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Queensland CTP Market Briefing

Review of the risk premium for the 2024Q3 underwriting quarter

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TAYLOR FRY

In this briefing

About the market briefing

Each quarter, Taylor Fry provides advice to MAIC to assist in its role of setting a pricing band for the Queensland CTP Scheme. This market briefing is intended to summarise Taylor Fry's latest advice to MAIC.

We suggest that the first-time reader reviews *Section 6 - Structure of Taylor Fry's advice to MAIC* before the remainder of this briefing to understand Taylor Fry's role and the structure of our advice.

Stakeholder submissions

We received submissions from three stakeholders which have been considered in the preparation of this report.

Reliances and limitations

This briefing is prepared for MAIC. MAIC alone is permitted to distribute this briefing to other parties. We note our duty of care does not extend to any third party who receives this report (or accompanying material) and we do not accept any liability for any actions resulting from relying on any information contained within the report (or accompanying material).

1 Risk premium

This section provides an overview of the risk premium at Dec-23, changes since the last review and uncertainty in the risk premium estimate.

Our estimate of the risk premium at Dec-23 is **$190.37**. This estimate is a combination of the risk premium relating to core claims, workers compensation, interstate sharing and NSW postcode claims.

Table 1 shows the components of the risk premium estimate.

Table 1 - Estimated risk premium at Dec-23

Component	Frequency (%)	Average claim size ($)	Risk premium ($)
Core claims	0.1400%	128,390	179.75
NSW accident postcode claims	0.0056%	155,924	8.73
Interstate sharing claims	0.0012%	72,669	0.87
Workers' compensation recovery claims	0.0120%	8,527	1.02
Estimated risk premium at Dec-23	**0.1590%**	**119,730**	**190.37**

1.1 Change since last review

The estimated risk premium at Dec-23 of **$190.37** is **$0.96 lower** than our estimate at the previous review. This estimate is in Dec-23 dollars before the application of inflation and discounting.
Figure 1 shows the contributors to the change in estimated risk premium since Sep-23.

Figure 1 – Change in estimated risk premium since the Sep-23 review

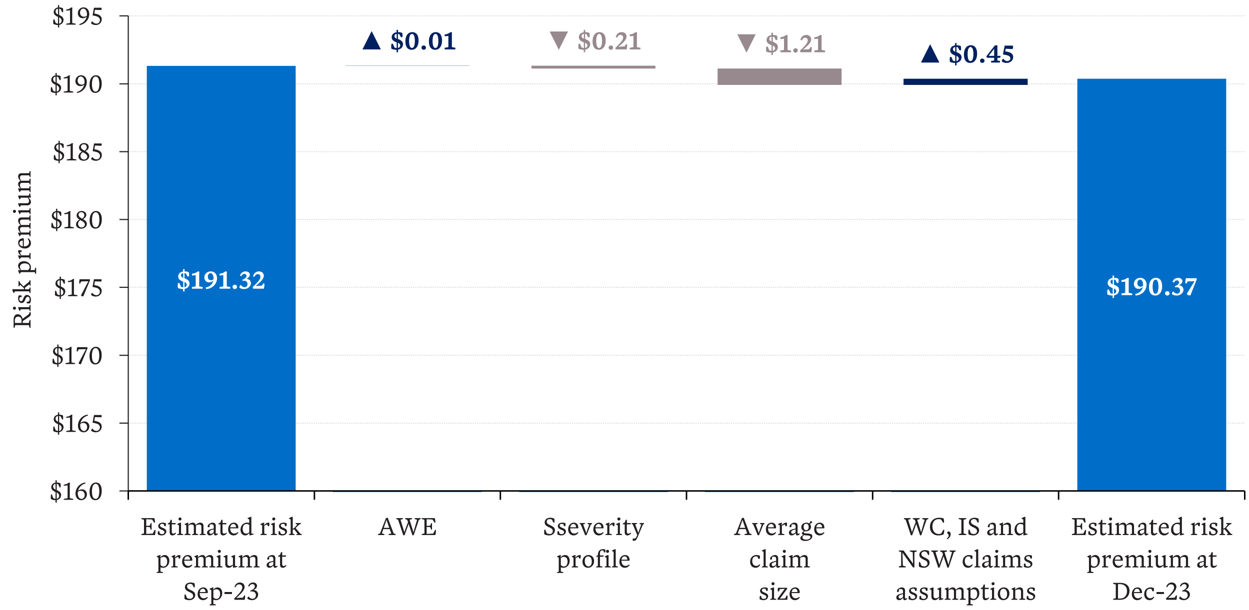


Figure 1 shows:

- A decrease of $1.42 due to a **decrease in the average claim size**, which is the combined effect of:
  - A decrease of $0.21 due to a **weakening of the severity profile**, driven by a reduction in the proportion of Severity 1Y claims, offset by an increase in the proportion of Severity 1N claims.
  - A decrease of $1.21 due to **decrease in the core claim size assumptions** for Severity 1Y, 2 and 3.
- Partially offset by an increase of $0.45 due to changes in **non-core claim assumptions**, mostly from increased frequency and claim size expectations for NSW claims.
- The impact of AWE inflation was small ($0.01), reflecting the latest ABS AWE release for inflation in the Dec-23 quarter.

There was no change to the core claim frequency selection at this review.

1.2 Risk premium uncertainty

Our risk premium estimate for the 2024Q3 underwriting quarter is highly uncertain. As an illustration of this uncertainty:

- There is approximately one in four chance that the actual risk premium will be *more* than 7.5% higher than our risk premium estimate.
- There is approximately one in four chance that the actual risk premium will be *less* than 7.5% lower than our risk premium estimate.

Section 5 discusses risk premium uncertainty in more detail.

2 Frequency

This section outlines the assumptions for core claim frequency.

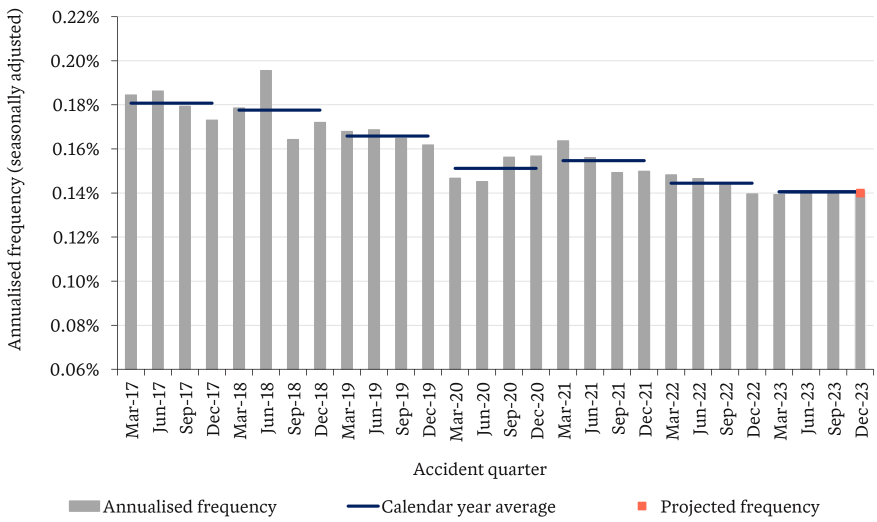
We generally review the core claim frequency selection quarterly.

Notifications over the quarter were 2% higher than forecast at Sep-23. The higher than forecast experience was driven by the Dec-23 accident quarter.

The notification pattern and seasonality adjustment for core claim frequency have been revised at this annual review.

Figure 2 shows the projected ultimate annualised frequency for each historical accident quarter after allowing for seasonality and removing the estimated impact of COVID-19 and the Mar-22 Eastern Australian floods.

Figure 2 – Estimated annualised core claim frequency at Dec-23



The core claim frequency decreased from Mar-21 to Mar-23, coinciding with lower traffic volumes. In addition to traffic volumes, other factors may have contributed to the observed reduction in frequency, for example the introduction of new cameras to detect mobile phone use and failure to wear a seatbelt (penalties commencing from Nov-21) and continued enforcement of the claims farming reforms (introduced Dec-19).

The advised frequency assumption at Dec-23 takes a 4-quarter average over Dec-22 to Sep-23. There is **no change** to the core claim frequency assumption from the Sep-23 estimate of **0.1400%**.

3 Severity profile

We review the severity profile quarterly given the increased level of uncertainty in severity profile experience after the introduction of claim farming reforms.

This section outlines the assumptions for core claim severity profile.

Legally represented Severity 1 claims (Severity 1Y) represent around 65% of core claim notifications and around 50% of the core risk premium. While there are relatively few high severity claims, they typically have higher average claim sizes.

Table 2 shows our current and previous severity profile assumptions.

Table 2 – Severity profile at Dec-23 and change from the previous quarter

Severity	Previous review Sep-23	Current review Dec-23	Movement
1N	8.6%	8.9%	0.3%
1Y	66.3%	66.0%	-0.3%
2	13.4%	13.4%	-0.1%
3	6.2%	6.1%	-0.1%
4	0.9%	0.9%	0.1%
5	0.4%	0.4%	0.0%
6	1.1%	1.1%	0.0%
9NA	3.1%	3.1%	0.1%
All	**100%**	**100%**	

The severity profile has **weakened** at this review.

