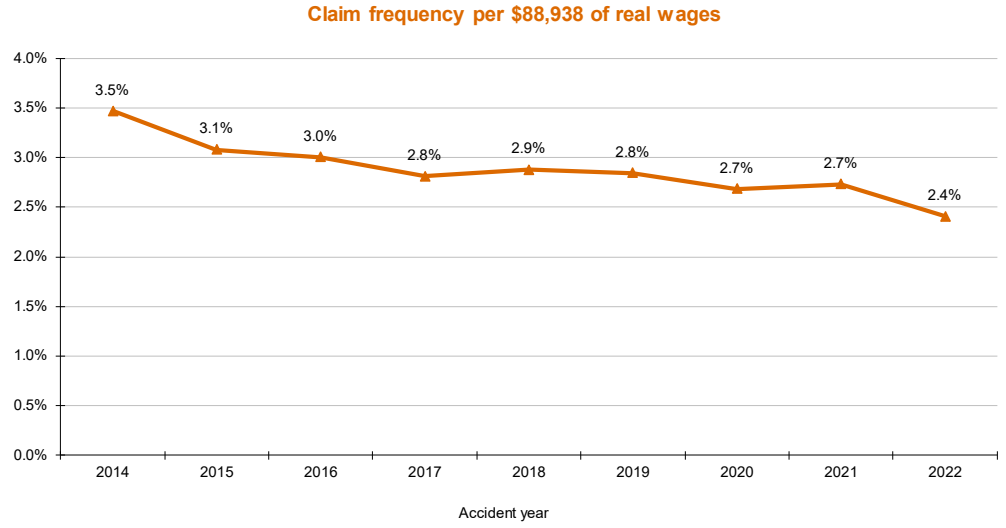
Decreasing trend from 2014 to 2022



The main points to highlight from this chart are:

- The number of claims incurred for the 2014 accident year was about 2,750
- From the 2014 to 2020 accident years, there has been a decreasing trend in the number of claims incurred to 1,850 for the 2020 accident year
- For the 2021 accident year, the number of incurred claims at 1,918 claims is slightly higher than the 2020 accident year but lower than 2019 and all prior years. The increase between 2020 and 2021 is partially due to Catholic Church Insurance claims being included in the insurer category from 1 December 2020
- For the 2022 accident year, the number of incurred claims at 1,832 claims is similar to the 2020 accident year, despite 2022 including a full year of Catholic Church Insurance claims
- The numbers of claims are similar to those estimated at the previous valuation, except for 2021 which is higher than expected.

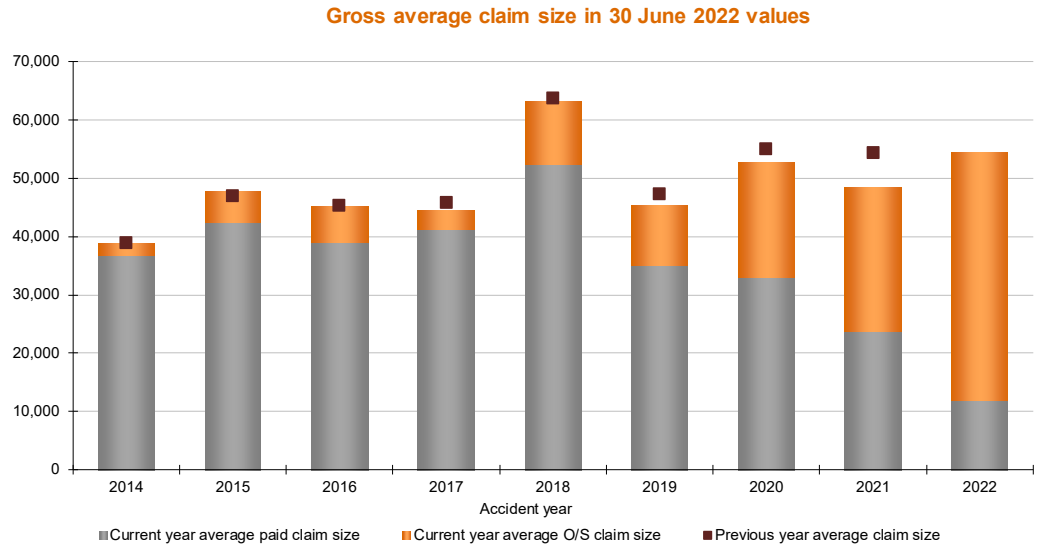
Declining claim frequency due to significant increases in wages up to 2015 and more recently reducing number of claims incurred. 2022 is lower than 2021 as the number of claims decreased while wages increased partially due to the inclusion of Catholic Church for a full year



See Appendix D1 for the formula to calculate the claim frequency.

2.2.2 Gross average claim size

2022 is estimated to be higher than most prior years except 2018



Since 2014 the gross average claim size (in 2022 values):

- Exhibited volatility due in part to large claims, especially the average of $63,259 in 2018
- Exhibited a broadly increasing trend from around $38,893 in 2014 to around $48,388 in 2021 and $54,557 in 2022
- The uncertainty about the future development means that the ultimate level and our estimates may differ from those projected for recent accident years. This is especially true for the 2022 accident year, where a high proportion (78%) of the average claim size relates to uncertain future claims development

Compared to the previous valuation, the gross average claim size is similar for all years, except for 2019 to 2021 where the current estimate is lower than the previous valuation. This reflects changes in total estimates over the year.

Appendix E contains the average claim size split by payment type. The mix of payment types across the accident years has remained stable. Redemptions and non-economic lump sums are the largest payment type, closely followed by weekly benefits. These two payment types account for just under two thirds of total incurred costs.

2.3 Actual vs expected claims experience over 2021/22

2.3.1 Claims incurred up to 30 June 2021

Actual experience compared to the expected experience over 2021/22 for claims incurred up to 30 June 2021 showed:

- Claim reports were 22% higher than expected (259 actual compared to 212 expected)
- The proportion of claims finalised was faster than expected (62.5% compared to 61.0%)
- Claim payments were 18% lower than expected ($74.6 million actual compared to $91.0 million expected)
- Case estimate development was lower than expected (12% actual compared to 20% expected).

Expected experience is taken from the previous scheme report dated 9 May 2022. See appendix C2 for full details.

The impact of this experience is quantified in the reconciliation in section 2.4.

2.3.2 Claims incurred over 2021/22

The actual experience for claims incurred over 2021/22 compared to expected showed:

- The number of incurred claims was 4.3% less than projected for the 2022 accident year in the previous valuation
- There were 797 claims active as at 30 June 2022, which is 17.9% higher than the 676 expected
- The average payment per claim was $12,014, which is 0.4% lower than the $12,059 expected.

The expected experience is based on the adopted parameters used for our 30 June 2021 valuation.

2.4 Reconciliation of estimates

The table below reconciles the gross outstanding claims central estimate, excluding expenses, with the equivalent result as at 30 June 2021.

Reconciliation of gross actuarial estimates, excluding expenses ($000s)										
Accident year ending 30 June		2021	2020	2019	2018	2017	2016	2015	2014 & earlier	Total
A.	Gross estimates at 30 June 2021 (a)	81,296	53,334	36,386	41,782	14,041	17,943	15,268	66,165	326,215
B.	Gross payments 1 July 2021 to 30 June 2022	24,267	12,372	9,422	13,933	2,789	1,987	3,460	6,400	74,631
C.	Assumed investment return (b)	22	15	10	11	4	5	4	20	91
D.	= A - B + C	57,050	40,977	26,974	27,860	11,256	15,960	11,813	59,784	251,675
	Updated gross estimates at 30 June 2022									
E.	Revised gross estimates at 30 June 2022 (c)	45,905	35,246	21,438	25,387	7,718	15,070	13,391	54,479	218,633
F.	= E - D	-11,145	-5,731	-5,536	-2,473	-3,538	-891	1,579	-5,305	-33,042
	Change 01 July 2021 to 30 June 2022									
G.	Proportion of change attributable to									
	Changes in real rates of return	-1,629	-1,369	-843	-1,113	-329	-605	-589	-2,670	-9,148
	Change in experience	-5,955	-2,360	-3,252	-2,428	-2,595	599	3,652	8,509	-3,829
	Change in actuarial assumptions	-3,562	-2,003	-1,441	1,068	-614	-885	-1,484	-11,144	-20,065
H.	Gross amount incurred and outstanding for 2021/22 accident year (e)									75,985
I.	= E + H									294,618
	Total gross outstanding liability, excluding expenses at 30 June 2022									

Notes: (a) from appendix C4 of our previous report dated 9 May 2022

(b) calculated using 0.03% p.a. being the one year forward rate from section 6.1 of our previous report dated 9 May 2022

(c) from appendix C4 of this report.

The table shows that:

- Overall estimates show a release of reserves of $33.0 million, which is 10.1% of the opening 30 June 2021 estimates. This decrease is made up by:
  - $20.1 million release (6.2%) due to change in actuarial assumptions
  - $9.1 million release (2.8%) due to the change in the real rates of return
  - $3.8 million release (1.2% of opening estimates) due to change in experience
- The decrease in real rates of return is due to changes in inflation rates and discount rates, as described in Section 6.1
- The change in experience is due to releases for all accident years, except the 2015 accident year. Claim development has generally been favourable and better than expected, especially for 2021. There have been lower payments across all years and case estimate development was lower for all accident years except for 2015, which had two new large claims.
- The release due to change in actuarial assumptions for all years except 2018 is due to lower superimposed inflation rates and lower adopted payments per claim finalised to reflect the experience over the year, particularly for redemptions and non-economic lump sums. These releases are partially offset by the strain for the 2018 year, where we increased the assumptions to reflect the higher claims experience.

3 Self-insurer outstanding claims liabilities

3.1 Outstanding claims liability

3.1.1 Outstanding claims provision

The provision below is based on cumulated claims data across all payment types and self-insurers. Projected payments are inflated and discounted to get to the gross central estimate before application of an allowance for claims handling expenses and a risk margin to calculate the provision.

A breakdown of our results is shown in the table below:

Estimates at 30 June 2022 ($000s)							
Accident year ending 30 Jun	Gross o/s liability (a)	Reinsurance recoveries (b)	Net o/s liability (c)	Claims handling expenses (d)	Net central estimate (e)	Risk margin (f)	Net Provision (g)
Total	3,390	0	3,390	203	3,593	898	4,492

Notes: (a) in inflated and discounted values

(b) (a) x 0%

(c) (a) + (b)

(d) assumed to be 6% of the net outstanding liability

(e) = (c) + (d)

(f) a risk margin to increase the provision to a 75% level of sufficiency, = (d) x 25.0%

(g) = (e) + (f)

The inflated and discounted net provision at 30 June 2022 is $4.5 million, which is $3.0 million (40%) lower than the $7.5 million provision as at 30 June 2021. The decrease is mainly due to lower case estimates for the 2020 and 2021 accident years and Catholic Church only being included as a self-insurer until 1 December 2020 so the estimates for the 2022 accident year are significantly less than the 2021 accident year at the same point in time.

3.1.2 Comparison with self-insurers' estimates

We have compared our assessment of the net central estimate to self-insurers' estimates. The results are shown in the table below:

Estimates at 30 June 2022 ($000s) Accident year ending 30 Jun	Self-insurers' estimate (a)	PwC estimate (b)	Difference ($000s) (a) - (b)	Difference (%) (a) / (b) - 1
2016 & earlier	197	210	-13	-6.1%
2017	5	2	3	135.8%
2018	57	63	-6	-9.6%
2019	152	127	25	19.5%
2020	1,045	1,078	-33	-3.1%
2021	1,115	942	174	18.4%
2022	1,076	1,172	-97	-8.2%
Total	**3,646**	**3,593**	**53**	**1.5%**

Notes: (a), (b) in inflated and discounted values, including claims handling expenses

This comparison shows that our net central estimate is lower than the self-insurers' estimate by $0.05 million (1.5%). This is largely due to lower estimates for the 2017, 2019 and 2021 accident years, partially offset by higher estimates for all other years.

Self-insurer funding ratio

For self-insurers, the funding ratio compares the self-insurers' bank guarantee provision (150 per cent of the current central estimate, with a minimum of $1 million per self-insurer) with our estimate, which excludes any risk margin.

Funding ratio ($000s)	Self-insurers' provision (a)	PwC central estimate (b)	Difference ($000s) (a) - (b)	Difference (%) (a) / (b) - 1
Total	7,139	3,593	3,546	199%

Notes: (a) bank guarantee provision, net central estimate (from table above) x 1.5

(b) as per table above, net central estimate excluding risk margin

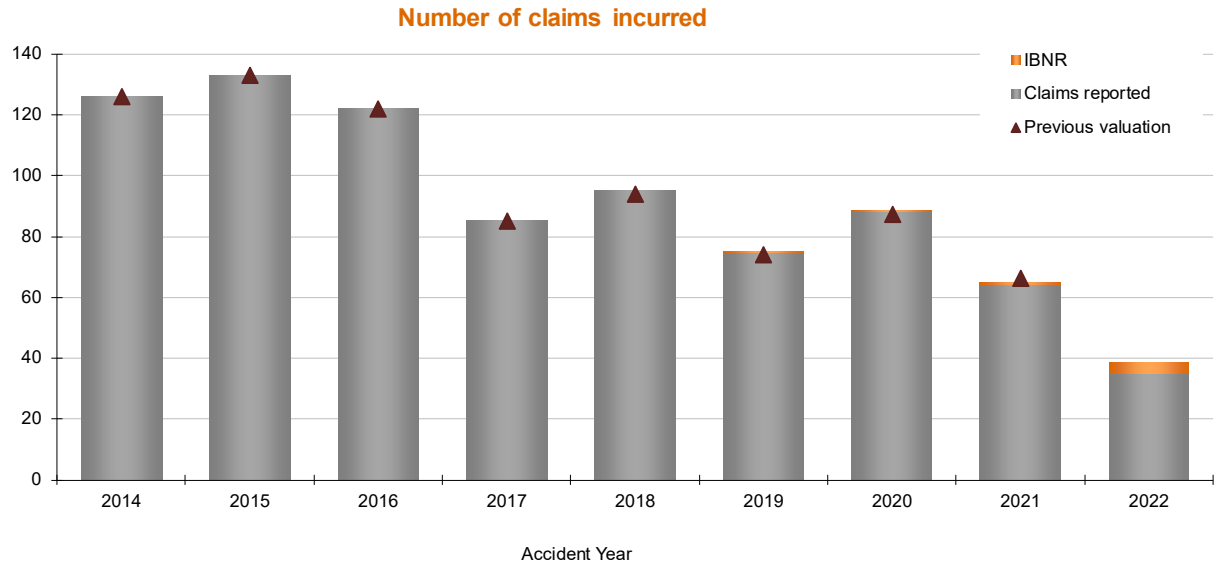
The aggregate funding ratio of 199% is higher than 173% as at 30 June 2021. The increase in the self-insurer provision is partially due to the run-off of Catholic Church from the self-insurer group so a higher percentage of the outstanding claims liabilities relate to the smaller self-insurer which have a minimum bank guarantee of $1 million which is much higher than their outstanding claims liability. Funding ratio remains well above 100% which indicates that the current bank guarantee provisions held by self-insurers in aggregate are likely to be adequate to cover future claims costs.

3.2 Claims statistics

The following sub-sections show the claims experience by accident year. For more graphs of claims statistics, see Appendix G.

3.2.1 Number of claims incurred

General decreasing trend from 2014 to 2022 at 39 claims



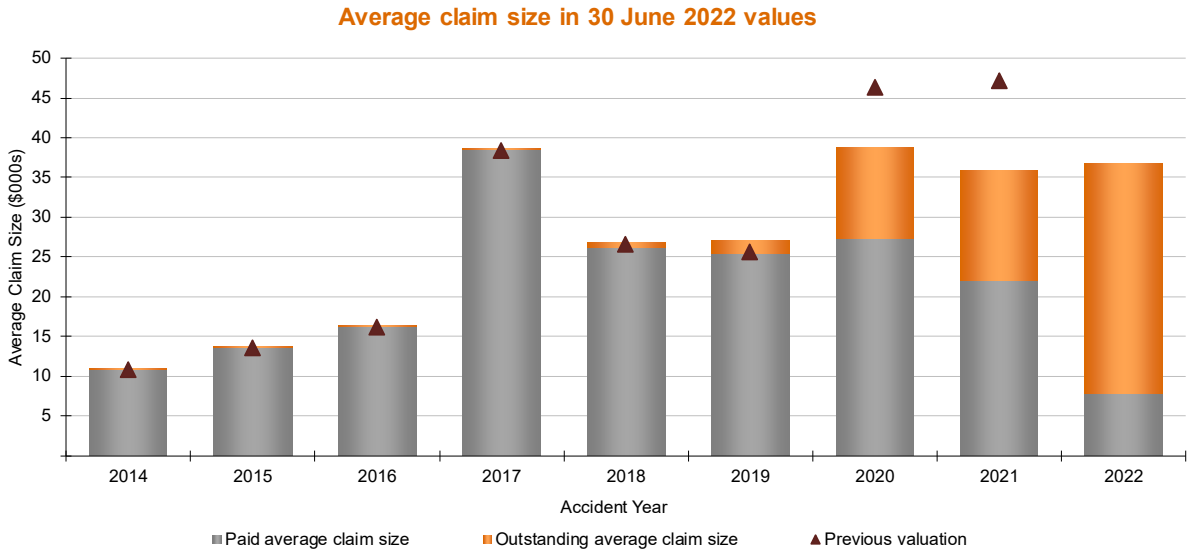
The main points to highlight from this chart are:

- The number of claims was fairly stable over 2014 to 2016 at around 120 to 135 claims

- From 2017 to 2021 the number of claims incurred has varied between 65 and 95
- For 2022, the number of claims incurred decreased to 39, of which 4 are IBNR claims. The significant decrease compared to 2021 and all prior accident years is partly due to Catholic Church becoming an insurer from 1 December 2020, so 2021 has five months of Catholic Church claims while 2022 has none.
- The numbers of claims are similar to estimates at the previous valuation.

3.2.2 Gross average claims size

2022 average claim size is estimated to be $36,775, which is similar to 2021



The average claim size has been volatile between accident years and there has been no discernible trend. From 2014 to 2016, the average claim size has ranged been between $10,500 and $16,300.

Our estimated average claim size for the 2017 accident year is higher than its surrounding years due to higher payments and case estimate development to date, driven by multiple large claims.

Our estimated average claim size for the 2020 and 2021 accident years are significantly higher at $35,800 and $38,900. The 2022 year is broadly in line with these recent years.

The uncertainty about the future development means that the ultimate level and our estimates may differ from that projected for recent accident years. This is especially true for the 2021 and 2022 accident years, where a high proportion (39% and 79% respectively) of the average claim size consists of the uncertain future estimate.

Compared to the previous valuation, the average claim size for 2013 to 2018 are similar, 2019 is higher but 2020 and 2021 are significantly lower than previously estimated. This is because of favourable experience for 2020 and 2021.

3.3 Actual vs expected claims experience over 2021/22

Actual experience compared to the expected experience over 2021/22 for claims incurred up to 30 June 2021 showed:

- Claim reports were higher than expected (7 actual compared to 6 expected)
- Claim payments were lower than expected ($2.1 million actual compared to $2.3 million expected).
- Case estimate development was significantly lower than expected (10% actual compared to 84% expected)

The expected experience is taken from our previous report dated 9 May 2022. See Appendix F for full details.

The impact of this experience and our adjustments to future development is quantified in the reconciliation below.

3.4 Reconciliation of central estimates

The table below reconciles the gross outstanding claims central estimate, excluding expenses, with the equivalent result as at 30 June 2021.

Reconciliation of gross actuarial estimates, excluding expenses ($000s)									
Accident year ending 30 June ($000s)	2021	2020	2019	2018	2017	2016	2015	2014 & earlier	Total
A. Gross estimates at 30 Jun 2021 (a)	2,508	2,610	243	36	136	2	1	125	5,663
B. Gross payments 1 July 2021 to 30 June 2022	775	942	247	22	142	1	0	112	2,242
C. Assumed investment return (b)	1	1	0	0	0	0	0	0	1
D. = A - B + C Updated gross estimates at 30 June 2022	1,734	1,669	-4	15	-7	1	1	14	3,423
E. Revised gross estimates at 30 June 2022 (c)	889	1,017	120	59	2	2	1	195	2,284
F. = E - D Change 1 July 2021 to 30 June 2022	-845	-652	124	44	9	0	0	182	-1,139
G.Proportion of change attributable to									
Changes in real rates of return	-19	-15	-2	-1	0	0	0	-6	-44
Change in experience	-1,060	-850	118	32	8	0	-1	187	-1,565
Change in actuarial assumptions	233	213	9	14	0	0	0	0	470
H. Gross amount incurred and outstanding for 2021/22 accident year (c)									1,106
I. = E + H Total gross outstanding liability, excluding expenses at 30 June 2022									3,390

Notes: (a) from appendix F4.4 of our previous report dated 9 May 2022

(b) calculated using 0.03% p.a. being the one year forward rate from section 6.1 of our previous report dated 9 May 2022

(c) from appendix F4.4 of this report.

The table shows that:

- Overall estimates show a release on reserves of $1.1 million, which is 20.1% of the opening 30 June 2021 estimates. This release is made up of:
  - $1.57 million release (27.6%) due to change in experience
  - $0.04 million release (0.8%) due to increase in the real rates of return.
  - Partially offset by $0.47 million strain (8.3% of opening estimates) due to changes in actuarial assumptions

  The biggest cause of the release is the 2020 and 2021 accident years, which decreased due to favourable experience and significantly lower than expected payments and case estimate development over the year. This is partially offset by strains for the 2019 and earlier accident years due to higher development than expected.

4 Break-even premium rates

4.1 Adequacy of past premiums

The break-even premium rate is calculated on an inflated and discounted basis and is gross of reinsurance, given that each insurer will have a unique reinsurance treaty in place. No allowance for a profit margin has been made, as insurers will set their own margin based on a multitude of factors, and we are interested in the "break-even" premium, which excludes any consideration of profit.

For this analysis, we have allowed for the claims costs and expenses to be discounted to the point that the premium is received. We have used all claims experience available to date to calculate the break-even premium rate.

The following table shows our estimated break-even premium rates and the actual rates charged by insurers:

	Calculated break even premium							Actual premium			
Accident year	Reported earned wages (a) ($000s)	Developed earned wages (b) ($000s)	Discounted gross incurred cost (c) ($000s)	Commission in financial year (d) ($000s)	Discounted other expenses in the fin year (e) ($000s)	Premium (f) ($000s)	Estimated premium rate (g)	Reported earned premium (h) ($000s)	Developed earned premium (i) ($000s)	Actual premium rate charged (j)	Difference (break even - actual)
2022	6,552,441	6,740,538	95,867	4,927	17,495	118,985	1.8%	148,886	149,914	2.2%	30,929
2021	6,184,957	6,213,402	89,898	4,727	27,323	121,958	2.0%	131,134	130,158	2.1%	8,200
2020	6,074,603	6,061,064	95,211	4,501	23,377	123,157	2.0%	128,439	127,195	2.1%	4,038
2019	6,700,788	6,700,788	96,077	4,701	20,885	121,958	1.8%	135,476	134,277	2.0%	12,319
2018	7,254,718	7,254,718	145,244	5,534	22,548	174,140	2.4%	135,674	135,674	1.9%	-38,465
2017	7,261,995	7,261,995	101,120	4,489	20,653	126,774	1.7%	130,733	130,733	1.8%	3,959
2016	6,833,594	6,833,594	104,884	4,163	20,086	129,762	1.9%	129,530	129,530	1.9%	-231
2015	6,582,845	6,582,845	111,195	4,558	20,288	136,874	2.1%	136,816	136,816	2.1%	-58
2014	5,929,595	5,929,595	90,653	4,775	17,098	113,233	1.9%	138,578	138,578	2.3%	25,345

Notes: (a) earned wages provided by insurers

(b) (a) x development factors in Appendix B7

(c) calculated in Appendix H1

(d) actual commission, from the consolidated Form A returns

(e) other expenses, from the consolidated Form A returns, discounted by half a year

(f) = (c) + (d) + (e) x (1+ one year historical interest rate) ^ (3/12) to allow for the fact that premiums are on average received 3 months after the commencement of the underwriting period

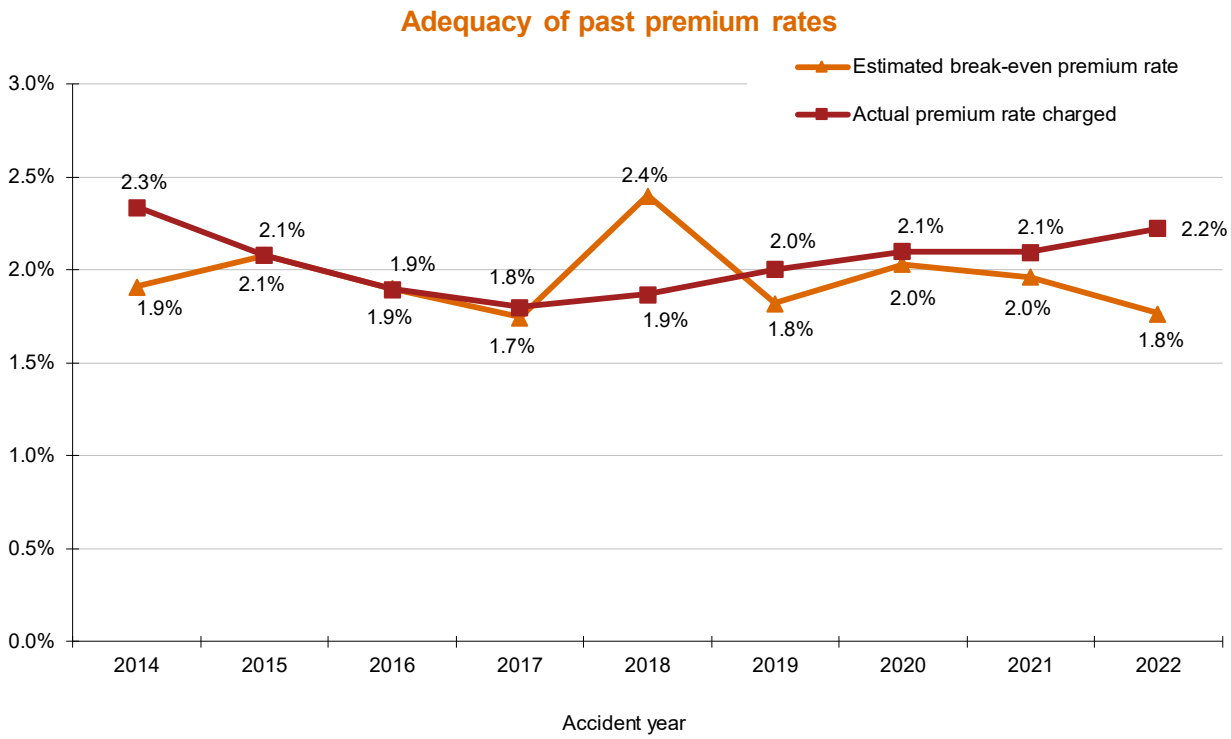
(g) = (f) / (b)

(h) earned premium, including earned but not yet reported premium provided by insurers

(i) (h) x development factors in Appendix B7

(j) = (i) / (b)

We estimate that the 2022 developed premiums charged of $149.9 million were $30.9 million (26.0%) higher than the estimated break-even premiums of $119.0 million.



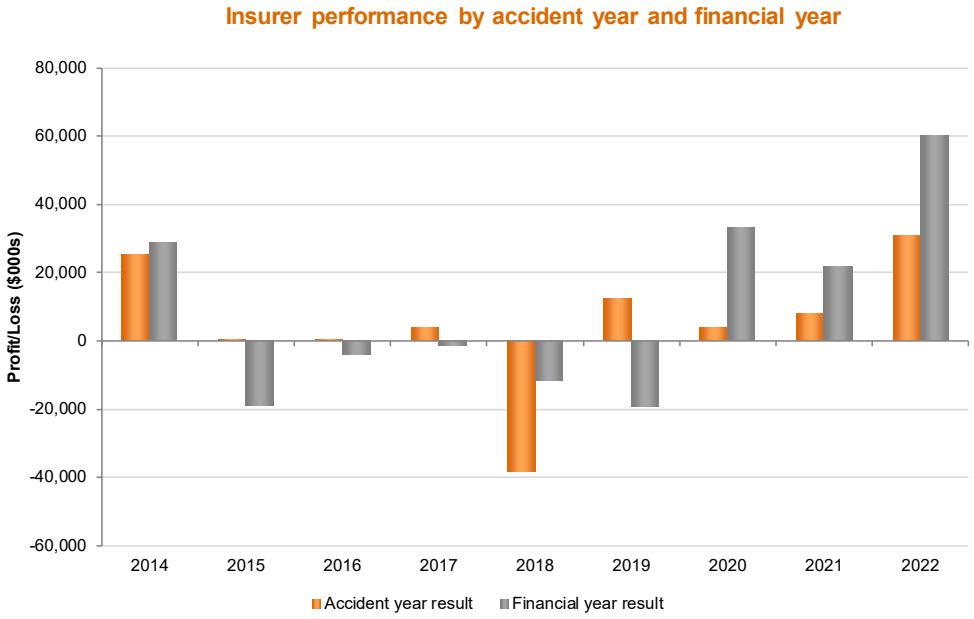
The key points to highlight from the above chart and table may be summarised as follows:

- The actual premium rate charged was between 1.8% and 2.1% over 2016 to 2021.
- For 2022, actual premium rate charged increased to 2.2% and it is higher than the estimated break-even premium rate of 1.8% for the year. The gap will also have increased due to the increase in risk free discount rates, which acts to reduce the estimated break-even premium rate. The discount rates are now closer to the expected earning rates on underlying asset portfolios.
- With hindsight, there has been mixed experience in the sufficiency of actual premium rates charged by insurers over 2014 to 2022 shown in the graph above.
  - The actual premium rate charged is estimated to have been more than sufficient to cover the break-even cost for accident years 2014 and 2022.
  - For 2015 to 2017 and 2019 to 2021 the actual premiums were similar to slightly higher than the estimates of the break-even rate
  - In 2018 the actual premium rate was less than sufficient to cover break even cost.

Historically, the actual rate has fluctuated around the estimated break-even premium rate. However, we would expect the premium charged by insurers to be consistently higher than the break-even premium, to incorporate an appropriate profit margin. Insurers will likely use a higher discount rate than Commonwealth yields in their pricing based on a higher expected rate of investment return. This reduces the actual premium rate charged.

Another source of difference between the two rates is reinsurance. We have estimated the break-even rate based on the gross risk cost, whereas the premium rate charged by insurers would factor in reinsurance (both recoveries and cost of a treaty). Assuming that reinsurance is priced to deliver a profit above the expected reinsurance recoveries, then the break-even rate would be expected to increase if an allowance was made for reinsurance.

Using the difference between the actual premium and break-even premium as shown in the table above we have graphed the insurer performance on an accident year basis. The financial year basis comes from the Form A supplied by insurers.



Over the nine years shown in the chart above there is no discernible trend in the insurer profitability. In general, the insurer performance on a financial year basis has been more variable than the performance on an accident year basis, except for the 2018 accident year.

4.2 Forecast break-even premium rate

The following table shows the break-even premium rate projected for the next financial year. For comparative purposes, we have also shown the last five underwriting years.

Underwriting year	Actual wages (a) ($000s)	Discounted gross incurred cost (b)	Expenses (c) ($000s)	Premium (d) ($000s)	Calculated premium rate (e)
2023	6,848,386	100,034	23,236	123,995	1.8%
2022	6,740,538	95,867	22,422	118,985	1.8%
2021	6,213,402	89,898	32,050	121,958	2.0%
2020	6,061,064	95,211	27,878	123,157	2.0%
2019	6,700,788	96,077	25,586	121,958	1.8%
2018	7,254,718	145,244	28,082	174,140	2.4%

Notes: (a) 2023 = developed wageroll for 2022 x (1 + 1.6%).

(b) 2023 = adopted claims incurred x adopted average claim size in 30 June 2022 values x (1 + wage inflation) x (1 + superimposed inflation) x inflation/discounting factor

1,977 x 51,401 x (1 + 1.6%) x (1 + 1.0%) x 0.9593

€ = (b) / (1 – commission rate (3.5%) – other expense rate (15.4%)) – (b)

(d) = (b) / (1 – commission rate (3.5%) – other expense rate (15.4%)) x (1 + interest rate (2.4%)) ^ (3/12) to allow for the fact that premiums are received on average 3 months after the commencement of the underwriting perio€(e) = (d) / (a)

Our projection of the break-even rate for the 2023 underwriting year is reliant on three key items:

- Actual wages are forecast to increase at 1.6%, being the adopted level of future wage inflation
- The future gross incurred cost is the product of the number of incurred claims and an average claim size, allowing for future inflation, superimposed inflation and discounting to reflect the timing of payments
- Expenses are the sum of commission and other expenses, which are both set as a percentage of the total premium.

Superimposed inflation is a measure of the growth in claims cost in excess of wage inflation.

More detailed analysis on the derivation of the four adopted assumptions for the projection (incurred claim numbers, average claim size in 30 June 2022 values, commission rate and other expense rate) are shown in Appendix H.

We considered the economic indicators in the 2022/23 Northern Territory budget report, in adopting the assumptions for the 2023 break-even premium rate.

The adopted average claim size is based on average claim sizes for the 2021 and 2022 accident years, including the allowance for the 2015 legislative changes. Some of the benefit changes were reversed in the 2020 legislative amendments, however none of the changes costed for 2015 were reversed so we have kept the same allowance and made no other adjustments. See Appendix B for more details.

5 Data and methods

5.1 Data provided

NT WorkSafe supplied data to us from two sources:

- The internal WIMS database which records details of all claims lodged under the NT scheme
- Insurers' own systems giving details of claims lodged.

The following list sets out the information we received for our review. All data was supplied in electronic form.

