TAYLOR FRY

Queensland CTP Market Briefing

Review of the risk premium for the 2024Q1 underwriting quarter

Peter Mulquiney and Danielle Ling

20 September 2023

Document classification: Client use

ACN 087 047 809
ABN 29 087 047 809
www.taylorfry.com.au

Taylor Fry Pty Ltd

ISO 27001 INFO SEC Certified System

Climate Conscious Certified carbon offsets by South Pole

In this briefing

1

Risk Premium

Each quarter, Taylor Fry provides advice to MAIC to assist in its role of setting a pricing band for the QLD 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 before the remainder of this briefing to understand Taylor Fry's role and the structure of our advice.

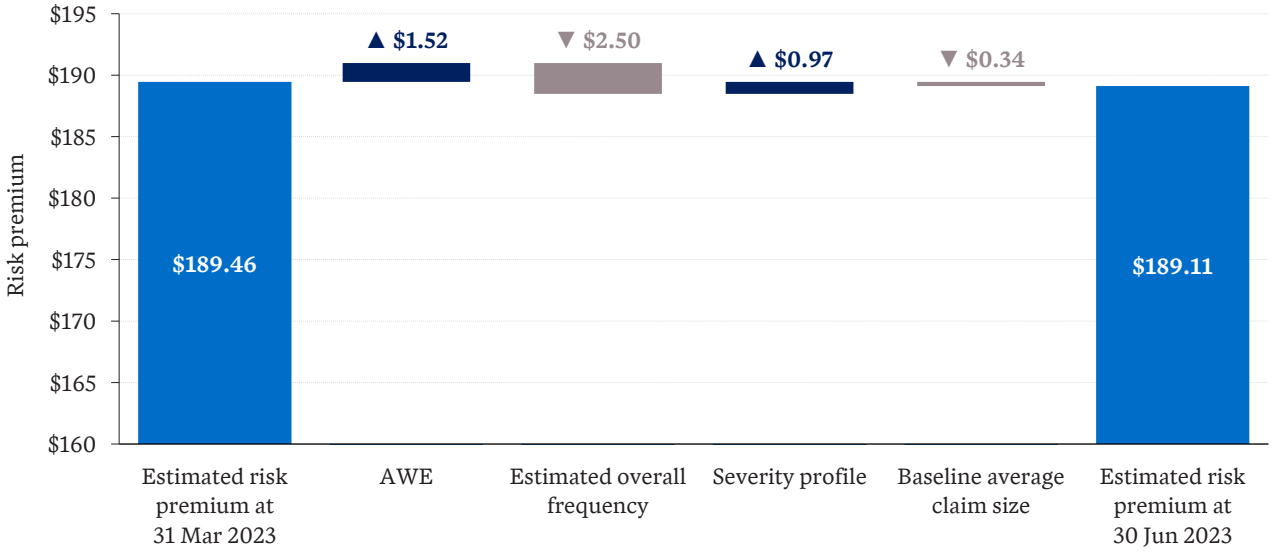
1.1 Risk premium and change since last review

Taylor Fry's **estimated** risk premium is **$189.11** which is **$0.35 lower** than our estimate at the previous review. This estimate is in Jun-23 dollars before the application of inflation and discounting. The main contributors to the reduction in estimated risk premium are:

- An **increase in Average Weekly Earnings** (AWE) for QLD over the quarter. Benefit levels have historically been tied to earnings – as such, we base our estimated risk premium on current and projected Average Weekly Earnings.
- A **strengthening of the severity profile**, driven by a reduction in the proportion of Severity 1Y claims offset by an increase in the proportion of Severity 2+ claims
- Offset by a **decrease in our core claim frequency** assumption, calibrated to the estimated claim frequency for accident quarters Jun-22 to Mar-23
- Overall changes to average claim size assumptions were small.

Figure 1 shows the sizes of the main changes.

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



1.1.1 Components of risk premium

Our estimate is a combination of the risk premium relating to core claims, workers compensation, interstate sharing and NSW postcode claims. The baseline core claims risk premium is based on our estimate of core claims frequency and our estimate of core claim size. Table 1 shows the components of our risk premium estimate.

Table 1 - Estimated risk premium at 30 June 2023

	Risk premium component		
	Frequency (%)	**Average claim size ($)**	**Risk premium ($)**
Core claims	0.1430%	125,219	179.06
NSW accident postcode claims	0.0054%	146,445	7.88
Interstate sharing	0.0015%	73,461	1.10
Workers' compensation recovery	0.0129%	8,292	1.07
Estimated risk premium at 30 June 2023	**0.1630%**	**116,018**	**189.11**

1.1.2 Risk premium uncertainty

Our risk premium estimate for the 2024Q1 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

Typically, we review the core claim frequency model at each annual review, with notification experience monitored quarterly, and changes made if appropriate. Our estimated frequency is set using post-claim farming reform notification experience. The frequency assumption and severity profile were previously revised in Mar-23.

