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# **Queensland CTP Market Briefing**

Review of the risk premium for the 2025Q2 underwriting quarter

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# **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 one stakeholder submission which has been considered in the preparation of this report.

#### **Reliance 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 Sep-24, changes since the last review and uncertainty in the risk premium estimate.

Our estimate of the risk premium at Sep-24 is \$193.26. 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 Sep-24

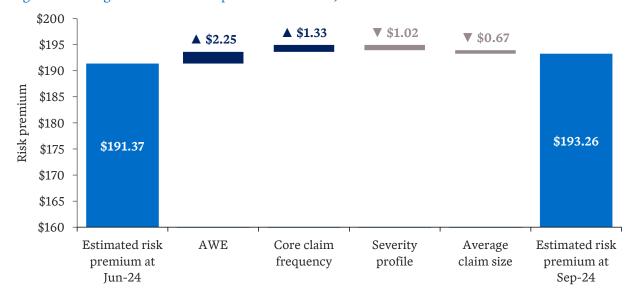
Component	Frequency %	Average claim size \$	Risk premium \$
Core claims	0.1380%	131,869	181.98
NSW accident postcode claims	0.0056%	165,603	9.27
Interstate sharing claims	0.0012%	77,180	0.93
Workers' compensation recovery claims	0.0120%	9,057	1.09
Estimated risk premium at Sep-24	0.1568%	123,253	193.26

### 1.1 Change since last review

The estimated risk premium at Sep-24 of **\$193.26** is **\$1.89 higher** than our estimate at the previous review. This estimate is in Sep-24 dollars before the application of inflation and discounting.

Figure 1 shows the contributors to the change in estimated risk premium since Jun-24.

Figure 1 – Change in estimated risk premium since the Jun-24 review



#### Figure 1 shows:

- An **increase in Average Weekly Earnings (AWE) over the quarter**, resulting in an increase in the risk premium of \$2.25
- An increase of \$1.33 due to an increase in the core claim frequency
- A decrease of \$1.69 due to a **decrease in the average claim size**, which is the combined effect of:
  - A decrease of \$1.02 due to a **weakening of the severity profile**, driven by an increase in the proportion of Severity 1N claims, offset by a decrease in the proportion of higher severity claims
  - A decrease of \$0.67 mainly due to a decrease in the core claim size assumptions for severities 2 and 3.

#### 1.2 Risk premium uncertainty

Our risk premium estimate for the 2025Q2 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

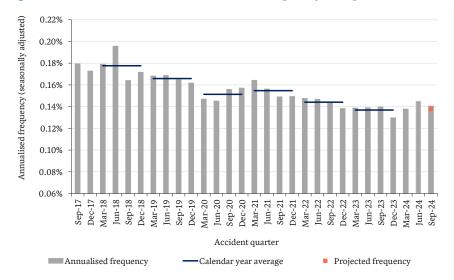
We generally review the core claim frequency selection quarterly.

This section outlines the assumptions for core claim frequency.

Notifications over the quarter were 6% higher than forecast at Jun-24. The higher than forecast experience was mainly driven by the Jun-24 accident quarter.

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 Sep-24



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 Sep-24 is calibrated to a 4-quarter average over Sep-23 to Jun-24. This represents a 0.7% increase from the Jun-24 estimate to a projected frequency of **0.1380%** at this review, mainly driven by a high estimated ultimate claim frequency for the Jun-24 accident quarter.