An increase in the Severity 1N proportion is offset by a decrease in the Severity 1Y proportion, resulting in a net **$0.21 decrease** in risk premium.

4 Average claim size

We review the average claim size by severity every quarter based on finalised claims. The average finalised claim sizes used for modelling are on a net of NIISQ basis.

This section outlines the assumptions for core claim average claim size.

Table 3 shows our current and previous core average claim size assumptions.

Table 3 – Core average claim size Dec-23 and change from the previous quarter (adjusted for inflation), excluding changes in severity profile

Severity	Previous review Sep-23 $'000	Current review Dec-23 $'000	Movement
1N	12	12	-1.3%
1Y	96	96	-0.6%
2	202	201	-0.6%
3	374	371	-0.9%
4	691	685	-0.9%
5	1,000	985	-1.4%
6	325	326	0.4%
9NA	14	15	1.8%
All	**129**	**128**	**-0.7%**

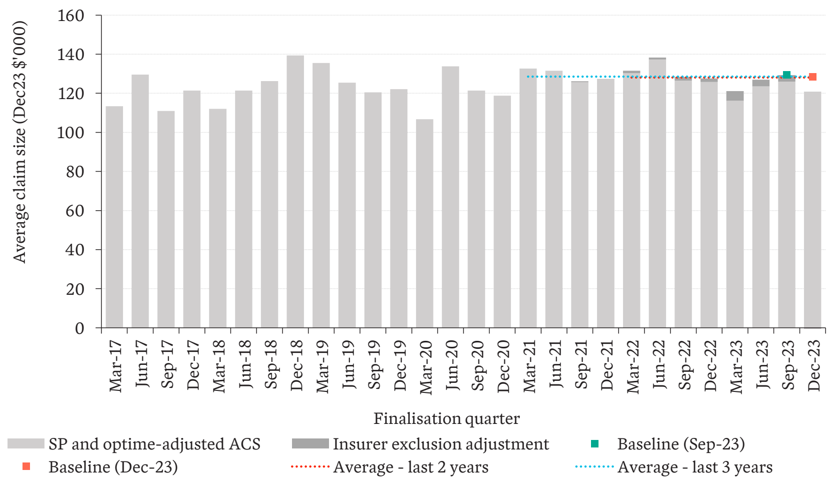
The core claim size assumption has **decreased by 0.7%** since Sep-23, excluding changes in severity profile.

Average claim sizes decreased across all severities, apart from Severity 6 and Severity 9NA, in response to recent experience.

We have calibrated average claim size assumptions to data that excludes the AY2021 to AY2023 finalisation experience of one insurer which is emerging significantly below their prior accident years and the experience of the other insurers. We have been advised that this low experience may be due to a reordering of finalisations rather than underlying favourable experience, and as such have excluded this experience when setting our average claim size assumptions. At the Sep-23 review we excluded AY2021 and AY2022 experience for the same insurer. At this review, we have also excluded its AY2023 experience.

Figure 3 shows the historical finalised claim sizes by finalisation quarter, standardised for severity profile and changes in the rate of finalisations across accident periods.

Figure 3 – Average claim size by finalisation quarter (all severities, adjusted for inflation)



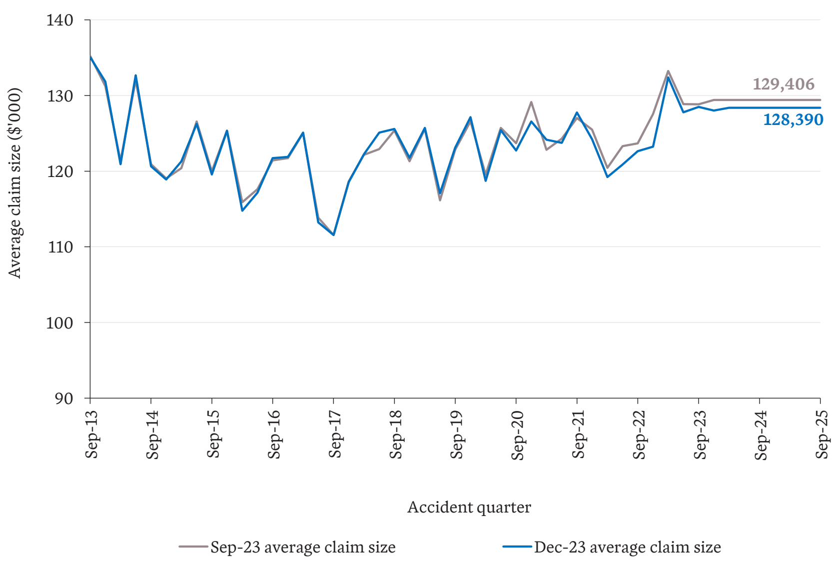
Note: The light grey bars show the average finalised size across all insurers, and the dark grey bars show the increase in average finalised size after excluding the AY2021 to AY2023 finalisation experience of one insurer.

The core average claim size assumed at Dec-23 is **0.8% lower than** our previous estimate, due to the combined effect of a **weakened** severity profile and a **reduction** to average claim size assumptions.

Our current average claim size assumption is similar to the average experience of the past 2-3 years.

Figure 4 shows the estimates ultimate average claim sizes by accident quarter.

Figure 4 – Projected core average claim size by accident quarter (all severities, adjusted for inflation)



Our projected core average claim size has **decreased** from the previous review.

The current estimate is **$128,390**.

5 Risk premium uncertainty

There is considerable uncertainty in the assumptions underlying our risk premium estimate. We provide risk premium impacts for a range of plausible alternative scenarios.

5.1 Business as usual variation

Our risk premium estimate is highly uncertain. The movement of the risk premium from quarter to quarter is the main source of uncertainty in our risk premium estimate, referred to as *risk premium evolution error*.

The average claim for underwriting quarter 2024Q3 will finalise around **four years later** than the most recent finalised claim data available to estimate risk premium. Historically there have been large movements in the risk premium over a four-year period. In general, these movements are not predictable in advance.

We have quantified this risk premium evolution error to give the scheme's "business as usual variation". We have found that there is approximately **50% chance** that the actual risk premium will fall within the range of:

- Estimated risk premium +/-7.5%, or equivalently,
- Estimated risk premium +/-$14.

5.2 Key uncertainties

In addition, we have identified several key uncertainties that could impact the risk premium. These are summarised in Table 4 and described below.

Table 4 – Change in estimated risk premium for plausible alternative scenarios

Risk premium scenarios	Impact on estimated risk premium
Business as usual variation	
Estimated risk premium – 50% confidence interval	**+$14.3 / -$14.3**
Frequency / severity profile scenarios	
Frequency in line with experience over Sep-21 to Jun-22, with increases for severities 1N, 1Y and 2 only	**+$8.8**
Increase in proportion of Severity 1 direct claims, shifting from Severity 1Y to Severity 1N, including illustrative ACS impact	**-$0.6**
Severity 3+ frequency develops in line with AY2021	**+$3.3**
Severity 3+ frequency develops in line with AY2022	**-$3.9**
Average claim size (ACS) scenarios	
Severity 1Y ACS emerges in line with the finalisation experience over the last 1 year	**-$2.9**
Severity 2 ACS emerges in line with the finalisation experience over the last 3 years	**+$0.7**
ACS calibrated to data of all insurers, including the AY2021 to AY2023 experience of one insurer that is excluded from our base calibration	**-$1.9**

5.2.1 Uncertainty in the frequency of core claims

Our frequency assumption is based on the average frequency experience over the 4 accident quarters from Dec-22 to Sep-23.

There was a drop in claim frequency at the beginning of 2020 due to COVID-19 related lockdowns and the introduction of the claims farming legislation. Following the lifting of the lockdowns, frequency partially rebounded, followed by a decrease over 2022 associated with a decrease in traffic volumes.

One explanation for the decrease in traffic volumes is more working from home. A key risk for frequency is a reversal of working from home patterns.

If claim frequency reverted to the level seen just over 1.5 years ago (average over the Sep-21 to Jun-22 accident quarters), with a corresponding weakening of the severity profile (assuming the increase in frequency is due to severities 1N, 1Y and 2 only), the risk premium would increase by $8.80.

5.2.2 Uncertainty in the frequency of Severity 1N and 1Y claims

The proportion of Severity 1N notifications has increased materially since Jun-22.

Our current selection for the proportion of Severity 1N claims is based on the average over accident quarters Sep-21 to Jun-23. As a *fairly aggressive* scenario, we consider calibrating the proportion of Severity 1N claims to experience of the two accident quarters Mar-23 and Jun-23 only and assume that the increase in the proportion of Severity 1N claims would be entirely due to a shift from Severity 1Y claims. With *just* the change in severity profile between Severity 1N and Severity 1Y, the risk premium estimate would decrease by $1.90.