This section outlines the assumptions for core claim frequency.

2.1 Core claim frequency

Notifications over the quarter were 1% higher than forecast at Mar-23. The higher than forecast experience was driven by the latest Jun-23 accident quarter – excluding this accident quarter, notifications were 4% lower than expected.

Figure 2 - Estimated annualised core claim frequency as at 30 June 2023

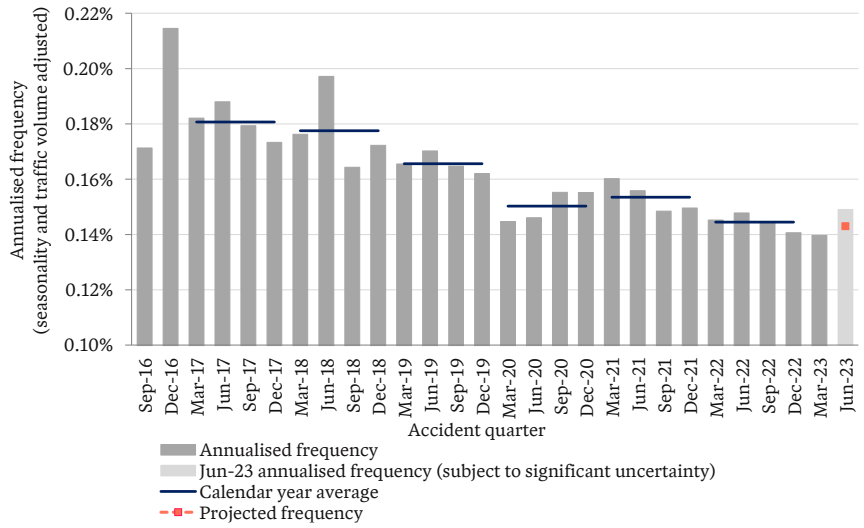


Figure 2 shows the projected ultimate annualised frequency for each historical accident quarter after allowing for seasonality and removing the estimated impact of COVID-19 and the Mar-22 Eastern Australian floods.

Core claim frequency decreased from 2021 to Mar-23, coinciding with lower traffic volumes observed. In addition to traffic volumes, other external 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, with penalties commencing from 1 November 2021.

The advised frequency assumption at Jun-23 takes a 4-quarter average over Jun-22 to Mar-23. This advised frequency represents a **1.4% reduction** from the Mar-23 estimate.

The Jun-23 ultimate frequency appears high relative to the quarters prior, however this accident period is underdeveloped and therefore subject to a high level of uncertainty.

3

Severity Profile

3.1 Core claim severity profile

We review the severity profile quarterly.

With the increased level of uncertainty in the severity profile experience after the introduction of claim farming reforms, we continue to closely monitor and respond to emerging experience on a quarterly basis.

This section outlines the assumptions for the severity profile.

Legally represented Severity 1 claims (Severity 1Y) represent around 70% of core claim notifications and 50% of the core risk premium. While there are relatively few high severity claims, they typically have higher average claim sizes.

Table 2 – Baseline severity profile

Severity	Previous review (Mar-23)	Current review (Jun-23)	Movement
1N	7.8%	8.0%	0.2%
1Y	68.2%	67.8%	-0.4%
2	12.8%	12.9%	0.2%
3	5.9%	6.0%	0.2%
4	0.8%	0.8%	0.0%
5	0.4%	0.4%	0.0%
6	1.0%	1.0%	0.0%
9NA	3.1%	3.0%	-0.1%
Total	100%	100%	

The proportion of higher severity claims has increased at this review, resulting in a net **$0.97 increase** to risk premium.

A reduction in Severity 1Y proportion is offset by an increase in Severity 2 and 3 proportions, with minor movements across other severity groups.

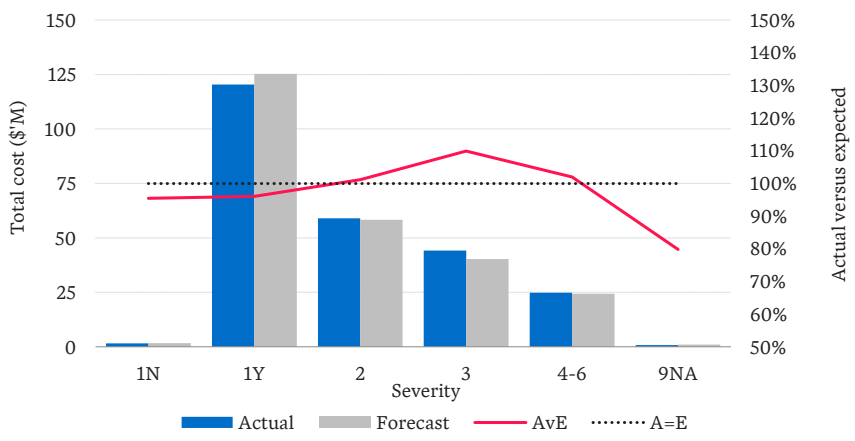
4

Average claim size

4.1 Core average claim size

We review the average claim size by severity every quarter based on the payments to finalised claims. In this section, we compare the recent experience for core claims to our assumptions and show the resulting projected average claim size by accident quarter.