# 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 64% of core claim notifications and around 48% 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 Sep-24 and change from the previous quarter

Severity	Previous review Jun-24	Current review Sep-24	Movement
1N	9.7%	10.4%	0.7%
1Y	64.4%	64.1%	-0.3%
2	14.0%	13.8%	-0.3%
3	6.4%	6.3%	-0.1%
4	0.9%	0.9%	0.0%
5	0.4%	0.4%	0.0%
6	1.1%	1.2%	0.1%
9NA	3.1%	2.9%	-0.2%
All	100%	100%	

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

A decrease in the proportion of Severity 1Y and Severity 2 claims is offset by an increase in the proportion of Severity 1N claims, resulting in a net \$1.02 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 at Sep-24 and change from the previous quarter (adjusted for inflation), excluding changes in severity profile

Severity	Previous review Jun-24 \$'000	Current review Sep-24 \$'000	Movement
1N	13	13	0.6%
1Y	99	99	0.2%
2	202	200	-1.0%
3	386	379	-1.9%
4	723	726	0.3%
5	1,048	1,049	0.0%
6	319	328	2.9%
9NA	14	13	-3.7%
Total	132	132	-0.4%

The core claim size assumption has **decreased by 0.4%** since Jun-24, excluding changes in severity profile.

This slight reduction is driven by severities 2, 3 and 9NA.

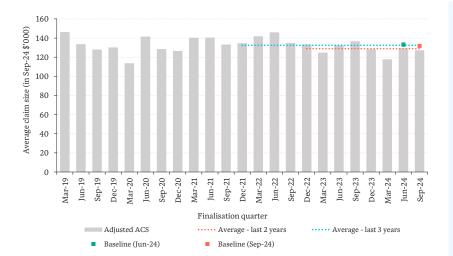
Unchanged from our approach at the previous review, we have calibrated the average claim size assumptions to the claims data from all insurers.

The AY2021 to AY2023 finalisation experience of one insurer continues to emerge significantly below their prior accident years, and the experience of other insurers. Discussions with the insurer have indicated that this results from focussing on less complex claims with smaller average claim sizes. They expect that the average claim sizes for these accident years will increase as they finalise the complex claims. We continue to accept this explanation.

We believe calibrating to all data, including the insurer's AY2021 to AY2023 experience, is appropriate. This approach provides a more accurate forecast of how average claim size will emerge at lower operational times. Further, our analysis indicates that the high average claim size experience for this insurer from AY2018 to AY2020 – when combined with rest of industry data – provides a good basis for forecasting the higher finalisation costs that will emerge at higher operational times.

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)

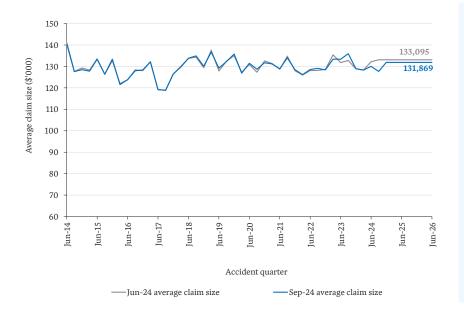


The core average claim size assumed at Sep-24 is **0.9% lower than** our previous estimate, which is the combined effect of a **weakened** severity profile and a **reduction** in average claim size assumptions.

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 **\$131,869**.

# 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 2025Q2 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 +/-\$15.

#### **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	+\$14.5 / -\$14.5
Frequency / severity profile scenarios	
Frequency in line with experience over the accident year Sep-22 to Jun-23, with increases for severities 1N, 1Y and 2 only	+\$2.0
Increase in proportion of Severity 1 direct claims, shifting from Severity 1Y to Severity 1N, including illustrative ACS impact	-\$0.4
Severity 3+ frequency develops in line with average experience for AY2021-AY2024 (excl. AY2022)	+\$0.5
Severity 3+ frequency develops in line with average experience for AY2021-AY2024 (incl. AY2022)	-\$0.3
Average claim size (ACS) scenarios	
Severity 1Y ACS emerges in line with the finalisation experience over the last 3 years	+\$1.0
Severity 2 ACS emerges in line with the finalisation experience over the last 2 years	-\$0.7
One insurer's ACS experience in AY2021-AY2023 is favourable and not a reordering	-\$3.6
One insurer's high ACS experience in AY2018-AY2020 persists into the new premium period	+\$1.7

#### 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 Sep-23 to Jun-24.

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.