- Report 1 – Reconciliation to Form B. NT WorkSafe's comparison of the payments and reports in the WIMS system and provided from insurers' systems
- Report 2 – Data based on date of accident. Unit claims data for all claims lodged by insurers and self-insurers, with accidents grouped by financial year and presented in separate files. This data contained payment information by payment type and development year
- Report 3 – Number of new claims received
- Report 4 – History of payments based on injury date. Claim triangles for reports and payments for each insurer and in total
- Report 5 – List of claims and insurers. Lists all claims since scheme inception by unique identification number and the insurer the claim was lodged with
- Insurer data templates. This included the following information for each insurer:
  - Form A. A simplified profit and loss account showing only the insurance aspects
  - Form B. The number of claims reported and paid during the most recent financial year, and the number of active claims, the case estimates, and the outstanding provision (split by reported and unreported claims) at the end of the most recent financial year, by accident year. This also includes a summary of payments to date and case estimates by accident year for claims with a total incurred cost higher than $500,000
  - Outstanding claims. Specifies the gross outstanding estimate, reinsurance recoveries, claims handling expenses and prudential margin as at 30 June 2022
  - ANZSIC data. Policies, employees, premiums, wages for each ANZSIC category. This is provided on the current processing year and for the most recent five underwriting years
  - Earned but not yet raised premium. Earned but not yet raised premium for each of the five most recent earned years.
  - Large claims. Insurers provided information on each open large claim with total estimates over $2 million and provide information on the claim number, accident date, payments to date, case estimates, total gross estimates, estimated reinsurance recoveries, other information
- For each insurer and self-insurer a list of all transactions in the 2022 financial year
- A list of COVID related claims reported in the 2022 financial year.

We were also provided with copies of valuation reports for some insurers and self-insurers.

We have separated the data to only include the information for the five active insurers, four self-insurers which are active in the scheme and one self-insurer in run-off. These ten companies are:

- Allianz Australia Insurance Limited (including Territory Insurance Office)
- CGU Insurance Australia (Part of Insurance Australia Limited)
- GIO Insurance Australia (also known as AAI)
- QBE Insurance Australia
- Catholic Church Insurance (for claims incurred from 1 December 2020)
- Coles Supermarkets Australia Pty Ltd
- Wesfarmers Retail Holdings Pty Ltd
- Westpac Banking Corporation
- Woolworths Supermarkets.
- Catholic Church of the NT (Darwin Diocese) (for claims incurred up to 30 November 2020)

We have not included Government Self Insurance or uninsured data. The total of nine companies over the 2022 financial year is the same as 2021. As per last year the Catholic Church portfolio has been split into two in the data provided to us. From 1 December 2020, Catholic Church changed from a self-insurer to an insurer in the NT. All claims incurred before 1 December 2020 will continue to be categorised under Catholic Church of the NT (Darwin Diocese) (self-insurer) while claims incurred from 1 December 2020 onward will be categorised under the Catholic Church Insurance (insurer).

For our analyses we have used the data described in the following way:

- Form B returns have been used to find the number of claims reported, the number of claims active and case estimates
- Report 2 files have been combined to obtain payments by payment type for all accident years back to 2002 and up to development year nine.
- Payment figures for the development year 10+, the following approach has been taken:
  - The list of insurers' historical transaction payments provided for the 2009 to 2022 financial years were used to obtain the development year 10+ payments figure, split into the different payment types
  - The change in data source for the development year 10+ (i.e., using actual data), is a better reflection of payments split by type compared to the approximation approach used in 2019/20 and earlier valuations.
- Outstanding claim estimates have been taken from insurers' data templates and self-insurers' actuarial reports
- Assumptions regarding reinsurance recoveries and claims handling expenses have been set by considering the large claim data, insurers' actuarial reports, the Form A returns provided, and with our knowledge and experience of other similar schemes
- ANZSIC data has been used to find the premiums collected and associated wages for our assessment of the adequacy of historic premium rates.

For further details on the data provided, see Appendix A.

5.2 Data quality and reconciliation

Overall, the data NT WorkSafe provided to us was suitable for our purposes, and we found it was broadly consistent across forms.

NT WorkSafe performs an initial set of data quality checks before the data is sent to us. We also conducted a high-level check of the total payments and number of claims between the Form B returns and the WIMS system and found them to be broadly consistent.

The table of the results from these checks can be found in Appendix A.

5.3 Data enhancements and additional data

All past recommendations on data enhancements have been addressed.

It would be useful to get case estimates by claim included in the data, but we understand this is not available and the costs to implement outweigh the benefits. It would also be useful to include the permanent impairment level assessed for a claim, though understand this may also not be available.

We have no further recommendations to enhance the quality of future reviews. We will continue to monitor and investigate the data provided by NT WorkSafe and suggest any future improvement as and when they are identified.

5.4 Projection methods for outstanding claims

We performed two separate valuations for this review, one for insurers and one for self-insurers. The sections below explain the different methodologies used for each valuation.

5.4.1 Insurers' outstanding claims valuation

We assessed the outstanding claims liability for insurers by projecting cash-flows separately for the following groupings of payment types:

- Weekly benefits
- Medical and hospital expenses
- Allied health, vocational rehabilitation, non-compensation other and death
- Other goods and services
- Non-compensation legal
- Redemptions and non-economic lump sum.

These groups are the same as for our previous review. They were selected based on similarities in the underlying nature of the claims likely to arise under each payment type and the payment patterns across development years.

We used a blend of the payments per active claim (PPAC) and payments per claim incurred (PPCI) methods to project payments for the first four of our groups listed above. For the other two groups we used a blend of the payments per claim finalised (PPCF) and PPCI methods.

We also use a combined (of all payment types) projected case estimate (PCE) method for the older accident years, placing more reliance on case estimate information that are set by claims managers.

Payments per claim finalised method

All payments were brought to current values and divided by the numbers of claims finalised in their respective accident years and years of payment. Averages of payments per claim finalised were formed from these figures. These averages were then combined with a projection of future numbers of claims finalised to produce projected future payments.

Payments per active claim method

As described for the payments per claim finalised method, but with a denominator of numbers of claims active at the beginning of the period.

Payments per claim incurred method

All claim payments were brought to current values and divided by the numbers of claims incurred in their respective accident years. A pattern of past payments per claim incurred was derived in respect of each accident year. These payment patterns were then extended into future years and used to project future payments.

Projected case estimates method

We used details of case estimates established at the end of each accounting period, subdivided by accident period. We brought each of these estimates to current values and examined them in comparison with payments made in the subsequent accounting period and the case estimates established at the end of the period (also in current values). Using this we derived an average pattern of the extent to which past case estimates had proven to be too high or too low in relation to the claim payments subsequently made. We used this pattern to project the future development of the case estimates held at 30 June 2022, and to project the future claim payments corresponding to these estimates.

The above methods calculate the projected liability in current values, including allowance for superimposed inflation.

The projected liability in current values is used to calculate the present value of the future claim payments by allowing for:

a Future increases prior to payment, due to claims inflation
b Discounting to take into account the time value of money
c Reinsurance recoveries on the gross future payment amounts
d Expenses associated with administering claims during the run-off period.

To estimate the reinsurance recoveries, we have allowed for the reinsurance recovery information provided by insurers on large claims.

This overall approach is consistent with that required by the Accounting Standards for private and State Government general insurers (AASB1023), and APRA’s prudential standard CPS320 and GPS340 for liability valuations for general insurance. It also complies with the Institute of Actuaries of Australia's Professional Standard PS302 to the extent possible given the data available.

The question of uncertainty in the estimates and the determination of provisions are discussed in sections 7.1 and 7.2.

5.4.2 Self-insurers' outstanding claims valuation

All analyses were performed after inflating past payments to current values as at 30 June 2022. We have used the PPCI method for our analysis and compared this to projected case estimates based on past development of case estimates for both insurers and self-insurers. We have adopted a blend of the PPCI and PCE methods for all years.

The PPCI and PCE methods are defined above.

We then used the same method applied to insurers to calculate the future claim payments, allowing for (a) to (d) above.

5.5 Approach to estimate break-even premium rates

We take the following steps to estimate the break-even premium rate for historic years:

a Using historic one-year forward rates, discount actual claim payments back to the start of each year
b Using the same set of discount factors, discount the inflated/discounted outstanding claims central estimate (excluding claims handling expenses) from this valuation for each year back to the start of each year
c Sum (a) and (b) to find the total discounted gross incurred cost for each year
d Using the Form A returns to find the levels of commission and other expenses for each financial year
e Sum the discounted gross incurred cost, commission and other expenses, and divide this by the developed earned wages to find the break-even premium rate.

We have allowed for the following timing aspects in the estimated premium:

- Other expenses have been discounted by half a year, to allow for the fact that they are incurred evenly through the year and so on average are paid halfway through the year
- Commission is assumed to be received at the same time as the premium
- Premiums have been inflated by a quarter of a year to allow for a timing delay for when they are actually received by insurers from brokers.

We have used the actual earned premiums from insurers and wages from the ANZSIC data to calculate the actual premium rate charged.

To project the break-even premium rate for 2022/23, we take the following steps:

a From historical data, estimate the incurred number of claims using average claim frequency and projected wages, average claim size, as well as a commission rate and other expenses rate as a proportion of premium
b Calculate the discounted gross incurred cost for the next year by multiplying the incurred number of claims by the average claim size, allowing for one year’s inflation and superimposed inflation and discounting
c Calculate the appropriate allowance for expenses using the following formula:
expenses = incurred cost / (1 – commission rate – other expense rate) – incurred cost
d Sum the estimated incurred cost and expense allowances and divide this by projected wages for the next year, which are estimated as the 2021/22 developed wages inflated by one year. Also, allow for the timing adjustment, as premiums will be received one quarter after policy commencement.

6 Assumptions

6.1 Financial assumptions

Future inflation and interest rates

The financial assumptions of future inflation and market rates of interest are as follows:

Years ahead	Interest rate 30 Jun 2022	Inflation rate 30 Jun 2022	Real rate 30 Jun 2022	30 Jun 2021
1	2.38%	1.60%	0.78%	-1.28%
2	3.32%	2.20%	1.12%	-0.82%
3	3.75%	2.40%	1.35%	-0.05%
4	3.85%	3.00%	0.85%	0.53%
5	3.90%	3.02%	0.89%	0.73%
6	3.95%	3.04%	0.91%	0.79%
7	3.99%	3.06%	0.93%	0.83%
8	4.02%	3.07%	0.95%	0.85%
9	4.05%	3.09%	0.96%	0.84%
10	4.07%	3.11%	0.96%	0.81%
11	4.09%	3.13%	0.96%	0.76%
12	4.10%	3.15%	0.96%	0.68%
13	4.11%	3.17%	0.94%	0.60%
14	4.11%	3.19%	0.92%	0.53%
15	4.11%	3.20%	0.91%	0.45%
16	4.11%	3.22%	0.89%	0.42%
17	4.12%	3.24%	0.88%	0.39%
18	4.13%	3.26%	0.87%	0.36%
19	4.14%	3.28%	0.87%	0.33%
20	4.16%	3.30%	0.86%	0.30%

The 30 June 2022 real rates are higher than the 30 June 2021 rates all the years. The overall impact is to decrease the liabilities.

The interest rate for one quarter of DY0 ((1 + 2.38%) ^ 0.25 – 1) = 0.006% is included in the calculation of the average premium rate. This is because insurers receive premiums on average three months after the policy commencement date.

See Appendix B1 for further information.

Past wage inflation

Payments and case estimates are inflated to current values based on the ABS Cat 6302.0 Average Weekly Earnings for the Northern Territory (persons full-time adult ordinary time earnings). These are detailed in Appendix B1.

6.2 Superimposed inflation

The superimposed assumptions for each payment category are as follows:

Superimposed Inflation	Weekly Benefits	Medical And Hospital	Allied Health, Vocactional Rehabilitation, Non-Compsenation Payments (Other), Death	Other Goods And Services	Legals	Redemptions And Non-Economic Lump Sum	Total
30 Jun 22	1.2%	2.2%	3.6%	0.1%	1.7%	0.3%	1.0%
30 Jun 21	1.7%	1.7%	4.3%	0.1%	3.6%	1.1%	1.6%

In total, our superimposed inflation estimate of 1.0% p.a. is 0.6% less than the 1.6% p.a. adopted for the previous valuation. Our estimate of superimposed inflation is lower compared to the previous valuation for all payment types except Medical and Hospital.

We calculate the total as a weighted average across the payment groups, weighted by the total outstanding claims estimate.

See Appendix B2 for more details.

6.3 Expenses

Claims handling expenses

We have reviewed the allowances made for claims handling expenses in the insurers' and self-insurers' returns provided to us, and used our knowledge and experience of other workers compensation schemes in Australia to set the following claims handling expense assumptions for use in the outstanding claims liability:

- 6% of projected future claim payments for insurers, same as the previous valuation
- 6% of projected future claim payments for self-insurers, same as the previous valuation

Commission and other expenses[1]

Insurers have provided data on historic gross written premiums, earned premiums, commission payments and other expenses as part of their Form A returns. We have used an average of the last two years to set the commission rate, as a proportion of earned premium, and a two-year average for the other expense rate, as a proportion of written premium, as follows:

($000s)	Underwriting year 2022	2021	2020	2019	2018	Adopted
Gross written premium (a)	146,845	145,986	125,789	142,690	135,842	
Earned premium (b)	146,226	131,769	122,529	144,321	146,280	
Commission paid (c)	4,927	4,727	4,501	4,701	5,534	
Other expenses (d)	17,701	27,327	23,402	20,986	22,760	
Commission rate (e)	3.4%	3.6%	3.7%	3.3%	3.8%	3.5%
Other expense rate (f)	12.1%	18.7%	18.6%	14.7%	16.8%	15.4%

Notes: (a), (b), (c), (d) actual values taken from *Consolidated Form A*

[1] Other expenses include claims handling expenses

(e) = (c) / (b)
(f) = (d) / (a)

The adopted rate is used in our calculation of the break-even premium rate for the next financial year. To show the adequacy of past rates we have used the actual dollar values of commission and other expenses paid.

Compared to the previous valuation, the adopted commission rate has decreased from 3.6% to 3.5% while, the other expense rate has decreased from 18.7% to 15.4%. The decrease in the commission rate is due to lower commissions for 2022 compared to 2018, 2020 and 2021. The decrease in the other expense rate is due to significantly lower expenses for 2022 compared to 2020 which was previously included in the average. We understand that the low expenses for 2022 was due to Liability Adequacy Test (LAT) adjustments for one insurer. Over the coming year we will work with insurers to understand all the components included in other expenses and will consider which of these should be included in the estimation of the break-even premium for the following year.

In total, the commission and other expense rate make up 18.8% of the break-even premium rate, which is lower than the 22.3% adopted for the 30 June 2021 valuation.

6.4 Reinsurance

We have used the additional information provided by insurers to allow for reinsurance recoveries on large claims, which are expected to exceed the retention limit. This is equivalent to 8% of all claims. We compared the reinsurance recoveries based on the large claims with insurers' total reinsurance recoveries and they were similar, though slightly higher, so we did not feel it was necessary to allow for any further reinsurance recoveries on the smaller claims. This is similar approach to last year's valuation.

We reviewed the self-insurers' reports and noted that either they have not allowed for any reinsurance recoveries or they note that reinsurance recoveries are minimal. Therefore, we have not allowed for any reinsurance recoveries for self-insurers.

6.5 Legislation changes

6.5.1 2015 legislative amendments

The 2015 legislative amendments were set out in two parts. The first amendment bill, Workers' Rehabilitation and Compensation Legislation Amendment Bill 2015, passed in March 2015 and came into effect 1 July 2015. The second amendment bill, the Return to Work Legislation Amendment Bill 2015, was passed in August 2015 and came into effect on 1 October 2015.

We costed the following changes in our report titled Actuarial costing of Northern Territory workers compensation scheme changes dated 11 September 2014:

- For claimants with less than 15% permanent impairment (PI) capping weekly benefits to five years and all other benefits to six years
- Extending weekly benefits from 26 weeks to 104 weeks for workers within 6 months of pension age or older than it.

We also provided commentary on some other proposed scheme changes.

The estimated cost of the above changes was a 2.8% overall reduction. As per last year, this year we have explicitly included a 3.2% reduction. This is change is due to removing the 0.5% allowance for the extension to weekly benefits for older employees as this was expected to impact the first few development years so is now present in the data used for the adopting periods.

The capping of weekly benefits and other benefits to five and six years respectively for claimants with less than 15% PI was estimated to reduce the payments by 54% in development year six and seven onwards for the two categories respectively. The reductions have been applied on this basis to the relevant payment types. This has been allowed for in our calculations of the outstanding claims liabilities as at 30 June 2022 for the 2015/16 to 2021/22 accident years and the future costs for the 2022/23 accident year. There is no allowance for the 2015 legislative changes in the outstanding claims liability as at 30 June 2022 for accident years before 2015/16.

As the scheme changes were broader than covered by our 11 September 2014 report, the actual impact could be different to estimated. We recommend NT WorkSafe and insurers closely monitor the experience to ensure that there are no unintended consequences.

6.5.2 2020 legislative amendments

The Return to Work Legislation Amendment Act 2020 reverses a number of changes made to the legislation in 2015 as well as adding some new changes. See Appendix B6 for a list of the changes.

We were not asked to cost any of the 2020 legislative amendments.

We note that some of these Act changes are a reversal of the 2015 legislative amendments which weren't costed at the time as they were considered minimal. The more material changes will mainly affect the government self-insurance claims which are out of scope for the report. The changes to catastrophic injuries may have an impact if the settlements were previously significantly less than the actual lifetime cost.

As most changes are not retrospective, they will only impact the 2021 and 2022 accident years for the 30 June 2022 outstanding claims liability and the 2022/23 projections. We have not made any specific allowance for the 2020 legislative amendments for the outstanding claims liability as at 30 June 2022 and 2022/23 projections.

7 Uncertainty

7.1 Uncertainty in the estimates

Actuarial estimates are obtained after analysis of past claims experience. From these analyses, models of the claim payment process can be established and used to project future payments on claims outstanding at the valuation date.

The estimates of outstanding claims obtained in this manner are indeed estimates in the sense that there is a degree of uncertainty as to the difference, which will ultimately arise between the estimates and the final result of the experience. This uncertainty arises from four sources:

a Because the nature of the claims process is not fully understood, it might be that none of the various models used is an entirely accurate representation of reality
b Because there are components of randomness in the claims process, it is not possible to estimate the parameters of that process with complete precision even if complete confidence were felt in the nature of the model
c Any erroneous data will similarly have introduced uncertainties into the estimates of those parameters
d Even if the parameters could be estimated with precision, it would not be possible to predict outstanding claims with the same precision because of the random component in future experience.

For some portfolios, errors associated with b and d above can be quantified in a formal way (estimation and statistical errors). However, a large part of the uncertainty is associated with a (model specification error), and it is difficult to quantify this component.

The investigation and application of different models to the data is intended to reduce the model specification error, although the extent to which this is achieved is unknown.

The initial estimates obtained from the calculations are "central" estimates in the sense that they incorporate no deliberate bias towards over or under estimation. By definition, the estimates are intended to have about an even chance of ultimately turning out to be sufficient.

7.2 Determination of provisions

7.2.1 Background

This valuation is not required to comply with any accounting standards. However, we have considered the requirements of Accounting Standard AASB 1023 on General Insurance Contracts which insurers are required to comply with for their annual valuation.

AASB1023 requires the determination of a central estimate of the present value of the expected future payments for claims incurred with an additional prudential margin to allow for the inherent uncertainty in the central estimate.

It should be realised that, by definition, any margins over central estimates are intended to have a better than even chance of falling into future surplus, provided that future experience is consistent with that of the recent past. This should be considered in making management decisions.

7.2.2 Levels of sufficiency

The nature of insurance claims is such that the actual value of the liabilities is unknown because claims experience is subject to random fluctuations. The amount of the claim liability cannot be estimated with

certainty. Also, it is very difficult to determine the central estimate with a reasonable degree of precision. For this reason, the inherent uncertainty in the central estimate must also be considered.

Determination of a risk margin allows for some part of the uncertainties in the claim process and also it ensures as far as possible that surplus is not released until it is reasonably certain that the surplus is real.

The adopted method was tested for its sensitivity to changes in the claim rates assumed and a measure of the variation in the results was obtained. This analysis indicated that the distribution of likely results was skewed to the right. This means that the variation upwards in the provision is expected to be greater than the variation downwards.

The dispersion of expected results is added to by:

- The variable nature of the claim experience
- Very large common law claims can sometimes occur.

The variation analysed together with benchmarking against reports published by APRA and the Institute of Actuaries leads to the assumption of a 20% coefficient of variation of the distribution of results for insurers and 50% for self-insurers, which allows for the skew distribution and systemic variation. The lognormal distribution was then assumed to apply when calculating the prudential margin required to increase the level of sufficiency above 50%.

The coefficient of variation for insurers was 20%, on par with our previous valuation. There was no change in the assumed independent risk following an analysis of past payments.

The risk margin applied for self-insurers was 25% for this valuation, as per our previous valuation. We also set the risk margin subject to a minimum of half the co-efficient of variation in line with the ‘APRA Risk Margin Analysis’ paper.

The coefficient of variation calculated as described above is taken as 20% for insurers and 50% for self-insurers. This leads to the following prudential margins.

Level of sufficiency and risk margins			
Level of sufficiency	75%	80%	85%
Risk margin (insurers)	12.07%	15.84%	20.40%
Risk margin (self-insurers)	25.00%	33.11%	45.94%

7.2.3 Sensitivity

The adopted method was tested for its sensitivity to changes in the assumptions about future interest and inflation rates, adopted reporting rates, and superimposed inflation, and a measure of the variation in the results was obtained. The results of this analysis for insurers are shown below:

NT WorkSafe Insurers - sensitivity analysis		
Assumption varied	Variation	% Change in total provision
Future interest rates	1% increase	-3.40%
	1% decrease	3.72%
Future inflation rates	1% increase	3.72%
	1% decrease	-3.46%
Adopted claim reporting rates	DY0 rate decreased from 11.62% to 5.81%	-1.68%
Superimposed inflation	1% increase	2.83%
	1% decrease	-2.61%
PPCI and PPAC values	10% increase	7.62%
Finalisation rate	10% decrease	9.17%

The increase in PPCI and PPAC factors illustrates a potential impact of an increase in the average claim size either due to claims remaining on benefits for longer or an increase in the frequency of large claims. The decrease in the finalisation rate illustrates a potential impact if claims remain on benefits for longer. Changing these assumptions only impacts some of the valuation methods so the impact should be treated with caution.

The corresponding results for our self-insurer analysis are as follows:

NT WorkSafe self-insurers - sensitivity analysis		
Assumption Varied	Variation	% Change in total provision
Future interest rates	1% increase	-1.43%
	1% decrease	1.49%
Future inflation rates	1% increase	1.48%
	1% decrease	-1.45%
Incurred claims	10% increase in IBNR claims	0.20%
	10% decrease in IBNR claims	-0.20%
Superimposed inflation	1% increase	0.55%
	1% decrease	-0.54%

The percentage change in the outstanding claim provisions as at 30 June 2022 is shown in the table above. The inherent robustness of the various assumptions in the table above means that the variations shown are not necessarily cumulative. Hence care needs to be exercised in developing any best or worst case scenario.

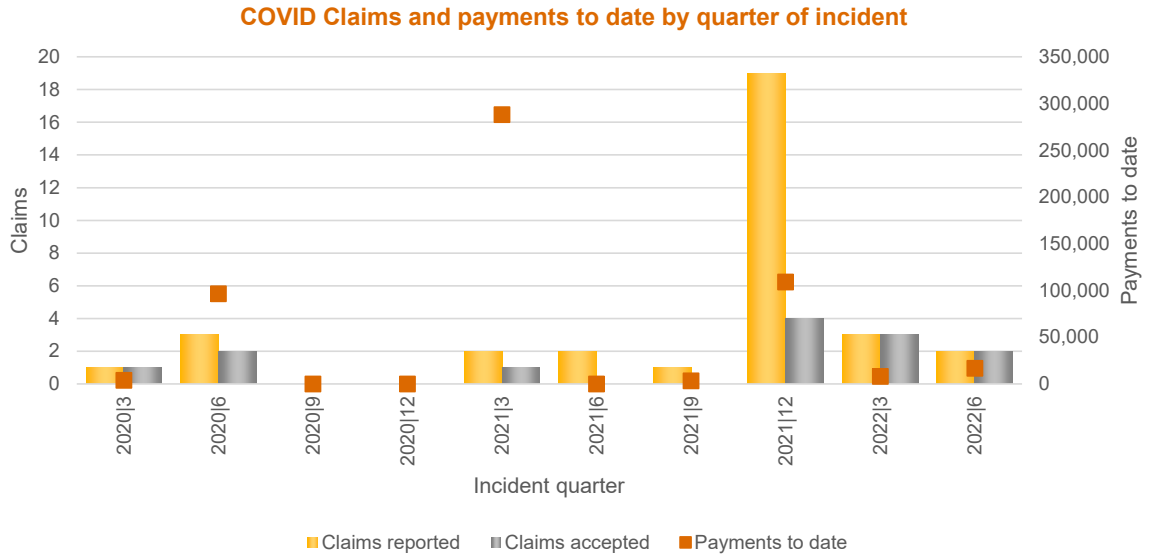
7.3 Key risks for NT WorkSafe scheme

The following paragraphs detail some of the key risks for the NT WorkSafe scheme.

- **COVID-19**

  There is also a degree of uncertainty given the current economic environment and COVID-19.

  Up until 30 June 2022, we were advised of 33 COVID-19 related claims (that are not government self-insurer claims) this is an increase compared to the 4 claims at 30 June 2021. Out of the 33 claims, 17 had a status of rejected,3 do not appear in the claims data and 13 are accepted. Of the 13 accepted claims all have received payments with an average payment to date of $39,338. The total paid to date on COVID -19 related claims $525,700 including for rejected claims where some rejected claims had minor costs. The graph below shows the claims reported, accepted claims and payments by incident quarter.



  In December 2021, NT had reopened its borders to interstate. This reopening of borders as well as the presence of the new Omicron strain of COVID-19 had caused a spike in the number of COVID-19 cases, though the majority of these claims were rejected. The increases in the number of positive cases since December 2021 is likely the reason for the increase the number of COVID-19 related claims of the 2021/22 underwriting year.

  The ultimate impact will depend upon the percentage of people who can prove they obtained it through work. There may be an increase in claims reported for long term illness, either long COVID or mental stress. There could also be additional mental stress claims from employees who are taking on additional workload while other staff are absent.

  Other potential impacts due to COVID-19 include lengthening claims durations if there are delays in accessing services or delays in the ability for people to return to work. Over time, other impacts may also emerge.

  The overall impact of COVID-19 is still unknown for the projection of 2022/23 injuries. Given the low number of claims to date and average payments to date not being similar to other claims we have not included an explicit allowance for COVID-19 in our 30 June 2022 valuation or our projection of 2022/23 injuries and have not made any adjustments to the risk margin assumptions.

- **Inpex project**

  Significant increases in wages up to 2018 were driven by the Inpex project and the associated contracts. Since then, wages have decreased by 13% for 2019 and a further 11% decrease for 2020. Up to and

including 2017, the number of claims incurred and claims cost have not reflected the increase in wages, causing the claim frequency and premium rate to reduce. In 2018, the average claim size and incurred cost increased. We understand that over the 2018 financial year the construction phase wound down with production starting in October 2018. Therefore, the number of workers reduced significantly in the 2019 financial year. The premium pool also decreased as the project moved into production phase. This is observed from the decrease of 3% in premium pool for 2019.

As per the previous valuation, we had continued to estimate that the 2018 accident year would be significantly higher than prior years. The payments over the 2022 financial year were similar to expected but the case estimates development was lower than expected.

- **Changing economic environment**

  There is considerable uncertainty associated with the current economic environment especially under COVID-19 environment and what it will mean for Australia over the near future. The 2022/23 Northern Territory budget report has observed an improvement in outlook for the economy compared to last year. NT Government continues to focus its investment on bringing more investment to the Territory and backing the best opportunities for growth in mineral exploration and processing and thus, creating more job opportunities across the state, which we have reflected in the estimates for the 2022/23 premium rate.

- **Large claims**

  The incurred cost and break-even premium for each accident year are heavily influenced by the presence or absence of any large claims. This is particularly prevalent in the NT due to the small scheme size and the prevalence of very large settlements. Future claims costs will continue to be impacted by very large settlements, with net costs to insurers impacted by the nature and adequacy of any reinsurance arrangements in place.

  Large claims can also have an impact on superimposed inflation. While superimposed decreased this year, it can be volatile due to the impact of large settlements and the relatively small scheme size. Superimposed inflation should be monitored to make sure increases in costs are understood and ensure that a payment type is not unexpectedly driving an increase in costs.

- **2015 legislative amendments**

  The 2015 legislative amendments impacted prospective claims only and were introduced in two stages. The main changes are effective from 1 July 2015, with additional changes effective from 1 October 2015. This creates additional uncertainty in the outstanding claims liabilities for the 2016 to 2022 accident years and the future costs for the 2023 accident year. We have modified the explicit allowance included this year to account for some of the actual experience being incorporated in the periods used for assumption setting. See 6.5.1 for more details.

  The 2020/21 financial year was the first year where weekly benefits for claims with less than 15% whole person impairment (WPI) will cease for those who have reached 260 weeks of wages and had an accident date after 1 July 2015. We have performed a high-level review to see what impact this has had. For further detail see B6.1.

  For the 2016 and 2017 accident years around 23% of claims have a weekly benefit payment in development year one which is higher than 19% to 22% of claims for 2015 and earlier accident years. However, the percentage of claims with a weekly benefit payment in development years three to six for the 2016 and 2017 accident years is lower than most years prior to 2016. The lower percentage of claims in development year three and four may reflect some of the high settlement activity seen for 2016 and 2017 (see below) and the lower percentage in development years five and six may reflect the capping of weekly benefits to five years for claimants with a whole person impairment of less than 15%.

  The percentage of claims with a redemption commutation lump sum payment has a general increasing trend, with most years from 2016 to 2022 higher than the previous years. This could be influenced by a

number of aspects including the 2015 legislation changes, the economic circumstances and the general mix in claim numbers. The average redemption payment in development year three onwards is noticeably lower in 2016 onwards compared to 2015 and earlier.

The impairment non-economic lump sum payment appears to be paid earlier than historically but there does not appear to be a change in the cumulative percentage of claims receiving an impairment payment in later development years. The average impairment non-economic lump sum is similar before and after the 2015 legislation amendments.

We recommend NT WorkSafe and insurers closely monitor the experience to ensure that there are no unintended consequences.

- **2020 legislative amendments**

  Most of the 2020 legislative amendments are not retrospective. They are effective from 29 July 2020 so will only impact the and 2022 accident years for the 30 June 2022 outstanding claims liability and the 2022/23 projections. Some of these changes are a reversal of the 2015 legislative amendments. For the changes that are a reversal, none of them were included in our original costing as their impact was considered to be minimal. The more material changes will mainly affect the government self-insurance claims which are out of scope for the report. The changes to catastrophic injuries may have an impact if the settlements were previously significantly less than the actual lifetime cost.

  We have not made any specific allowance for the 2020 legislative amendments for the 30 June 2022 outstanding claims valuation and 2022/23 projections.

  We recommend NT WorkSafe and insurers closely monitor the experience to ensure that there are no unintended consequences. See Appendix B6 for more information.

- **Silicosis claims**

  There have been a significant number of silicosis claims in other Australia states that have been reported over the past year. In the NT, there have been no new silicosis claims over the year to 30 June 2022. Therefore, there are three silicosis claims (that are not government self-insurer claims) reported in the NT to date, of which the total paid on these claims were around $32,000.

  Therefore, due to the lack of historical claims and small percentage of business with potential exposure, we have not made a special allowance for these claims in our valuation, as they are unlikely to have a material impact on the total scheme outstanding claims liability or scheme break-even premium rate. Any silicosis claims could impact the premium rates for industry classes and individual employers.

- **Psychological injury**

  Primary psychological injuries are increasing in number and as a proportion of total claims in other state workers compensation schemes and their costs are often higher than for other injury types. The Safe Work Australia Comparative Performance Monitoring Report shows that NT has lower rates of primary psychological injury than most other states.

  Sequela psychological injuries are also increasing nationally, though it can be difficult to accurately identify claims with sequela psychological injuries as the data doesn’t clearly capture this.

  We do not separate our analysis by nature of injury, but we monitor the proportion of claims by nature of injury to understand any changes in the claims experience. We will continue to monitor the claims experience to understand if there are any changes in the percentage of claims with primary psychological injuries.

  We recommend NT WorkSafe and insurers also closely monitor the psychological injury experience and explore ways to better capture data on sequela psychological injuries.

Appendices

Appendix A Detailed data description

A 1 Data supplied by NT WorkSafe

NT WorkSafe supplied data to us from two sources:

- The internal WIMS database which records details of all claims lodged under the NT scheme
- Insurers' own systems giving details of claims lodged with them.

All data was provided in electronic format.

NT WorkSafe perform their own initial reconciliations between the data sources, the main of these being the check of the payments in the WIMS system against payments recorded on the insurers' Form B. We have also performed our own checks between data sources, and these are detailed below.

The data descriptions below fall under two sections; Actuarial data, which is the data supplied from the WIMS system, and Template data which is the data received from insurers.

We were also provided with copies of actuarial valuation reports for some insurers and self-insurers. However, this data is not uniformly presented and so we have not commented on it.

A 1.1 Actuarial data

Five different types of report are run and extracted from the WIMS system. These are each supplied as separate data files.

Report 1 – Reconciliation to Form B

This report contains three items of data:

- NT WorkSafe's reconciliation of payments for the current financial year between the WIMS system against payments recorded on each insurers' Form B. This is done by insurer and in total
- A list of the total payments under each benefit code for the most recent financial year
- A list of all claims on which payments have been made, including details of the claim number, claimant name and amount paid.

We understand that the first sheet listed above is used by NT WorkSafe to reconcile the data before it is provided to us. A target of an absolute difference of no more than 1% is set, and if this is exceeded a manual process is followed to adjust the data on the WIMS system for any human error which has crept in upon data entry. For this valuation, the absolute difference was 0.6%.