We expect the average claim size for both Severity 1N and Severity 1Y to increase as a result of the shift between these severities, with less severe Severity 1Y claims expected to be lodged directly as Severity 1N, partially offsetting the $1.90 decrease discussed above. As an *illustrative example*, assuming the average cost of claims that move from Severity 1Y to Severity 1N is $50K, and that the claims would now settle for $25K under Severity 1N, the risk premium estimate would decrease by $0.60 (net change due to shift between Severity 1N and 1Y, along with illustrative ACS impact).

5.2.3 Uncertainty in the frequency of high severity claims

The frequency for high severity claims (3, 4, 5 and 6) has shown a downward trend from accident years 2016 to 2023. Our selected frequency is based on the projected ultimate frequency for the three to four most recent accident years. This results in a frequency between that of AY2021 and AY2022.

If the frequency for 2024Q3 is assumed to emerge similarly to that projected for AY2021 then the risk premium estimate would increase by $3.30.

If the frequency for 2024Q3 is assumed to emerge similarly to that projected for AY2022 then the risk premium estimate would decrease by $3.90.

5.2.4 Uncertainty in the core average claim size

At this review, we have calibrated ACS assumptions to data that excludes AY2021 to 2023 finalisation experience of one insurer, which is developing materially lower than experience of their preceding accident years and experience of the other insurers.

If we were to instead calibrate to all experience, which includes the insurer's low AY2021 to 2023 experience, the risk premium would decrease by $1.90.

5.2.5 Uncertainty in the average claim size of Severity 1Y and 2 claims

Severity 1Y average claim sizes stepped up in the Mar-21 to Jun-22 finalisation quarters, then decreased for the 4 quarters to Jun-23. Our projection at Dec-23 is based on a mix of a 2-year average for low to mid operational times and a 3-year average for high operational time claims.

If we were to calibrate the Severity 1Y ACS to a 1-year average throughout, giving more weight to the lower experience from Sep-22, the risk premium would decrease by $2.90.

The Severity 2 average claim size has stepped up for finalisations since Dec-20. Our projection at Dec-23 is based on a mix of a 3-year average for low-mid operational times and a 4-year average for high operational time claims.

If we were to calibrate the Severity 2 ACS to a 3-year average throughout, which excludes the lower ACS experience before Dec-20, the risk premium would increase by $0.70.

6 Structure of Taylor Fry's advice to MAIC

This section describes the components of our advice to MAIC as well as the role of this advice in MAIC's premium setting process.

The **prescribed floor and ceiling premiums** for each underwriting quarter are calculated and set by **MAIC**, based on several inputs, including estimates of the average **risk premium** for the scheme**.** Taylor Fry estimates the components of the risk premium for the Queensland CTP scheme for each underwriting quarter and advises MAIC on these components.

In estimating the risk premium for each underwriting quarter, we consider **"core"** claims separately from workers' compensation recovery (WC), interstate sharing (IS) and NSW accident postcode (NSW) claims. Each component is separated into the **frequency** of claims per registered vehicle and **average claim size**. These components make up the baseline risk premium.

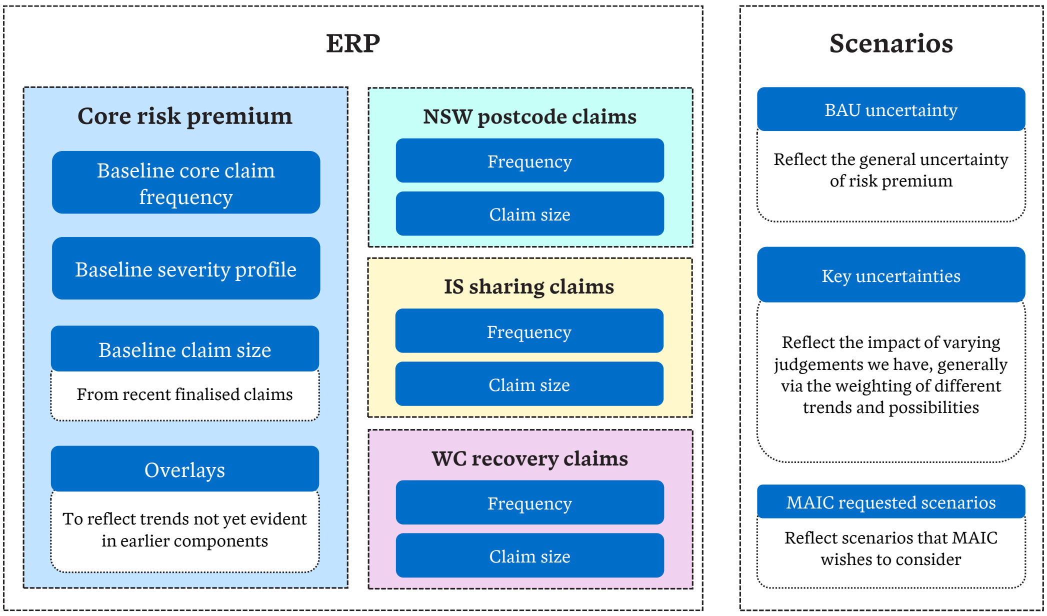
Our Estimated Risk Premium (ERP) for a given future underwriting quarter is comprised of our **baseline risk premium estimate** and **overlays**. The ERP reflects **risk premium** implied by **the most recent past accident periods**, adjusted for the impact of changes which meet the following criteria:

- Evidence of the change can be seen in the data
- The change is quantifiable with reasonable certainty
- We are reasonably confident that the change will continue into the future up until the time most of the cost of claims for the underwriting quarter has been paid.

The risk premium of recent accident years is captured in the baseline risk premium estimate and the other adjustments are made through the overlay component when needed.

There is a large degree of **uncertainty** and **reliance on judgment** apparent in the overlays as they reflect our view of changes to the scheme experience occurring in either the very recent past or the future; the prescribed premiums are set for an accident period approximately one year in the future with claims settling on average 3 years after that.

In addition to the ERP, we provide MAIC with a series of scenarios focusing on key uncertainties in the ERP which reflect potential alternative scenarios relating to possible changes to underlying components of risk premium. Our ERP and scenarios are inputs for MAIC to utilise in their pricing process. We do not expect that MAIC will necessarily adopt our ERP or a risk premium that is within the range covered by our scenarios.



We consider it proper for MAIC to adopt a risk premium different to our ERP based on:

- Adopting a combination of provided scenarios which they consider to be the most likely to occur
- Their anticipation of future changes to the risk premium which we have not allowed for in our ERP or scenarios.

Appendix A

A.1 Key definitions

Table A.1 – Key definitions

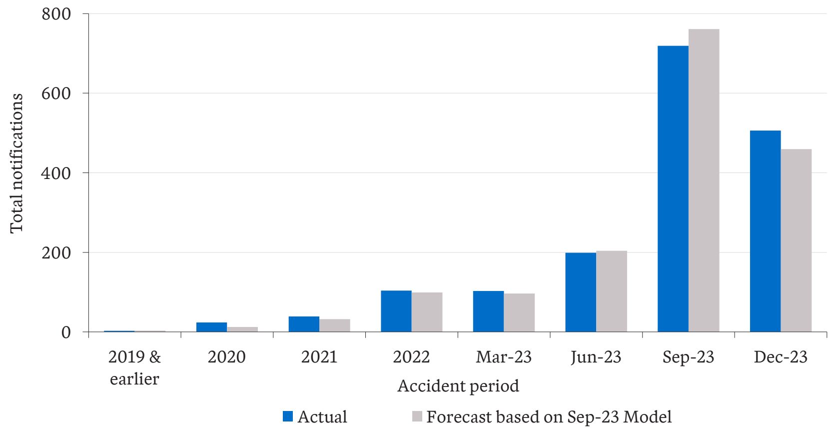
Claim	All claims recorded as notified in the Scheme data, other than Nominal Defendant claims, but specifically including those for nil or trivial amounts.
Claim severity	Claim severity refers to our severity band under which a claim falls under, which is a categorisation based on the maximum injury severity score of the claim and the status of the claim's legal representation.
Core claims	Claims excluding those categorised as workers' compensation recovery, interstate sharing claims or NSW accident postcode claims.
Operational time	The rank order of claims finalised from an accident quarter. For example, the first claims finalised have operational times near 0% and the last claims finalised have operational times near 100%.
Interstate sharing claims (IS) claims	Interstate sharing (IS) claims involve one party from Queensland and another from a different state. In some of these cases the claim cost is shared between schemes. These claims are managed by an interstate insurer. They are identified in the database by means of a specific injury code. Claims with a NSW accident postcode are excluded.
Workers' compensation recovery (WC) claims	Workers' compensation recovery (WC) claims are those notified to insurers by a workers' compensation insurer/authority. They have been identified separately in the database since 2009Q1 by means of a specific injury code. Claims with a NSW postcode are excluded.
NSW accident postcode claims	Claims with a NSW accident postcode, including those categorised as core, workers' compensation recovery and interstate sharing claims. They are identified in the database by means of accident postcodes.
Claim frequency	Number of claims per registered vehicle.
Severity profile	The severity profile refers to the final proportion of claims related to each claim severity.
Risk Premium (RP)	Risk premium refers to the average premium required to cover claim costs which is calculated as the total ultimate claim costs of a period divided by the number of registered vehicles. This is equivalent to claim frequency multiplied by average claim size for each severity, summed across all claim severities.
Estimated risk premium (ERP)	The ERP refers to our estimate of risk premium that reflects claims costs for the most recent past accident periods, to the extent we can reliably measure them, adjusted for the impact of changes we are reasonably confident will occur up until the time most of the cost of claims for the underwriting quarter has been paid.
Claim farming reforms	On 5 December 2019, new legislation commenced which aims to stop the practice of insurance car crash scamming (commonly known in the industry as 'claim farming'). Car crash scammers contact unsuspecting people and pressure them (or their family members) to make a CTP insurance claim or share their personal information to law firms for a profit. Car crash scammers have been known to use aggressive tactics and target vulnerable Queenslanders. The legislation makes it illegal in Queensland for lawyers to pay a fee to a car crash scammer.