Traffic volumes have increased in the Sep-24 quarter relative to the Dec-23 and Mar-24 quarters, although continuing to remain low relative to 2021 levels.

If claim frequency reverted to the level seen over the accident year Sep-22 to Jun-23 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 \$2.00.

#### 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 Jun-22 to Mar-24. As a *fairly aggressive* scenario, we consider calibrating the proportion of Severity 1N claims to experience of the two accident quarters Dec-23 and Mar-24 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 <u>risk premium estimate</u> would decrease by \$1.40.

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 \$1.40 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 <u>risk premium estimate would decrease</u> by \$0.40 (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.

The frequency for AY2022 is emerging lower than previous accident years. If the frequency for 2025Q2 is assumed to emerge similarly to the average projected for AY2021-AY2024 (excl. AY2022) then the risk premium estimate would increase by \$0.50.

If the frequency for 2025Q2 is assumed to emerge similarly to the average projected for AY2021-AY2024 (incl. AY2022) then the risk premium estimate would decrease by \$0.30.

#### 5.2.4 Uncertainty in the core average claim size

As discussed in Section 4, average claim size assumptions are calibrated to all finalisations data. This includes one insurer's experience for AY2021 to AY2023 that is emerging below their prior accident years, and also their high AY2018 to AY2020 experience that is emerging above their prior experience and that of other insurers.

If this insurer's experience in AY2021 to AY2023 is favourable, rather than a reordering of claims that the insurer has pointed to, then the risk premium may decrease by \$3.60.

If this insurer's high average claim size experience in AY2018 to AY2020, understood to be due to temporary claims management issues over that period, is instead representative of the future then the risk premium may increase by \$1.70.

# 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 Sep-24 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 3-year average throughout, giving more weight to the higher experience over Dec-21 to Sep-22, the risk premium would increase by \$1.00.

The Severity 2 average claim size stepped up for finalisations over 2021-2023, before decreasing over Mar-24 to Sep-24. Our projection at Sep-24 is based on a mix of a 2-year average for low-mid operational times and a 3-year average for high operational time claims.

If we were to calibrate the Severity 2 ACS to a 2-year average throughout, which puts more weight on some of the lower ACS experience in 2024, the risk premium would decrease 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.

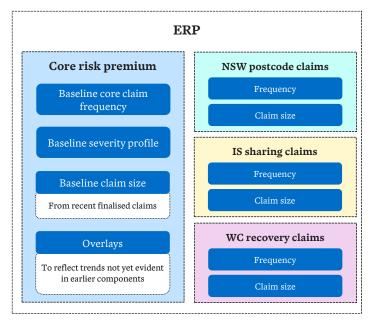
Our Estimated Risk Premium (ERP) for a given future underwriting quarter is comprised of our **baseline risk premium estimate** and **overlays**. The ERP reflects **risk premium** implied by **the most recent past accident periods**, adjusted for the impact of changes which meet the following criteria:

- 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

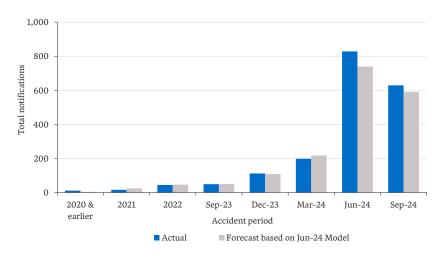
Claim	All claims recorded as notified in the Scheme data, other than Nominal Defendant claims, but specifically including those for nil or trivial amounts.
Claim severity	Claim severity refers to our severity band under which a claim falls under, which is a categorisation based on the maximum injury 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 Sep-24 quarter

This section discusses experience over the Sep-24 quarter for core claims.