Report 2 – Data based on date of accident

We were provided with 12 different files of Report 2 from NT WorkSafe, one for each accident year from 2011. Each of the files contain unit claims data with the following information:

- Unique record identifier

- Claim status (accepted, pending or rejected)
- Dates of report to the employer, lodgement with NT WorkSafe and acceptance or rejection
- Work status of the claimant
- ANZSIC industry classification of the claimant's employer
- Total number of FTE workers for the claimant's employer
- Claimant date of birth
- Claimant sex
- Claimant postcode of residency
- ASCO occupation of claimant
- Duty being performed when injury occurred (for example commuting, on a break)
- Hours normally worked each week
- Normal weekly earnings
- Nature, bodily location, mechanism, agency and breakdown agency of the injury
- Time lost
- Payments for each development year (DY) and grouped for DY10+ for each of the following payment categories:
  - Weekly benefits
  - Lump sum death benefits
  - Lump sum redemptions/commutations
  - Lump sum impairment/non-economic
  - Medical
  - Hospital
  - Allied health services
  - Vocational rehabilitation
  - Other goods and services
  - Non-compensation legal
  - Non-compensation other.
- Name of the insurer or self-insurer who the claim was lodged with.

Several of the above fields (for example claim status, work status) are coded using NT WorkSafe's own coding system. We were provided with the key to this system.

Report 3 – Number of new claims received

This gives a summary of the number of new claims lodged by each insurer in the most recent financial year. The data is summarised in the following three ways:

- Total number of new claims lodged with each insurer
- Number of new claims lodged for each accident year with each insurer

- Number of new claims lodged for each calendar year of injury with each insurer.

Report 4 – History of payments based on injury date

Summarised in this report are the claim payments and reports for insurers. These are shown in the following format:

- Claim triangles of payments for each accident year since 1990 and combined for the pre-1990 accident years, for each insurer and in total
- Claim triangles of reports for each accident year since 1990 and combined for the pre-1990 accident years, for each insurer and in total
- Summary of the number of claim reports and payments made in the current financial year for each insurer for each accident year since 1990 and combined for the pre-1990 accident years.

Report 5 – List of claim and insurers

This report presents a list of all the claims, which have ever been lodged with the scheme, giving the unique claim number and the insurer with which, the claim was lodged.

Self-insurer and insurer transaction data

We were provided with a list of the transaction in the 2022 financial year for each self-insurer and insurer to enable us to determine the payments made in 2021/22 relating to the 2011 and earlier accident years.

A 1.2 Template data

Insurer's operating under the NT WorkSafe scheme are required to complete and return two statutory forms on an annual basis, Form A and Form B, and are requested to provide extra information to assist in the monitoring of the scheme.

Insurers were provided with a data template in the form of an Excel workbook. This contained Form A and Form B, and tables to record the current outstanding claims liability, and policies, employees, wages and premium by ANZSIC class on both a processing and underwriting year basis, earned but not yet raised premium and large claims.

NT WorkSafe has provided each of the completed template workbooks to us.

Self-insurers provide a shortened version of Form B.

Form A

Form A is a simplified version of the profit and loss account for the insurance aspects of the entity only. The following data items are given for the current financial year:

- Gross premiums
- Re-insurance premiums paid
- Unearned premium at start and end of the year
- Claims paid
- Reinsurance recoveries on claims paid
- Outstanding claims at start and end of the year

- Underwriting profit/loss
- Commission paid
- Other expenses
- Investment income
- Profit/loss.

Form B

Form B contains the following data items in relation to the insurers' claims experience:

- Claims reported
- Claims paid
- Number of reported claims outstanding (active claims)
- Provisions for outstanding claims, broken down by:
- Provisions for claims already reported
- Provisions for unreported claims
- Case estimates for all claims
- For claims with an incurred cost over $500,000:
- Cumulative payments to date
- Case estimates outstanding.

Claims reported and paid are presented broken down by accident year and give the total amount over the year. Active claims, the outstanding provision, and case estimates are also broken down by accident year but show the position as at the end of the year. The large claim information shows payments made in total to date and the case estimate position at the end of the year.

The case estimates for all claims and cumulative payments and case estimates for claims with an incurred cost over $500,000 was first provided last year.

Outstanding claims

This contains the following information for the insurers' outstanding claim liability at the end of the year:

- Gross central estimate
- Reinsurance recoveries
- Claims handling expense
- Prudential margin.

ANZSIC data

The file presents a breakdown of the following five data items by each ANZSIC category:

- Policies
- Employees
- Premiums

- Wages.

This information is given for the current processing year, and for the most recent five underwriting years.

Earned but not yet raised premium

The file contains information of earned but not yet raised premium as at 30 June 2022 for each of the five most recent earned years.

Large claims

Insurers provided information on each open large claim with total gross estimates over $2 million and provide information on:

- Claim number
- Accident date
- Payments to date
- Case estimates
- Total gross estimates
- Estimated reinsurance recoveries
- Other information.

A 2 Data quality

Overall, the data NT WorkSafe provided to us was suitable for our purposes.

NT WorkSafe performed an initial set of data quality checks before sending it to us. We also conducted a high-level check of the total payments and number of claims between the Form B returns and the WIMS system and found them to be broadly consistent.

The following table shows the difference between the cumulative claim payments and reports on Form B and on the WIMS system for insurers only.

Accident	Payments ($000)				Reports			
year	Form B	WIMS	Diff	Diff (%)	Form B	WIMS	Diff	Diff (%)
2022	21,668	21,901	233	1.1%	1,617	1,606	-11	-0.7%
2021	24,070	24,267	197	0.8%	229	247	18	7.9%
2020	12,221	12,372	151	1.2%	12	16	4	33.3%
2019	9,456	9,422	-34	-0.4%	6	5	-1	-16.7%
2018	14,045	13,933	-112	-0.8%	8	7	-1	-12.5%
2017	2,783	2,789	5	0.2%	0	0	0	0.0%
2016	2,047	1,987	-60	-2.9%	0	0	0	0.0%
2015	3,324	3,460	136	4.1%	1	1	0	0.0%
2014	403	409	6	1.6%	0	1	1	0.0%
2013	608	642	35	5.7%	1	0	-1	-100.0%
2012 & prior	5,394	5,377	-17	-0.3%	2	0	-2	-100.0%
Total	**96,019**	**96,560**	**540**	**0.6%**	**1,876**	**1,883**	**7**	**0.4%**

This table shows that in total the two systems reconcile reasonably well, with generally minor discrepancies across all accident years.

The following table shows the difference between the claim payments and reports for this financial year by accident year on Form B and on the WIMS system for self-insurers only.

Accident year	Payments ($000s)				Reports			
	Form B	WIMS	Diff	Diff (%)	Form B	WIMS	Diff	Diff (%)
2022	306	303	-3	-0.9%	36	35	-1	-2.8%
2021	772	775	3	0.4%	3	4	1	33.3%
2020	944	942	-2	-0.2%	0	1	1	0.0%
2019	247	247	0	0.1%	1	1	0	0.0%
2018	21	22	0	1.6%	1	1	0	0.0%
2017	142	142	1	0.4%	0	0	0	0.0%
2016 & prior	145	113	-32	-22.1%	0	0	0	0.0%
Total	2,578	2,545	-33	-1.3%	41	42	1	2.4%

The information from Form B for the 2022 financial year reconciles fairly well with the WIMS.

We relied upon the WIMS data for this valuation as per previous valuations.

Appendix B Assumptions

B 1 Financial assumptions

Future inflation and interest rates

Years ahead	Interest rate 30 Jun 2022	Inflation rate 30 Jun 2022	Real rate 30 Jun 2022	30 Jun 2021
1	2.38%	1.60%	0.78%	-1.28%
2	3.32%	2.20%	1.12%	-0.82%
3	3.75%	2.40%	1.35%	-0.05%
4	3.85%	3.00%	0.85%	0.53%
5	3.90%	3.02%	0.89%	0.73%
6	3.95%	3.04%	0.91%	0.79%
7	3.99%	3.06%	0.93%	0.83%
8	4.02%	3.07%	0.95%	0.85%
9	4.05%	3.09%	0.96%	0.84%
10	4.07%	3.11%	0.96%	0.81%
11	4.09%	3.13%	0.96%	0.76%
12	4.10%	3.15%	0.96%	0.68%
13	4.11%	3.17%	0.94%	0.60%
14	4.11%	3.19%	0.92%	0.53%
15	4.11%	3.20%	0.91%	0.45%
16	4.11%	3.22%	0.89%	0.42%
17	4.12%	3.24%	0.88%	0.39%
18	4.13%	3.26%	0.87%	0.36%
19	4.14%	3.28%	0.87%	0.33%
20	4.16%	3.30%	0.86%	0.30%

The 30 June 2022 real rates are higher than the 30 June 2021 rates for all years The overall impact is to decrease the liabilities.

The real rate is estimated to be positive, i.e., interest earned is more than wage inflation, for all projection years. In our previous valuation, the first four projection years were negative and positive for all other projection years.

The interest rate for one quarter of DY0 ((1 + 2.38%) ^ 0.25 – 1) = 0.59% is included in the calculation of the average premium rate. This is because insurers receive premiums on average three months after the policy commencement date.

Forward interest rates are those estimated to be anticipated over future years by the Commonwealth bond market as it stood at 30 June 2022.

The interest rates are obtained by fitting a curve to the 30 June 2022 Commonwealth Government Bond yield curve, to derive the one year forward rates of interest, which are then independent of the cash flows of a particular portfolio of risks.

We have extended our projections of the discount rate and assume a long term rate of 4.5% after year 50. We have assumed a smooth progression from the observed market rate at year 16 to the long term rate at year 50.

The wage inflation assumptions we have adopted are higher than those used for the previous valuation. The short term inflation rates for the next four years are based future wage price inflation from NT Treasury's mid-

year report 2022/23 forecasts. We have assumed that Average Weekly Earnings (AWE) forecasts are aligned to the WPI forecasts in the short term and have therefore used these forecasts for the next four years.

We have assumed that the long term gap will take longer to achieve and have adopted a long term inflation rate of 3.5% after 30 years. We have assumed a smooth progression of wage inflation increasing from 3.0% in 2026 to a rate of 3.5% in 2052.

Past wage inflation

Past wage inflation for bringing past payments and case estimates into current values is taken from ABS Cat 6302.0 Average Weekly Earnings for Northern Territory (persons full-time adult ordinary time earnings), as shown below:

Year to 30-Jun	Mid Quarter AWE	End Quarter AWE	Claims escalation factors % Change p.a.	For payments	For case estimates
2008	1,107.4	1,114.0		1.577	1.536
2009	1,150.9	1,158.6	4.0%	1.505	1.477
2010	1,224.2	1,235.3	6.6%	1.433	1.385
2011	1,289.3	1,311.1	6.1%	1.346	1.305
2012	1,408.6	1,410.8	7.6%	1.241	1.213
2013	1,449.3	1,449.2	2.7%	1.198	1.181
2014	1,417.2	1,426.3	-1.6%	1.191	1.200
2015	1,513.5	1,523.3	6.8%	1.163	1.123
2016	1,569.7	1,586.6	4.2%	1.101	1.078
2017	1,616.5	1,624.3	2.4%	1.055	1.053
2018	1,668.5	1,662.2	2.3%	1.036	1.029
2019	1,690.3	1,689.0	1.6%	1.028	1.013
2020	1,701.6	1,702.1	0.8%	1.011	1.005
2021	1,695.2	1,696.0	-0.4%	1.006	1.009
2022	1,710.3	1,710.8	0.9%	1.005	1.000

B 2 Superimposed inflation

A realistic level of superimposed inflation is allowed for in the outstanding claim reserves and projected break-even premium rate.

We have analysed the superimposed inflation separately for each payment type, and for each valuation method.

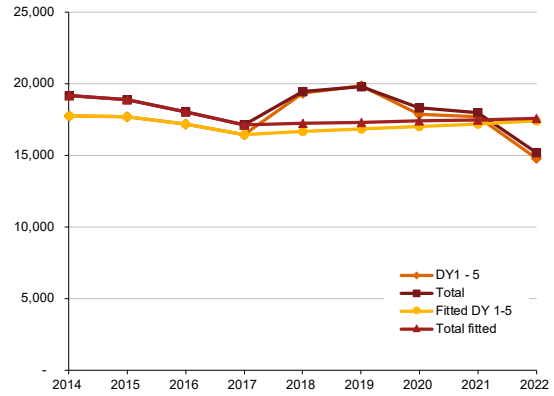
The recent trends in real growth, i.e., superimposed inflation, are shown in the charts below.

We have used the following averaging periods to analyse the superimposed inflation:

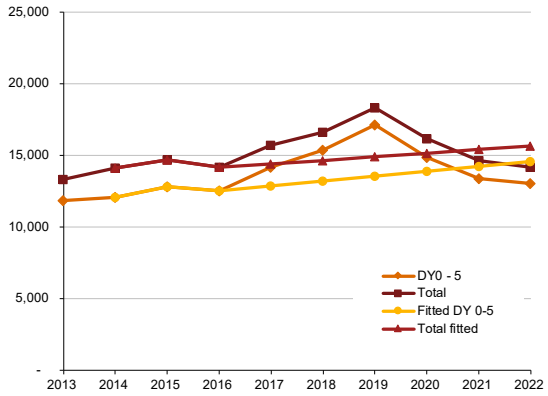
Superimposed Inflation - averaging periods (years)	Weekly Benefits	Medical And Hospital	Allied Health, Vocational Rehabilitation, Non-Compensation Payments (Other), Death	Other Goods And Services	Legals	Redemptions And Non-Economic Lump Sum
PPAC/PPCF	6	6	6	5	6	6
PPCI	7	6	6	4	7	9

Weekly benefits

PPAC

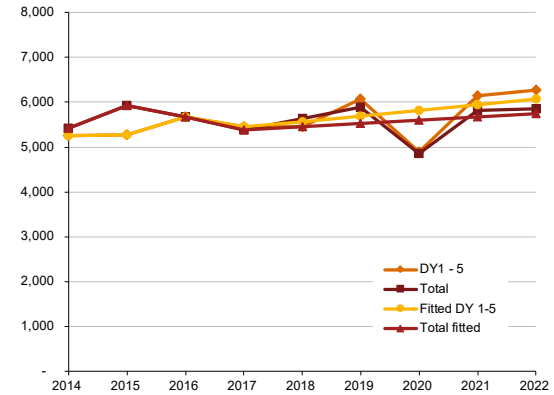


PPCI



Medical and hospital

PPAC



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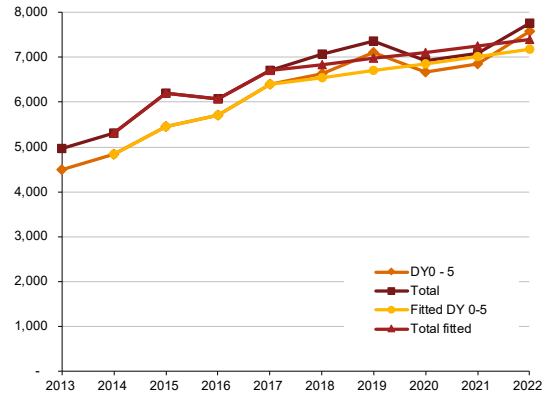
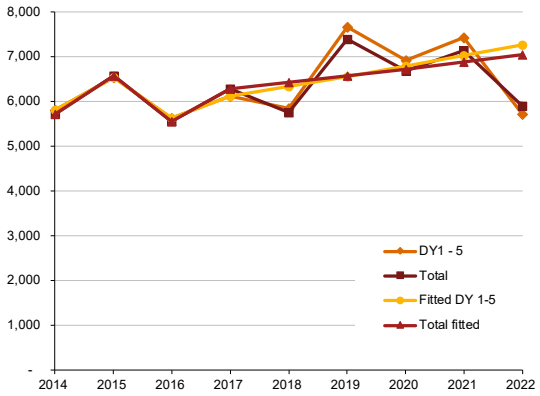


Allied health, vocational rehabilitation, non-compensation other and death

PPAC



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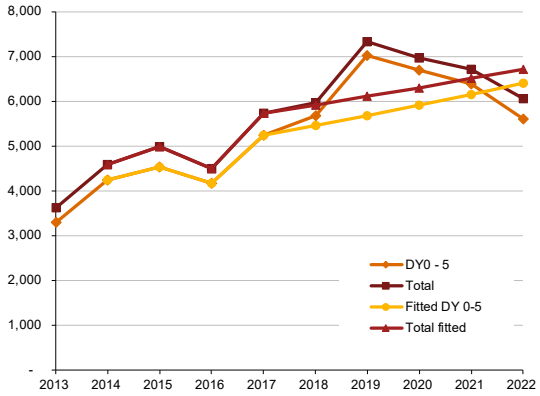
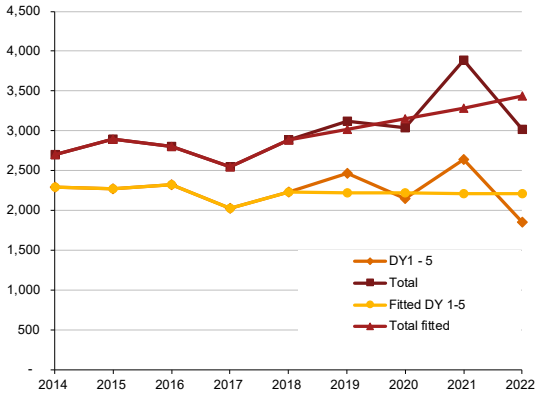
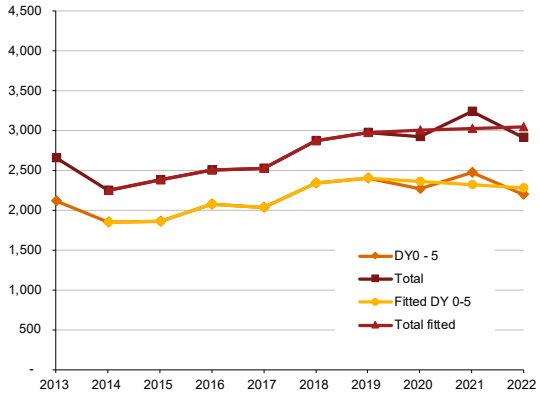


Other goods and services

PPAC

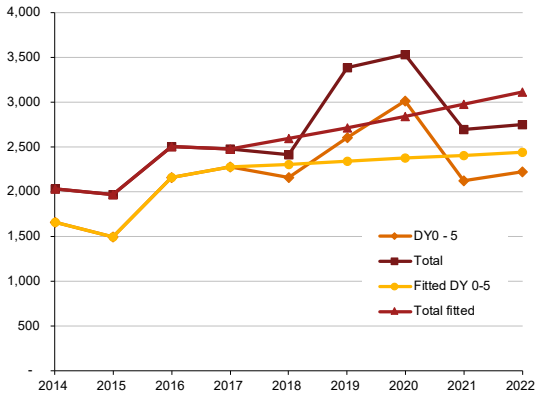


PPCI

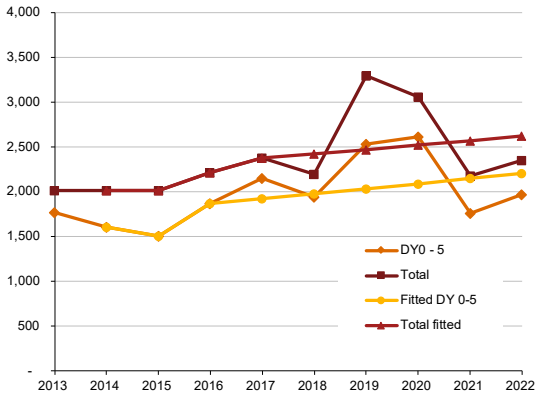


Legal

PPCF

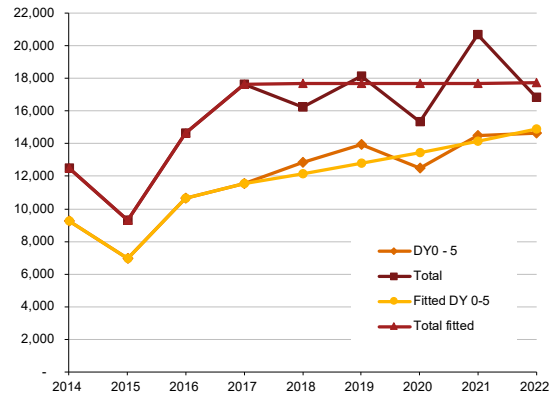


PPCI

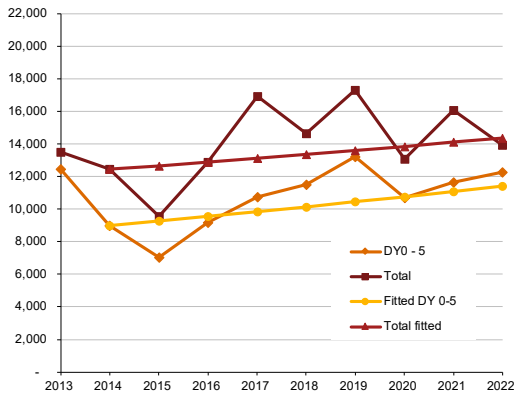


Redemptions and non-economic lump sum

PPCF



PPCI



This analysis of trends leads to the following assumed rates of superimposed inflation.

Superimposed Inflation	Weekly Benefits	Medical And Hospital	Allied Health, Vocactional Rehabilitation, Non-Compsenation Payments (Other), Death	Other Goods And Services	Legals	Redemptions And Non-Economic Lump Sum	Total
PPAC/PPCF	1.0%	2.1%	3.5%	0.0%	1.5%	0.0%	
PPCI	2.5%	2.5%	4.0%	1.0%	3.0%	2.0%	
30 Jun 22	1.2%	2.2%	3.6%	0.1%	1.7%	0.3%	1.0%
30 Jun 21	1.7%	1.7%	4.3%	0.1%	3.6%	1.1%	1.6%

Note a minimum of zero is applied to the superimposed inflation, hence classes with a revealed negative superimposed inflation have had a value of 0% applied.

In total, our superimposed inflation estimate of 1.0% p.a. is a 0.6% decrease on the 1.6% p.a. adopted for the previous valuation. Our estimate of superimposed inflation is lower compared to previous valuation for all payment type except Medical and Hospital.

We calculate the total as a weighted average across the payment groups, weighted by the total outstanding claims estimate.

B 3 Expenses

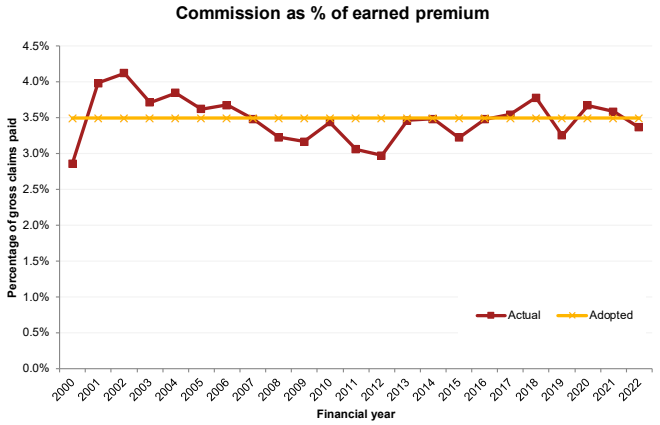
Claims handling expenses

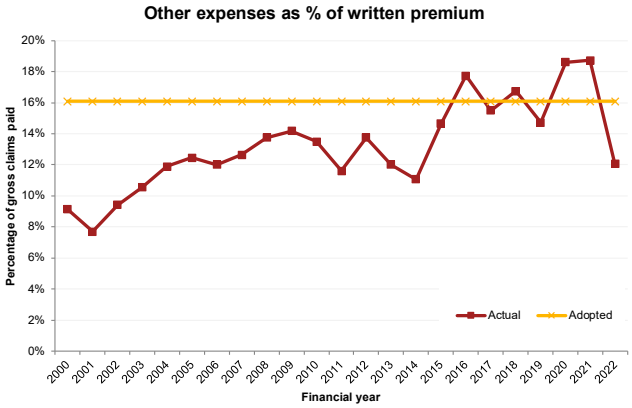
We have reviewed the allowances made for claims handling expenses in the insurers' and self-insurers' returns provided to us, and used our knowledge and experience of other workers compensation schemes in Australia to set the following claims handling expense assumptions for use in the outstanding claims liability:

- 6% of projected future claim payments for insurers, as per previous valuation
- 6% of projected future claim payments for self-insurers, as per previous valuation.

Commission and other expenses (including claims handling expenses)

The historical commission rate as a percentage of earned premium and other expenses as a percentage of written premium are:





The commission as a percentage of earned premium decreased from 2001 to 2012, it increased to 3.5% in 2013 and has been relatively stable since. Over 2001 to 2009, other expenses as a percentage of written premium increased significantly, and have been volatile since then, increasing significantly in 2015 and 2016. We do not know what has driven the increase in other expenses since 2015 but it could be due to increases in IT costs and reallocation of expenses amongst the lines of insurance. Other expenses for 2022 have decreased by 35% compared to 2021, which combined with a lower rate of increase in premium, has caused the other expense ratio to decrease significantly for 2022. We understand that the low expenses for 2022 was due to Liability Adequacy Test (LAT) adjustments for one insurer. Over the coming year we will work with insurers to understand all the components included in other expenses and will consider which of these should be included in the estimation of the break-even premium for the following year.

For the break-even premium we have used an average of the last two years to set the commission rate, as a proportion of earned premium, and average of two years for the other expense rate, as a proportion of written premium, as follows:

($000s)	Underwriting year					
	2022	2021	2020	2019	2018	Adopted
Gross written premium (a)	146,845	145,986	125,789	142,690	135,842	
Earned premium (b)	146,226	131,769	122,529	144,321	146,280	
Commission paid (c)	4,927	4,727	4,501	4,701	5,534	
Other expenses (d)	17,701	27,327	23,402	20,986	22,760	
Commission rate (e)	3.4%	3.6%	3.7%	3.3%	3.8%	3.5%
Other expense rate (f)	12.1%	18.7%	18.6%	14.7%	16.8%	15.4%

Notes: (a), (b), (c), (d) actual values taken from *Consolidated Form A*

(e) = (c) / (b)

(f) = (d) / (a)

The adopted rate is used in our calculation of the break-even premium rate for the next financial year. To determine the adequacy of past rates we have used the actual dollar values of commission and other expenses paid.

Compared to the previous valuation, the adopted commission rate has decreased from 3.6% to 3.5%, and the adopted other expense rate has decreased from 18.7% to 15.4%. The decrease in the other expense rate is due to lower expenses for 2022 compared to 2020 which was previously included in the average.

The actual 2022 financial year commission in on par with, while other expenses rates are lower than the level that we had adopted in our projections last year.

In total, the commission and other expense rate make up 18.8% of the break-even premium rate, which is lower than the 22.3% adopted for the 30 June 2021 valuation.

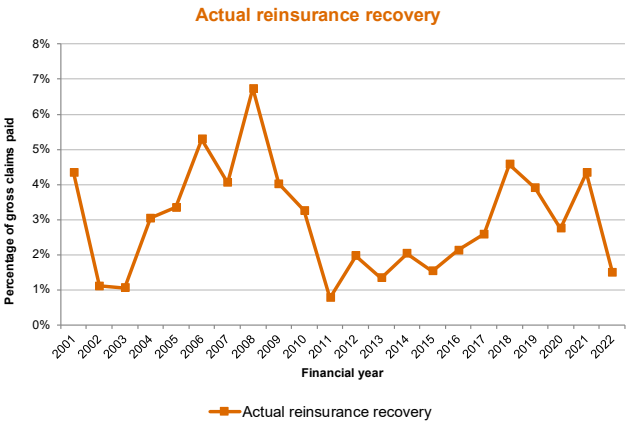
B 4 Reinsurance

We have used the additional information provided by insurers to allow for reinsurance recoveries on large claims, which are expected to exceed the retention limit. This is equivalent to 7.7% of all claims, which is slightly higher than our previous valuation. We compared the reinsurance recoveries based on the large claims with insurers' total reinsurance recoveries and they were similar, though slightly higher, so we did not feel it was necessary to allow for any further reinsurance recoveries on the smaller claims.

We reviewed the self-insurers' reports and noted that either they have not allowed for any reinsurance recoveries, or they note that reinsurance recoveries are minimal. Therefore, we have not allowed for any reinsurance recoveries for self-insurers.

The following table and chart show the historical reinsurance recoveries received by approved insurers. The reinsurance recovery rate is defined as a proportion of the gross claims paid. This is provided for information purposes and was not used for this valuation.

Financial year	Gross claims paid (a) ($000s)	Reinsurance recoveries (b) ($000s)	Reinsurance recovery (c) (%)
2000	40,469	3,650	9.0%
2001	44,638	1,941	4.3%
2002	38,683	432	1.1%
2003	40,584	429	1.1%
2004	47,842	1,457	3.0%
2005	49,586	1,658	3.3%
2006	45,946	2,431	5.3%
2007	52,003	2,106	4.0%
2008	57,010	3,837	6.7%
2009	71,840	2,886	4.0%
2010	77,791	2,537	3.3%
2011	83,908	649	0.8%
2012	82,569	1,630	2.0%
2013	89,191	1,199	1.3%
2014	91,942	1,876	2.0%
2015	91,120	1,398	1.5%
2016	102,891	2,189	2.1%
2017	122,608	3,178	2.6%
2018	121,156	5,542	4.6%
2019	134,064	5,223	3.9%
2020	109,825	3,024	2.8%
2021	107,284	4,647	4.3%
2022	96,016	1,439	1.5%



Notes: (a), (b) actual values taken from *Consolidated Form A*
(c) = (b) / (a)

B 5 GST

No explicit allowance has been made for GST net of ITC and/or DAM as our adopted bases rely on data, which includes GST net of ITC and/or DAM. The 10% GST on the workers' compensation premium itself (which

employers will generally be able to recover via an input tax credit) is not included in our analysis or the recommended premium rates.

B 6 Legislation changes

B 6.1 2015 legislative amendments

The 2015 legislative amendments were set out in two parts.

The first amendment bill, Workers' Rehabilitation and Compensation Legislation Amendment Bill 2015, passed in March 2015 and came into effect 1 July 2015. The benefit changes that were part of this bill include:

- Presumptive legislation for firefighters and volunteers to make it easier for firefighters and volunteer firefighters to claim workers' compensation if they are diagnosed with one of the 12 cancers listed in the legislation schedule
- A change in the definition of work to align with the PAYG definition used by the Australian Taxation Office (ATO)
- Increased period of compensation for older workers by extending weekly benefits from 26 weeks to 104 weeks for workers aged 67 years and older
- Five year cap on weekly benefits for claimants with a permanent impairment of less than 15% and all medical and other costs are limited to one additional year
- Increase in death and funeral benefits to 364 times the average weekly earnings
- Compensation will not be provided for stroke or heart attacks that are not caused by work
- Capping the calculation for normal weekly earnings. During the first 26 weeks when a worker is unable to work, their compensation payments are paid at their normal weekly earnings. After 26 weeks, compensation payments are paid at 75% of their normal weekly earnings. There is now a cap on the calculation of a worker's normal weekly earnings after 26 weeks to 250% of the ABS average weekly earnings.

The second amendment bill, the Return to Work Legislation Amendment Bill 2015, was passed in August 2015 and came into effect on 1 October 2015. This bill included:

- Payment of up to 1.5 times Average Weekly Earnings for counselling and support
- While a claim is deferred, the employer is required to make weekly payments of compensation and, in the case of claims for mental stress, engage in rehabilitation
- Formal notice be provided to the worker of any pending step down or cancellation 14 days prior to it taking effect
- A mediator may recommend workers receive legal advice paid for by the employer.
- Negotiated settlements. There will be provision for the finalisation of the claim by the payment of a lump sum through negotiated settlement. The legislation requires a qualifying period of 104 weeks before a negotiated settlement
- Settlement of disputed claims. There is provision to allow for the settlement of disputed claims for compensation (whether disputed on a question of fact or law or both) and settlement of contested applications to the Work Health Court
- Exclusion of journey claims to and from work. Journeys that are considered to be in the course of employment are not excluded.

We costed the following changes in our report titled Actuarial costing of Northern Territory workers compensation scheme changes dated 11 September 2014:

- Increased period of compensation for older workers by extending weekly benefits from 26 weeks to 104 weeks for workers aged 67 years and older
- Five year cap on weekly benefits for claimants with a permanent impairment of less than 15% and all medical and other costs are limited to one additional year.

We also provided commentary on some other proposed scheme changes including:

- Increase in death and funeral benefits
- New settlement regime
- Exclusion of journey claims
- Weekly benefit cap of 250% of normal weekly earnings.

In our 2014 report, we estimated the cost of the two first changes above as a 2.8% reduction. As per last year, this year we have explicitly included a 3.2% reduction. This change is due to removing the 0.5% allowance for the extension to weekly benefits for older employees as this was expected to impact the first few development years so is now present in the data used for the adopting periods.

The capping of weekly benefits and other benefits to five and six years respectively for claimants with less than 15% PI was estimated to reduce the payments by 54% in development year six and seven onwards for the two categories respectively. The reductions have been applied on this basis to the relevant payment types. This has been allowed for in our calculations of the outstanding claims liabilities as at 30 June 2022 for the 2015/16 to 2021/22 accident years and the future costs for the 2022/23 accident year. There is no allowance for the 2015 legislative changes in the outstanding claims liability as at 30 June 2022 for accident years before 2015/16.

The 2020/21 financial year was the first year where weekly benefits for claims with less than 15% whole person impairment (WPI) will cease for those who have reached 260 weeks of wages and had an accident date after 1 July 2015. There we now have two financial years of data to review the impact. We had undertaken some high level analysis of the payments data to understand what impact the 2015 legislation amendment has had at the previous valuation.

The tables below show the number of claims that have had weekly benefit payments by accident year and development year and as a percentage of all claims. The accident years below the line are post the 2015 legislative amendments.