A.2 Experience over the Dec-23 quarter

This section discusses experience over the Dec-23 quarter for core claims.

A.2.1 Core claim notifications

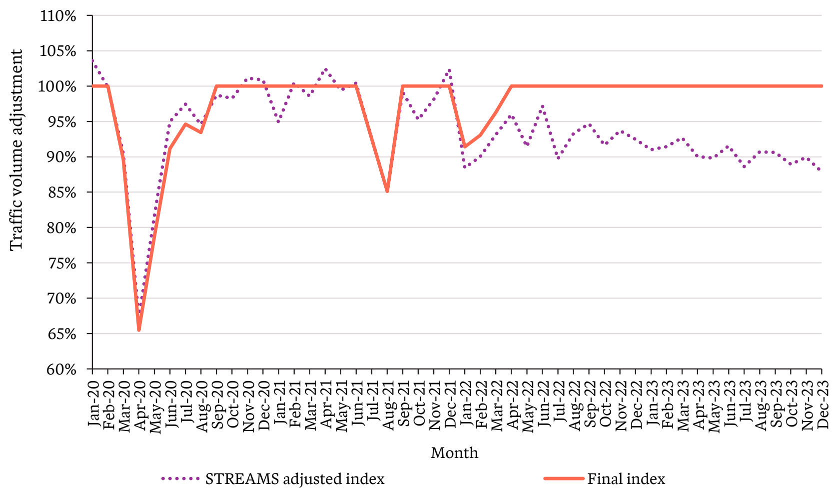
Figure A.1 – Number of core claims notified in Dec-23



After adjusting for the impact of COVID-19 and the lower traffic volumes in Mar-22, total notifications for Dec-23 were 2% higher than forecast at Sep-23.

This was driven by higher-than-expected experience for the Dec-23 accident quarter, partially offset by lower-than-expected experience for the Jun-23 and Sep-23 accident quarters.

Figure A.2 – Implied traffic volume relative to 2019



To remove the impact of past extreme events on recent traffic volumes (including COVID lockdowns and the 2022 Eastern Australian floods), we adjust notification experience for periods affected by such events.

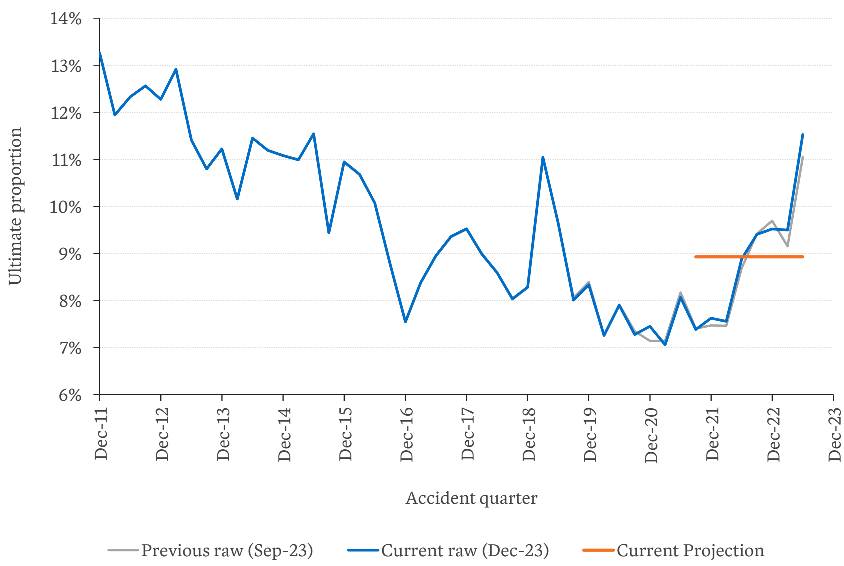
Adjustments for traffic volumes (orange line) remain unchanged at this review.

Traffic volumes over 2023 continue to be low. No adjustments have been made for disruption in traffic volumes since the Mar-22 quarter.

We continue to rely on claims experience alone to forecast future claims frequency. We are yet to see evidence that forecasting future traffic volumes can increase the accuracy of future frequency forecasts.

A.2.2 Core claim severity profile

Figure A.3 – Severity 1N projected proportion

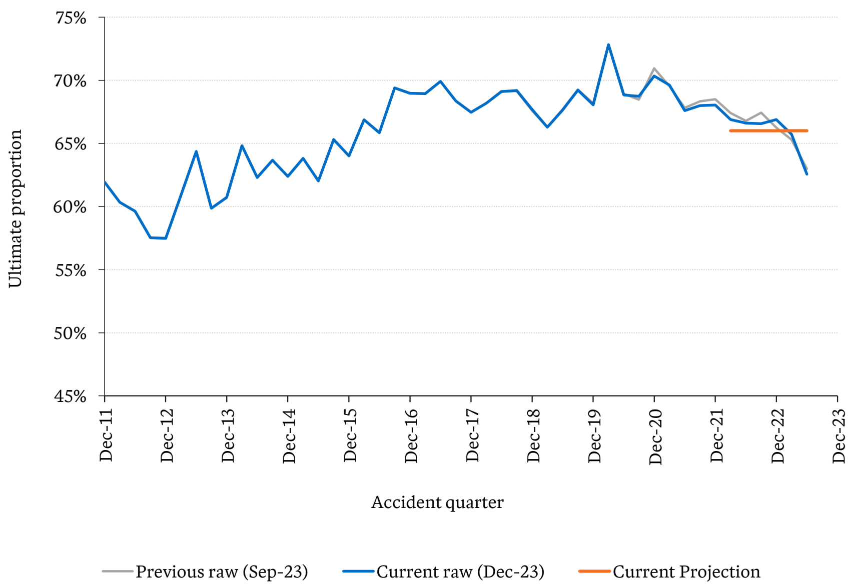


Severity 1N notifications have been developing at a much higher level since the Sep-22 quarter. We continue to reflect more of this experience when selecting our assumptions.

Our adopted proportion of Severity 1N claims has increased at this review.

We have not fully reflected the increase in Severity 1N claims in the assumed severity profile due to uncertainty on the ultimate impact of late legal representation on these claims and their impact on average claim sizes.

Figure A.4 – Severity 1Y projected proportion

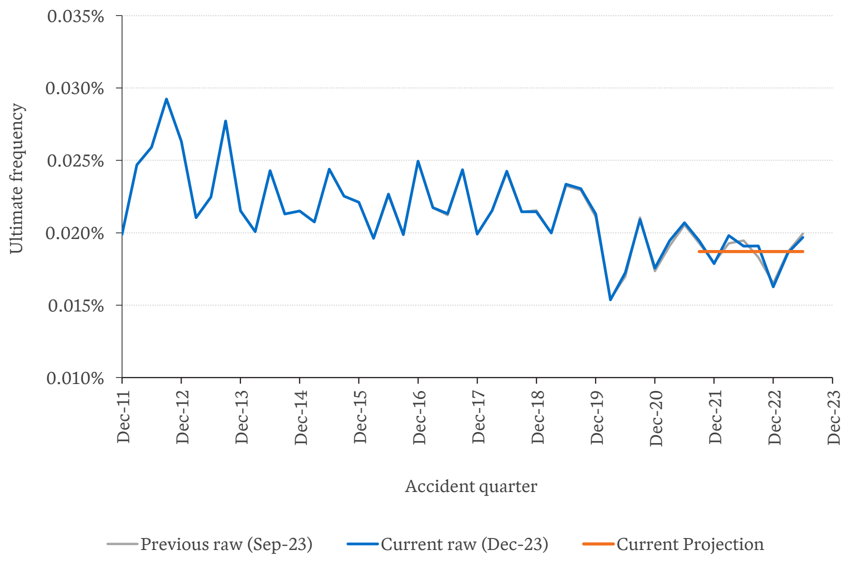


The majority of claims are Severity 1Y claims.