#### **A.2.1 Core claim notifications**

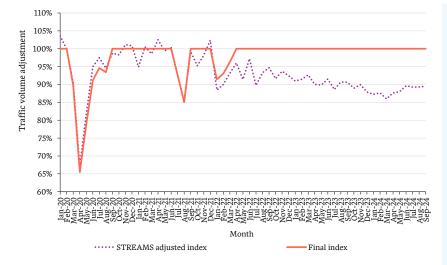
Figure A.1 - Number of core claims notified in Sep-24



After adjusting for the impact of COVID-19 and the lower traffic volumes in Mar-22, total notifications in Sep-24 were 6% higher than forecast at Jun-24.

This was mainly driven by higherthan-expected experience for the Jun-24 accident quarter.

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.

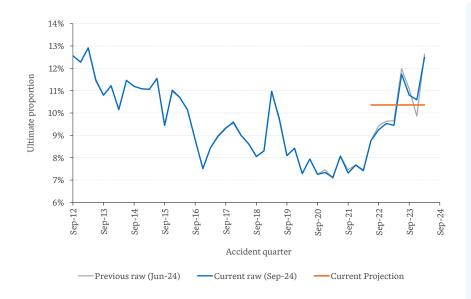
Adjustments for traffic volumes (orange line) remain unchanged at this review.

Traffic volumes have increased in the Sep-24 quarter relative to the Dec-23 and Mar-24 quarters, although continuing to remain low relative to 2021 levels. No adjustment has 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

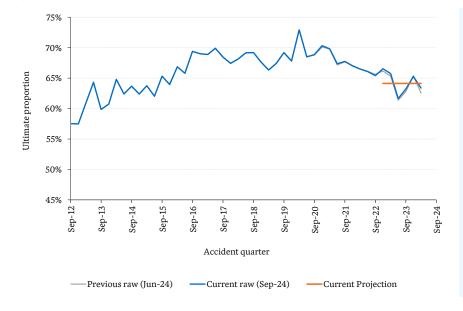


Severity 1N notifications have been developing at a much higher level since the Sep-22 quarter. We continue to reflect more of this experience when selecting our assumptions.

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

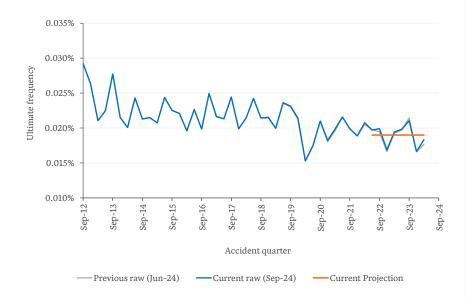


The majority of claims are Severity 1Y claims.

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.

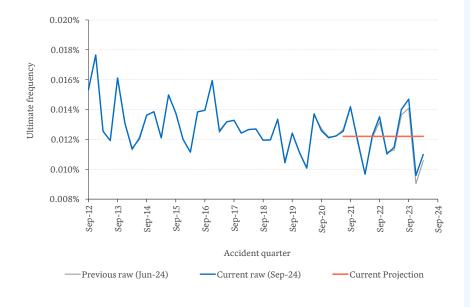
Figure A.5 – Severity 2 projected frequency



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 has decreased slightly at this review, and is in line with the experience over the past 2 accident years.

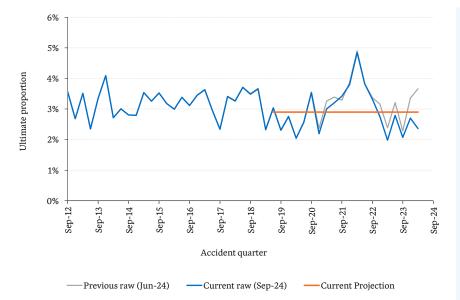
Figure A.6 – Severity 3 to 6 projected frequency



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 increased slightly at this review.

Figure A.7 – Severity 9 claim projected proportion

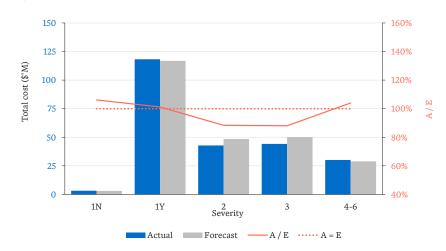


The proportion of Severity 9 claims has been volatile.