Claims with a Weekly benefit payment										
Accident Year	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9
2010	1,117	545	145	70	50	32	22	14	11	6
2011	1,163	530	126	66	42	18	15	8	9	6
2012	1,073	551	135	67	29	23	16	11	10	11
2013	1,099	571	170	77	45	25	15	10	10	8
2014	992	612	151	78	34	22	13	8	8	
2015	969	540	159	73	35	24	17	12		
2016	933	577	151	62	27	15	9			
2017	946	550	165	62	27	15				
2018	883	634	183	82	49					
2019	889	448	132	58						
2020	748	422	107							
2021	717	473								
2022	651									

Claims with Weekly Benefit payment as a percentage of total claims										
Accident Year	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9
2010	44.3%	21.6%	5.8%	2.8%	2.0%	1.3%	0.9%	0.6%	0.4%	0.2%
2011	42.9%	19.6%	4.7%	2.4%	1.6%	0.7%	0.6%	0.3%	0.3%	0.2%
2012	40.6%	20.8%	5.1%	2.5%	1.1%	0.9%	0.6%	0.4%	0.4%	0.4%
2013	39.2%	20.3%	6.1%	2.7%	1.6%	0.9%	0.5%	0.4%	0.4%	0.3%
2014	35.7%	22.0%	5.4%	2.8%	1.2%	0.8%	0.5%	0.3%	0.3%	
2015	36.7%	20.5%	6.0%	2.8%	1.3%	0.9%	0.6%	0.5%		
2016	37.3%	23.0%	6.0%	2.5%	1.1%	0.6%	0.4%			
2017	39.8%	23.1%	6.9%	2.6%	1.1%	0.6%				
2018	37.0%	26.6%	7.7%	3.4%	2.1%					
2019	41.6%	21.0%	6.2%	2.7%						
2020	41.6%	23.4%	5.9%							
2021	38.0%	25.1%								
2022	37.5%									

For the 2016 and 2017 accident years around 23% of claims have a weekly benefit payment in development year one which is higher than 19% to 22% of claims for 2015 and earlier accident years. However, the percentage of claims with a weekly benefit payment in development years three to six for the 2016 and 2017 accident years is lower than most years prior to 2016. The lower percentage of claims in development year three and four may reflect some of the high settlement activity seen for 2016 and 2017 (see below) and the lower percentage in development years five and six may reflect the capping of weekly benefits to five years for claimants with a whole person impairment of less than 15%. 2018 has a higher percentage of claims with weekly benefit payments than all other years, except for development year zero. While 2019 and 2020 have a higher percentage of claims with weekly benefit payments in development year zero they are similar to 2016 and 2017 in development year one to three.

The tables below show the number of claims that have had redemption commutation lump sum payments by accident year and development year and as a percentage of all claims. The accident years below the line are post the 2015 legislative amendments.

Claims with a Redemption Commutation Lumpsum payment											
Accident Year	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	Total
2010	7	29	32	22	18	9	10	4	5	3	139
2011	13	48	43	34	4	10	15	1	3	0	171
2012	16	76	31	20	11	11	5	2	3	5	180
2013	34	73	42	34	17	9	14	7	5	0	235
2014	16	55	46	43	19	15	11	1	0		206
2015	20	62	61	32	26	6	7	4			218
2016	20	62	59	37	19	10	9				216
2017	18	67	67	43	18	10					223
2018	28	99	75	48	36						286
2019	24	71	55	36							186
2020	19	72	48								139
2021	26	66									92
2022	30										30

Cumulative Claims with a Redemption Commutation Lumpsum payment as a percentage of total claims										
Accident Year	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9
2010	0.3%	1.4%	2.7%	3.6%	4.3%	4.6%	5.0%	5.2%	5.4%	5.5%
2011	0.5%	2.3%	3.8%	5.1%	5.2%	5.6%	6.2%	6.2%	6.3%	6.3%
2012	0.6%	3.5%	4.7%	5.4%	5.8%	6.2%	6.4%	6.5%	6.6%	6.8%
2013	1.2%	3.8%	5.3%	6.5%	7.1%	7.4%	7.9%	8.2%	8.4%	8.4%
2014	0.6%	2.6%	4.2%	5.8%	6.4%	7.0%	7.4%	7.4%	7.4%	
2015	0.8%	3.1%	5.4%	6.6%	7.6%	7.8%	8.1%	8.3%		
2016	0.8%	3.3%	5.6%	7.1%	7.9%	8.3%	8.6%			
2017	0.8%	3.6%	6.4%	8.2%	9.0%	9.4%				
2018	1.2%	5.3%	8.5%	10.5%	12.0%					
2019	1.1%	4.4%	7.0%	8.7%						
2020	1.1%	5.1%	7.7%							
2021	1.4%	4.9%								
2022	1.7%									

The percentage of claims with a redemption commutation lump sum payment has a general increasing trend, with each year from 2016 to 2022 higher than the previous years, except 2019 to 2021 are lower than 2018 but higher than all prior years. This could be influenced by a number of aspects though including the 2015 legislation changes, the economic circumstances and the general mix in claim numbers.

The average redemption payments in 30 June 2022 values is shown in the table below.

Average Redemption Commutation Lumpsum payments in 30 June 2022 values ($000)											
Accident Year	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	Total
2010	43	131	183	166	207	230	190	462	333	324	186
2011	52	86	106	190	132	343	295	481	200	0	148
2012	22	74	80	252	266	335	236	509	116	117	129
2013	28	66	131	259	233	146	292	199	174	0	135
2014	34	57	117	164	236	255	159	586	0		130
2015	25	35	134	278	239	209	794	399			158
2016	29	51	129	171	167	180	108				109
2017	48	65	100	165	125	186					104
2018	40	67	95	159	241						109
2019	31	49	116	125							81
2020	29	63	84								66
2021	31	45									41
2022	37										37

The average redemption payments in development year zero to two are similar for 2016 to 2022 to 2015 and earlier, however the average payment for development year three onwards is noticeably lower in 2016 onwards compared to 2015 and earlier. Therefore, the 2015 legislation may be reducing the average redemption payment as some of these settlements may relate to claimants with a whole person impairment of less than 15%.

The tables below show the number of claims that have had impairment non-economic lump sum payments (i.e. permanent impairment payments) by accident year and development year and as a percentage of all claims. The accident years below the line are post the 2015 legislative amendments.

Claims with an Impairment Non-Economic Lumpsum payment											
Accident Year	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	Total
2010	3	23	30	7	10	4	2	3	0	1	83
2011	3	11	25	12	7	4	2	1	1	0	66
2012	2	16	29	18	4	1	2	3	1	0	76
2013	1	12	31	17	5	3	2	2	2	0	75
2014	2	21	16	20	13	5	1	0	2		80
2015	7	11	24	19	8	5	1	4			79
2016	2	20	27	23	4	4	2				82
2017	1	14	25	17	7	2					66
2018	0	11	40	23	14						88
2019	0	16	22	25							63
2020	0	10	25								35
2021	0	15									15
2022	4										4

Cumulative Claims with an Impairment Non-Economic Lumpsum payment as a percentage of total claims										
Accident Year	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9
2010	0.1%	1.0%	2.2%	2.5%	2.9%	3.1%	3.1%	3.3%	3.3%	3.3%
2011	0.1%	0.5%	1.4%	1.9%	2.1%	2.3%	2.4%	2.4%	2.4%	2.4%
2012	0.1%	0.7%	1.8%	2.5%	2.6%	2.6%	2.7%	2.8%	2.9%	2.9%
2013	0.0%	0.5%	1.6%	2.2%	2.4%	2.5%	2.5%	2.6%	2.7%	2.7%
2014	0.1%	0.8%	1.4%	2.1%	2.6%	2.8%	2.8%	2.8%	2.9%	
2015	0.3%	0.7%	1.6%	2.3%	2.6%	2.8%	2.8%	3.0%		
2016	0.1%	0.9%	2.0%	2.9%	3.0%	3.2%	3.3%			
2017	0.0%	0.6%	1.7%	2.4%	2.7%	2.8%				
2018	0.0%	0.5%	2.1%	3.1%	3.7%					
2019	0.0%	0.7%	1.8%	2.9%						
2020	0.0%	0.6%	1.9%							
2021	0.0%	0.8%								
2022	0.2%									

Overall, the impairment non-economic lump sum payment appears to be paid earlier than historically but there does not appear to be a change in the cumulative percentage of claims receiving an impairment payment in later development years. The cumulative percentage of claims that have received an impairment non-economic lump sum payment at development year two for the accident years after the legislation change (2016 onwards) is generally higher at 1.7% to 2.0% than accident years prior to the legislation change (2015 and earlier) at 1.4% to 1.8% except for the high 2010 accident year. However, the cumulative percentage at development year five for 2017 is similar to 2014 and 2015. 2016 has a higher percentage of claims with an impairment non-economic lump sum payment than 2015, though not markedly different compared to the variability experience prior to 2015. We do not have data on the number of claims that apply for a permanent impairment assessment and are rejected.

The average impairment non-economic lump sum payments in 30 June 2022 values is shown in the table below.

Average Impairment non-economic lump sum payments in 30 June 2022 values ($000)											
Accident Year	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	Total
2010	33	14	26	16	28	28	28	38	0	104	24
2011	59	17	24	32	47	10	45	56	156	0	30
2012	7	23	29	31	59	76	57	46	14	0	31
2013	3	23	23	43	40	27	45	288	75	0	38
2014	4	16	23	41	44	47	60	0	7		30
2015	15	24	16	27	80	76	7	100			34
2016	7	19	28	45	37	79	7				33
2017	7	9	32	33	67	25					31
2018	0	30	39	42	68						43
2019	0	26	20	45							31
2020	0	37	35								36
2021	0	18									18
2022	36										36

The average impairment non-economic lump sum payments are similar for 2016 to 2022 to 2015 and earlier, except for 2018 which is noticeably higher.

As the scheme changes were broader than covered by our report the actual impact could be different to estimated. We recommend NT WorkSafe and insurers closely monitor the experience to ensure that there are no unintended consequences.

B 6.2 2020 legislative amendments

The Return to Work Legislation Amendment Act 2020 reverses a number of changes made to the legislation in 2015 as well as adding some new changes. The Act came into effect from 29 July 2020.

The following changes were made to the Act which are not retrospective:

- Changes to the definition of worker
- Inclusion of journey claims
- Removal of cap of 250% of average weekly earnings after 26 weeks
- Amendments regarding refusal to pay for medical treatment
- Changes to the ability to recover overpayments
- Changes to return to work plans not requiring an accredited vocational rehabilitation specialist
- Changes to wording in the act to clarify aspects of the settlement arrangements and to meet the minimum benchmarks of the National Injury Insurance Scheme (NIIS), by not allowing settlement of payments for lifetime care and medical payments for catastrophic injuries.

There were also changes to the Return to Work Regulations 2020 including:

- Post-traumatic stress disorder has become a deemed disease for first responders. Most first responders are government employees so are covered by the government self-insurance scheme and not part of this review. It will impact St John Ambulance officers who obtain a premium from insurers.
- Four new deemed diseases are included for firefighters. As firefighters are government employees, they are covered by the government self-insurance scheme and not part of this review.

We were not asked to cost any of the 2020 legislative amendments.

Some of these changes are a reversal of the 2015 legislative amendments which weren't costed at the time as they were considered minimal. The more material changes will mainly affect the government self-insurance claims which are out of scope for the report. The changes to catastrophic injuries may have an impact if the settlements were previously significantly less than the actual lifetime cost.

As most changes are not retrospective, they will only impact the 2021 and 2022 accident years for the 30 June 2022 outstanding claims liability and the 2022/23 projections. We have not made any specific allowance for the 2020 legislative amendments for the 30 June 2022 outstanding claims valuation and 2022/23 projections.

B 7 Wage and premium development factors

Earned wages and premium develop over time as wages are initially estimated at the beginning of the underwriting year and are updated with actual wages when known and reported to the insurers. Earned premium develops based on the development of earned wages but also based on adjustments for burner policies as the claim experience emerges.

The table below shows the development factors we have applied to earned wages. These are based on five year averages of the development of wages, with development year 3 assuming no more development. The development factor is lower than last year for DY2 but higher for DY0 and DY1.

Earned wages development factors			
Development year	2022	2021	2020
0	1.024	1.019	1.057
1	1.007	1.005	1.007
2	0.998	1.001	0.999
3	1.000	1.000	1.000

The table below shows the development factors applied to earned premium, including the earned but not yet raised (EBNYR) premium. These are based on five year averages of the development of premium. The development factor is slightly lower than last year for DY0 to DY3.

Earned premium development factors			
Development year	2022	2021	2020
0	1.014	1.016	1.051
1	1.002	1.003	0.999
2	0.999	1.002	1.000
3	0.991	1.001	1.000

Appendix C Insurer outstanding claim valuation

C 1 Data used in the valuation

C 1.1 Number of claims reported

Financial	Number of claims reported (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	2,423	256	13	9	1	1	0	0	0	1	1	2,705
2014	2,385	320	15	6	4	0	0	1	1	1	4	2,737
2015	2,335	335	21	4	2	3	2	0	0	0	2	2,704
2016	2,257	280	16	7	1	1	2	0	0	0	0	2,564
2017	2,141	244	18	7	3	0	2	0	0	0	2	2,417
2018	2,151	249	19	9	2	3	0	0	0	1	1	2,435
2019	1,982	235	17	11	4	2	0	1	2	0	1	2,255
2020	1,634	194	19	6	3	0	1	2	2	0	6	1,867
2021	1,661	190	12	13	3	3	0	0	0	2	3	1,887
2022	1,617	229	12	6	8	0	0	1	0	1	2	1,876

Note: From summary of Form B returns up to 30 June 2022

C 1.2 Cumulative claims reported

Financial	Cumulative number of claims reported (a) for development year:										
Year	0	1	2	3	4	5	6	7	8	9	10
2013	2,423	2,604	2,652	2,516	2,615	2,730	2,471	2,713	2,751	2,574	2,868
2014	2,385	2,743	2,619	2,658	2,520	2,615	2,730	2,472	2,714	2,752	2,578
2015	2,335	2,720	2,764	2,623	2,660	2,523	2,617	2,730	2,472	2,714	2,754
2016	2,257	2,615	2,736	2,771	2,624	2,661	2,525	2,617	2,730	2,472	2,714
2017	2,141	2,501	2,633	2,743	2,774	2,624	2,663	2,525	2,617	2,730	2,474
2018	2,151	2,390	2,520	2,642	2,745	2,777	2,624	2,663	2,525	2,618	2,731
2019	1,982	2,386	2,407	2,531	2,646	2,747	2,777	2,625	2,665	2,525	2,619
2020	1,634	2,176	2,405	2,413	2,534	2,646	2,748	2,779	2,627	2,665	2,531
2021	1,661	1,824	2,188	2,418	2,416	2,537	2,646	2,748	2,779	2,629	2,668
2022	1,617	1,890	1,836	2,194	2,426	2,416	2,537	2,647	2,748	2,780	2,631

Note: Cumulative claim reports from table above

C 1.3 Active claims

Financial	Active claims (a) at the end of development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	844	231	110	72	44	37	26	15	14	10	83	1,486
2014	931	293	100	52	45	27	28	25	11	13	72	1,597
2015	854	279	145	57	37	35	25	23	19	10	59	1,543
2016	1,007	288	140	81	48	24	27	19	19	14	63	1,730
2017	912	281	152	68	52	26	14	22	16	16	65	1,624
2018	1,011	286	125	74	42	39	19	12	17	12	66	1,703
2019	821	332	106	59	43	25	25	16	11	14	65	1,517
2020	639	253	164	41	34	30	17	18	15	10	77	1,298
2021	738	218	117	100	22	24	23	17	11	13	78	1,361
2022	797	237	99	57	56	11	15	19	17	13	84	1,405

Note: From summary of Form B returns up to 30 June 2022.

C 1.4 Claim payments

Financial Year	Claim payments (a) for development year ($000): 0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	18,472	22,405	11,394	7,690	16,149	3,794	2,519	661	726	1,124	4,139	89,072
2014	19,227	24,217	9,748	10,448	6,810	5,760	3,421	4,773	1,958	476	4,914	91,751
2015	19,189	24,957	15,515	9,393	3,877	4,145	3,315	2,818	1,704	1,546	5,852	92,311
2016	21,206	24,629	15,439	14,449	5,196	4,979	2,900	2,253	4,170	2,208	4,781	102,211
2017	23,602	30,360	20,541	12,743	7,258	5,034	5,829	2,782	1,629	2,446	9,690	121,914
2018	26,881	31,663	19,224	15,753	8,432	3,474	2,472	1,126	2,207	1,180	8,226	120,638
2019	24,960	43,705	20,499	11,979	9,568	5,423	5,713	2,154	1,360	1,413	7,905	134,678
2020	22,623	26,194	24,007	12,819	5,934	4,537	2,868	2,942	1,292	815	5,948	109,979
2021	21,061	25,657	15,749	16,160	5,264	3,665	7,436	1,067	1,707	1,383	8,053	107,203
2022	21,901	24,267	12,372	9,422	13,933	2,789	1,987	3,460	409	642	5,349	96,532

Note: Data extracted from the WIMS system up to 30 June 2022

C 1.5 Case estimates

Financial Year	Case estimates (a) for development year ($000): 0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2014	41,909	30,987	25,229	11,474	13,213	7,832	18,376	10,870	3,624	4,128	33,758	201,399
2015	49,148	25,816	20,696	16,394	10,023	7,330	9,704	15,151	8,164	2,212	32,364	197,002
2016	43,796	39,453	16,396	15,291	13,782	7,456	6,243	9,415	12,568	4,855	32,279	201,533
2017	46,664	33,128	33,218	12,093	12,531	7,468	4,042	5,589	8,461	10,207	31,103	204,503
2018	66,003	34,783	23,594	20,199	7,580	10,483	5,693	3,782	4,443	8,451	31,866	216,879
2019	44,442	46,620	18,260	13,031	13,916	3,887	5,096	4,886	2,488	3,427	32,511	188,564
2020	41,104	29,022	28,647	8,094	7,660	10,196	2,887	2,906	3,223	2,072	32,089	167,900
2021	44,005	27,918	15,439	22,538	6,032	7,514	7,266	2,744	3,424	4,336	28,885	170,102
2022	45,915	26,632	19,155	6,668	10,381	3,750	6,766	6,537	2,743	2,846	30,875	162,270

Note: From summary of Form B returns up to 30 June 2022. Case estimates were provided for the first time at 30 June 2014

C 2 Actual and projected claims experience during 2021/22

This section compares the actual experience over the 2022 financial year with the expected experience based on the previous scheme valuation as at 30 June 2021.

C 2.1 Number of claims reported

Accident year ended 30 June	Number of claims reported Combined total Actual (a)	Projected (b)	Actual / expected (c)
2021	229	182	126%
2020	12	13	93%
2019	6	8	76%
2018	8	3	289%
2017	0	1	0%
2016	0	1	0%
2015	1	1	168%
2014	0	1	0%
2013	1	1	158%
2012 and earlier	2	3	76%
Total	**259**	**212**	**122%**

Notes: (a) Extracted from the WIMS database to 30 June 2022

(b) Derived using the reporting rates in Appendix C3.1 of our previous scheme report dated 9 May 2022

(c) = (a) / (b) x 100

C 2.2 Proportion of claims finalised

Accident year ended 30 June	Proportion of claims finalised (a) during 2021/22 Actual	Projected (b)	Actual / expected (c)
2021	75%	74%	101%
2020	57%	54%	105%
2019	54%	56%	95%
2018	48%	46%	104%
2017	50%	37%	137%
2016	38%	33%	113%
2015	21%	19%	109%
2014	0%	23%	0%
2013	-8%	20%	-42%
2012 and earlier	10%	20%	49%
Total	**62.5%**	**61.0%**	**102%**

Note: (a) Defined as:

$$\frac{\text{number of claims finalised during the year}}{\text{number outstanding at beginning of year + number reported during the year}}$$

(b) According to claim finalised per handled rate in appendix C3.1 of previous scheme report dated 9 May 2022. Total is weighted average using the current year's actual number of claims handled by occurrence year as the weights

C 2.3 Claim payments

Accident year ended 30 June	Amount of claim payments during 2021/22 Combined total ($000) Actual (a)	Projected (b)	Actual / expected (c)
2021	24,267	27,609	88%
2020	12,372	15,346	81%
2019	9,422	12,447	76%
2018	13,933	13,837	101%
2017	2,789	2,779	100%
2016	1,987	4,926	40%
2015	3,460	3,585	97%
2014	409	1,226	33%
2013	642	1,438	45%
2012 and earlier	5,349	7,823	68%
Total	**74,631**	**91,017**	**82%**

Notes: (a) Extracted from the WIMS database to 30 June 2022

(b) From previous scheme report dated 9 May 2022, in 30 June 2022 values

(c) = (a) / (b) x 100.

C 2.4 Case estimate development

Accident year ended 30 June	Case estimate development during 2021/22 Actual	Projected (a)	Ratio of actual to projected number reported %
2021	1.149	1.330	86%
2020	1.122	1.144	98%
2019	1.036	1.151	90%
2018	1.072	1.195	90%
2017	1.077	1.169	92%
2016	1.156	1.220	95%
2015	1.366	1.208	113%
2014	1.139	1.161	98%
2013	1.011	1.222	83%
2012 and earlier	1.082	1.089	99%
Total	**1.115**	**1.197**	**93%**

Notes: (a) according to PCE model in Appendix C4 of our previous scheme report dated 9 May 2022

(b) according to estimates adopted in Appendix D4 of our previous scheme report dated 9 May 2022.

C 3 Analysis and projection models

C 3.1 All payment types

Claim notification pattern

Financial	Chain ladder ratio (a) for development year:									
Year	1	2	3	4	5	6	7	8	9	10 onwards
2013	1.109	1.005	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2014	1.132	1.006	1.002	1.002	1.000	1.000	1.000	1.000	1.000	1.002
2015	1.140	1.008	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.001
2016	1.120	1.006	1.003	1.000	1.000	1.001	1.000	1.000	1.000	1.000
2017	1.108	1.007	1.003	1.001	1.000	1.001	1.000	1.000	1.000	1.001
2018	1.116	1.008	1.003	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2019	1.109	1.007	1.004	1.002	1.001	1.000	1.000	1.001	1.000	1.000
2020	1.098	1.008	1.002	1.001	1.000	1.000	1.001	1.001	1.000	1.002
2021	1.116	1.006	1.005	1.001	1.001	1.000	1.000	1.000	1.001	1.001
2022	1.138	1.007	1.003	1.003	1.000	1.000	1.000	1.000	1.000	1.001
Adopted (b)	**1.116**	**1.007**	**1.004**	**1.002**	**1.001**	**1.000**	**1.000**	**1.000**	**1.000**	**1.001**

Notes: (a) Using cumulative claim report numbers from data

(b) Adopted for 30 June 2022 valuation

Numbers of claims incurred

	Number of claims		
Financial Year	Reported to 30 June 2022 (a)	IBNR at 30 June 2022 (b)	Incurred (c)
2013	2,780	3	2,783
2014	2,748	4	2,752
2015	2,647	4	2,651
2016	2,537	5	2,542
2017	2,416	5	2,421
2018	2,426	6	2,432
2019	2,194	9	2,203
2020	1,836	14	1,850
2021	1,890	28	1,918
2022	1,617	215	1,832

Notes: (a) from number reported in appendix C1.1

(b) from pattern in chain ladder ratio table above

(c) = (a) + (b)

Claim finalised per handled rate

Financial	Finalisation rate (a) for development year:									
Year	0	1	2	3	4	5	6	7	8	9 10 onwards
2013	0.652	0.780	0.513	0.455	0.353	0.260	0.235	0.318	0.067	0.286 0.170
2014	0.610	0.748	0.593	0.552	0.408	0.386	0.243	0.074	0.313	0.133 0.258
2015	0.634	0.780	0.538	0.452	0.315	0.271	0.138	0.179	0.240	0.091 0.322
2016	0.554	0.746	0.525	0.467	0.172	0.368	0.270	0.240	0.174	0.263 0.087
2017	0.574	0.775	0.503	0.537	0.381	0.458	0.462	0.185	0.158	0.158 0.177
2018	0.530	0.754	0.583	0.540	0.400	0.291	0.269	0.143	0.227	0.294 0.195
2019	0.586	0.734	0.650	0.566	0.449	0.432	0.359	0.200	0.214	0.176 0.177
2020	0.609	0.751	0.533	0.634	0.452	0.302	0.346	0.333	0.167	0.091 0.094
2021	0.556	0.737	0.558	0.435	0.500	0.351	0.233	0.000	0.389	0.235 0.133
2022	0.507	0.755	0.570	0.537	0.481	0.500	0.375	0.208	0.000	-0.083 0.097
Adopted (b)	**0.568**	**0.746**	**0.551**	**0.566**	**0.456**	**0.358**	**0.317**	**0.196**	**0.202**	**0.210 0.138**

Notes: (a) Defined as: Number of claims finalised / number of claims handled

(b) Adopted for 30 June 2022 valuation

C 3.2 Weekly benefits

Claim payments

Financial	Claim payments (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	8,808,950	8,875,185	3,560,052	2,734,261	1,115,920	1,368,720	967,895	4,494	372,833	302,744	1,653,645	29,764,699
2014	8,077,186	10,391,858	3,401,196	2,381,386	2,125,933	1,102,380	1,214,201	678,973	358,515	389,871	1,849,780	31,971,279
2015	8,216,481	11,083,562	5,567,566	2,511,952	1,283,333	1,155,455	573,282	805,123	922,606	332,210	1,657,226	34,108,796
2016	8,742,822	10,679,038	5,401,577	3,190,393	1,338,501	815,046	614,507	474,422	522,645	679,442	1,582,173	34,040,566
2017	9,854,403	13,163,663	5,918,120	2,681,584	1,987,221	649,422	520,104	558,092	441,730	423,495	1,733,122	37,930,956
2018	9,548,417	14,918,084	5,975,214	3,766,731	1,707,889	998,863	612,951	296,451	325,736	390,855	1,522,341	40,063,532
2019	9,971,412	19,098,620	6,699,316	2,510,503	680,402	701,865	677,456	511,424	304,923	211,340	1,387,014	42,754,275
2020	8,123,353	10,780,042	8,359,586	2,545,033	1,180,938	1,179,405	548,182	442,073	396,987	540,906	1,489,926	35,586,431
2021	7,261,097	8,956,969	4,831,552	4,121,957	1,331,093	610,007	754,771	331,943	434,477	325,368	1,448,764	30,407,998
2022	7,654,074	8,824,782	3,615,434	2,485,641	2,134,705	551,184	328,458	598,183	218,077	437,083	1,378,335	28,225,956

Notes: (a) Data extracted from the WIMS system up to 30 June 2022. DY10+ using the list of historical transaction by payment type.

Average real payment per active claim

Financial	Weekly Benefits PPAC (a) for development year:									
Year	1	2	3	4	5	6	7	8	9	10 onwards
2013	13,407	20,022	26,630	19,952	33,462	34,102	245	29,775	27,897	20,010
2014	14,659	17,530	25,775	35,154	29,829	39,070	31,091	28,456	33,155	23,681
2015	13,844	22,096	29,210	28,698	29,858	24,690	33,437	42,914	35,119	22,672
2016	13,765	21,311	24,220	25,849	24,248	19,327	20,889	25,014	39,364	25,241
2017	13,792	21,681	20,210	25,885	14,275	22,865	21,809	24,530	23,517	23,748
2018	16,944	22,027	25,670	26,017	19,898	24,420	21,934	15,337	25,304	19,468
2019	19,423	24,085	20,650	9,454	17,182	17,860	27,676	26,127	12,782	18,284
2020	13,277	25,461	24,278	20,240	27,735	22,173	17,881	25,089	49,723	19,071
2021	14,105	19,216	25,291	32,668	18,053	25,316	19,648	24,288	21,826	16,756
2022	12,016	16,665	21,348	21,451	25,176	13,752	26,135	12,891	39,928	15,220
Adopted (b)	**13,094**	**20,783**	**23,047**	**23,393**	**19,925**	**20,662**	**22,603**	**20,102**	**23,539**	**17,674**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. We increased these factors by 12% for the 2018 AY to reflect the significantly higher experience to date for this year.

Average real payment per claim incurred

Financial	Weekly Benefits PPCI (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	3,792	4,041	1,598	1,294	510	600	469	2	162	141	691	13,301
2014	3,495	4,446	1,539	1,063	1,000	501	529	327	157	169	854	14,080
2015	3,604	4,684	2,327	1,110	559	531	255	343	434	142	700	14,688
2016	3,786	4,434	2,161	1,262	560	336	267	199	211	302	642	14,161
2017	4,295	5,464	2,355	1,028	753	260	206	233	178	164	739	15,676
2018	4,067	6,384	2,435	1,472	643	372	241	115	133	155	577	16,593
2019	4,654	8,074	2,845	1,016	264	262	250	200	118	86	545	18,313
2020	4,439	4,948	3,475	1,063	470	450	201	161	153	205	595	16,160
2021	3,809	4,871	2,207	1,705	553	241	286	121	157	124	546	14,622
2022	4,199	4,623	1,963	1,134	882	229	130	227	80	158	526	14,150
Adopted (b)	**4,301**	**5,001**	**2,393**	**1,177**	**558**	**313**	**223**	**164**	**128**	**146**	**558**	**14,963**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. We increased these factors by 35% for the 2018 AY to reflect the significantly higher experience to date for this year.

Estimates from models

Weekly Benefits					
	Estimated outstanding claims				
Accident	claims at 30 June 2022 ($000s) (a)			Weighting	
Year	PPAC	PPCI	Adopted	PPAC	PPCI
2022	23,277	20,717	23,277	100%	0%
2021	12,112	11,693	11,987	70%	30%
2020	6,324	6,634	6,479	50%	50%
2019	4,922	5,147	4,989	70%	30%
2018	6,055	5,677	5,942	70%	30%
2017	1,732	3,335	1,732	100%	0%
2016	2,444	2,859	2,444	100%	0%
2015	2,911	2,480	2,911	100%	0%
2014	2,680	2,164	2,680	100%	0%
2013 & earlier	13,633	7,986	13,633	100%	0%
Total	**76,091**	**68,692**	**76,074**		

Notes: (a) From models described above, in 30 June 2022 values and includes superimposed inflation but excludes the 2015 legislative amendments

C 3.3 Medical and hospital

Claim payments

Financial	Claim payments (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	4,660,601	3,600,075	1,042,539	442,068	197,289	183,961	255,237	28,860	19,463	157,285	597,418	11,184,796
2014	5,386,937	3,814,425	764,401	626,585	314,940	213,159	120,997	185,779	39,070	17,751	668,283	12,152,327
2015	6,205,292	4,214,871	1,173,637	357,145	435,689	254,927	148,729	174,226	296,992	34,874	1,050,548	14,346,930
2016	6,461,996	4,969,360	1,228,150	423,019	199,841	252,581	151,858	125,883	95,932	50,978	457,319	14,416,917
2017	7,116,664	5,337,940	1,786,388	450,042	348,802	162,028	232,516	63,737	108,095	27,720	314,508	15,948,440
2018	8,065,196	4,678,731	1,500,857	801,131	364,164	372,351	121,715	110,074	113,687	25,397	741,882	16,895,185
2019	7,041,407	6,584,477	1,548,724	428,901	349,840	168,751	307,367	54,339	66,674	29,766	225,475	16,805,721
2020	6,915,217	3,759,937	1,785,456	435,257	188,238	418,987	49,838	180,353	58,474	75,987	326,128	14,193,872
2021	6,518,850	4,089,522	1,177,332	883,197	396,304	353,799	201,951	49,958	43,445	54,179	265,380	14,033,917
2022	6,846,680	5,211,463	1,197,747	332,432	630,533	85,861	150,627	106,708	14,023	3,355	196,077	14,775,506

Note: Data extracted from the WIMS system up to 30 June 2022. DY10+ using the list of historical transaction by payment type.

Average real payment per active claim

Financial	Medical And Hospital PPAC (a) for development year:									
Year	1	2	3	4	5	6	7	8	9	10 onwards
2013	5,438	5,863	4,305	3,527	4,497	8,993	1,571	1,554	14,494	7,229
2014	5,381	3,940	6,782	5,208	5,768	3,893	8,507	3,101	1,510	8,555
2015	5,264	4,658	4,153	9,743	6,588	6,406	7,236	13,814	3,687	14,372
2016	6,405	4,846	3,211	3,859	7,514	4,776	5,543	4,591	2,953	7,296
2017	5,593	6,545	3,392	4,543	3,562	10,222	2,491	6,003	1,539	4,310
2018	5,314	5,533	5,460	5,547	7,417	4,849	8,144	5,353	1,644	9,487
2019	6,696	5,568	3,528	4,861	4,131	8,103	2,941	5,713	1,800	2,972
2020	4,631	5,438	4,152	3,226	9,853	2,016	7,295	3,696	6,985	4,174
2021	6,440	4,682	5,419	9,726	10,471	6,774	2,957	2,429	3,634	3,069
2022	7,096	5,521	2,855	6,336	3,922	6,307	4,662	829	306	2,165
Adopted (b)	**5,984**	**5,358**	**4,418**	**5,049**	**7,384**	**5,882**	**5,202**	**3,568**	**2,738**	**4,313**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. We increased these factors by 9% for the 2018 AY to reflect the significantly higher experience to date for this year.

Average real payment per claim incurred

Financial	Medical And Hospital PPCI (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	2,006	1,639	468	209	90	81	124	13	8	73	250	4,961
2014	2,331	1,632	346	280	148	97	53	89	17	8	309	5,309
2015	2,722	1,781	490	158	190	117	66	74	140	15	444	6,197
2016	2,798	2,063	491	167	84	104	66	53	39	23	185	6,074
2017	3,102	2,216	711	173	132	65	92	27	44	11	134	6,705
2018	3,435	2,002	612	313	137	139	48	43	47	10	281	7,066
2019	3,286	2,783	658	173	136	63	114	21	26	12	89	7,361
2020	3,779	1,726	742	182	75	160	18	66	22	29	130	6,929
2021	3,420	2,224	538	365	165	140	77	18	16	21	100	7,083
2022	3,756	2,730	650	152	261	36	60	40	5	1	75	7,765
Adopted (b)	**3,786**	**2,203**	**641**	**218**	**153**	**108**	**63**	**38**	**23**	**14**	**136**	**7,384**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. We increased these factors by 27% for the 2018 AY to reflect the significantly higher experience to date for this year.