The proportion of Severity 1Y claims has been decreasing since the Sep-21 quarter. We continue to reflect more of this experience when selecting our assumptions.

Our adopted proportion of Severity 1Y claims has decreased at this review. Consistent with Severity 1N, we have not fully reflected the reduction in Severity 1Y claims in the assumed severity profile.

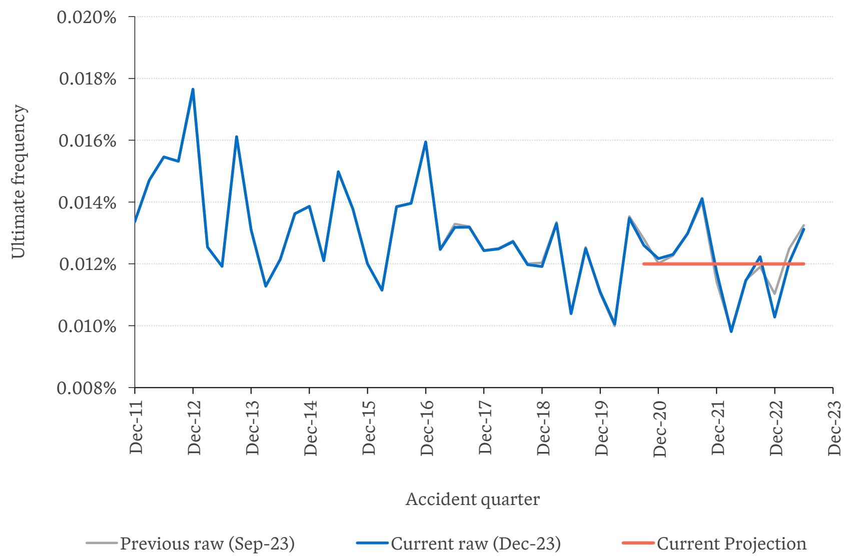
Figure A.5 – Severity 2 projected frequency



The Severity 2 frequency stepped down following introduction of claims farming reforms in 2019, and has remained relativly stable at this lower level since.

Our adopted frequency for Severity 2 claims remains largely unchanged at this review, and is in line with the experience over the past 2 accident years.

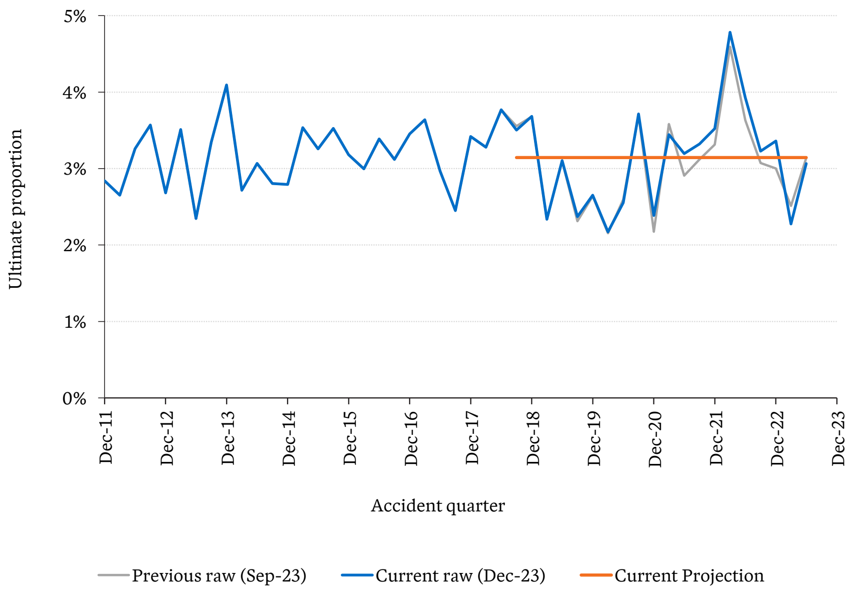
Figure A.6 – Severity 3 to 6 projected frequency



The adopted frequency for claims in Severities 3-6 is in line with the experience over the past 3-4 accident years.

Our adopted frequency of Severity 3-6 claims has remained largely unchanged at this review.

Figure A.7 – Severity 9 claim projected proportion

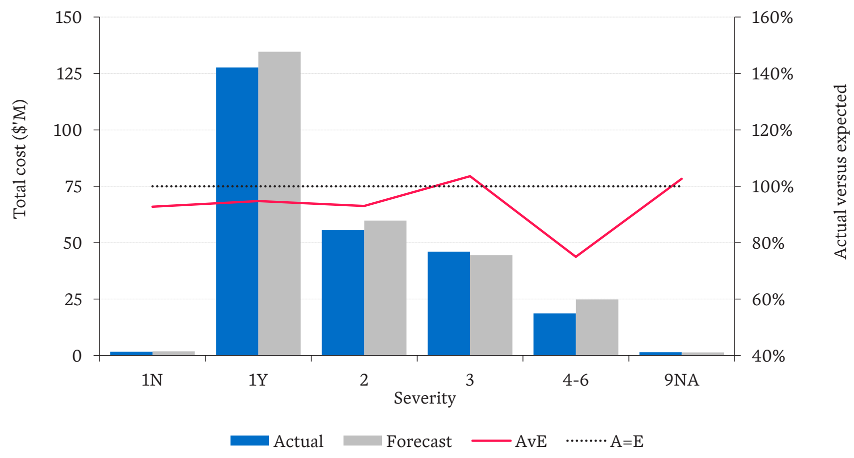


The proportion of Severity 9 claims has been volatile.

Our adopted proportion of Severity 9 claims has increased slightly at this review.

A.2.3 Core claim average claim size

Figure A.8 – Finalisation experience by severity in Dec-23 against the Sep-23 model



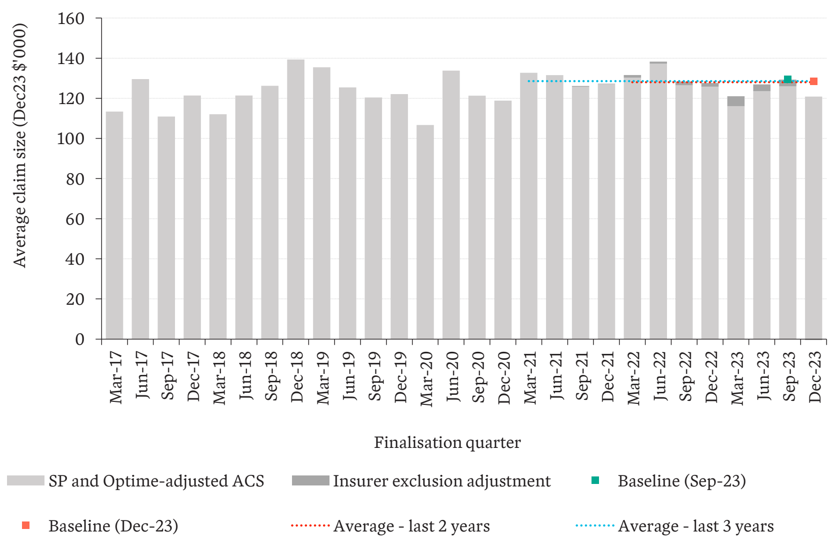
The actual cost for the Dec-23 quarter across all severities was **6% lower than** projected at Sep-23.

Severity 1N and 1Y claims finalised for 7% and 5% lower than forecast respectively.

Severity 2 claims finalised for 7% lower than forecast.

Finalisation experience for higher severity groups is volatile. Severity 3-6 claims finalised for 7% lower than forecast.

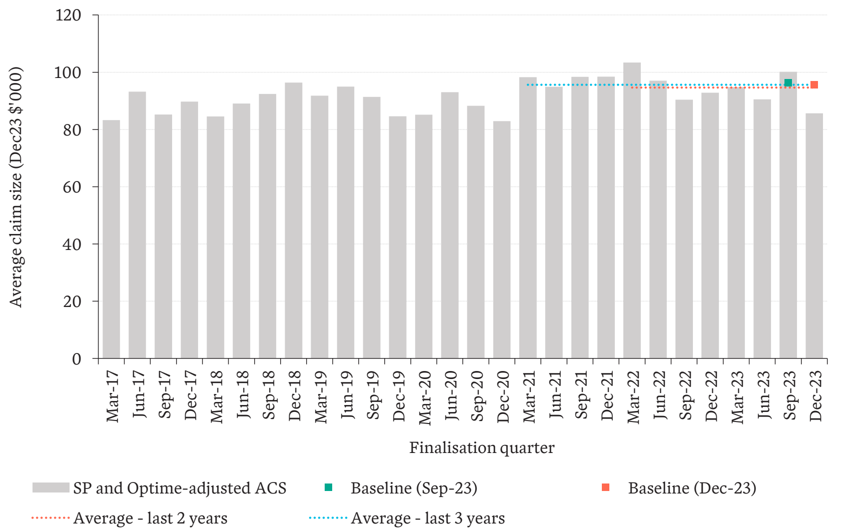
Figure A.9 – All severities average claim size



Note: As discussed in Section 4, average claim size assumptions are calibrated to to data that excludes the AY2021 to AY2023 finalisation experience of one insurer. In this chart, the light grey bars show the average claim size across all insurers, and the dark grey bars show the increase in average finalised size after excluding the AY2021 to AY2023 finalisation experience of that insurer.