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

### A.2.3 Core claim average claim size

Figure A.8 – Finalisation experience by severity in Sep-24



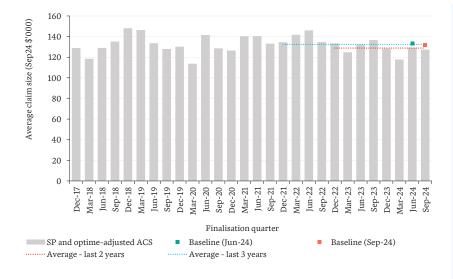
The actual cost for the Sep-24 quarter across all severities was **4% lower than** projected at Jun-24.

Severity 1N claims finalised for 6% higher than forecast, and Severity 1Y claims finalised for 1% higher than forecast.

Severity 2 claims finalised for 12% lower than forecast.

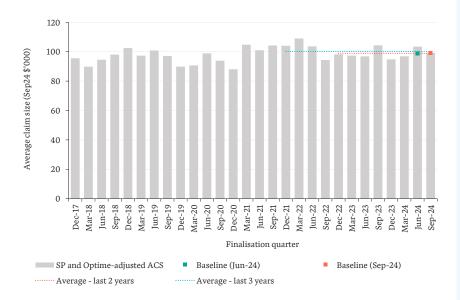
Finalisation experience for higher severity groups is volatile. Severity 3-6 claims finalised for 6% lower than forecast.

Figure A.9 – All severities average claim size



The average claim size assumed at Sep-24 is **0.9% lower than** our previous estimate due to reductions to average claim size assumptions and a weakened severity profile.

Figure A.10 – Severity 1Y average claim size

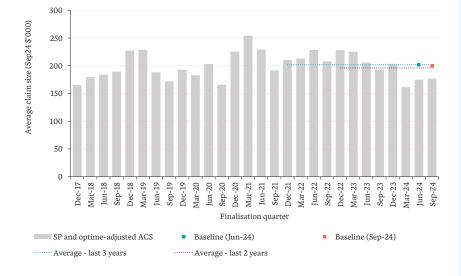


The average finalised size of Severity 1Y claims was high in the six finalisation quarters up to Jun-22, followed by lower experience since Sep-22.

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 Sep-24 is **0.2% higher** than projected at Jun-24, reflecting more of the higher recent experience.

Figure A.11 - Severity 2 average claim size



The average finalised size of Severity 2 claims stepped down over Mar-24 to Sep-24.

Two underlying trends are driving the recent lower
Severity 2 average claim size –
(1) the average claim size of legally represented Severity 2 claims has decreased, and (2) the proportion of Severity 2 claims finalised without legal representation has increased over Sep-23 to Sep-24.

To better capture recent experience, the averaging period to which the Severity 2 average claim size is calibrated has been shortened by one year. The Severity 2 average claim size is now calibrated to experience of the past 2 years across low-mid operational times and across the past 3 years for higher operational times.

The projected average claim size at Sep-24 is **1.0% lower** than projected at Jun-24.

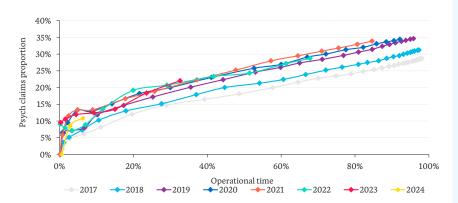
#### **A.2.4 Psychological claims**

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 AY2021**.

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.

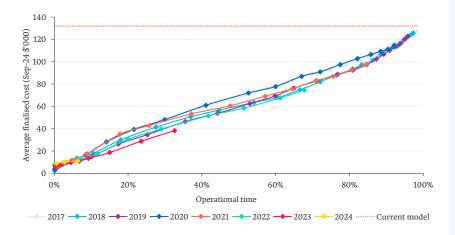
Figure A.12 – Psychological claims finalised proportion by accident year



From AY2017 to AY2021, there was an increasing trend in the proportion of finalised claims with a psychological injury.