Estimates from models

Medical And Hospital					
	Estimated outstanding claims				
Accident	claims at 30 June 2022 ($000s) (a)			Weighting	
Year	PPAC	PPCI	Adopted	PPAC	PPCI
2022	8,024	6,909	8,024	100%	0%
2021	3,003	2,888	2,968	70%	30%
2020	1,505	1,548	1,526	50%	50%
2019	1,284	1,325	1,296	70%	30%
2018	1,691	1,328	1,582	70%	30%
2017	437	773	437	100%	0%
2016	588	634	588	100%	0%
2015	692	547	692	100%	0%
2014	655	494	655	100%	0%
2013 & earlier	3,595	3,157	3,595	100%	0%
Total	**21,474**	**19,604**	**21,364**		

Notes: (a) From models described above, in 30 June 2022 values and includes superimposed inflation but excludes the 2015 legislative amendments

C 3.4 Allied health, vocational rehabilitation, non-compensation (other) and death

Claim payments

Financial	Claim payments (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	2,448,400	2,840,104	1,100,827	468,702	298,929	216,879	143,948	94,135	33,874	30,464	431,956	8,108,218
2014	3,361,212	3,606,839	1,476,898	703,441	351,241	214,183	243,243	65,783	62,260	39,744	364,737	10,489,581
2015	2,555,254	4,054,156	2,099,504	995,769	445,876	386,029	138,582	191,187	166,531	116,635	433,579	11,583,102
2016	2,991,439	3,902,915	1,879,840	796,996	242,575	193,909	140,751	96,043	114,604	118,250	308,078	10,785,400
2017	3,561,486	5,263,252	2,348,993	884,416	387,565	197,411	482,483	165,590	65,307	121,999	372,516	13,851,018
2018	5,269,591	4,862,835	1,866,179	922,244	414,379	201,224	150,338	67,566	76,500	52,431	395,777	14,279,064
2019	4,761,349	7,086,964	2,778,246	759,371	590,528	236,107	157,526	138,496	125,318	60,951	320,407	17,015,263
2020	4,790,772	5,185,914	2,649,258	863,130	265,690	346,795	98,736	102,408	130,428	65,063	315,473	14,813,667
2021	4,269,156	4,817,102	1,645,534	1,293,661	389,606	205,152	262,094	63,121	69,912	88,444	368,824	13,472,606
2022	3,783,778	4,528,427	1,558,428	332,556	290,723	92,343	143,351	206,560	29,351	24,944	785,221	11,775,682

Note: Data extracted from the WIMS system up to 30 June 2022. DY10+ using the list of historical transaction by payment type.

Average real payment per active claim

Financial Year	Allied Health, Vocational Rehabilitation, Non-Compensation Payments (Other), Death PPAC (a) for dev year: 1	2	3	4	5	6	7	8	9	10 onwards
2013	4,290	6,191	4,565	5,345	5,302	5,072	5,126	2,705	2,807	5,227
2014	5,088	7,612	7,614	5,808	5,796	7,827	3,012	4,942	3,380	4,669
2015	5,064	8,332	11,579	9,971	9,975	5,968	7,940	7,746	12,330	5,932
2016	5,031	7,417	6,050	4,685	5,769	4,427	4,229	5,485	6,851	4,915
2017	5,515	8,606	6,665	5,048	4,339	21,211	6,471	3,627	6,775	5,104
2018	5,523	6,879	6,285	6,312	4,008	5,990	4,999	3,602	3,394	5,061
2019	7,207	9,988	6,246	8,205	5,780	4,153	7,495	10,738	3,686	4,224
2020	6,387	8,069	8,234	4,554	8,155	3,994	4,142	8,243	5,981	4,038
2021	7,585	6,545	7,937	9,562	6,071	8,791	3,736	3,908	5,933	4,266
2022	6,166	7,184	2,856	2,921	4,218	6,002	9,025	1,735	2,279	8,671
Adopted (b)	**6,626**	**7,920**	**7,149**	**7,013**	**5,897**	**5,677**	**5,059**	**6,034**	**4,606**	**5,932**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. We increased these factors by 16% for the 2018 AY to reflect the significantly higher experience to date for this year.

Average real payment per claim incurred

Financial Year	Allied Health, Vocational Rehabilitation, Non-Compensation Payments (Other), Death PPCI (a) for development year: 0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	1,054	1,293	494	222	137	95	70	42	15	14	180	3,616
2014	1,454	1,543	668	314	165	97	106	32	27	17	168	4,593
2015	1,121	1,713	877	440	194	177	62	81	78	50	183	4,977
2016	1,295	1,620	752	315	101	80	61	40	46	53	125	4,490
2017	1,552	2,185	935	339	147	79	191	69	26	47	159	5,729
2018	2,244	2,081	761	360	156	75	59	26	31	21	150	5,964
2019	2,222	2,996	1,180	307	229	88	58	54	48	25	126	7,334
2020	2,618	2,380	1,101	361	106	132	36	37	50	25	126	6,972
2021	2,239	2,619	752	535	162	81	99	23	25	34	139	6,710
2022	2,076	2,372	846	152	120	38	57	78	11	9	300	6,059
Adopted (b)	**2,246**	**2,473**	**922**	**317**	**150**	**77**	**61**	**49**	**29**	**20**	**190**	**6,533**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. We increased these factors by 50% for the 2018 AY to reflect the significantly higher experience to date for this year.

Estimates from models

Allied Health, Vocational Rehabilitation, Non-Compensation Payments (Other), Death					
	Estimated outstanding claims claims at 30 June 2022 ($000s) (a)			Weighting	
Accident Year	PPAC	PPCI	Adopted	PPAC	PPCI
2022	10,109	8,558	10,109	100%	0%
2021	4,385	3,975	4,262	70%	30%
2020	2,141	2,023	2,082	50%	50%
2019	1,695	2,468	1,927	70%	30%
2018	2,285	1,395	2,018	70%	30%
2017	637	1,161	637	100%	0%
2016	891	1,028	891	100%	0%
2015	1,093	911	1,093	100%	0%
2014	1,013	837	1,013	100%	0%
2013 & earlier	5,449	7,619	5,449	100%	0%
Total	**29,697**	**29,975**	**29,480**		

Notes: (a) From models described above, in 30 June 2022 values and includes superimposed inflation but excludes the 2015 legislative amendments

C 3.5 Other goods and services

Claim payments

Financial	Claim payments (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	1,567,865	1,463,072	610,500	293,726	630,061	166,282	509,228	22,570	12,114	7,029	660,627	5,943,074
2014	1,739,505	1,385,289	430,785	347,657	149,912	187,116	156,222	-13,833	12,821	19,453	701,069	5,115,996
2015	1,546,816	1,683,725	452,168	202,359	316,201	119,758	154,664	240,214	135,516	14,040	651,208	5,516,669
2016	2,050,750	1,969,303	483,693	233,590	95,208	114,752	80,054	92,629	146,768	89,762	630,208	5,986,717
2017	1,847,739	1,839,423	822,753	194,073	112,078	43,362	88,437	47,582	148,294	56,237	827,405	6,027,383
2018	2,431,656	1,758,864	768,950	379,871	119,088	122,482	44,067	56,536	36,721	290,716	949,117	6,958,068
2019	1,836,810	2,302,039	831,093	273,563	224,337	53,408	134,704	61,567	75,089	32,693	1,176,939	7,002,242
2020	1,875,287	1,276,802	761,959	403,215	142,653	305,044	63,957	160,513	66,505	74,219	1,309,275	6,439,429
2021	1,851,437	1,979,713	413,261	306,024	136,203	127,726	426,455	49,193	73,002	44,052	1,460,363	6,867,429
2022	1,935,661	1,589,670	303,627	101,051	150,615	62,745	85,018	318,902	44,136	130,249	1,307,855	6,029,529

Note: Data extracted from the WIMS system up to 30 June 2022. DY10+ using the list of historical transaction by payment type.

Average real payment per active claim

Financial	Other Goods And Services PPAC (a) for development year:									
Year	1	2	3	4	5	6	7	8	9	10 onwards
2013	2,210	3,434	2,861	11,265	4,065	17,942	1,229	967	648	7,994
2014	1,954	2,220	3,763	2,479	5,063	5,027	-633	1,018	1,654	8,975
2015	2,103	1,795	2,353	7,071	3,095	6,661	9,976	6,303	1,484	8,909
2016	2,538	1,908	1,773	1,839	3,414	2,518	4,079	7,024	5,200	10,054
2017	1,927	3,014	1,463	1,460	953	3,888	1,859	8,235	3,123	11,338
2018	1,998	2,835	2,589	1,814	2,440	1,756	4,183	1,729	18,821	12,138
2019	2,341	2,988	2,250	3,117	1,307	3,551	3,332	6,434	1,977	15,514
2020	1,573	2,321	3,846	2,445	7,173	2,587	6,492	4,203	6,823	16,758
2021	3,117	1,644	1,878	3,343	3,780	14,304	2,912	4,081	2,955	16,890
2022	2,165	1,400	868	1,513	2,866	3,560	13,933	2,609	11,898	14,442
Adopted (b)	**2,201**	**2,294**	**2,247**	**2,300**	**3,533**	**2,932**	**6,675**	**3,533**	**8,357**	**15,146**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. No special allowance was made for the 2018 AY.

Average real payment per claim incurred

Financial	Other Goods And Services PPCI (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	675	666	274	139	288	73	247	10	5	3	276	2,656
2014	753	593	195	155	71	85	68	-7	6	8	324	2,250
2015	678	712	189	89	138	55	69	102	64	6	275	2,377
2016	888	818	194	92	40	47	35	39	59	40	256	2,507
2017	805	764	327	74	42	17	35	20	60	22	353	2,520
2018	1,036	753	313	148	45	46	17	22	15	115	360	2,870
2019	857	973	353	111	87	20	50	24	29	13	462	2,979
2020	1,025	586	317	168	57	116	24	58	26	28	523	2,928
2021	971	1,077	189	127	57	51	162	18	26	17	551	3,244
2022	1,062	833	165	46	62	26	34	121	16	47	500	2,911
Adopted (b)	**973**	**732**	**274**	**122**	**61**	**52**	**57**	**49**	**22**	**44**	**478**	**2,865**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. No special allowance was made for the 2018 AY.

Estimates from models

Other Goods And Services					
	Estimated outstanding claims				
Accident	claims at 30 June 2022 ($000s) (a)			Weighting	
Year	PPAC	PPCI	Adopted	PPAC	PPCI
2022	4,188	3,667	4,188	100%	0%
2021	2,358	2,408	2,373	70%	30%
2020	1,638	1,799	1,718	50%	50%
2019	1,737	1,857	1,773	70%	30%
2018	2,489	1,885	2,308	70%	30%
2017	964	1,737	964	100%	0%
2016	1,472	1,664	1,472	100%	0%
2015	1,892	1,594	1,892	100%	0%
2014	1,952	1,580	1,952	100%	0%
2013 & earlier	10,944	16,415	10,944	100%	0%
Total	**29,632**	**34,606**	**29,582**		

Notes: (a) From models described above, in 30 June 2022 values and includes superimposed inflation but excludes the 2015 legislative amendments

C 3.6 Legal payments

Claim payments

Financial	Claim payments (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	188,116	592,132	775,905	604,921	1,139,497	588,270	216,238	139,320	58,533	56,996	82,970	4,442,898
2014	200,375	738,137	873,295	638,026	499,375	640,462	282,056	219,827	80,257	8,704	300,495	4,481,009
2015	143,327	946,238	880,787	499,253	660,560	354,353	344,651	349,078	114,010	181,815	187,221	4,661,293
2016	419,783	899,214	1,217,238	1,156,280	445,297	450,979	133,961	497,577	66,402	13,080	100,233	5,400,044
2017	388,426	1,418,857	1,561,753	1,086,107	482,854	420,027	231,269	88,302	34,962	69,404	134,110	5,916,071
2018	481,374	1,099,085	1,065,066	795,370	953,777	429,932	292,035	76,783	46,549	79,046	162,238	5,481,255
2019	636,594	1,883,256	1,357,164	823,170	1,061,168	311,545	368,218	263,195	54,143	31,269	1,242,423	8,032,145
2020	370,730	1,310,550	1,881,126	1,016,586	876,809	671,392	316,517	106,366	280,888	58,397	391,840	7,281,201
2021	365,150	931,646	900,908	1,014,576	306,157	265,427	258,482	-10,392	72,435	289,655	479,923	4,873,967
2022	435,889	915,359	985,564	580,310	979,546	99,948	299,529	245,905	12,699	55,771	394,934	5,005,454

Note: Data extracted from the WIMS system up to 30 June 2022. DY10+ using the list of historical transaction by payment type.

Average real payment per claim finalised

Financial	Legals PPCF (a) for development year:										
Year	0	1	2	3	4	5	6	7	8	9	10 onwards
2013	143	867	8,013	12,078	56,877	54,208	32,380	23,842	70,118	17,069	5,847
2014	164	1,009	7,121	11,869	19,179	44,854	37,312	130,861	19,111	5,181	14,311
2015	113	1,115	6,060	12,352	45,184	31,697	100,194	81,185	22,096	211,422	7,775
2016	370	1,170	8,644	17,927	49,017	35,459	14,746	91,286	18,273	2,880	18,389
2017	333	1,543	10,700	14,506	15,921	20,144	20,334	18,634	12,296	24,409	10,107
2018	437	1,301	6,304	9,470	35,285	27,834	43,215	39,768	9,644	16,376	10,503
2019	564	2,119	7,083	10,992	31,174	16,859	27,043	67,654	18,557	10,717	91,247
2020	377	1,739	10,172	14,478	31,665	52,223	35,562	11,951	94,677	59,050	49,528
2021	398	1,534	6,125	13,258	14,003	20,545	37,156	0	10,412	72,865	40,243
2022	534	1,260	7,560	8,835	18,929	9,130	33,443	49,421	0	0	44,095
Adopted (b)	**463**	**1,608**	**7,515**	**11,382**	**25,806**	**25,168**	**33,962**	**34,718**	**26,309**	**43,382**	**32,090**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. No special allowance was made for the 2018 AY.

Average real payment per claim incurred

Financial	Legals PPCI (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	81	270	348	286	521	258	105	61	25	26	35	2,017
2014	87	316	395	285	235	291	123	106	35	4	139	2,015
2015	63	400	368	221	288	163	153	149	54	78	79	2,014
2016	182	373	487	457	186	186	58	209	27	6	41	2,212
2017	169	589	622	416	183	168	91	37	14	27	57	2,374
2018	205	470	434	311	359	160	115	30	19	31	62	2,196
2019	297	796	576	333	412	116	136	103	21	13	488	3,291
2020	203	602	782	425	349	256	116	39	108	22	157	3,057
2021	192	507	411	420	127	105	98	-4	26	111	181	2,174
2022	239	480	535	265	405	41	118	93	5	20	151	2,352
Adopted (b)	**211**	**533**	**468**	**351**	**295**	**138**	**117**	**51**	**35**	**39**	**137**	**2,375**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. We increased these factors by 44% for the 2018 AY to reflect the significantly higher experience to date for this year.

Estimates from models

Legals					
	Estimated outstanding claims				
Accident	claims at 30 June 2022 ($000s) (a)			Weighting	
Year	PPCF	PPCI	Adopted	PPCF	PPCI
2022	5,089	4,373	5,089	100%	0%
2021	3,696	3,439	3,619	70%	30%
2020	2,337	2,368	2,353	50%	50%
2019	2,006	1,976	1,997	70%	30%
2018	2,041	2,033	2,039	70%	30%
2017	571	1,036	571	100%	0%
2016	717	764	717	100%	0%
2015	833	639	833	100%	0%
2014	767	548	767	100%	0%
2013 & earlier	3,533	1,845	3,533	100%	0%
Total	**21,591**	**19,021**	**21,517**		

Notes: (a) From models described above, in 30 June 2022 values and includes superimposed inflation but excludes the 2015 legislative amendments

C 3.7 Redemptions and non-economic lump sum

Claim payments

Financial	Claim payments (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	798,093	5,034,020	4,304,159	3,146,178	12,767,423	1,269,418	426,392	371,696	228,690	569,448	712,612	29,628,129
2014	461,434	4,280,116	2,801,334	5,751,145	3,368,411	3,402,835	1,404,766	3,636,688	1,404,997	0	1,029,350	27,541,076
2015	522,306	2,974,003	5,341,548	4,826,066	735,591	1,874,791	1,954,630	1,058,632	68,471	866,380	1,871,749	22,094,167
2016	539,312	2,208,806	5,228,454	8,648,902	2,874,708	3,152,006	1,778,661	966,730	3,223,685	1,256,746	1,703,304	31,581,314
2017	833,335	3,337,204	8,102,884	7,446,525	3,939,263	3,561,253	4,274,513	1,859,084	830,709	1,746,804	6,308,659	42,240,233
2018	1,084,900	4,345,693	8,047,510	9,087,783	4,872,947	1,349,024	1,251,323	518,297	1,608,148	341,066	4,454,297	36,960,988
2019	712,246	6,749,440	7,284,290	7,183,482	6,661,238	3,951,044	4,067,511	1,124,902	733,979	1,047,184	3,552,791	43,068,107
2020	547,929	3,880,723	8,569,966	7,555,657	3,279,619	1,615,397	1,790,955	1,950,328	358,744	0	2,115,578	31,664,896
2021	795,000	4,881,939	6,780,376	8,540,851	2,705,089	2,102,867	5,532,583	582,845	1,013,771	581,251	4,030,139	37,546,711
2022	1,244,855	3,197,793	4,711,166	5,589,830	9,746,898	1,896,761	980,497	1,983,755	90,549	-8,978	1,286,756	30,719,882

Note: Data extracted from the WIMS system up to 30 June 2022. DY10+ using the list of historical transaction by payment type.

Average real payment per claim finalised

Financial	Redemptions And Non-Economic Lump Sum PPCF (a) for development year:										
Year	0	1	2	3	4	5	6	7	8	9	10 onwards
2013	605	7,372	44,449	62,815	637,270	116,975	63,849	63,609	273,955	170,540	50,215
2014	378	5,851	22,844	106,988	129,367	238,315	185,832	2,164,891	334,553	0	49,021
2015	410	3,504	36,754	119,403	50,316	167,699	568,232	246,205	13,270	1,007,464	77,734
2016	475	2,874	37,131	134,091	316,439	247,831	195,789	177,358	887,133	276,677	312,491
2017	715	3,630	55,515	99,454	129,885	170,795	375,837	392,305	292,161	614,352	475,449
2018	986	5,145	47,635	108,203	180,275	87,337	185,171	268,442	333,163	70,659	288,377
2019	631	7,593	38,019	95,922	195,687	213,813	298,728	289,154	251,558	358,903	260,926
2020	557	5,150	46,341	107,608	118,439	125,651	201,221	219,127	120,919	0	267,405
2021	867	8,040	46,099	111,612	123,725	162,767	795,296	0	145,727	146,219	337,939
2022	1,526	4,402	36,138	85,107	188,353	173,273	109,475	398,684	0	0	143,669
Adopted (b)	**885**	**6,036**	**43,017**	**102,251**	**168,057**	**154,379**	**300,907**	**312,277**	**216,351**	**167,155**	**267,026**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. We increased these factors by 18% for the 2018 AY to reflect the higher experience to date for this year.

Average real payment per claim incurred

Financial	Redemptions And Non-Economic Lump Sum PPCI (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2013	344	2,292	1,933	1,489	5,840	557	206	164	99	265	298	13,486
2014	200	1,831	1,268	2,566	1,585	1,547	612	1,750	616	0	475	12,451
2015	229	1,257	2,232	2,133	321	861	868	451	32	371	790	9,545
2016	234	917	2,092	3,421	1,203	1,300	774	406	1,299	559	691	12,896
2017	363	1,385	3,225	2,855	1,494	1,428	1,690	775	335	675	2,690	16,916
2018	462	1,860	3,280	3,551	1,834	502	493	201	658	135	1,690	14,665
2019	332	2,853	3,094	2,906	2,583	1,476	1,503	440	283	425	1,395	17,291
2020	299	1,781	3,563	3,156	1,305	616	658	709	138	0	845	13,070
2021	417	2,655	3,097	3,533	1,124	832	2,100	213	367	222	1,520	16,081
2022	683	1,675	2,558	2,550	4,027	787	388	752	33	-3	491	13,941
Adopted (b)	**436**	**2,170**	**3,149**	**3,155**	**2,167**	**845**	**1,036**	**463**	**291**	**152**	**1,195**	**15,060**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation. We increased these factors by 48% for the 2018 AY to reflect the higher experience to date for this year.

Estimates from models

Redemptions And Non-Economic Lump Sum					
	Estimated outstanding claims				
Accident	claims at 30 June 2022 ($000s) (a)			Weighting	
Year	PPCF	PPCI	Adopted	PPCF	PPCI
2022	30,514	28,961	30,514	100%	0%
2021	25,084	25,629	25,247	70%	30%
2020	17,110	18,484	17,797	50%	50%
2019	13,547	14,709	13,895	70%	30%
2018	16,879	15,892	16,583	70%	30%
2017	4,182	8,445	4,182	100%	0%
2016	5,046	6,099	5,046	100%	0%
2015	5,647	5,033	5,647	100%	0%
2014	5,113	4,338	5,113	100%	0%
2013 & earlier	26,634	32,921	26,634	100%	0%
Total	**149,758**	**160,512**	**150,661**		

Notes: (a) From models described above, in 30 June 2022 values and includes superimposed inflation but excludes the 2015 legislative amendments

C 3.8 Combined PCE method

Case estimates development factors

Financial Year	Case estimate development factors (a) for development year: 1	2	3	4	5	6	7	8	9	10 onwards
2016	1.262	1.196	1.394	1.118	1.201	1.205	1.159	1.066	0.836	1.032
2017	1.417	1.332	1.481	1.265	0.887	1.295	1.311	1.047	0.984	1.073
2018	1.396	1.267	1.061	1.298	1.090	1.070	1.188	1.165	1.113	0.950
2019	1.357	1.105	1.051	1.151	1.219	1.023	1.222	1.007	1.077	0.989
2020	1.236	1.124	1.141	1.038	1.053	1.473	1.142	0.919	1.153	1.051
2021	1.307	1.077	1.354	1.399	1.464	1.445	1.324	1.771	1.780	1.085
2022	1.149	1.122	1.036	1.072	1.077	1.156	1.366	1.139	1.011	1.082
Adopted (b)	**1.297**	**1.140**	**1.168**	**1.132**	**1.182**	**1.241**	**1.266**	**1.156**	**1.239**	**1.049**

Notes: (a) defined as: (CE at end of year + payments in the year) / CE at beginning of year adjusted for normal inflation

(b) In 30 June 2022 values, adopted for 30 June 2022 valuation

Payment factors for case estimates outstanding

Financial Year	Payments to case estimates (a) for development year: 1	2	3	4	5	6	7	8	9	10 onwards
2016	0.491	0.586	0.684	0.311	0.487	0.388	0.228	0.270	0.265	0.136
2017	0.678	0.509	0.760	0.464	0.357	0.765	0.436	0.169	0.190	0.255
2018	0.667	0.571	0.466	0.686	0.273	0.326	0.274	0.388	0.137	0.196
2019	0.661	0.589	0.507	0.473	0.715	0.544	0.378	0.359	0.318	0.196
2020	0.588	0.514	0.701	0.455	0.325	0.737	0.576	0.264	0.327	0.165
2021	0.625	0.543	0.565	0.651	0.479	0.730	0.370	0.588	0.430	0.236
2022	0.549	0.441	0.608	0.616	0.461	0.263	0.474	0.148	0.187	0.160
Adopted (b)	**0.612**	**0.525**	**0.585**	**0.542**	**0.467**	**0.561**	**0.458**	**0.333**	**0.313**	**0.190**

Notes: (a) defined as: Payments made in the year / case estimates at beginning of the year

(b) In 30 June 2022 values, adopted for 30 June 2022 valuation

Estimates from model

Combined (all payment types) PCE method	
Accident Year	Estimated outstanding claims claims at 30 June 2022 ($000s) (a) PCE method
2022	73,226
2021	38,212
2020	28,315
2019	10,227
2018	17,458
2017	6,372
2016	11,316
2015	9,821
2014	3,899
2013 & earlier	40,342
Total	**239,188**

Notes: (a) From models described above, in 30 June 2022 values, excluding the 2015 legislative amendments

Large claims

Large claims ($000s)			
Accident year	Case estimates (a)	Development factor (b)	Current values (c)
2022	0	0.00	0
2021	0	0.00	0
2020	7,515	1.00	7,515
2019	0	0.00	0
2018	1,477	1.00	1,477
2017	1,592	1.00	1,592
2016	5,073	1.00	5,073
2015	3,333	1.00	3,333
2014	0	0.00	0
2013 & earlier	20,239	0.25	5,060
Total	**39,230**		**24,050**

Notes: (a) Provided by the insurers

(b) We have adopted a development factor of 1 where we consider that the valuation by payment types include insufficient allowance for the large claims. Where the valuation by payment type has sufficient allowance, we have adopted a development factor of 0. We have adopted a factor of 0.25 for 2013 & earlier to account for the combination of the individual payment methods and PCE method generally being sufficient to account for the large claims.

(c) = (a) x (b)

C 4 Adopted estimates of outstanding claims

C 4.1 Gross central estimates from models in 30 June 2022 values, excluding allowance for Act changes

	Estimates of outstanding claims at 30 June 2022 ($000s) (a) (b)									
	By payment type method							All payments		
Accident year	Weekly Benefits	Medical And Hospital	Allied Health, Vocational Rehabilitation, Non-Compensation	Other Goods And Services	Legals	Redemptions And Non-Economic Lump Sum	Sum of individual payment methods (c)	Combined PCE method (d)	Allowance for active large claims	Total (e)
2022	23,277	8,024	10,109	4,188	5,089	30,514	81,200	73,226	0	81,200
2021	11,987	2,968	4,262	2,373	3,619	25,247	50,456	38,212	0	50,456
2020	6,479	1,526	2,082	1,718	2,353	17,797	31,956	28,315	7,515	39,471
2019	4,989	1,296	1,927	1,773	1,997	13,895	25,878	10,227	0	25,878
2018	5,942	1,582	2,018	2,308	2,039	16,583	30,472	17,458	1,477	31,948
2017	1,732	437	637	964	571	4,182	8,522	6,372	1,592	9,039
2016	2,444	588	891	1,472	717	5,046	11,158	11,316	5,073	16,350
2015	2,911	692	1,093	1,892	833	5,647	13,069	9,821	3,333	13,966
2014	2,680	655	1,013	1,952	767	5,113	12,180	3,899	0	5,969
2013 & earlier	13,633	3,595	5,449	10,944	3,533	26,634	63,788	40,342	5,060	51,263
Total	**76,074**	**21,364**	**29,480**	**29,582**	**21,517**	**150,661**	**328,679**	**239,188**	**24,050**	**325,541**

Notes: (a) From models described in appendix C3, excluding allowance for the 2015 legislative amendments

(b) In 30 June 2022 values and includes superimposed inflation

(c) sum of all estimates from the individual by payment type method

(d) result from the combined PCE method described in appendix C3.8

(e) weighted average of (c) and (d) plus the allowance for active large claims. The weights for 2016 and earlier years are 25% x (c) + 75% x (d) and the weights for 2017 is 50% x (c) + 50% x (d) while, the weights for 2018 and onwards are 100% x (c).

C 4.2 Gross central estimates from models in 30 June 2022 values, including allowance for Act changes

Estimates of outstanding claims at 30 June 2022 ($000s) (a) (b)										
	By payment type method							All payments		
Accident year	Weekly Benefits	Medical And Hospital	Allied Health, Vocational Rehabilitation, Non-Compensation Payments (Other),	Other Goods And Services	Legals	Redemptions And Non-Economic Lump Sum	Sum of individual payment methods (c)	Combined PCE method (d)	Allowance for active large claims	Total (e)
2022	21,617	7,672	9,562	3,472	5,089	30,514	77,926	73,226	0	77,926
2021	10,340	2,634	3,740	1,660	3,619	25,247	47,241	38,212	0	47,241
2020	4,940	1,222	1,607	1,047	2,353	17,797	28,967	28,315	7,515	36,482
2019	3,192	935	1,288	975	1,997	13,895	22,283	10,227	0	22,283
2018	3,063	1,018	1,169	1,192	2,039	16,583	25,065	17,458	1,477	26,542
2017	799	219	311	453	571	4,182	6,536	6,372	1,592	8,046
2016	1,128	272	411	679	717	5,046	8,253	11,316	5,073	15,624
2015	2,911	692	1,093	1,892	833	5,647	13,069	9,821	3,333	13,966
2014	2,680	655	1,013	1,952	767	5,113	12,180	3,899	0	5,969
2013 & earlier	13,633	3,595	5,449	10,944	3,533	26,634	63,788	40,342	5,060	51,263
Total	**64,304**	**18,915**	**25,644**	**24,265**	**21,517**	**150,661**	**305,307**	**239,188**	**24,050**	**305,342**

Notes: (a) From models described in appendix C3, including allowance for the 2015 legislative amendments

(b) In 30 June 2022 values and includes superimposed inflation

(c) sum of all estimates from the individual by payment type method

(d) result from the combined PCE method described in appendix C3.8

(e) weighted average of (c) and (d) plus the allowance for active large claims. The weights for 2016 and earlier years are 25% x (c) + 75% x (d) and the weights for 2017 is 50% x (c) + 50% x (d) while, the weights for 2018 and onwards are 100% x (c).

C 4.3 Average claim size

Average claim size at 30 June 2022 ($) (a)										
	By payment type method							All payments		
Accident year	Weekly Benefits	Medical And Hospital	Allied Health, Vocational Rehabilitation, Non-Compensation Payments	Other Goods And Services	Legals	Redemptions And Non-Economic Lump Sum	Sum of individual payment methods (b)	Combined PCE method (c)	Allowance for active large claims	Adopted (d)
2022	16,000	7,944	7,296	2,957	3,018	17,341	54,555	51,990		54,555
2021	13,822	7,523	6,561	2,669	2,558	15,254	48,388	43,681		48,388
2020	13,943	7,314	6,952	2,832	2,516	15,130	48,687	48,335		52,748
2019	14,391	6,126	6,090	2,121	2,481	14,067	45,276	39,804		45,276
2018	19,462	8,005	7,478	3,004	3,446	21,257	62,652	59,524		63,259
2017	15,700	6,234	5,503	2,349	2,045	12,112	43,944	43,876		44,567
2016	13,986	6,181	4,953	2,484	2,392	12,314	42,311	43,516		45,210
2015	14,190	6,483	4,988	3,172	2,542	16,103	47,476	46,251		47,815
2014	13,650	5,256	4,941	2,564	2,261	12,477	41,150	38,140		38,893

Note: (a) In 30 June 2022 values, from results in appendix C4.2, includes superimposed inflation and 2015 legislation amendments

(b) In 30 June 2022 values, from the results based on individual payment type methods

(c) In 30 June 2022 values, based on the combined (all payment types) PCE method

(d) Adopted average claim size is based on (e) in table C4.2 divided by (c) in C3.1 number of claims incurred.