The average claim size assumed at Dec-23 is **0.8% lower than** our previous estimate, due to both a weakened severity profile and reductions to average claim size assumptions.

Figure A.10 – Severity 1Y average claim size



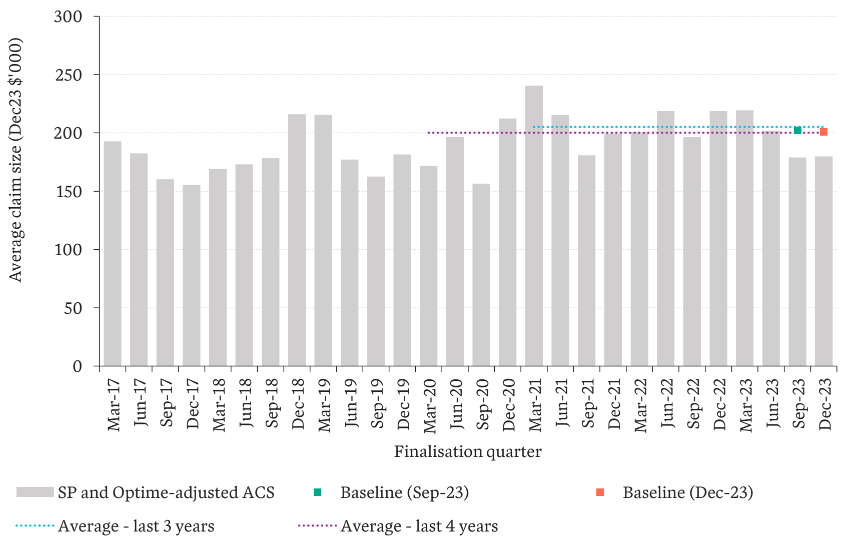
Note: This chart excludes AY2021 to AY2023 experience of one insurer, aligned to the ACS selection basis at this review.

The average finalised size of Severity 1Y claims was high in the 6 finalisation quarters up to Jun-22, followed by generally lower experience over Sep-22 to Jun-23.

We estimate the Severity 1Y average claim size by averaging across the past 2 years for low-mid operational times and across the past 3 years for higher operational times.

The projected average claim size at Dec-23 is **0.6% lower** than projected at Sep-23.

Figure A.11 – Severity 2 average claim size



Note: This chart excludes AY2021 to AY2023 experience of one insurer, aligned to the ACS selection basis at this review.

The average finalised size of Severity 2 claims stepped up at the Dec-20 finalisation quarter.

The Severity 2 average claim size is calibrated to experience of the past 3 years across low-mid operational times and across the past 4 years for higher operational times.

The projected average claim size at Dec-23 is **0.6% lower** than projected at Sep-23.

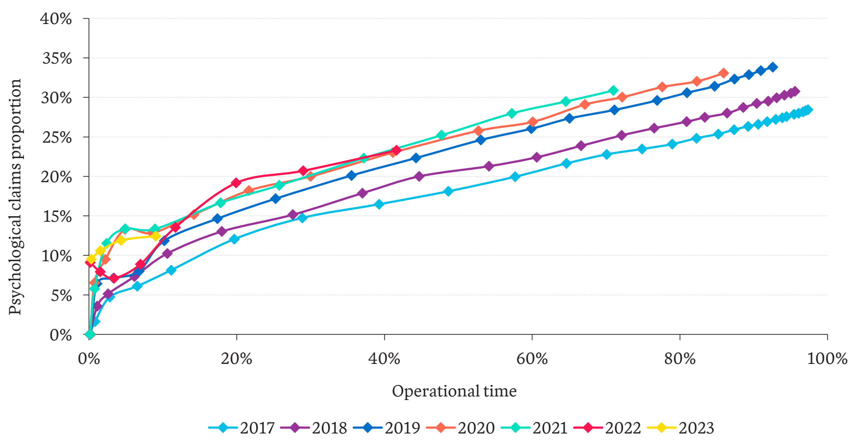
A.2.4 Psychological claims

We have continued to monitor the experience of claims with psychological injuries to ensure our finalisation models are appropriate given the emerging experience.

In recent accident years there have been **increasing proportions** of claims with psychological injury coding (psychological claims) and **faster coding** of psychological injuries. The proportion of psychological claims appears to have **stabilised since AY2020-2021**.

On its own, the increasing proportion of psychological claims suggests that the overall average claim size may be higher. Finalisation experience suggests our current claim size model appropriately captures the effect of the increasing proportion of psychological claims.

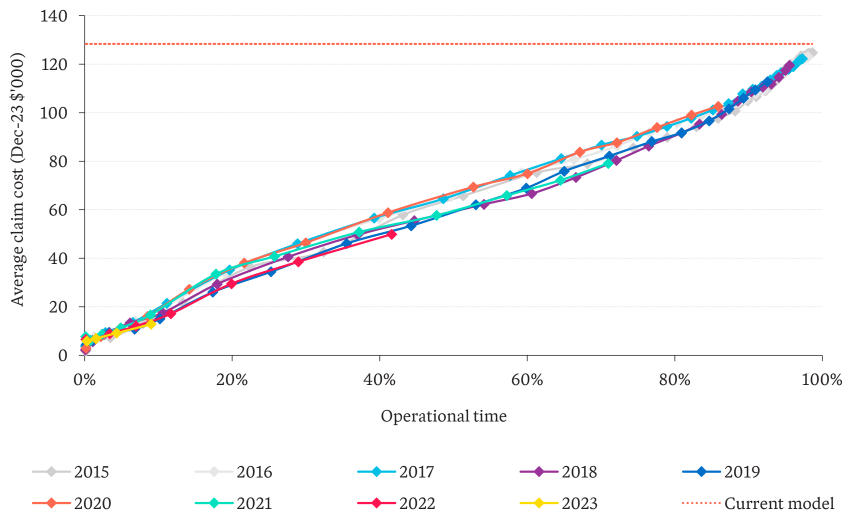
Figure A.12 – Psychological claims finalised proportion by accident year



From AY2017 to AY2020, there was an increasing trend in the proportion of finalised claims with a psychological injury.

The trend appears to have **stabilised from AY2020-AY2021** and onwards.

Figure A.13 – Finalised average claim size, all claims



Note: In this figure we have scaled past cost data for the expected cost differences between accident years so that each AY consistently develops to our current projected average claim size assumption. Figure 5 shows our forecast cost differences between accident periods.

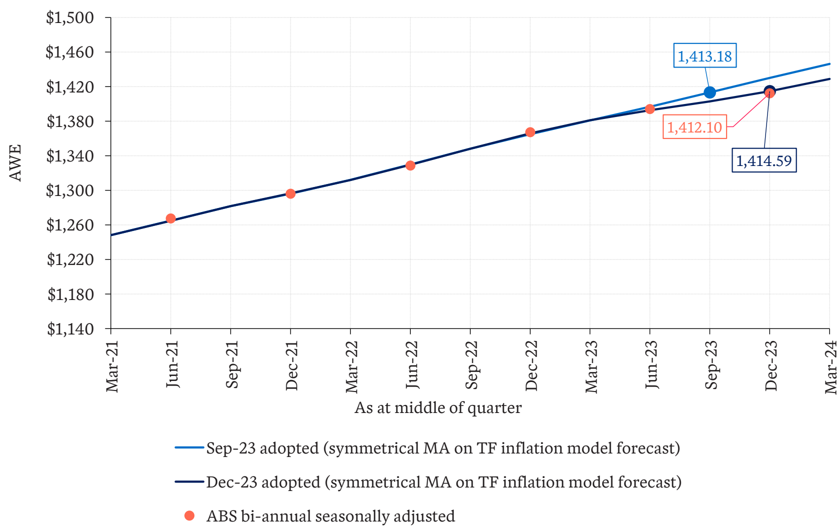
Finalisation experience continues to indicate that our current average claim size models appropriately capture the effect of increasing psychological claims between AY2017 and AY2020 without any need for a separate adjustment.

A.3 Economic assumptions

A.3.1 Past inflation

To determine average claim size, we inflate historical claim payments up to the date of review. We update inflation assumptions each quarter, incorporating the latest available Australian Bureau of Statistics (ABS) publications of the Average Weekly Earnings (AWE) index and Taylor Fry's market-based inflation model forecasted rates.

Figure A.14 – Queensland AWE estimates for the Dec-23 quarter



Note: We index historical claim payments using the ABS publication of AWE, index 6302.0, QLD seasonally adjusted, all employees' total earnings series and Taylor Fry's market-based inflation model forecasted rates.

We have applied the future inflation rates forecast by the Taylor Fry market-based model to the ABS AWE results released in Feb-24. This results in an AWE increase of 0.01% from the Sep-23 quarter to the Dec-23 quarter.