The trend appears to have stabilised from AY2021.

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



Finalisation experience continues to indicate that our current average claim size models appropriately capture the effect of increasing psychological claims between AY2017 and AY2021 without any need for a separate adjustment.

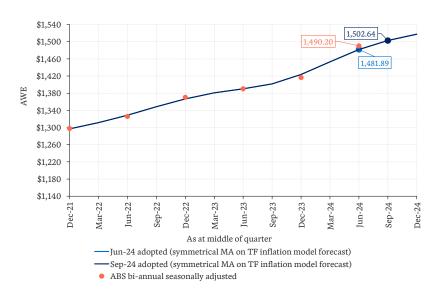
Note: In this figure we have scaled past cost data for the expected cost differences between accident years so that each AY consistently develops to our current projected average claim size assumption.

#### **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 Sep-24 quarter



We have applied the future inflation rates forecast by the Taylor Fry market-based model to the ABS AWE results released in Aug-24. This results in an AWE increase of 1.2% from the Jun-24 quarter to the Sep-24 quarter.

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

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.

## 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 November 2024.

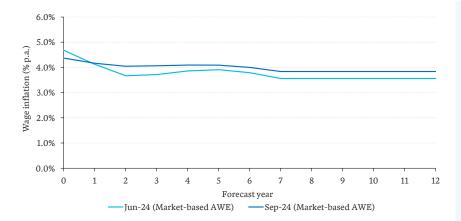
#### **Inflation rates**

At the Sep-24 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

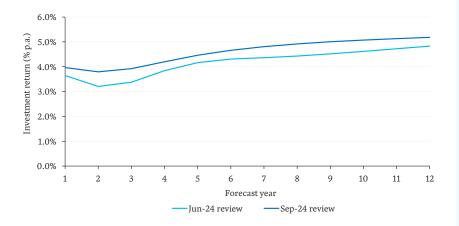


For the 2025Q2 underwriting quarter, the projected flat wage inflation rate is **4.11% p.a.** based on the market-based model.

Inflation forecasts have increased in line with a increase in nominal bond forward rates and ILB forward rates.

#### **Discount rates**

Figure A.16 – Projection of investment return



Discount rates are derived from nominal bond market yields as at 29 November 2024.

The flat discount rate assumption is **4.05% 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	3.93%	4.11%	0.18%
Investment return	3.60%	4.05%	0.45%
Economic gap	-0.32%	-0.06%	0.27%

Figure A.17 – Economic gap by underwriting quarter



The economic gap has increased from -0.32% to **-0.06%** at this review.

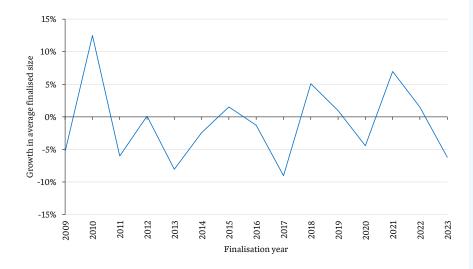
The flat discount rate has increased from 3.60% to 4.05% p.a. and the flat inflation rate has increased from 3.93% to 4.11% p.a..

#### **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 94% of the risk premium.

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



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.

#### Note:

- This chart shows finalisation period changes in average claim size for core claims only. Core claims
  account for approximately 94% 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).

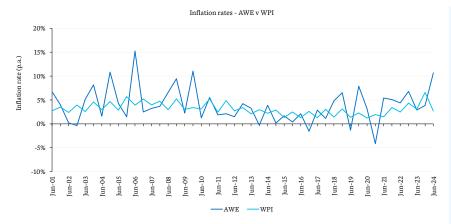
#### A.3.4 Alternative inflation index – WPI

The latest ABS AWE release of 15 August 2024 reflected a material increase in AWE over the half-year to Jun-24 of 10.7% p.a., the highest observed increase since 2012. The increase was also observed in other states, but not to the same extent as QLD. The volatility observed in AWE, particularly over the last 5 years, adds to risk premium volatility.