C 4.4 Relationship to case estimates

	Ratio of outstanding to case estimates at 30 June 2022 ($) (a)									
	By payment type method							All payments		
Accident year	Weekly Benefits	Medical And Hospital	Allied Health, Vocational Rehabilitation, Non-Compensation Payments	Other Goods And Services	Legals	Redemptions And Non-Economic Lump Sum	Sum of individual payment methods (b)	Combined PCE method (c)	Allowance for active large claims	Adopted (d)
2022	47%	17%	21%	8%	11%	66%	170%	159%	0%	170%
2021	39%	10%	14%	6%	14%	95%	177%	143%	0%	177%
2020	26%	6%	8%	5%	12%	93%	151%	148%	39%	190%
2019	48%	14%	19%	15%	30%	208%	334%	153%	0%	334%
2018	30%	10%	11%	11%	20%	160%	241%	168%	14%	256%
2017	21%	6%	8%	12%	15%	112%	174%	170%	42%	215%
2016	17%	4%	6%	10%	11%	75%	122%	167%	75%	231%
2015	45%	11%	17%	29%	13%	86%	200%	150%	51%	214%
2014	98%	24%	37%	71%	28%	186%	444%	142%	0%	218%
2013 & earlier	40%	11%	16%	32%	10%	79%	189%	120%	15%	152%

Note: (a) In 30 June 2022 values, from results in appendix C4.2, includes superimposed inflation and 2015 legislation amendments

(b) In 30 June 2022 values, from the results based on individual payment type methods

(c) In 30 June 2022 values, based on the combined (all payment types) PCE method

(d) Adopted is based on (e) in table C4.2 divided by case estimates in 30 June 2022 values

C 4.5 Summary of gross adopted estimates in 30 June 2022 values

Accident year	Estimate of outstanding claims (a)	Estimate of outstanding claims (b)	Average claim size (b)	Ratio of outstanding to case estimates (b)
	$000s	$000s	$	
2022	81,200	77,926	54,555	170%
2021	50,456	47,241	48,388	177%
2020	39,471	36,482	52,748	190%
2019	25,878	22,283	45,276	334%
2018	31,948	26,542	63,259	256%
2017	9,039	8,046	44,567	215%
2016	16,350	15,624	45,210	231%
2015	13,966	13,966	47,815	214%
2014	5,969	5,969	38,893	218%
2013 & earlier	51,263	51,263		152%
Total	**325,541**	**305,342**		**188%**

Notes: (a) In 30 June 2022 values, including superimposed inflation but excluding the 2015 legislative amendments

(b) Including the 2015 legislative amendments

C 4.6 Gross adopted estimates excluding expenses

Gross estimates at 30 June 2022 excluding expenses ($000s) Accident year ending 30 June	30 June 2022 values	Inflated values	Infl/disc values
2022	77,926	83,617	75,985
2021	47,241	51,416	45,905
2020	36,482	40,443	35,246
2019	22,283	25,190	21,438
2018	26,542	30,536	25,387
2017	8,046	9,130	7,718
2016	15,624	17,340	15,070
2015	13,966	15,801	13,391
2014	5,969	6,992	5,667
2013 & earlier	51,263	59,161	48,813
Total	**305,342**	**339,626**	**294,618**

Note: Includes superimposed inflation and 2015 legislative amendments

C 4.7 Net outstanding claims provision

Estimates at 30 June 2022 ($000s)	Gross o/s liability (a)	Reinsurance recoveries (b)	Net o/s liability (c)	Claims handling expenses (d)	Net central estimate (e)	Risk margin (f)	Net Provision (g)
Total	294,618	15,870	278,748	16,725	295,473	35,668	331,141

Notes: (a) from table above

(b) based on the reinsurance information provided by insurers on large claims

(c) = (a) – (b)

(d) = (c) x 6%

(e) = (c) + (d)

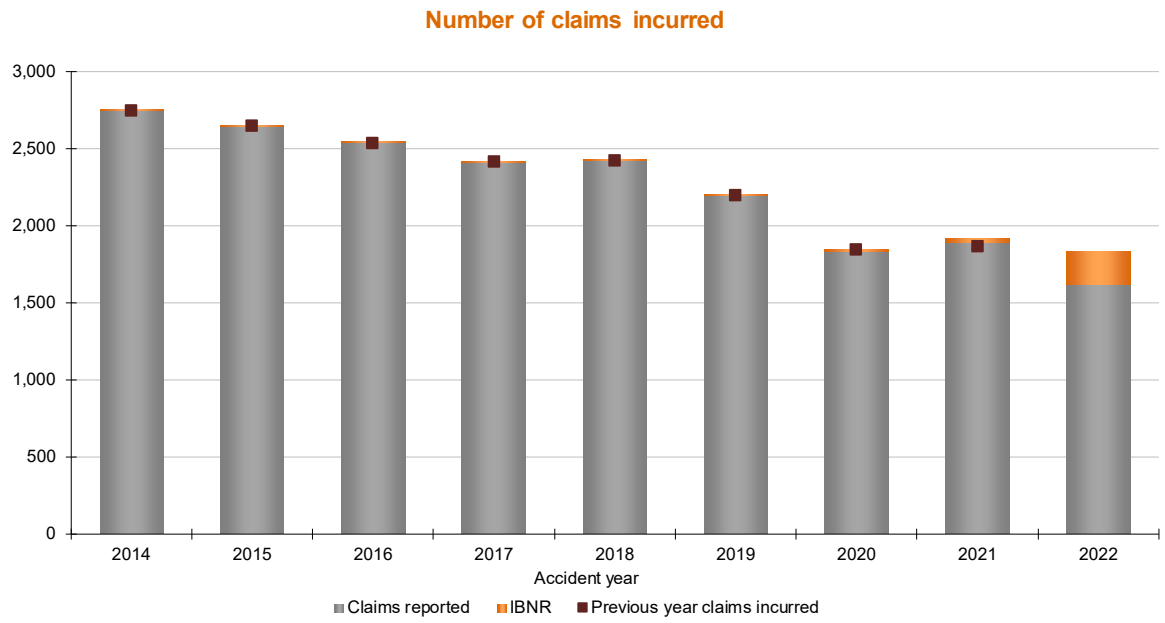
(f) = (e) x 12.07%

(g) = (e) + (f)

Appendix D Insurer claims statistics

D 1 Number of claims incurred

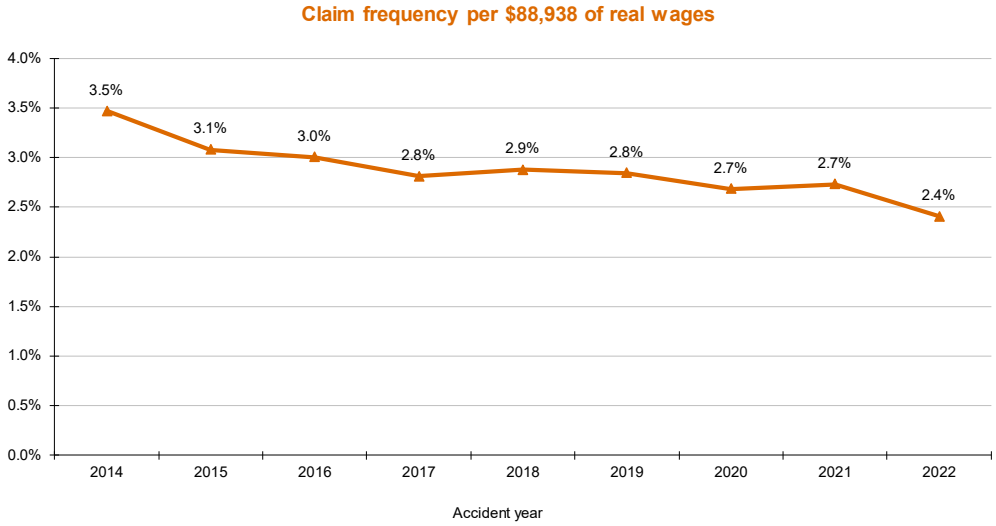
Decreasing trend from 2014 to 2022



The main points to highlight from this chart are:

- The number of claims incurred for the 2014 accident year was about 2,750
- From the 2014 to 2020 accident years, there has been a decreasing trend in the number of claims incurred to 1,850 for the 2020 accident year
- For the 2021 accident year, the number of incurred claims at 1,918 claims is slightly higher than the 2020 accident year but lower than 2019 and all prior years. The increase between 2020 and 2021 is partially due to Catholic Church claims being included in the insurer category from 1 December 2020
- For the 2022 accident year, the number of incurred claims at 1,832 claims is similar to the 2020 accident year, despite 2022 including a full year of Catholic Church Insurance claims
- The numbers of claims are similar to those estimated at the previous valuation, except for 2021 which is higher than expected.

Declining claim frequency due to significant increases in wages up to 2015 and more recently reducing number of claims incurred. 2022 is lower than 2021 as the number of claims decreased while wages increased partially due to the inclusion of Catholic Church for a full year



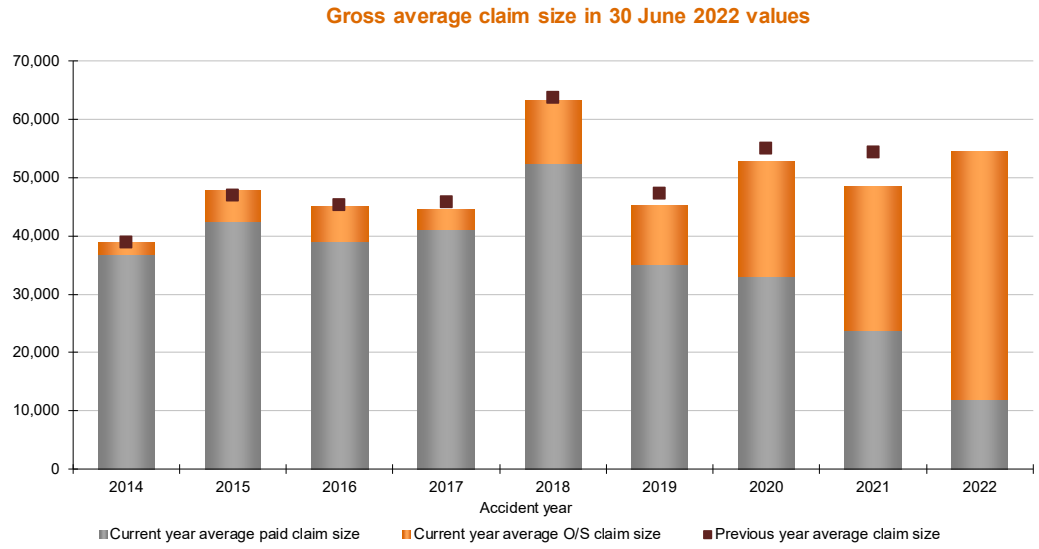
The claim frequency is calculated as:

$$\frac{\text{the number of claims incurred}}{\text{estimated number of full time equivalent employees}}$$

To estimate the number of employees we have used the wages provided, inflated this to 2022 values and divided by $88,938 (the full time average weekly earnings for the NT from the ABS catalogue 6302). We have not used the number of employees provided in the ANZSIC data, as these are not full time equivalent.

D 2 Gross average claim size

2022 is estimated to be higher than most prior years except 2018



Since 2014 the gross average claim size (in 2022 values):

- Exhibited volatility due in part to large claims, especially the average of $63,259 in 2018
- Exhibited a broadly increasing trend from around $38,893 in 2014 to around $48,388 in 2021 and $54,557 in 2022

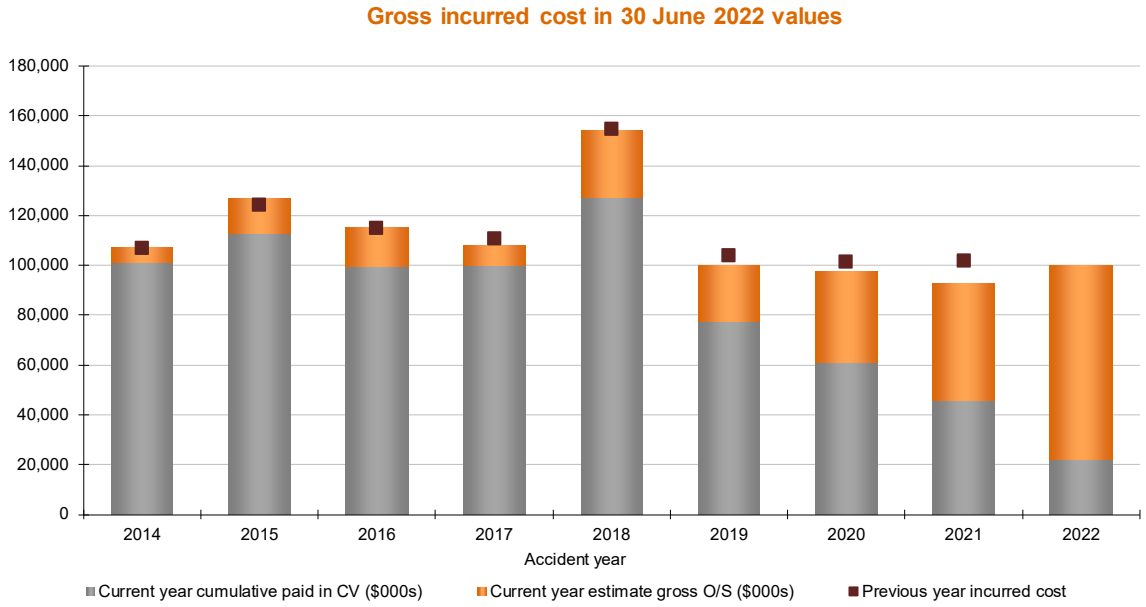
The uncertainty about the future development means that the ultimate level and our estimates may differ from those projected for recent accident years. This is especially true for the 2022 accident year, where a high proportion (78%) of the average claim size relates to uncertain future claims development.

Compared to the previous valuation, the gross average claim size is similar for all years, except for 2019 to 2021 where the current estimate is lower than the previous valuation. This reflects changes in total estimates over the year.

Appendix E contains the average claim size split by payment type. The mix of payment types across the accident years has remained stable. Redemptions and non-economic lump sums are the largest payment type, closely followed by weekly benefits. These two payment types account for just under two thirds of total incurred costs.

D 3 Gross incurred cost

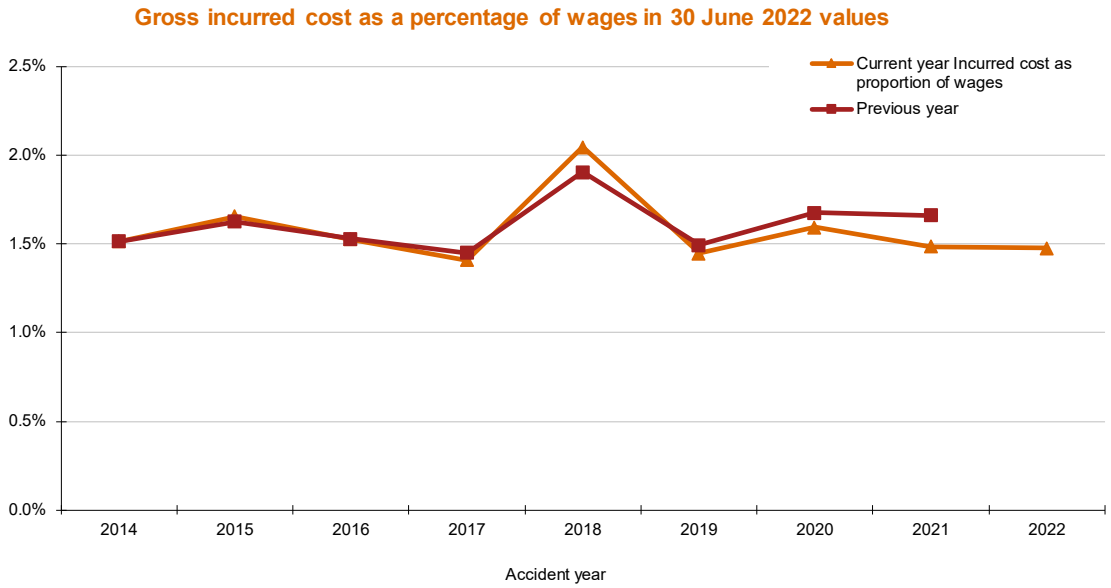
2022 incurred cost is $100 million, which is slightly higher than 2021 but similar to 2019 and 2020



The incurred cost is the combination of the trends of the decreasing number of claims incurred and increasing average claim size.

Over the period shown in the graph, the proportion outstanding increases from 6% of the total incurred cost in 2014 to 78% of the total incurred cost for 2022.

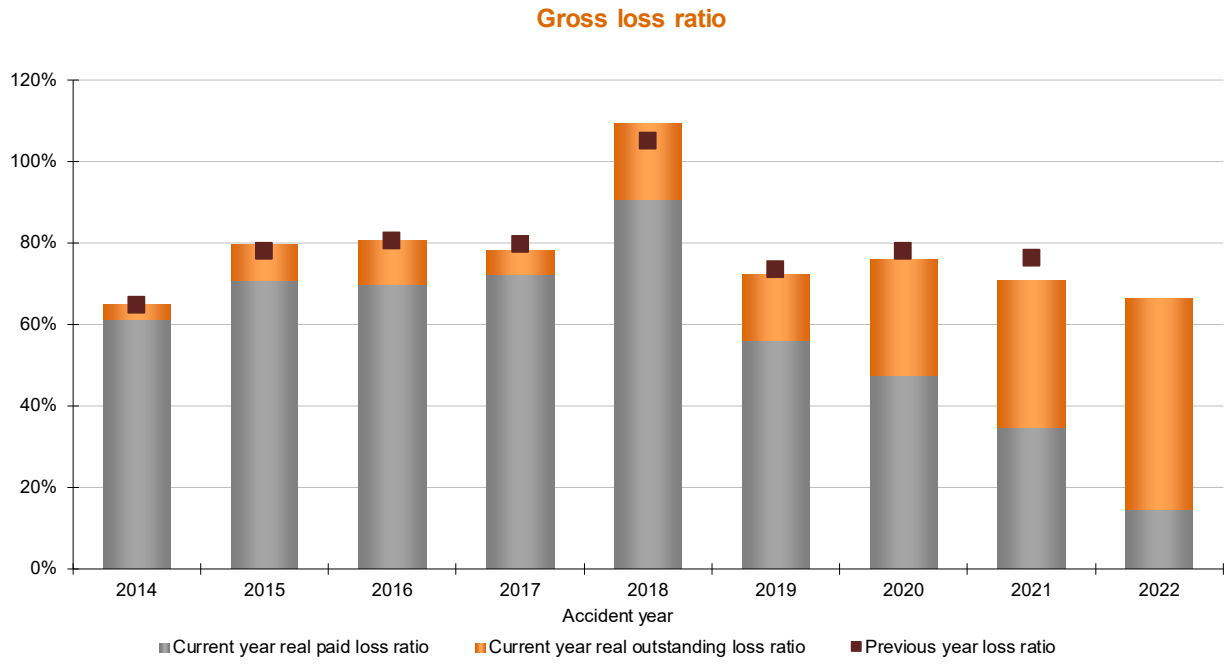
The 2022 gross incurred cost as a percentage of wages is similar to 2021 at 1.5%



2018 has increased since our previous valuation due to a decrease in the reported real wages. 2019 to 2021 have decreased due to the decrease in the incurred cost.

D 4 Gross loss ratios

Loss ratio for 2022 estimated at 66%, which is lower than all prior years except 2014



The gross loss ratios are calculated for each accident year using the following formula:

$$\frac{\text{(Past claim payments to 30 June 2022+ estimated outstanding liability at 30 June 2022)}}{\text{Gross developed earned premium}}$$

The past claim payments estimated outstanding liability and gross developed earned premium are all in 30 June 2022 values i.e., current values, and the estimated outstanding liability includes allowance for future superimposed inflation.

These ratios are not a proper measure of profitability, as they do not allow for investment returns or expenses. Nevertheless, as a crude measure, they do provide an indication of trends in the experience.

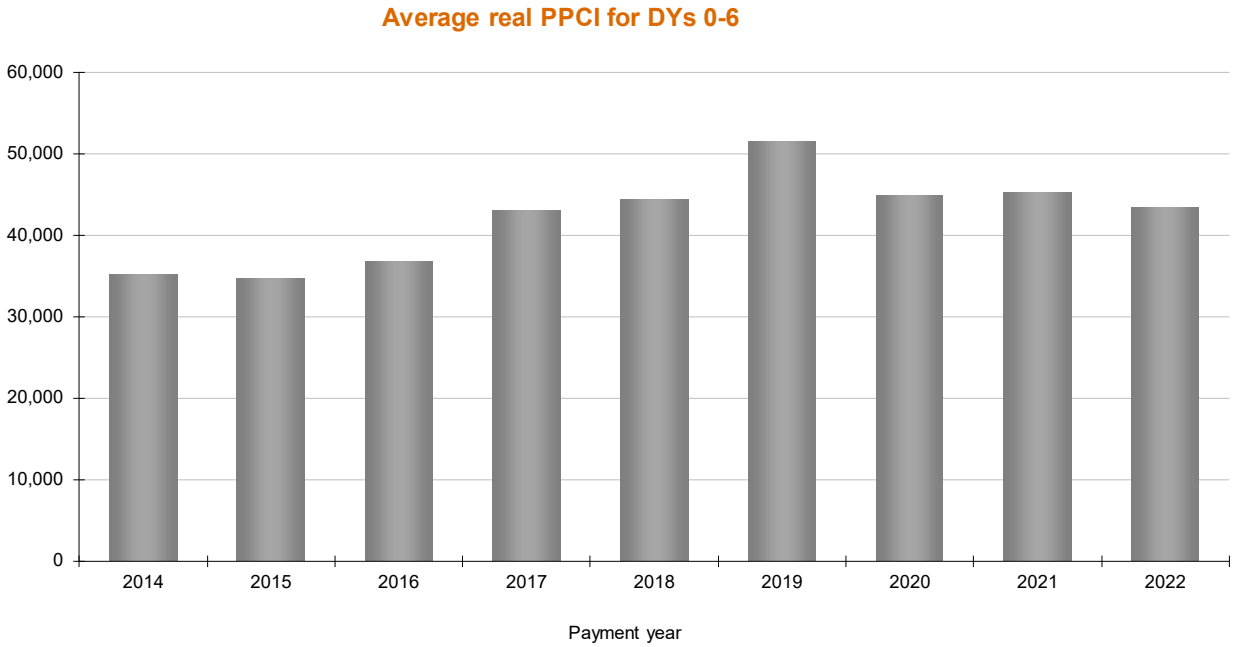
The chart shows:

- There was the low of 65% in 2014 due to premium and wages growth exceeding claims cost increases
- The loss ratio increased from 2014 to around 80% in 2015 to 2017
- The 2018 loss ratio of 105% is higher than all prior years
- 2019 to 2021 is lower than most prior years except 2014 at around 70% to 75%
- For 2022, the loss ratio is 66%, which is lower than 71% for 2021 and lower than most prior years

D 5 Payment per claim incurred

By payment year

The 2022 payment year was slightly lower than 2021 but within the range of $43,000 to $45,000 for 2017 onwards (excluding 2019)

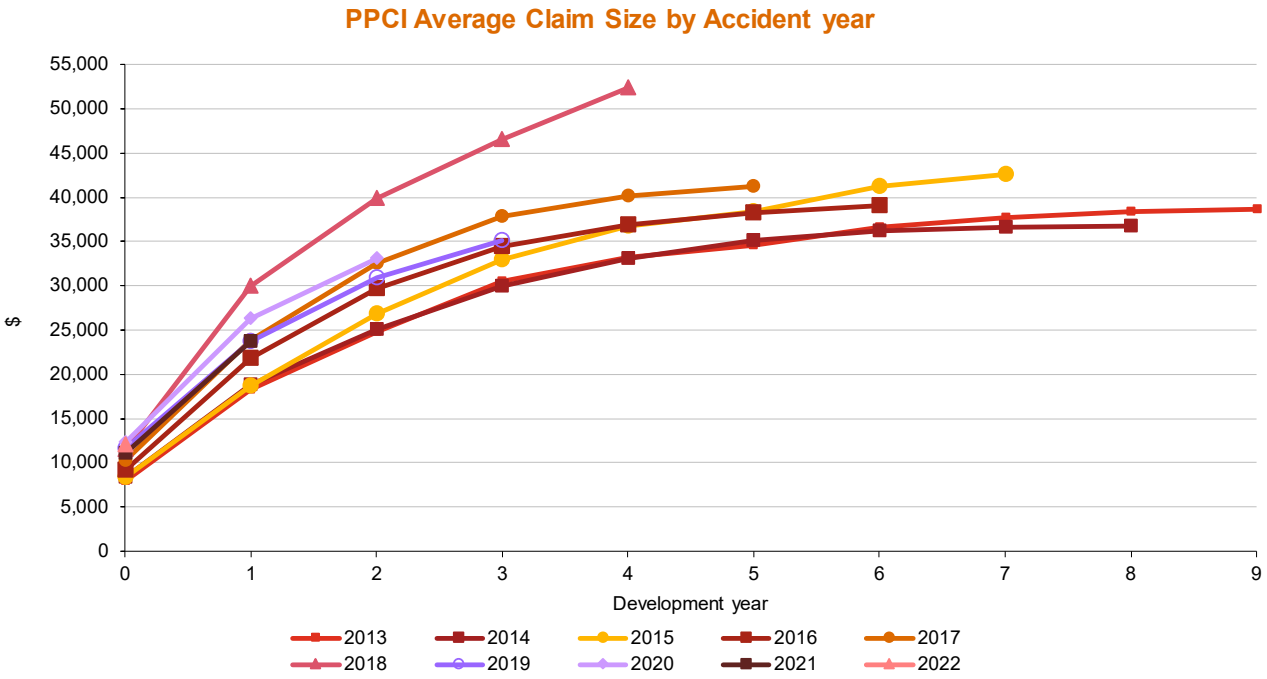


The average PPCI for DYs 0 to 6 was relatively stable between $34,600 and $36,900, up until 2016.

The average PPCI increased by 17% to $43,000 in 2017 due to higher payments for the three most recent accident years. It has remained between $43,000 and $45,000 for 2017 to 2022, except for the high in 2019. The 2019 payment year is $51,500, mainly due to high payments for 2018 accident year.

By accident year

Evidence of superimposed inflation



The chart above shows cumulative PPCI by accident year. This is calculated as:

$$\frac{\text{sum of claim payments by development year made to date (in 30 June 2022 values)}}{\text{number of claims incurred to date}}$$

As the values in the chart are all in current values, any differences are the result of a change in the real cost of each claim. This is also referred to as superimposed inflation. The chart is based entirely on actual experience, and there are no future projections included in this graph.

The experience by accident year has been variable, and there is evidence of superimposed inflation over recent years from 2015. Though 2019's growth has slowed as it is below 2017 from DY2 onwards, it was similar to 2017 in DY1 and in DY0 it was in line with 2018.

DY0 and DY1 for 2020 is higher than all prior year except for 2018 though similar to 2017 in DY2. 2021 is below 2020 but similar to 2019 and 2017. Meanwhile, 2022 is starting at similar level to 2020.

Appendix E Insurer financial year claims experience

E 1 Aggregate claims experience during 2021/22

E 1.1 Summary of overall claim experience over 2021/22

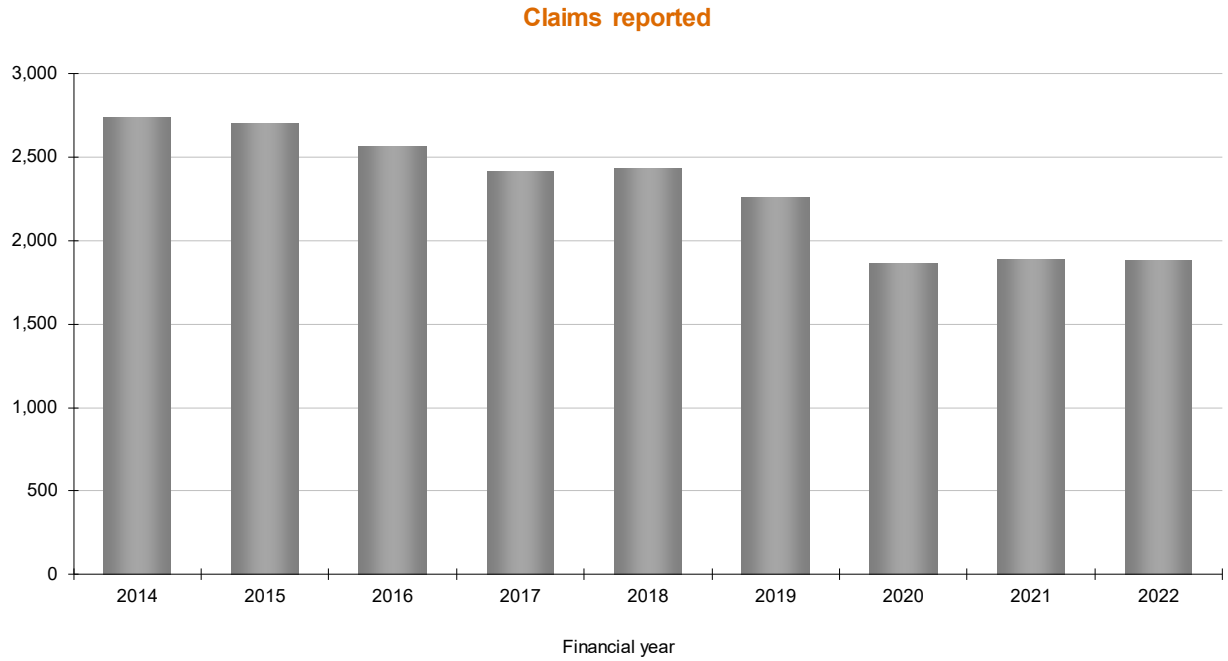
The overall claims experience over 2021/22 is marginally better compared to 2020/21, however the experience is mixed by accident year.

- A decrease (0.6%) in the number of claims reported
- A decrease (10.1%) in the amount of real claim payments
- An increase (3.2%) in the number of active claims at the end of the year
- A slower finalisation rate (56.6% compared to 57.3% for 2021)
- A decrease (4.6%) in case estimates.

The experience for each of these items is described in more detail below.

E 1.2 Claim reports

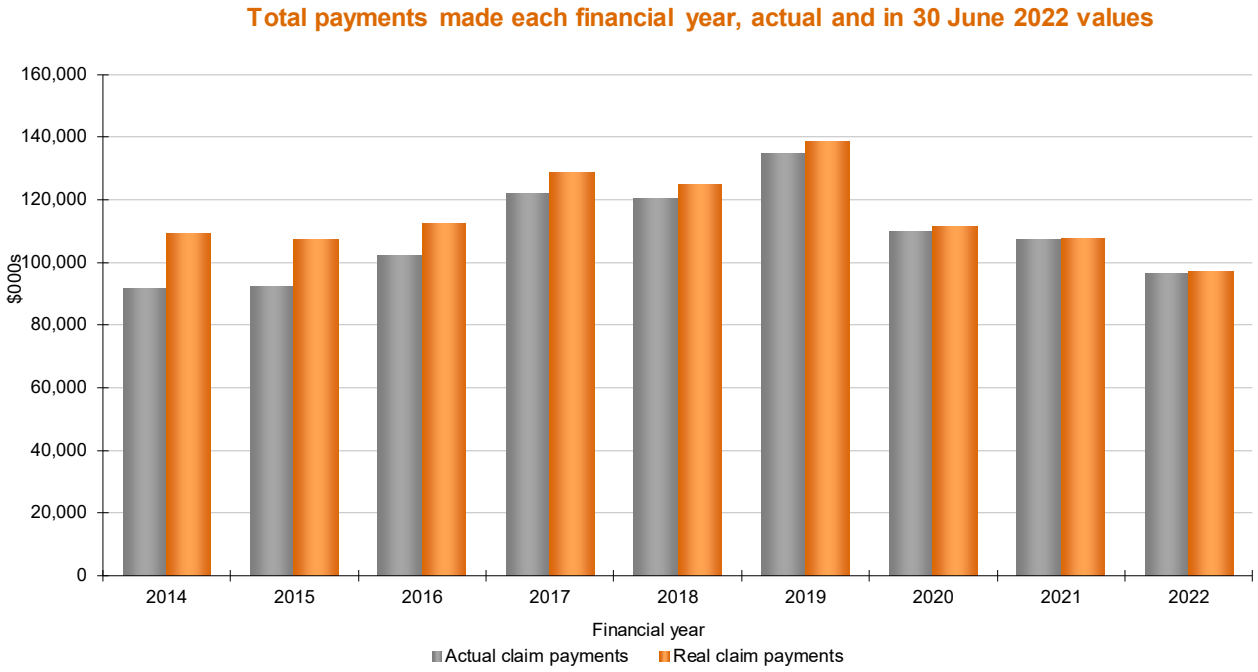
Claim reports have decreased by 0.6% in 2022



In the 2022 financial year there were 1,876 claims reported, which was 11 (0.6%) lower than 2021.

E 1.3 Claim payments

Real payments in 2022 of $97.0 million, $10.7 million lower than 2021



The orange bars of payments have been adjusted for wage inflation to allow for comparison between the financial years.

Claim payments in 30 June 2022 values have varied between $97 million and $138 million over the period shown.

Total actual payments in 2021/22 were $96.5 million, which is $10.7 million (10.0%) lower than actual payments 2020/21. In real values, this was a decrease of $10.9 million (10.1%).

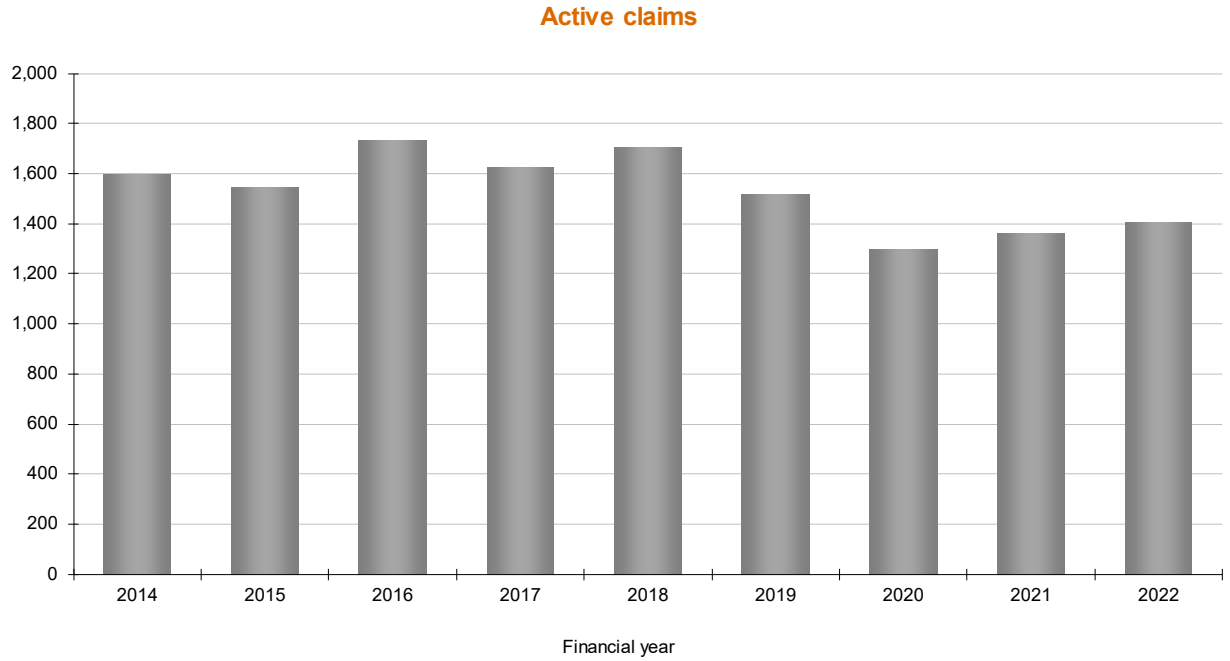
A breakdown of the change in actual payments by payment group is presented in the table below.

Payment group	Payments in 2021/22 ($000s)	Payments in 2020/21 ($000s)	Difference ($)	Difference (%)
Weekly benefits	28,226	30,408	-2,182	-7.2%
Medical and hospital	14,776	14,034	742	5.3%
Allied health, vocational rehabilitation, non-	11,776	13,473	-1,697	-12.6%
Other goods and services	6,030	6,867	-838	-12.2%
Legals	5,005	4,874	131	2.7%
Redemptions and non-economic lump sum	30,720	37,547	-6,827	-18.2%
Total	96,532	107,203	-10,671	-10.0%

All payments groups except Medical and hospital and Legals had a decrease with Redemptions and non-economic lump sum having the largest decrease.