We estimate claims cost inflation using the seasonally adjusted QLD AWE index released by the ABS on a semi-annual basis.

A.3.2 Future inflation and discounting

We advise on the economic gap (the difference between risk-free investment return and QLD AWE inflation rate) on a quarterly basis.

Discount rates and future wage inflation forecasts were updated at 29 February 2024.

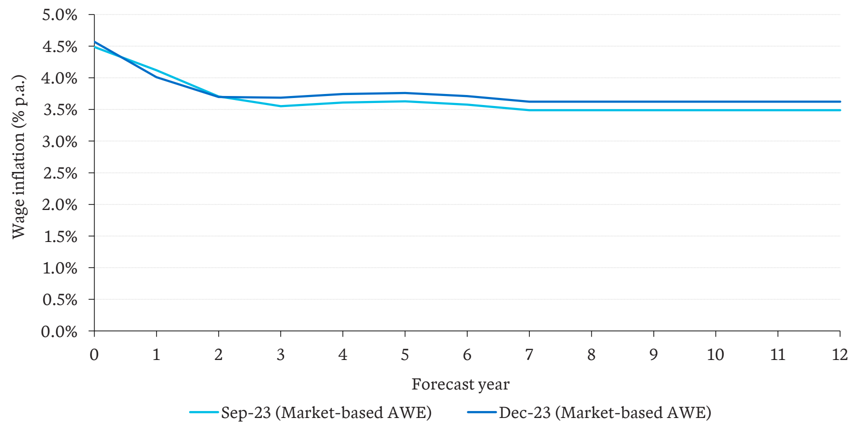
Inflation rates

At the Dec-23 review, we have provided projected QLD AWE inflation rates derived using the Taylor Fry market-based model which reflects:

- The shape of current nominal and inflation-linked bond (ILB) yield curves
- The QLD unemployment rate, and
- Long run assumptions of CPI and the gap between AWE and CPI.

It should be noted that there is an inherent degree of uncertainty with forecasting AWE inflation rates, including the strength and validity of the underlying relationships on which the forecasts are based. Full details of this model are outlined in the discussion paper "*An alternative approach to forecasting wage inflation*" dated 29 July 2019 by Richard Brookes and Nelson Vasconcelos.

Figure A.15 – Projection of wage inflation rate



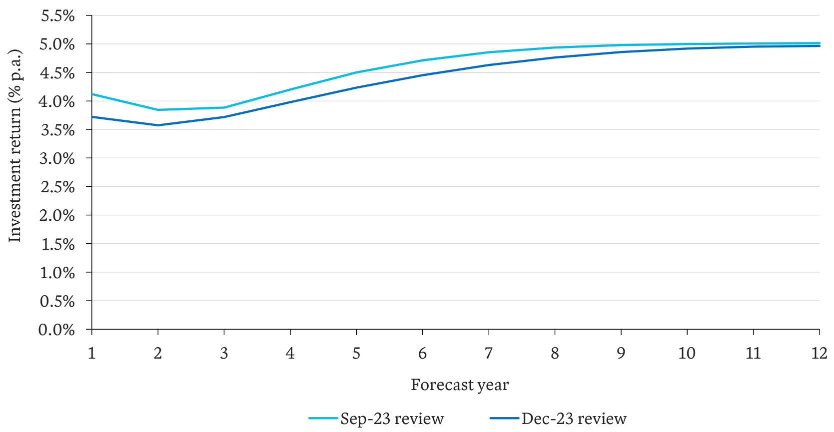
For the 2024Q3 underwriting quarter, the projected flat wage inflation rate is **3.87% p.a.** based on the market-based model.

The decrease in short-term forecasts is offset by increases in the longer-term, both driven by differing relative changes in nominal bond forward rates and ILB forward rates, resulting in a largely unchanged flat wage inflation rate.

Medium-to-long term inflation forecasts have increased a little, largely due to forecast model refinements, including small increases to assumed long-term CPI and AWE rates.

Discount rates

Figure A.16 – Projection of investment return



Discount rates are derived from nominal bond market yields.

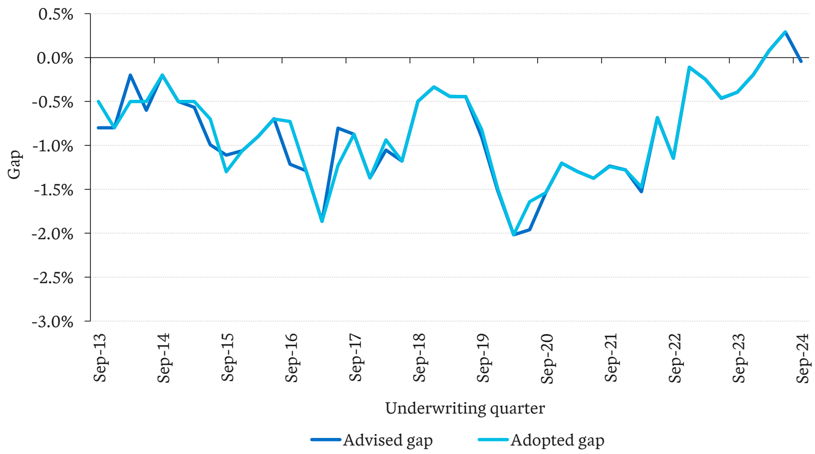
The flat discount rate assumption is **3.83% p.a.** at this review.

Economic gap

Table A.2 – Economic gap (p.a.) based on market-based model inflation forecasts

Assumption	Previous review	Current review	Change
Wage inflation	3.82%	3.87%	0.05%
Investment return	4.11%	3.83%	-0.28%
Economic gap	**0.29%**	**-0.04%**	**-0.34%**

Figure A.17 – Economic gap by underwriting quarter



The economic gap has decreased from 0.29% to **-0.04%** at this review.

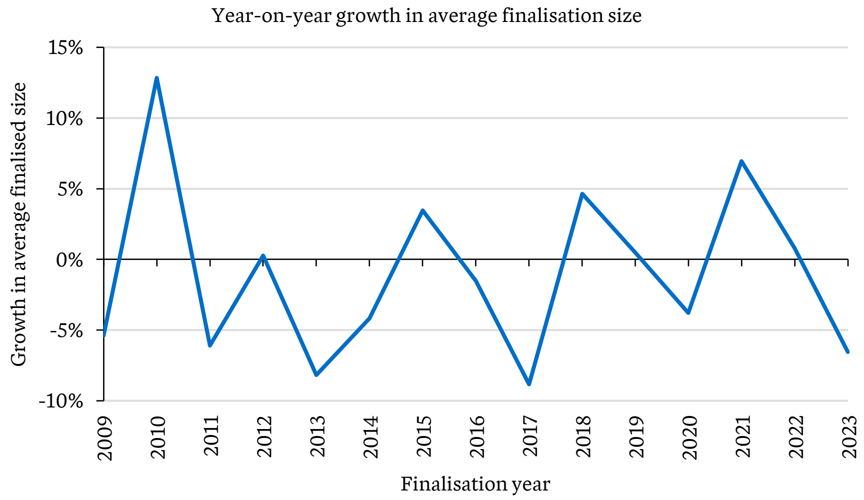
The flat discount rate has decreased from 4.11% to 3.83% p.a. and the flat inflation rate has increased from 3.82% to 3.87% p.a..

A.3.3 Superimposed inflation

We monitor superimposed inflation each quarter.

We estimate the superimposed inflation in the claim size across finalisation periods after standardising for severity mix and operational time. The charts below show finalisation period superimposed inflation for core claims only - core claims account for approximately 95% of the risk premium.

Figure A.18 – Year-on-year growth in average finalisation size



Note:

- *This chart shows finalisation period changes in average claim size for core claims only. Core claims account for approximately 95% of the risk premium.*
- *The chart is based on data for finalisations across all insurers.*
- *Average claim sizes underlying year-on-year growth rates have been "standardised" for severity mix and operational time only. It is misleading to compare these to estimates that have standardised for other characteristics such as Injury Scale Value (ISV).*

Over the long term, superimposed inflation has been benign.

We observe negative superimposed inflation over the 10- and 5-year periods to 2023.

The recent periods have been impacted by several 'unmodelled' factors. These include increases in the proportion of psychological claims and claims management disruptions at one insurer, reportedly resulting in reordering of claims finalisations.