Therefore, we will consider other inflation indices, such as the Wage Price Index (WPI), that may potentially provide a suitable inflation index with more stability.

Our preliminary findings are discussed below. We plan to perform detailed work around the suitability of alternative inflation indices, with the aim of providing a discussion paper ahead of the Dec-24 annual valuation to invite feedback from insurers.

Figure A.19 – Queensland AWE and WPI inflation rates p.a., updated half-yearly



The chart shows that WPI has historically exhibited less volatility than AWE.

There are however periods over which the growth in AWE exceeds WPI and vice versa, for example:

- Over the three years to Jun-24, average AWE growth was 5.6% p.a., compared to 3.8% for WPI
- Over the three years to Jun-17, average AWE growth was 0.9% p.a., compared to 2.0% for WPI.

Such differences are likely driven by compositional differences between the two inflation measures.

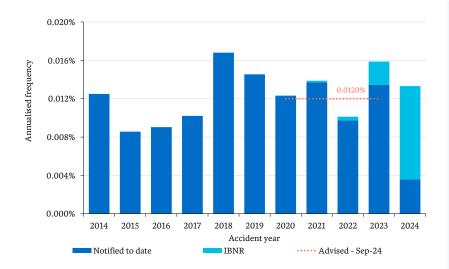
#### A.4 Other premium components

#### 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. We have maintained our assumptions for non-core claims from our Dec-23 annual review.

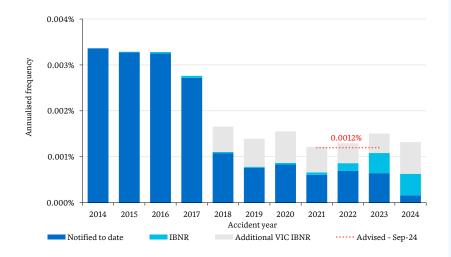
Figure A.20 – Workers' compensation recovery claim frequency



The frequency assumption for workers' compensation recovery claims remains unchanged at 0.0120%.

The risk premium for workers' compensation recovery claims has increased to \$1.09 after allowing for inflation.

Figure A.21 – Interstate sharing claim frequency

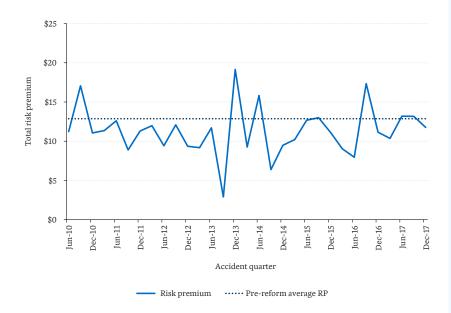


There was a marked drop in IS claims from the beginning of the 2018 accident year attributed to a processing delay in Victorian IS claims.

At the annual review, we continued to assume a proportion of delayed Victorian IS claims from the 2018 accident year onwards will eventually be processed. Our frequency assumption at this review has remained unchanged at 0.0012%.

The risk premium for IS claims has increased to \$0.93 after allowing for inflation.

Figure A.22 – NSW accident postcode claims risk premium



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

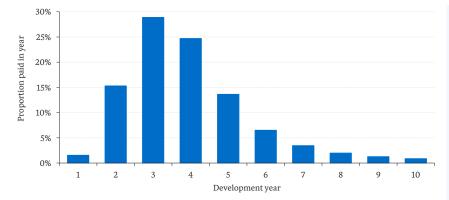
At the annual review, information sourced from SIRA's actuarial adviser indicated a 28% reduction in risk premium from the reform, which has been incorporated in our estimate.

The risk premium estimate for NSW accident postcode claims increased to \$9.27 after allowing for inflation.

### 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.23 – Payment pattern



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

We have not changed the payment pattern at this review.

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

Vehi	cle 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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