E 1.4 Active claims

Active claim numbers increased by 3.2% from 1,361 in 2021 to 1,405 in 2022

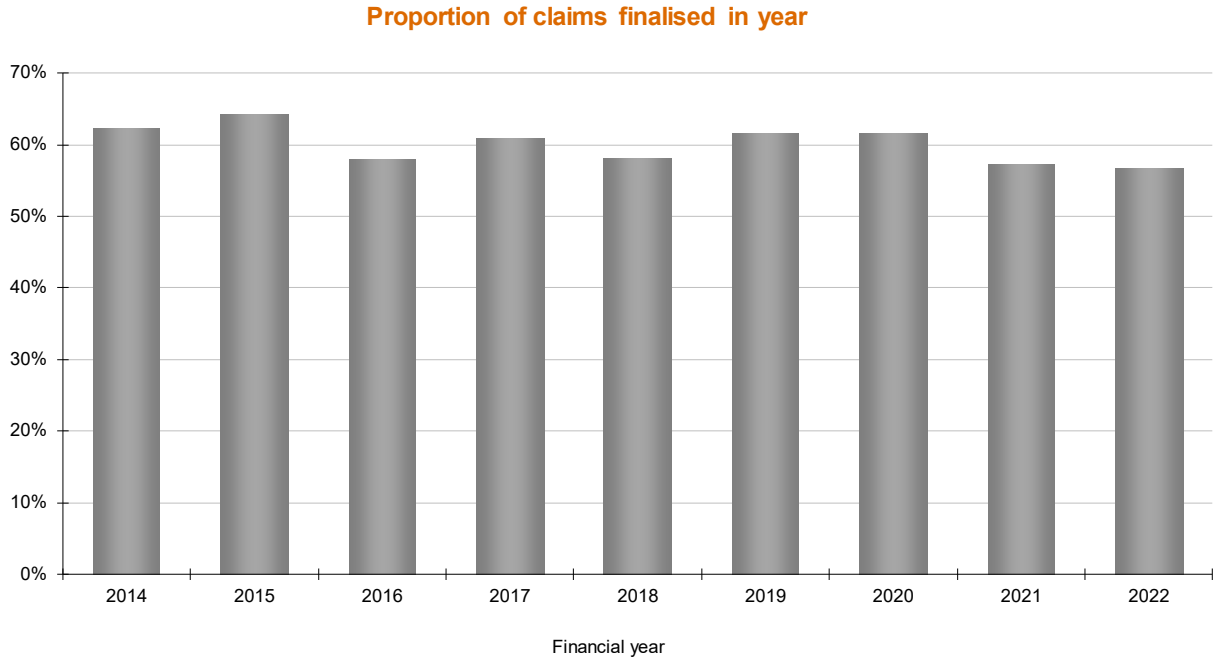


From 2014 to 2018, there was an increasing trend in active claims, despite the reduction in the claims reported. In 2019 and 2020 the number of active claims reduced, though to a smaller extent than the reduction in the number of claims reported. The number of active claims have increased over 2021 and 2022 though there are still fewer active claims than the 2019 and earlier financial years.

There has been an increase from 1,361 to 1,405 claims over the 2022 financial year, a 3.2% increase due a slower finalisation rate in the financial year.

E 1.5 Proportion of claims finalised

2022 finalisation rate was 56.6%, which is lower than 2021 and all prior years



Probabilities of claim finalisation is defined as:

$$\frac{\text{Number of claims finalised in year}}{\text{(Number of outstanding at beginning of the year plus number reported during the year)}}$$

From 2014 to 2018, the finalisation rate has a decreasing trend. In 2019 and 2020, the finalisation rate increased to around 61.6%. For 2022, proportion of claims finalised was at 56.6% which was lower than 2021 and all prior years.

E 1.6 Claims incurred in 2022

There were 1,617 claims reported to 30 June 2022 for the 2022 accident year and the projected number of incurred claims is 1,832. This is 4.5% lower than the 1,918 projected incurred for the 2021 accident year.

The expected number of open claims for the 2022 accident year at 30 June 2022 is 1,617 x (1 – 0.5821) = 676. The actual number of open claims for the 2022 accident year at 30 June 2022 is 797, which is 15.2% higher than expected.

The 30 June 2021 projection basis led to an expected $11,669 x (1.017 x 1.016) = $12,059 to be paid on each of the 2022 accident year claims in the year of claim. The actual amount paid per claim was $12,014 i.e., $44 (0.4%) less in real values.

The average total estimates (paid plus case estimates) per claim reported in real values for the 2022 accident year is $42,005 which is 6.4% higher than 2021.

The 2022 accident year on balance is higher than 2021 with higher average total estimates per claim reported, more open claims, similar payments per claim than expected but fewer claims incurred.

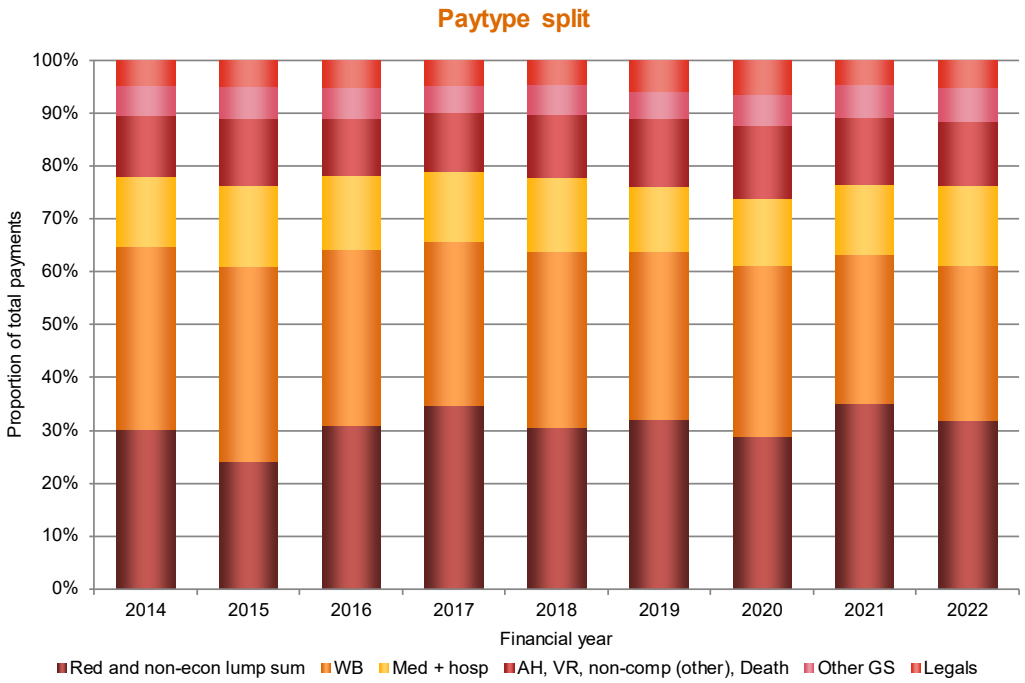
For details of the claims experience over the 2022 financial year for claims incurred up to 30 June 2021 see Appendix C2.

E 2 Analysis by payment group

The purpose of this section is to investigate trends in the composition of incurred costs by benefit type. We use higher level groups to explore the relative movement of periodic and lump sum benefits. We have performed this analysis based on the claim payment data and our outstanding claims valuation results.

E 2.1 Distribution by financial year

The following chart shows how the actual payments made in a financial year are split between the payment groups over the past nine years.



Payment type split	2014	2015	2016	2017	2018	2019	2020	2021	2022
Legals	5%	5%	5%	5%	5%	6%	7%	5%	5%
Other GS	6%	6%	6%	5%	6%	5%	6%	6%	6%
AH, VR, non-comp (other), Death	11%	13%	11%	11%	12%	13%	13%	13%	12%
Med + hosp	13%	16%	14%	13%	14%	12%	13%	13%	15%
WB	35%	37%	33%	31%	33%	32%	32%	28%	29%
Red and non-econ lump sum	30%	24%	31%	35%	31%	32%	29%	35%	32%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

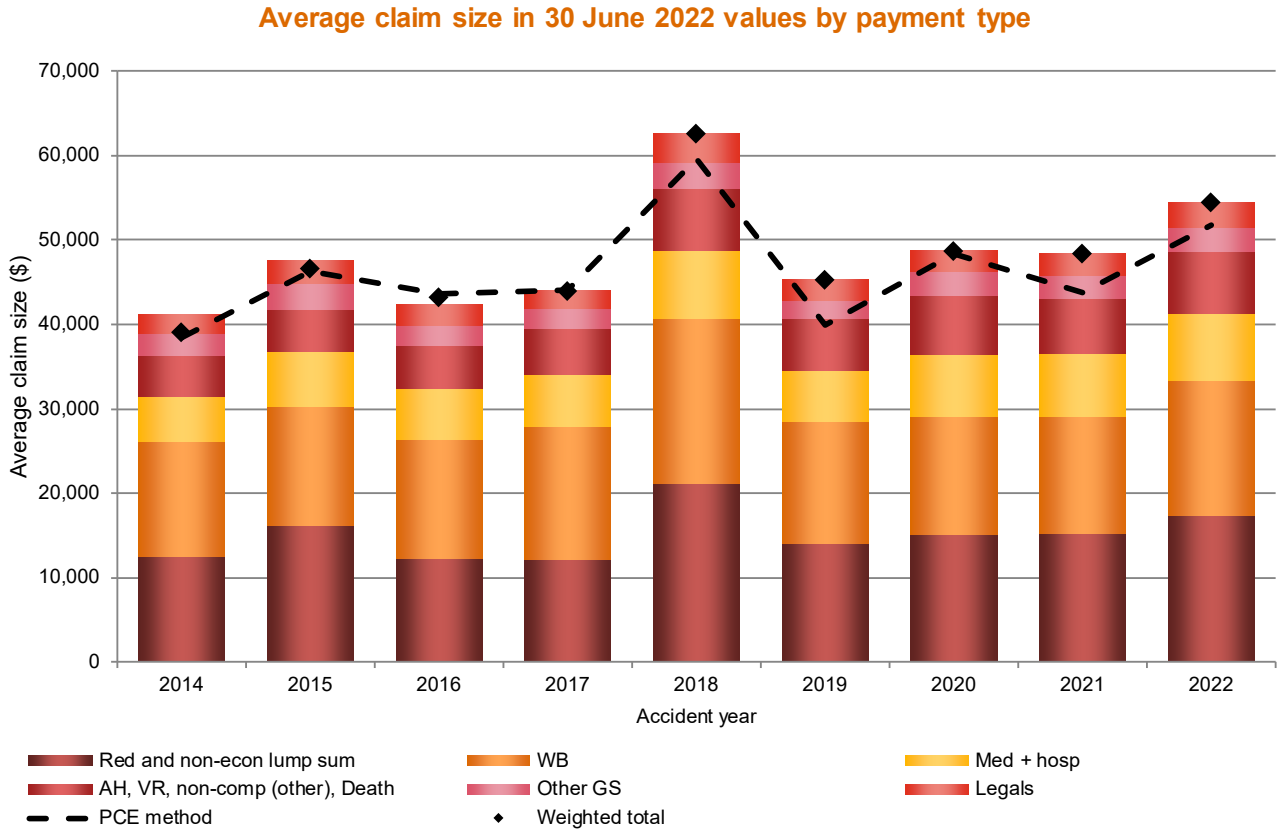
Over the last nine years, the split of payments by type have been variable, but there has been no maintained increase or decrease in any group. The key trends have been:

- Redemptions since 2014 has since ranged from 29% to 35%, except for the low in 2015 of 24%
- Any increases or decreases in redemptions payments have been matched by decreases or increases in weekly benefits payments, such that in total the proportion of total payments which are weekly benefits or redemptions has been relatively stable between 61% and 66%
- The proportion of payments attributable to the other payment types has been stable over the last nine years.

This sort of analysis is important as it gives an indication of the cost drivers for the scheme and how these are changing, whether there is more use of periodic type payments, such as weekly benefits, or more lump sum payments, such as redemptions and non-economic lump sum. The dominance of one payment type over another will influence other cost drivers such as the total aggregate superimposed inflation.

E 2.2 Gross average claim size by payment group

Mix by payment type is relatively stable with weekly benefits and redemptions and non-economic lump sum combined accounting for just under two thirds of the total



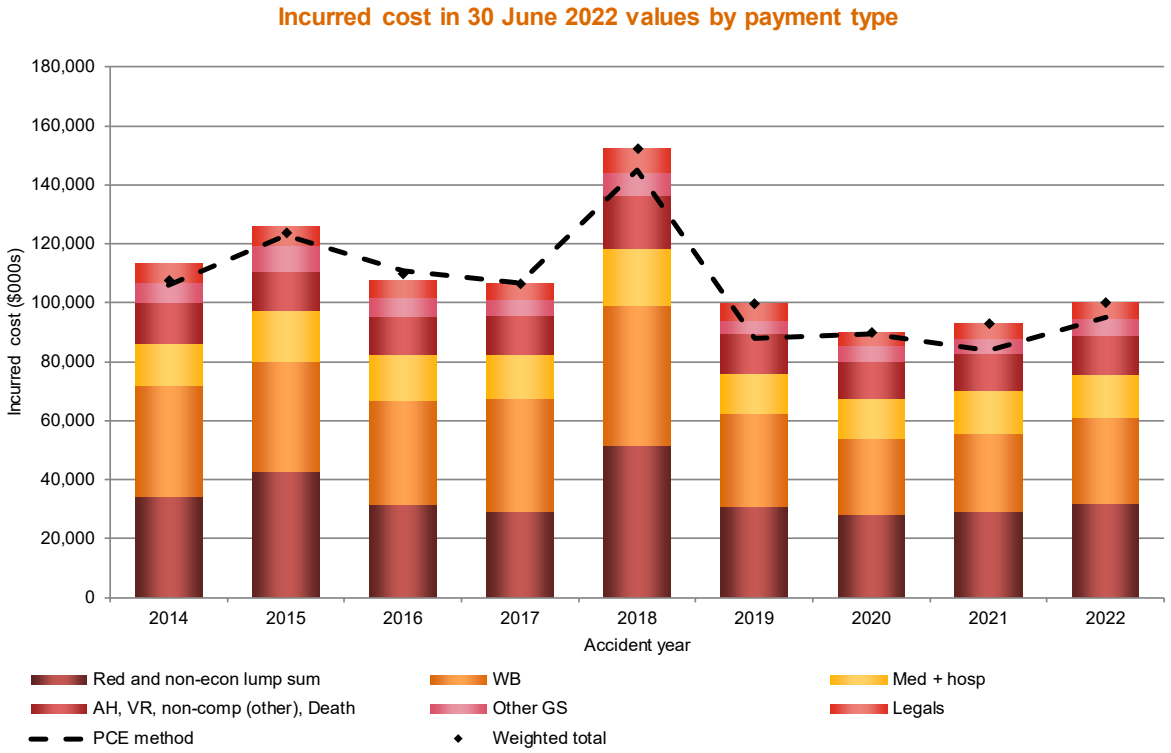
Average claim size (exclude explicit large claims) ($)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Legals	2,261	2,542	2,392	2,045	3,446	2,481	2,516	2,558	3,018
Other GS	2,564	3,172	2,484	2,349	3,004	2,121	2,832	2,669	2,957
AH, VR, non-comp (other), Death	4,941	4,988	4,953	5,503	7,478	6,090	6,952	6,561	7,296
Med + hosp	5,256	6,483	6,181	6,234	8,005	6,126	7,314	7,523	7,944
WB	13,650	14,190	13,986	15,700	19,462	14,391	13,943	13,822	16,000
Red and non-econ lump sum	12,477	16,103	12,314	12,112	21,257	14,067	15,130	15,254	17,341
Total	**41,150**	**47,476**	**42,311**	**43,944**	**62,652**	**45,276**	**48,687**	**48,388**	**54,555**
PCE method	38,479	46,353	43,599	44,080	59,563	39,946	48,379	43,709	51,802
Weighted total	**39,146**	**46,634**	**43,277**	**44,012**	**62,652**	**45,276**	**48,687**	**48,388**	**54,555**

Note: weighted total is based on the weighted given to the sum of individual methods by payment type (Total) and the combine PCE method. For 2016 and prior years, the weights are 25% total of individual payment type methods and 75% PCE method, for 2017, the weights were 50% total of individual payment type methods and 50% PCE method, while for 2018 and onwards, we have adopted 100% total of individual payment type methods.

The mix of payment types across the accident years has remained stable. Redemptions and non-economic lump sums and weekly benefits are the two largest payment types. These two groups combined account for just under two thirds of total payments.

E 2.3 Gross incurred cost by payment group

Relatively stable distribution by payment type across accident years



Incurred cost in current values (exclude explicit large claims) ($000s)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Legals	6,222	6,738	6,080	4,951	8,381	5,466	4,656	4,906	5,527
Other GS	7,055	8,408	6,313	5,687	7,308	4,672	5,240	5,121	5,417
AH, VR, non-comp (other), Death	13,596	13,224	12,590	13,320	18,188	13,418	12,865	12,586	13,364
Med + hosp	14,462	17,187	15,710	15,092	19,471	13,496	13,534	14,430	14,552
WB	37,559	37,620	35,550	38,005	47,337	31,705	25,800	26,514	29,308
Red and non-econ lump sum	34,331	42,692	31,301	29,321	51,701	30,992	27,998	29,261	31,765
Total	**113,225**	**125,869**	**107,545**	**106,376**	**152,385**	**99,749**	**90,092**	**92,819**	**99,933**
PCE method	105,876	122,893	110,821	106,707	144,872	88,005	89,523	83,842	94,890
Weighted total	**107,713**	**123,637**	**110,002**	**106,542**	**152,385**	**99,749**	**90,092**	**92,819**	**99,933**

Payment type split	2014	2015	2016	2017	2018	2019	2020	2021	2022
Legals	5%	5%	5%	5%	5%	6%	7%	5%	5%
Other GS	6%	6%	6%	5%	6%	5%	6%	6%	6%
AH, VR, non-comp (other), Death	11%	13%	11%	11%	12%	13%	13%	13%	12%
Med + hosp	13%	16%	14%	13%	14%	12%	13%	13%	15%
WB	35%	37%	33%	31%	33%	32%	32%	28%	29%
Red and non-econ lump sum	30%	24%	31%	35%	31%	32%	29%	35%	32%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The table above shows that the proportion of the incurred cost attributable to each payment group has been variable between accident years, though with more stability between the accident years than the percentage by financial year in E2.1. Redemptions and non-economic lump sum payment group in particular is more stable as a percentage of the incurred cost.

Appendix F Self-insurer outstanding claims valuation

F 1 Data used in the valuation

F 1.1 Numbers of claims reported

NT WorkSafe self-insurers - Incremental Claims Reported												
Year to 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2013	121	22	2	1	0	0	0	0	0	0	0	**146**
2014	114	26	0	0	0	0	0	0	0	0	0	**140**
2015	114	12	1	0	0	0	0	0	0	0	0	**127**
2016	104	19	0	1	0	0	1	0	0	0	0	**125**
2017	76	17	0	0	0	0	1	0	0	0	0	**94**
2018	84	8	1	0	0	0	0	0	0	0	0	**93**
2019	68	10	1	0	0	0	0	0	0	0	0	**79**
2020	75	6	0	0	0	0	0	0	0	0	0	**81**
2021	60	12	0	0	0	0	0	0	0	0	0	**72**
2022	35	4	1	1	1	0	0	0	0	0	0	**42**

Note: Data extracted from the WIMS system up to 30 June 2022

F 1.2 Cumulative claims reported

NT WorkSafe self-insurers - Cumulative Claims Reported												
Year to 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2013	121	175	205	151	117	115	123	123	117	92	214	**1,553**
2014	114	147	175	205	151	117	115	123	123	117	306	**1,693**
2015	114	126	148	175	205	151	117	115	123	123	423	**1,820**
2016	104	133	126	149	175	205	152	117	115	123	546	**1,945**
2017	76	121	133	126	149	175	206	152	117	115	669	**2,039**
2018	84	84	122	133	126	149	175	206	152	117	784	**2,132**
2019	68	94	85	122	133	126	149	175	206	152	901	**2,211**
2020	75	74	94	85	122	133	126	149	175	206	1,053	**2,292**
2021	60	87	74	94	85	122	133	126	149	175	1,259	**2,364**
2022	35	64	88	75	95	85	122	133	126	149	1,434	**2,406**

Note: Cumulative claim reports from table above

F 1.3 Active claims

NT WorkSafe self-insurers - Active Claims													Total
Year to 30 June	0	1	2	3	4	5	6	7	8	9	10	Total	Finalised
2016	43	15	3	0	1	2	0	0	0	0	0	**64**	**1,881**
2017	33	11	4	3	0	0	2	0	0	0	0	**53**	**1,986**
2018	29	12	10	1	1	0	2	0	0	0	0	**55**	**2,077**
2019	28	12	11	4	0	1	2	0	0	0	0	**58**	**2,153**
2020	28	6	7	4	0	0	0	0	0	1	1	**47**	**2,245**
2021	18	16	3	0	1	0	0	0	0	1	1	**40**	**2,324**
2022	16	9	12	1	1	0	0	0	0	0	1	**40**	**2,366**

Note: From the self-insurers' Form B as at 30 June 2022. Active claim numbers are only available from 30 June 2016

F 1.4 Claim payments

NT WorkSafe self-insurers - Incremental Actual Claim Payments ($000s)													Total
Year to 30 June	0	1	2	3	4	5	6	7	8	9	10	Total	Cumulative
2013	379	1,145	184	72	8	170	0	16	0	0	195	**2,169**	**14,120**
2014	334	1,029	565	99	0	61	24	0	2	0	0	**2,115**	**16,235**
2015	425	430	622	574	86	0	5	189	0	12	0	**2,343**	**18,578**
2016	706	464	178	728	233	3	2	5	0	0	0	**2,320**	**20,898**
2017	555	544	474	77	0	0	4	3	4	0	0	**1,662**	**22,559**
2018	573	724	323	300	178	0	0	2	11	6	0	**2,117**	**24,676**
2019	637	914	582	210	1	3	1	0	10	5	2	**2,365**	**27,042**
2020	501	807	464	1,054	75	0	0	0	0	6	13	**2,921**	**29,962**
2021	647	950	187	463	137	0	0	0	0	2	53	**2,439**	**32,402**
2022	303	775	942	247	22	142	1	0	0	0	111	**2,545**	**34,946**

Note: Data extracted from the WIMS system up to 30 June 2022

F 1.5 Case estimates

NT WorkSafe self-insurers - Case Estimates Outstanding ($000s)												
Year to 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2013	333	406	373	4	40	199	14	0	0	0	0	**1,369**
2014	349	525	461	45	4	20	192	0	0	0	0	**1,596**
2015	340	216	482	239	50	4	58	0	0	0	0	**1,389**
2016	565	274	79	3	15	40	33	0	0	0	0	**1,009**
2017	540	319	143	85	6	0	14	0	0	0	0	**1,108**
2018	999	694	293	22	40	0	21	0	0	0	0	**2,070**
2019	512	766	636	139	9	5	47	0	0	0	0	**2,114**
2020	686	258	619	278	14	0	0	0	0	0	51	137	**2,043**
2021	1,160	1,769	115	0	101	0	0	0	0	0	40	79	**3,264**
2022	303	343	681	100	40	0	0	0	0	0	0	194	**1,661**

Note: From the self-insurers' Form B as at 30 June 2022 and prior years. Case estimates are only available from 30 June 2013.

F 2 Actual and projected claims experience during 2021/22

F 2.1 Numbers of claims reported

Accident year ended 30 June	Number of claims reported during 2021/22 Actual	Projected (a)	Actual / projected %
2014	0	0	0.0%
2015	0	0	0.0%
2016	0	0	0.0%
2017	0	0	0.0%
2018	1	0	0.0%
2019	1	0	0.0%
2020	1	0	2108.3%
2021	4	6	66.7%
Total	**7.0**	**6.0**	**115.8%**

Note: (a) From previous scheme report dated 9 May 2022

F 2.2 Claim payments

Accident year ended 30 June	Actual payments ($000s)	Expected Payments ($000s) (a)	Actual / expected %
2014	0	0	0.0%
2015	0	1	1.3%
2016	1	1	113.4%
2017	142	38	370.9%
2018	22	25	88.8%
2019	247	185	134.0%
2020	942	1,115	84.5%
2021	775	978	79.2%
Total	**2,130**	**2,344**	**90.9%**

Note: (a) From previous scheme report dated 9 May 2022

F 2.3 Case estimate development

Accident year ended 30 June	Expected Dev'ment Over Year (a)	Actual Dev'ment Over Year	Expected Ultimate Dev'ment (b)
2014	1.075	0.000	0.000
2015	1.100	0.000	0.000
2016	1.220	0.000	0.000
2017	1.169	1.398	1.314
2018	1.195	0.000	0.000
2019	1.481	3.002	2.086
2020	1.649	0.912	1.451
2021	2.316	0.959	2.121
Total	**1.842**	**1.097**	**1.704**

Notes: (a) according to PCE model in Appendix F3.2 of our previous scheme report dated 9 May 2022

(b) according to estimates adopted in Appendix F4 of our previous scheme report dated 9 May 2022.

F 3 Analysis and projection models

F 3.1 Payment per claim incurred model

Claim notification pattern

Financial year ending 30 June	Chain ladder ratio (a) for development year: 1	2	3	4	5	6	7	8	9	10 onwards
2014	1.21	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2015	1.11	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2016	1.17	1.00	1.01	1.00	1.00	1.01	1.00	1.00	1.00	1.00
2017	1.16	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2018	1.11	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019	1.12	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2020	1.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2021	1.16	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2022	1.07	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00
Adopted (b)	**1.09**	**1.01**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**

Notes: (a) Using cumulative claim report numbers from data

(b) Adopted for 30 June 2022 valuation

Numbers of claims incurred

Accident year ending 30 June	Number of claims: Reported to 30 Jun 2022 (a)	IBNR at 30 Jun 2022 (b)	Incurred (c)
2014	126	0	126
2015	133	0	133
2016	122	0	122
2017	85	0	85
2018	95	0	95
2019	75	0	75
2020	88	0	88
2021	64	1	65
2022	35	4	39

Notes: (a) from number reported in appendix F1.1

(b) from pattern in chain ladder ratio table above

(c) = (a) + (b)

Average real payment per claim incurred

Financial year ending 30 June	Average Real Payment Per Claim Incurred (a) for development year: 0	1	2	3	4	5	6	7	8	9	10 onwards	Total
2014	3,156	8,222	3,843	575	0	624	249	0	22	0	0	**16,691**
2015	3,717	3,966	4,856	3,813	483	0	52	1,907	0	117	0	**18,911**
2016	6,374	3,837	1,557	5,381	1,468	17	14	44	0	0	0	**18,692**
2017	6,890	4,708	3,764	643	0	0	21	18	38	0	0	**16,082**
2018	6,244	8,828	2,745	2,333	1,461	0	0	12	75	51	0	**21,748**
2019	8,724	9,887	7,045	1,773	4	27	5	0	52	35	14	**27,566**
2020	5,740	10,863	4,941	12,542	620	0	0	0	0	29	108	**34,844**
2021	10,033	10,817	2,509	4,900	1,628	0	0	4	0	10	279	**30,180**
2022	7,849	12,007	10,719	3,310	231	1,682	11	0	0	1	703	**36,512**
Adopted (b)	**7,928**	**11,170**	**6,209**	**6,978**	**781**	**421**	**117**	**61**	**40**	**31**	**0**	**33,735**

Notes: (a) In 30 June 2022 values

(b) Adopted for 30 June 2022 valuation

F 3.2 Projected case estimates model

Case estimate development

Financial year ending 30 June	Case Estimate Development (a) for development year: 1	2	3	4	5	6	7	8	9	10 onwards
2014	4.721	2.559	0.391	1.016	2.054	1.102	0.000	0.000	0.000	0.000
2015	1.772	2.009	1.692	2.884	0.936	2.968	0.952	0.000	0.000	0.000
2016	2.109	1.160	1.486	1.018	0.830	8.381	0.079	0.000	0.000	0.000
2017	1.494	2.205	2.003	1.954	0.000	0.443	0.075	0.000	0.000	0.000
2018	2.575	1.893	2.211	2.516	0.000	0.000	0.168	0.000	0.000	0.000
2019	1.669	1.739	1.183	0.427	0.205	0.000	0.000	0.000	0.000	0.000
2020	2.074	1.406	2.089	0.639	0.000	0.000	0.000	0.000	0.000	0.000
2021	3.976	1.175	0.749	0.861	0.000	0.000	0.000	0.000	0.000	0.836
2022	0.959	0.912	3.002	0.000	1.398	0.000	0.000	0.000	0.000	5.789
Adopted (b)	**2.421**	**1.649**	**1.553**	**1.132**	**1.182**	**1.241**	**1.100**	**1.075**	**1.050**	**1.025**

Notes: (a) defined as: (CE at end of year + payments in the year) / CE at beginning of year adjusted for normal inflation

(b) In 30 June 2022 values, adopted for 30 June 2022 valuation

Payment factors for case estimates outstanding

Financial year ending 30 June	Payments to case estimates (a) for development year: 1	2	3	4	5	6	7	8	9	10 onwards
2014	3.118	1.404	0.269	0.000	1.546	0.122	0.000	0.000	0.000	0.000
2015	1.193	1.149	1.207	1.843	0.000	0.252	0.952	0.000	0.000	0.000
2016	1.336	0.808	1.480	0.957	0.062	0.461	0.079	0.000	0.000	0.000
2017	0.942	1.695	0.952	0.000	0.000	0.101	0.075	0.000	0.000	0.000
2018	1.319	0.995	2.061	2.056	0.000	0.000	0.168	0.000	0.000	0.000
2019	0.914	0.838	0.716	0.024	0.082	0.000	0.000	0.000	0.000	0.000
2020	1.574	0.605	1.655	0.537	0.000	0.000	0.000	0.000	0.000	0.000
2021	1.387	0.727	0.749	0.495	0.000	0.000	0.000	0.000	0.000	0.836
2022	0.666	0.531	2.142	0.000	1.398	0.000	0.000	0.000	0.000	0.975
Adopted (b)	**1.067**	**0.569**	**1.257**	**0.790**	**0.467**	**0.561**	**0.458**	**0.333**	**0.313**	**0.190**

Notes: (a) defined as: Payments made in the year / case estimates at beginning of the year

(b) In 30 June 2022 values, adopted for 30 June 2022 valuation

F 4 Adopted estimates of outstanding claims

F 4.1 Gross central estimates from models in current values

Accident year ending 30 June	Estimates of Outstanding Claims ($000s) at 30 June 2022 (a)(b) PPCI	PCE	Case estimates
2014 & earlier	4	200	194
2015	10	0	0
2016	16	0	0
2017	21	0	0
2018	64	57	40
2019	110	128	100
2020	751	1,116	681
2021	962	802	343
2022	1,016	1,281	303
Total	**2,954**	**3,584**	**1,661**

Notes: (a) From models described in appendix F3

(b) In 30 June 2022 values and includes superimposed inflation and excluding 2015 legislative changes

F 4.2 Average claim size

Accident year ending 30 June	Average Claim Size ($000s) at 30 June 2022 (a)(b) PPCI	PCE
2014	11	11
2015	14	14
2016	16	16
2017	39	39
2018	27	27
2019	27	27
2020	36	40
2021	37	34
2022	34	41

Note: (a) In 30 June 2022 values, from results in appendix F4.1, includes superimposed inflation and excluding 2015 legislative changes

F 4.3 Adopted estimates in 30 June 2022 values

Accident year ending 30 June	Estimate of o/s claims ($000s)(a)(b)	Estimate of o/s claims ($000s)(b)(c)	Average claim size ($000s)(b)(c)	Ratio to case estimates (b)(c)
2014 & earlier	201	201		0%
2015	1	1	14	0%
2016	2	2	16	0%
2017	2	2	39	0%
2018	60	60	27	152%
2019	121	121	27	121%
2020	1,024	1,024	39	150%
2021	898	898	36	262%
2022	1,122	1,122	37	371%
Total	**3,430**	**3,430**		**207%**

Notes: (a) in 30 June 2022 values, including superimposed inflation and excluding 2015 legislative changes

(b) in 30 June 2022 values, including superimposed inflation and including 2015 legislative changes

(c) The adopted model is a composite weighted average of the statistical models. The weights attached to the models reflect the extent to which they are considered to appropriately project the experience of each accident year. We have used the PPCI method, except where the result is less than the case estimates.