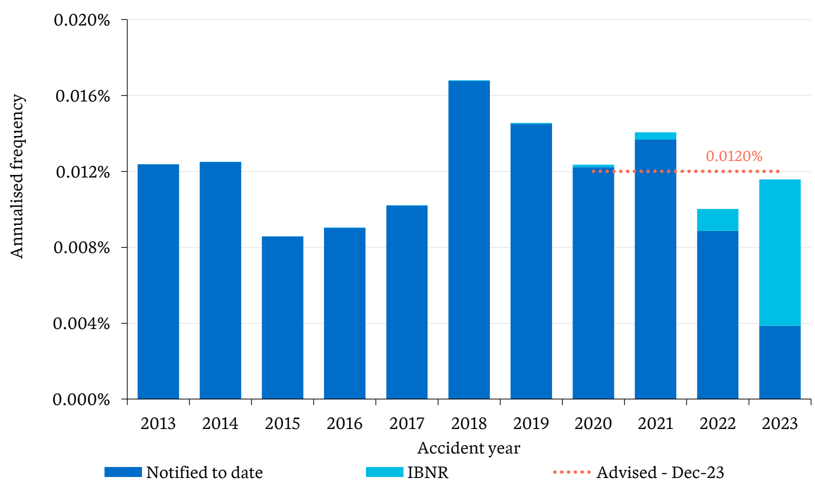
A.4 Other premium components

A.4.1 Non-core claims

This section discusses workers' compensation recovery, interstate sharing (IS) and NSW accident postcode claims experience and assumptions. These are referred to as non-core claims.

We typically review the non-core claim assumptions at each annual review. At this annual review, we have updated our assumptions for non-core claims to reflect recent experience.

Figure A.19 – Workers' compensation recovery claim frequency

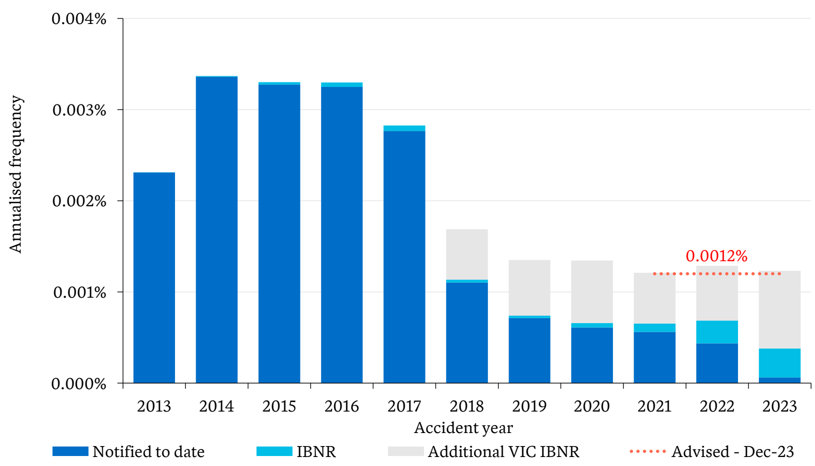


The frequency assumption for workers' compensation recovery claims has decreased by 7% to 0.0120% in response to recent experience.

The assumed average claim size has increased by 2% after allowing for inflation to reflect recent experience.

The risk premium for workers' compensation recovery claims has decreased from $1.08 at Dec-22 (adjusted for inflation) to $1.02 at this review.

Figure A.20 – Interstate sharing claim frequency



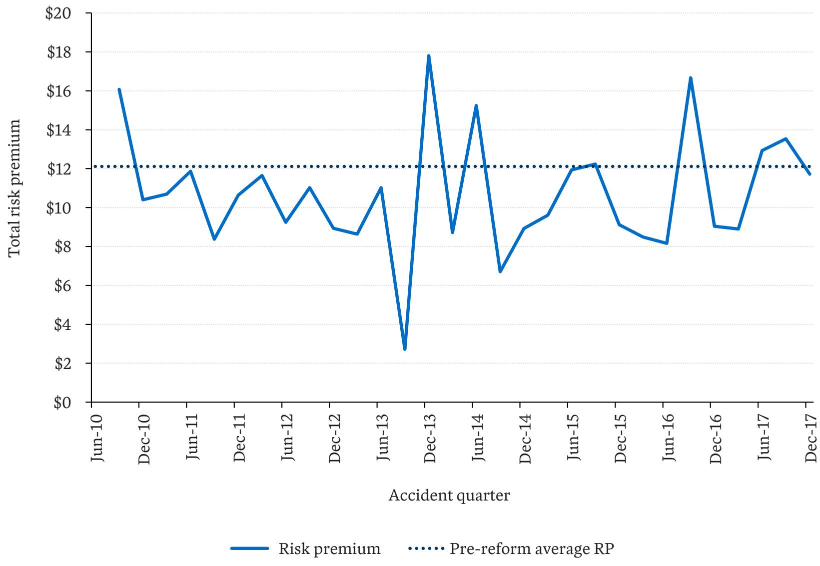
There was a marked drop in IS claims from the beginning of the 2018 accident year attributed to a processing delay in Victorian IS claims.

At this annual review, we continue to assume a proportion of delayed Victorian IS claims from the 2018 accident year onwards will eventually be processed. Our frequency assumption has decreased to 0.0012%, partially allowing for the recent favourable experience.

The assumed average claim size has decreased by 2% (after allowing for inflation) to reflect recent experience.

The risk premium for IS claims has decreased from $1.12 at Dec-22 (adjusted for inflation) to $0.87 at this review.

Figure A.21 – NSW accident postcode claims risk premium



Observed experience for NSW accident postcode claims continues to be volatile following the Dec-17 NSW claims reform.

At this annual review, information sourced from SIRA's actuarial adviser indicated a smaller 28% reduction in risk premium from the reform (previously 31%), which has been incorporated in our estimate.

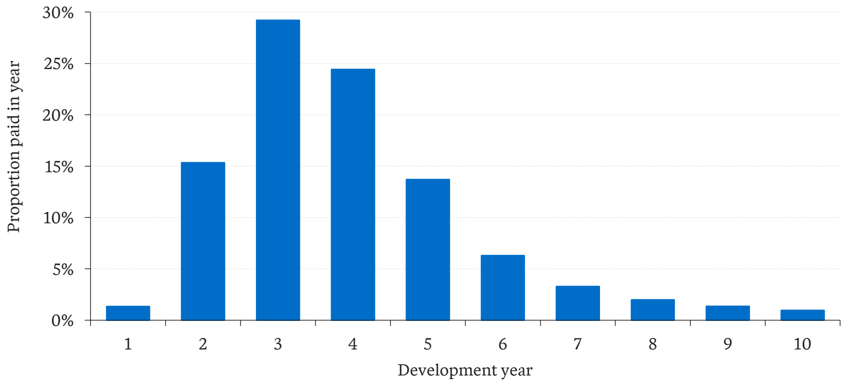
At this review, both the estimated post-reform frequency and average claim size assumptions have increased in response to emerging experience and information from SIRA's actuarial advisor.

The risk premium estimate for NSW accident postcode claims has increased from $7.97 at Dec-22 (adjusted for inflation) to $8.73 at this review.

A.4.2 Payment pattern

Taylor Fry advises on the pattern of future payments for applying the economic assumptions. The payment pattern shows when claim payments are expected to be made following underwriting.

Figure A.22 – Payment pattern



At this annual review, we have allowed for the speed up in finalisations observed over 2023 when calculating the payment pattern.

The mean term from underwriting to payment is estimated to be 3.6 years.

A.4.3 Vehicle class relativities

The vehicle class relativities determine the risk premium of each vehicle type relative to Class 1. We update our estimates for the vehicle class relativities at each annual review and more frequently where warranted. MAIC may adopt different relativities.

Table A.3 shows the vehicle class relativities estimated at the Dec-23 annual review.

Table A.3 – Vehicle class relativities

Vehicle class		Relativity central estimate (%)	90% confidence range (%)
1	Cars and station wagons	100	
2	Motorised homes	31	21 - 41
3	Taxis	1,164	995 – 1,345
4	Hire vehicles	194	177 - 211
5	Vintage, veteran, historic or street rod motor vehicles	6	3 - 11
6	Trucks, utilities and vans 4.5t GVM or less	122	117 - 127
7	Trucks, utilities and vans more than 4.5t GVM	395	368 - 422
8	Buses: charitable, community service, driver tuition, not otherwise for business or commercial use	174	133 - 221
9	Buses: school, therapy, rehabilitation, remedial or special education	162	122 - 207
10A	Buses: not class 8, 9 or 10B but used within 350km of base	505	419 - 596
10B	Buses: operating under an integrated mass transit service contract other than used for a school or restricted school	1,215	1,072 – 1,365
11	Buses: not class 8, 9, 10A or 10B	368	297 - 446
12	Motorcycles: for driver only	22	17 - 28
13	Motorcycles: with pillion passenger/sidecar	43	37 - 49
14	Tractors	7	3 - 12
15	Self-propelled machinery or equipment, fire engines, bush fire brigade and other emergency vehicles	195	147 - 248
16	Ambulances	202	123 - 297
17	Primary production vehicles	48	39 - 57
19	Motor vehicles conditionally registered - limited access	25	17 - 33
20	Motor vehicles conditionally registered – zoned access	4	1 - 7
21	Self-propelled machinery other than a vehicle of class 14, 15, 19 or 20	14	5 - 27
23	Dealer's plate issued	30	16 - 46
24	Supplementary trailer insurance including Federal/Interstate	3	1 - 7
26	Ride booking and limousines	336	277 - 401
*	Personalised transport vehicles (Classes 3, 4 and 26 combined)	256	230 - 283

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