Accident year ending 30 June	Weights Adopted For Estimates (a)(b) Method PPCI	PCE	Total
2014 & earlier	0.10	0.90	1.00
2015	0.10	0.90	1.00
2016	0.10	0.90	1.00
2017	0.10	0.90	1.00
2018	0.40	0.60	1.00
2019	0.40	0.60	1.00
2020	0.25	0.75	1.00
2021	0.60	0.40	1.00
2022	0.60	0.40	1.00

F 4.4 Gross adopted estimates including expenses

NT WorkSafe self-insurers Estimates ($000s) at 30 June 2022 Accident year ending 30 June	30 June 2022 values (a)	Inflated values (b)	Inflated & discntd values (b)	Case estimates (c)	Ratio % (d)
2014 & earlier	201	232	207	194	103%
2015	1	1	1	0	-
2016	2	2	2	0	-
2017	2	2	2	0	-
2018	60	67	63	40	152%
2019	121	133	127	100	121%
2020	1,024	1,108	1,078	681	150%
2021	898	980	942	343	262%
2022	1,122	1,236	1,172	303	371%
Total	**3,430**	**3,761**	**3,593**	**1,661**	**207%**

Note: (a) In 30 June 2022 values, includes superimposed inflation

(b) includes 6% claims handling expenses, inflation and discounting assumptions in Appendix B 1

(c) as at 30 June 2022 as provided by the self-insurers

(d) = (a) / (c)

F 4.5 Net outstanding claims provision

Estimates at 30 June 2022 ($000s) Accident year ending 30 Jun	Gross o/s liability (a)	Reinsurance recoveries (b)	Net o/s liability (c)	Claims handling expenses (d)	Net central estimate (e)	Risk margin (f)	Net Provision (g)
Total	3,390	0	3,390	203	3,593	898	4,492

Notes: (a) from table above

(b) (a) x 0%

(c) = (a) – (b)

(d) = (c) x 6%

(e) = (c) + (d)

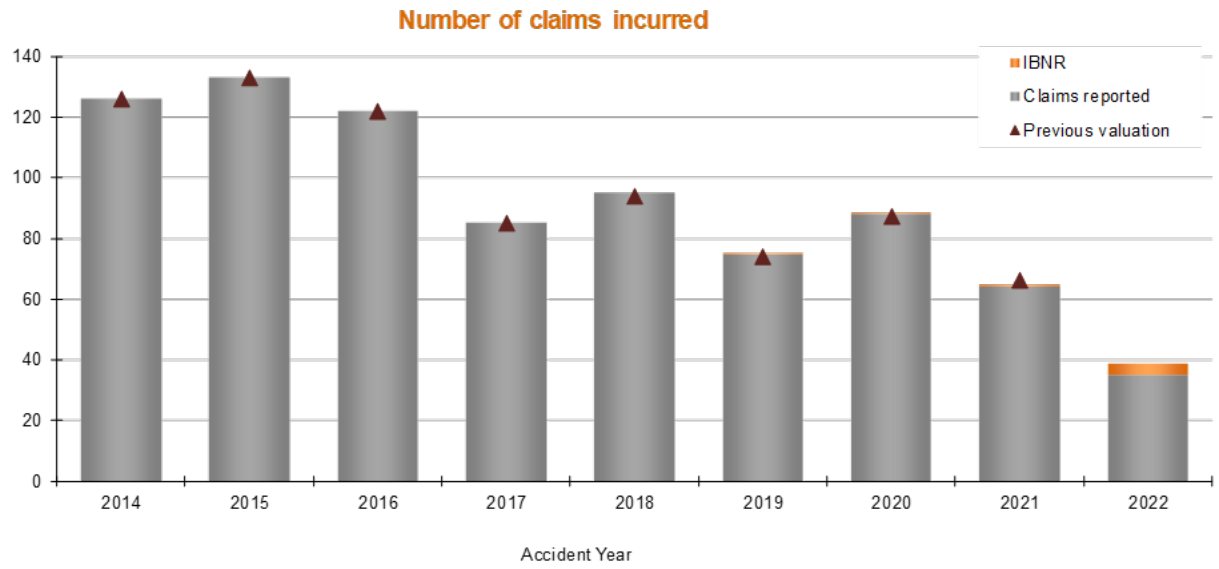
(f) = (e) x 25.0%

(g) = (e) + (f)

Appendix G Self-insurer claims statistics

G 1 Number of claims incurred

General decreasing trend from 2014 to 2022 at 39 claims

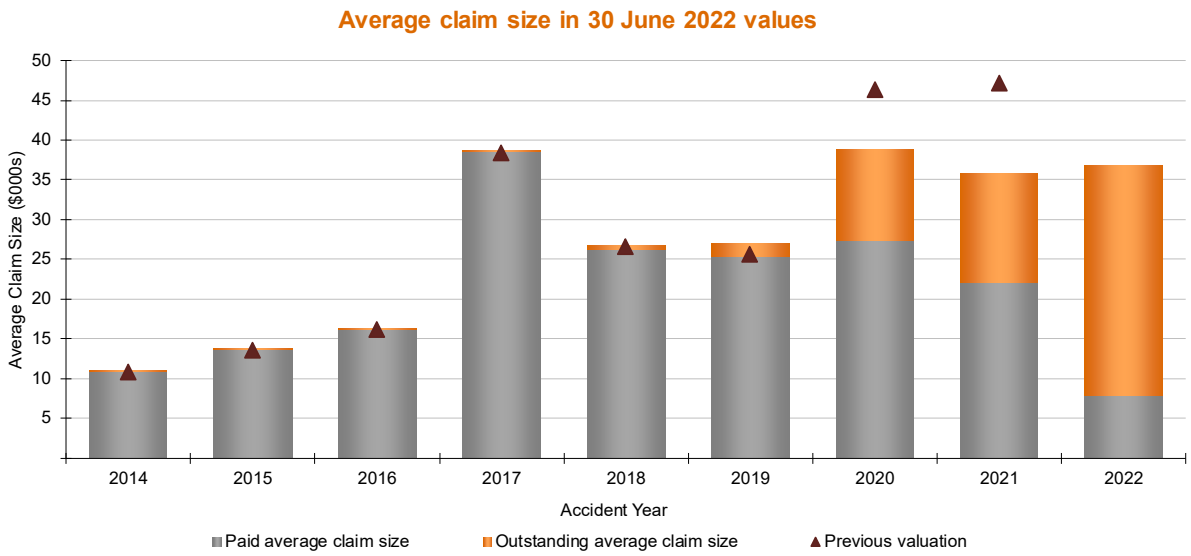


The main points to highlight from this chart are:

- Since the 126 claims in 2014, the number of claims has increased to a level of 133 claims in 2015.
- The number of claims was fairly stable over 2014 to 2016 at around 120 to 135 claims
- For 2017, the total estimated claims were 85, which is significantly lower than all prior years shown
- From 2017 to 2021 the number of claims incurred has varied between 65 and 95
- For 2022, number of claims incurred decreased to 39, of which 4 are IBNR claims. The significant decrease compared to 2021 and all prior accident years is partly due to Catholic Church becoming an insurer from 1 December 2020, so 2021 has five months of Catholic Church claims while 2022 has none.
- The numbers of claims are similar to estimates at the previous valuation

G 2 Gross average claim size

2022 average claim size is estimated to* be $36,775*, which is similar to 2021



The average claim size has been volatile between accident years and there has been no discernible trend. From 2014 to 2016, the average claim size has ranged been between $10,500 and $16,300.

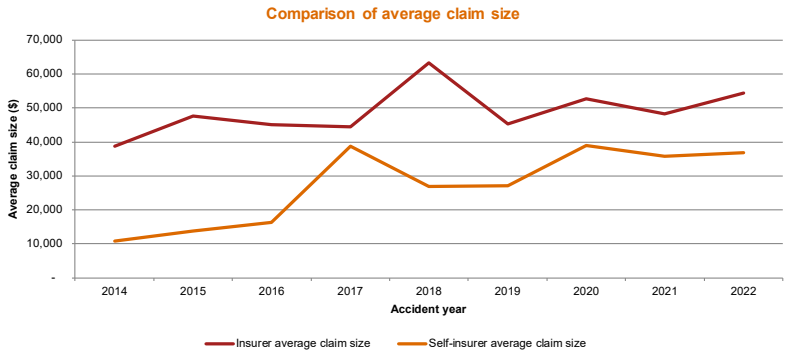
Our estimated average claim size for the 2017 accident year is higher than its surrounding years due to multiple large claims.

Our estimated average claim size for the 2020 to 2022 accident years are significantly higher at between $35,800 to $38,900.

The uncertainty about the future development means that the ultimate level and our estimates may differ from that projected for recent accident years. This is especially true for the 2021 and 2022 accident years, where a high proportion (39% and 79% respectively) of the average claim size consists of the uncertain future estimate.

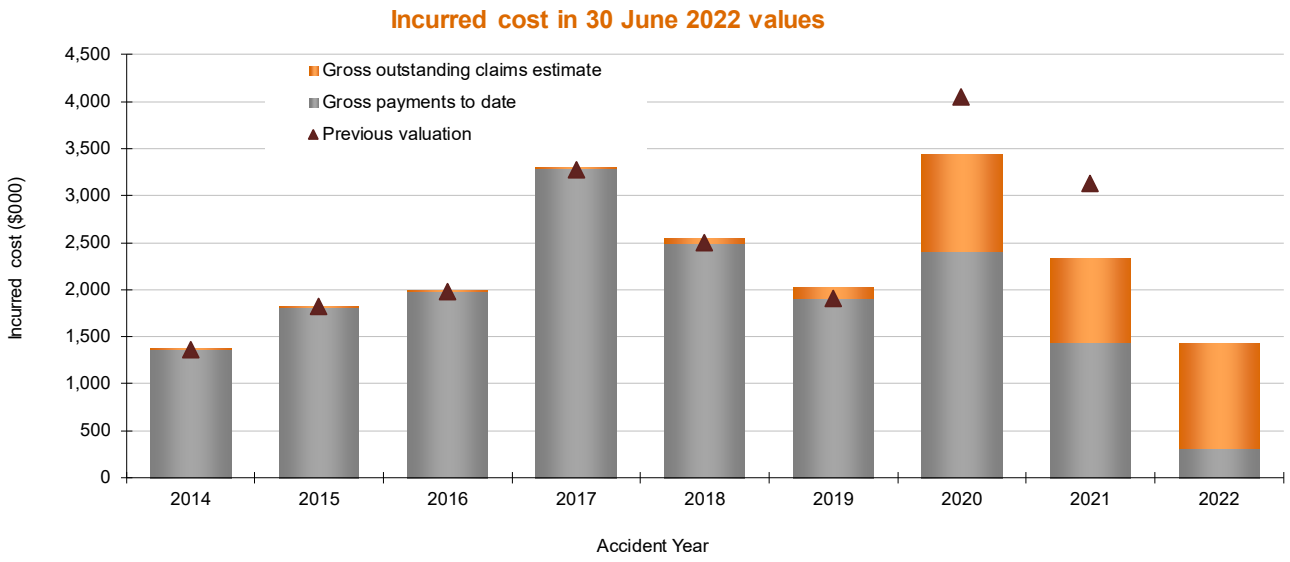
Compared to the previous valuation, the average claim size for 2013 to 2018 are similar, 2019 is higher but 2020 and 2021 are significantly lower than previously estimated. This is because of favourable experience for 2020 and 2021.

The chart below compares the average claim size of self-insurers to insurers. The average claims size for self-insurers is consistently lower than insurers but was closer in 2020 and 2021 and seems to be diverging again in 2022.



G 3 Incurred cost

2022 incurred cost is $1.4 million, which is lower than all other years, except 2014 due to Catholic Church not being included for the full year



The incurred cost is the combination of the trends of the decreasing number of claims incurred and increasing average claim size.

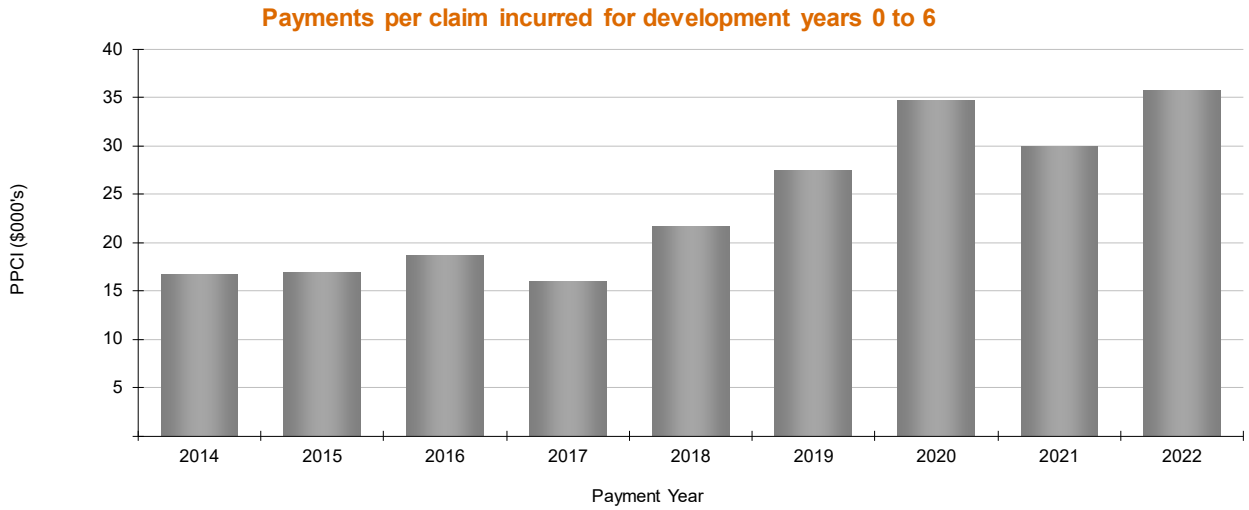
The incurred cost for 2022 is $1.4 million, which is $0.9 million (39%) lower than the 2021 accident year incurred cost of $3.1 million and lower than all other years, except 2014 due to Catholic Church not being included for the full year.

Compared to our previous valuation, there has been a significant decrease in the incurred costs for the 2020 and 2021 accident years due to lower than expected claim development.

Over the period shown in the graph, the proportion outstanding increases from 0% of the total incurred cost for 2017 to 79% of the total incurred cost for 2022.

G 4 Payment per claim incurred

2014 to 2022 exhibits a broadly increasing trend



Payments per claim incurred for development years 0 to 6 exhibits an increasing trend, from $16,669 in the 2014 financial year to $34,707 in the 2020 financial year. The high in 2020 was due to very high payments for the 2017 accident year (DY3). 2021 was lower than 2020 but higher than 2019 and prior years.

The 2022 payment per claim incurred for development years 0 to 6 is $5,921 (20%) higher than the 2021 financial year.

Appendix H Insurer break-even premium rate

H 1 Calculation of discounted gross incurred cost

The following tables present the data and assumptions we have used to calculate the discounted gross incurred cost, which when combined with the actual expenses give a break-even premium to compare to the actual premium rates charged.

H 1.1 Actual claim payments

Accident	Claim payments ($000s) (a) for development year:											
Year	0	1	2	3	4	5	6	7	8	9	10	Total
2010	14,487	18,975	12,673	7,690	6,810	4,145	2,900	2,782	2,207	1,413	2,292	76,376
2011	15,299	19,094	11,492	10,452	3,877	4,979	5,829	1,126	1,360	815	1,536	75,860
2012	16,950	22,397	9,748	9,393	5,211	5,054	2,473	2,160	1,337	1,383	501	76,607
2013	18,472	24,288	15,522	14,449	7,258	3,474	5,713	2,942	1,707	642	0	94,467
2014	19,209	25,133	15,471	12,743	8,432	5,423	2,868	1,067	409	0	0	90,755
2015	19,188	24,668	20,541	15,753	9,571	4,537	7,436	3,460	0	0	0	105,154
2016	21,196	30,605	19,268	11,979	5,934	3,665	1,987	0	0	0	0	94,634
2017	23,602	31,724	20,569	12,836	5,265	2,789	0	0	0	0	0	96,785
2018	26,881	43,842	24,068	16,214	13,834	0	0	0	0	0	0	124,838
2019	24,960	26,209	15,749	9,422	0	0	0	0	0	0	0	76,340
2020	22,628	25,837	12,682	0	0	0	0	0	0	0	0	61,147
2021	21,061	24,306	0	0	0	0	0	0	0	0	0	45,367
2022	21,901	0	0	0	0	0	0	0	0	0	0	21,901

Notes: (a) from data extracted from the WIMS system as at 30 June 2022

Note that the data in the table presented above is in a different form to the claim payments data in Appendix C1. Each row in the table shows the payments relating to that specific accident year, i.e., development year 1 for 2012 shows the actual payments made in 2013 financial year in relation to incidents, which occurred in 2012. In the previously presented table, this same cell represented payments made in 2012 financial year for incidents, which occurred in 2011. It also comes from Form 4 which has slight differences to the WIMS data.

H 1.2 Historic one year forward rates

	One year forward rate for the year to 30 June											
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Forward rate	2.38%	0.03%	0.22%	0.97%	1.89%	1.63%	1.96%	2.47%	2.54%	2.79%	4.76%	4.48%	3.44%

These rates are the one year forward rate, projected from one year prior, e.g. the rate to 30 June 2022 is the one year forward rate from the Commonwealth Bond yield curve as at 30 June 2021.

H 1.3 Discounted claim payments

Accident Year	Claim payments ($000s) (a) for development year: 0	1	2	3	4	5	6	7	8	9	10	Total
2010	14,244	17,947	11,515	6,776	5,826	3,445	2,346	2,196	1,697	1,063	1,663	68,717
2011	14,968	17,856	10,370	9,112	3,267	4,065	4,619	864	1,017	595	1,086	67,820
2012	16,561	21,087	8,855	8,235	4,421	4,156	1,968	1,671	1,010	1,020	357	69,341
2013	18,219	23,333	14,530	13,211	6,492	3,036	4,901	2,487	1,423	522	0	88,155
2014	18,970	24,214	14,577	11,761	7,614	4,812	2,511	922	345	0	0	85,724
2015	18,955	23,841	19,453	14,600	8,720	4,079	6,604	3,000	0	0	0	99,252
2016	20,991	29,774	18,390	11,268	5,522	3,377	1,792	0	0	0	0	91,112
2017	23,411	30,923	19,792	12,238	4,978	2,585	0	0	0	0	0	93,929
2018	26,630	42,820	23,262	15,522	12,968	0	0	0	0	0	0	121,202
2019	24,839	25,928	15,502	9,122	0	0	0	0	0	0	0	75,391
2020	22,603	25,776	12,490	0	0	0	0	0	0	0	0	60,870
2021	21,057	24,015	0	0	0	0	0	0	0	0	0	45,072
2022	21,645	0	0	0	0	0	0	0	0	0	0	21,645

Notes: (a) payments from H1.1 above, discounted using the rates in H1.2

H 1.4 Discounted gross incurred cost

Underwriting year	Discounted gross claim payments (a) ($000s)	Discounted gross outstanding claims (b) ($000s)	Discounted gross incurred cost (c) ($000s)
2022	21,645	74,222	95,867
2021	45,072	44,826	89,898
2020	60,870	34,342	95,211
2019	75,391	20,686	96,077
2018	121,202	24,042	145,244
2017	93,929	7,191	101,120
2016	91,112	13,772	104,884
2015	99,252	11,943	111,195
2014	85,724	4,928	90,653

Notes: (a) from H1.3 above

(b) outstanding claims inflated/discounted from Appendix C4, discounted to the start of the underwriting year using rates in Appendix H1.2 above

(c) = (a) + (b)

H 2 Estimated historic break-even premium rate

	Calculated break even premium							Actual premium			
Accident year	Reported earned wages (a) ($000s)	Developed earned wages (b) ($000s)	Discounted gross incurred cost (c) ($000s)	Commission in financial year (d) ($000s)	Discounted other expenses in the fin year (e) ($000s)	Premium (f) ($000s)	Estimated premium rate (g)	Reported earned premium (h) ($000s)	Developed earned premium (i) ($000s)	Actual premium rate charged (j)	Difference (break even - actual)
2022	6,552,441	6,740,538	95,867	4,927	17,495	118,985	1.8%	148,886	149,914	2.2%	30,929
2021	6,184,957	6,213,402	89,898	4,727	27,323	121,958	2.0%	131,134	130,158	2.1%	8,200
2020	6,074,603	6,061,064	95,211	4,501	23,377	123,157	2.0%	128,439	127,195	2.1%	4,038
2019	6,700,788	6,700,788	96,077	4,701	20,885	121,958	1.8%	135,476	134,277	2.0%	12,319
2018	7,254,718	7,254,718	145,244	5,534	22,548	174,140	2.4%	135,674	135,674	1.9%	-38,465
2017	7,261,995	7,261,995	101,120	4,489	20,653	126,774	1.7%	130,733	130,733	1.8%	3,959
2016	6,833,594	6,833,594	104,884	4,163	20,086	129,762	1.9%	129,530	129,530	1.9%	-231
2015	6,582,845	6,582,845	111,195	4,558	20,288	136,874	2.1%	136,816	136,816	2.1%	-58
2014	5,929,595	5,929,595	90,653	4,775	17,098	113,233	1.9%	138,578	138,578	2.3%	25,345

Notes: (a) earned wages provided by insurers

(b) (a) x development factors in Appendix B7

(c) calculated in Appendix H1

(d) actual commission, from the consolidated Form A returns

(e) other expenses, from the consolidated Form A returns, discounted by half a year

(f) = (c) + (d) + (e) x (1+ one year historical interest rate) ^ (3/12) to allow for the fact that premiums are received 3 months after the commencement of the underwriting period

(g) = (f) / (b)

(h) earned premium, including earned but not yet reported premium provided by insurers

(i) (h) x development factors in Appendix B7

(j) = (i) / (b)

H 3 Calculation of break-even premium rate for 2022/23

H 3.1 Discounted incurred cost for 2022/23

We selected the number of incurred claims and average claim size for 2022/23 based on the recent experience and allowing for future inflation and superimposed inflation. The following table shows the number of incurred claims, claim frequency and average claim size over the last five years and our adopted values.

	Accident year 2022	2021	2020	2019	2018	Adopted
Number of claims incurred (a)	1,832	1,918	1,850	2,203	2,432	1,977
Claim frequency per $88,938 of wages (b)	2.4%	2.7%	2.7%	2.8%	2.9%	2.6%
Average claim size (in 30 June 2022 values) (c)	54,555	48,388	52,748	45,276	63,259	51,401

Notes: (a) The adopted number of claims incurred is based on the adopted claim frequency in (b) times the projected wages.

(b) The adopted claim frequency is a two year average

(c) The adopted average claim size is also a two year average, which includes the 2015 legislative amendments

Allowing for inflation of 1.6%, superimposed inflation of 1.0% and an inflation/discount factor to allow for the timing of payments of 0.9593 the discounted incurred cost for 2022/23 can be calculated as:

1,977 x [51,401 x (1 + 1.6%) x (1 + 1.0%) x 0.9593] = $100.0 million.

We have not made any specific allowance for the 2020 legislative amendments. Some of these changes are a reversal of the 2015 legislative amendments which weren't costed at the time as they were considered immaterial. The more material changes will mainly affect the government self-insurance claims which are out of scope for the report.

H 3.2 Expense loadings

To calculate the break-even premium rate the discounted incurred cost must be loaded for expenses. To calculate an appropriate allowance for expenses in the premium rate we have analysed the commission rate and the other expenses (including claims handling) separately over a five year period.

This analysis is shown in the following table.

($000s)	Underwriting year					
	2022	2021	2020	2019	2018	Adopted
Gross written premiums (a)	146,845	145,986	125,789	142,690	135,842	
Earned premiums (a)	146,226	131,769	122,529	144,321	146,280	
Commission (a)	4,927	4,727	4,501	4,701	5,534	
Other expenses (a)	17,701	27,327	23,402	20,986	22,760	
Commission rate (b)	3.4%	3.6%	3.7%	3.3%	3.8%	3.5%
Expense rate (c)	12.1%	18.7%	18.6%	14.7%	16.8%	15.4%

Notes: (a), (b), (c), (d) from the consolidated Form A returns

(e) commission / earned premium, the adopted value uses a two year average

(f) other expenses / gross written premium, the adopted value uses a two year average

H 3.3 Projected break-even premium for 2022/23

Using the analysis above, the projected break-even premium rate for 2022/23 is:

Underwriting year	Actual wages (a) ($000s)	Discounted gross incurred cost (b) ($000s)	Expenses (c) ($000s)	Premium (d) ($000s)	Calculated premium rate (e)
2023	6,848,386	100,034	23,236	123,995	1.8%

Notes: (a) 2023 developed earned wages, inflated for one year's wage inflation at 1.6%

(b) from H3.1 above

(c) = (b) / (1 – commission rate (3.5%) – other expense rate (15.4%)) – (b)

(d) = (b) / (1 – commission rate (3.5%) – other expense rate (15.4%)) x (1 + interest rate (2.4%)) ^ (3/12) to allow for the fact that premiums are received 3 months after the commencement of the underwriting period

(e) = (d) / (a)

This break-even premium rate allows for the same timing aspects as the historic calculations of the break-even rate.

We considered the economic indicators in the 2022/23 Northern Territory budget report, in adopting the assumptions for the 2023 break-even premium rate.

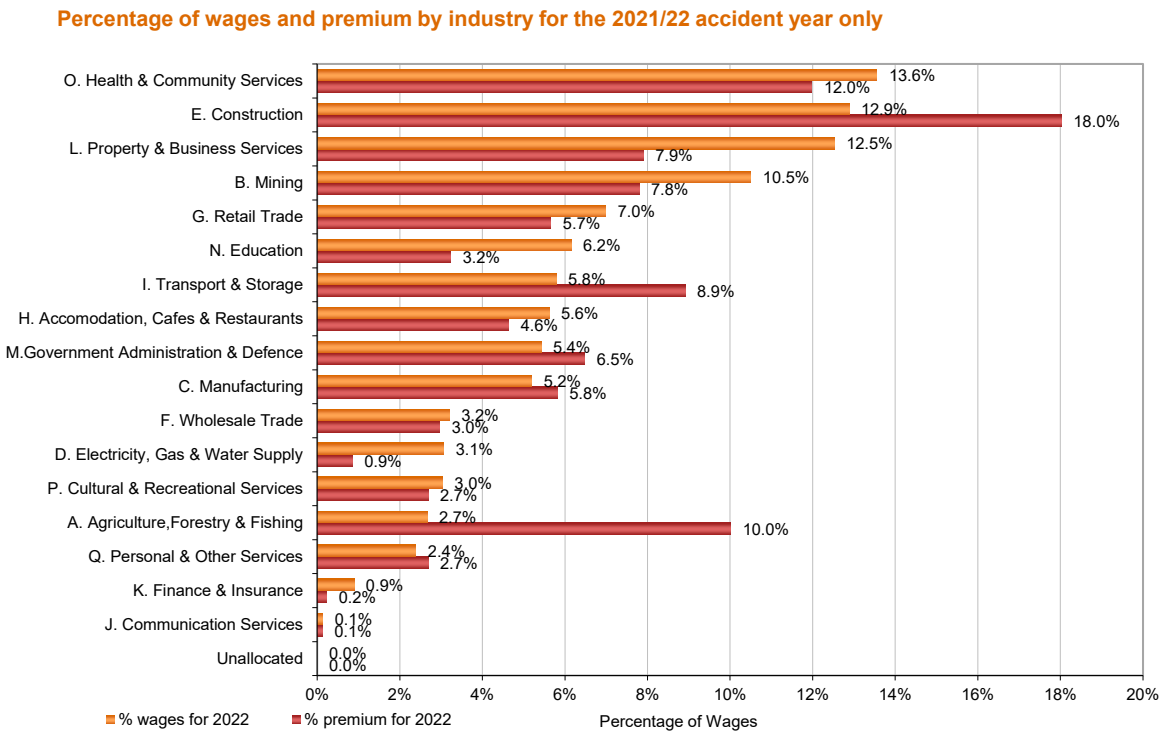
H 4 Historical rates by industry

The following tables show the historical premium rates charged by industry (excluding self-insurers) on an underwriting/earned year basis.

The below table does not use developed wages or premium and does not contain an allowance for earned but not yet raised premium.

Underwriting year basis						Difference
Premium rate by ANZSIC division	2018	2019	2020	2021	2022	2022 / 2021
A. Agriculture,Forestry & Fishing	6.05%	6.93%	7.37%	7.82%	8.53%	9.15%
B. Mining	1.29%	1.64%	1.60%	1.46%	1.68%	15.31%
C. Manufacturing	2.24%	2.20%	2.11%	2.45%	2.54%	3.67%
D. Electricity, Gas & Water Supply	0.78%	0.68%	0.71%	0.64%	0.63%	-2.23%
E. Construction	2.01%	2.33%	2.89%	2.97%	3.17%	6.74%
F. Wholesale Trade	1.85%	1.95%	2.00%	1.96%	2.10%	7.19%
G. Retail Trade	1.82%	1.79%	1.78%	1.78%	1.84%	2.90%
H. Accomodation, Cafes & Restaurants	1.86%	1.92%	1.94%	1.77%	1.87%	5.75%
I. Transport & Storage	3.38%	3.09%	3.12%	3.18%	3.49%	9.83%
J. Communication Services	1.31%	1.74%	1.82%	1.96%	2.11%	7.18%
K. Finance & Insurance	0.60%	0.54%	0.57%	0.52%	0.58%	11.47%
L. Property & Business Services	1.07%	1.21%	1.24%	1.38%	1.43%	3.49%
M.Government Administration & Defence	1.88%	1.97%	2.45%	2.50%	2.71%	8.47%
N. Education	1.07%	1.05%	0.99%	1.10%	1.19%	7.91%
O. Health & Community Services	1.80%	2.02%	1.96%	1.94%	2.00%	3.20%
P. Cultural & Recreational Services	2.21%	2.33%	2.12%	2.12%	2.01%	-5.25%
Q. Personal & Other Services	2.49%	2.16%	2.46%	2.23%	2.55%	14.38%
Unallocated	0.00%	0.00%	-4.69%	-1.56%	-1.56%	100.00%
Total	1.86%	2.02%	2.12%	2.12%	2.27%	7.00%

The percentage of wages and premium by industry, on an underwriting year basis for the current year are:



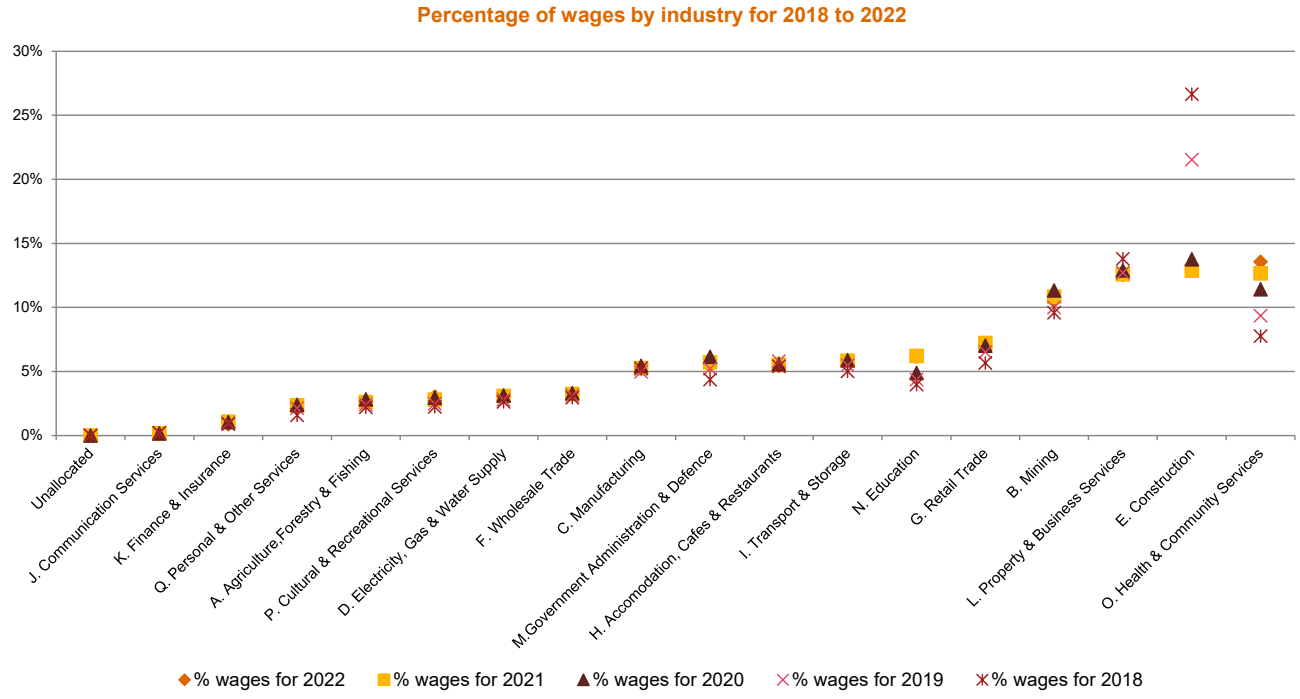
This shows that the divisions with significantly higher premium rate than the scheme average are:

- Agriculture, forestry and fishing
- Transport and storage
- Construction

Meanwhile the divisions with significantly lower premium rate than the scheme average are:

- Property and business services
- Mining
- Education
- Electricity, gas and water supply
- Health and Community Services

The chart below shows wages by ANZSIC division on an underwriting year basis.



Presenting the information in this way acts to smooth the variation in wages by industry from one year to the next. Of note is the high in Construction to 2018, driven by the Inpex project, followed by the significant decrease in the percentage of wages in 2019 and 2020, as the Inpex project has moved into the production phase. In 2022, Health and Community Services is the largest division by wages, following a decrease in Construction wages.

Appendix I Glossary

AASB

Australian Accounting Standards Board

ABS

Australian Bureau of Statistics

Accident year

The financial year ending 30 June, in which the accident event leading to a claim occurs, irrespective of when the claim is reported, paid and finalised.

APRA

Australian Prudential Regulation Authority

Break-even premium rate

This is the expected cost for policies, including an allowance for associated expenses and timing of premium payments. It is calculated as:

Break-even premium rate = Discounted incurred cost / (1 – commission rate – other expense rate) x (1 + interest rate) ^ 3 / 12

Central estimate

Unbiased actuarial estimate, which has 50% probability of being sufficient. It is the median of the range of possible outcomes. The central estimate is inflated and discounted and includes claims handling expenses (unless where specified) and does not include a risk margin.

Development year

The number of completed years since the end of the accident year. Development year zero refers to the financial year ending 30 June in which the accident event occurs. Development year is also abbreviated to DY in this report.

EBNYR premium

Earned but not yet raised premium.

The earned but not yet raised premium is the aggregate of the burner policy premium adjustments where the estimated claims experience suggests that either more premium will need to be collected or some premium will be refunded.

Funding ratio

The funding ratio is measuring the liabilities held by the insurers or self-insurers (the notional assets) compared to the aggregate outstanding claims liability calculated by the scheme actuary. The funding ratio is as defined by the Comparative Monitoring Committee.

For the insurers this is calculated as: $\frac{\text{inflated and discounted provision (including risk margin)}}{\text{inflated and discounted central estimate (excluding risk margin)}}$

For the self-insurers this is calculated as: $\frac{\text{bank guarantee provision (1.5 x central estimate)}}{\text{inflated and discounted central estimate (excluding risk margin)}}$

Inflated and discounted values

The estimates in current values are inflated to the dollar values in the estimated future year of payment. These values are discounted to 30 June 2022 values to allow for future investment income that will be earned until the claim is paid. The inflation and discount rates are outlined in appendix B1.

NT

Northern Territory

Provision

The central estimate plus the risk margin.

Risk margin

The margin added to the central estimate to increase its level of adequacy to above 50%.

Risk premium

The risk premium is an estimate of the pure risk cost of claims and does not include allowance for expenses or margins.

Risk Premium = estimated incurred cost of the risk covered i.e., of the claims with dates of occurrence in the risk/cover period

= number of claims x average claim size

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