Figure 3 – Finalisation experience by severity in Jun-23 against the Mar-23 model



Actual cost for the Jun-23 quarter across all severities was **in line** with projections at Mar-23.

Severity 1N and 1Y claims finalised 5% and 4% lower than forecast respectively.

Severity 2 and 3 claims finalised for 1% and 9% higher than forecast respectively, with Severity 4-6 claims finalising for 2% higher than forecast.

Table 3 – Change in core average claim size by severity excluding changes in SP ($'000, adjusted for inflation)

	Severity								
	1N	1Y	2	3	4	5	6	9NA	**All**
Projected Mar-23	12	94	193	367	699	953	331	13	**125**
Projected Jun-23	12	94	195	368	688	971	310	13	**125**
Change	+2.6%	-0.5%	+0.8%	+0.4%	-1.6%	+2.0%	-6.5%	-0.6%	**-0.2%**

Figure 4 – Average claim size by finalisation quarter

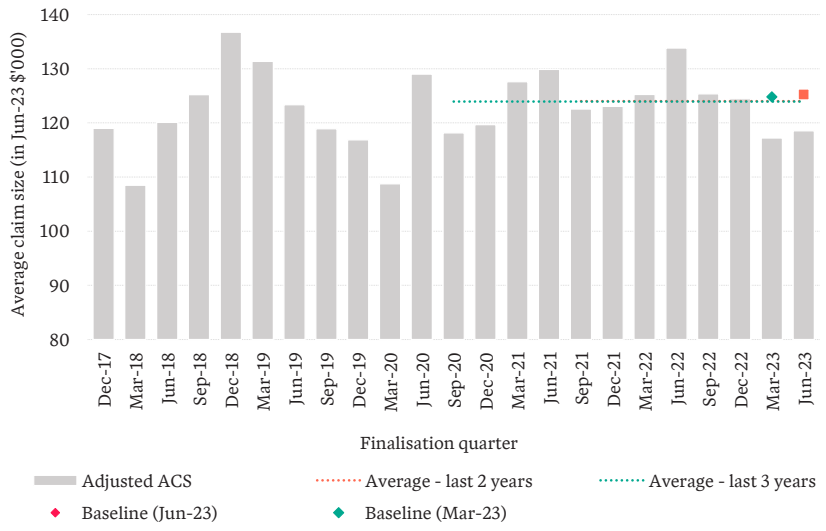
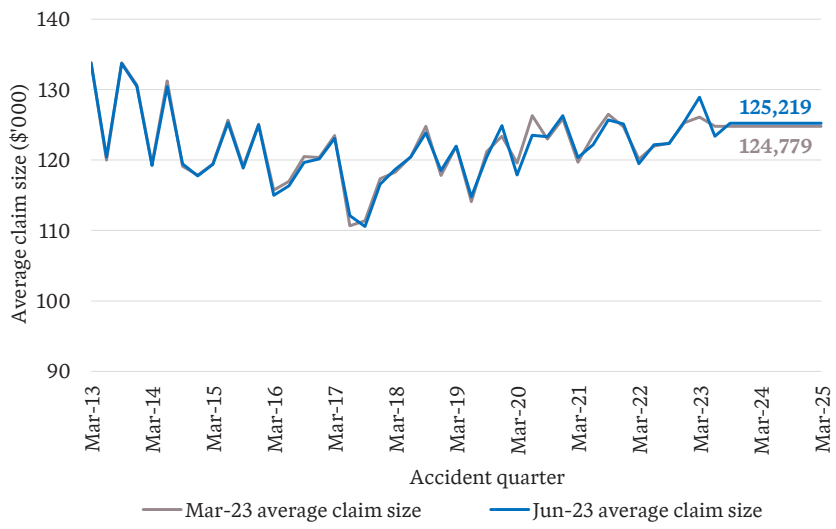


Figure 4 shows historical finalised claim sizes by finalisation quarter, standardised for severity profile and changes in the rate of finalisations across accident periods.

The core average claim size assumed at Jun-23 is 0.4% higher than our previous estimate, driven by a **strengthened severity profile**.

Our current average claim size assumption is in line with the average experience of the past 2-3 years.

Figure 5 –Projected core average claim size by accident quarter (all severities) ($'000, adjusted for inflation)



Our projected core average claim size has increased slightly from the previous review. The current estimate is $125,219.

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. This uncertainty has two main sources:

- Risk premium evolution – the average claim for underwriting quarter 2024Q1 will finalise around four years later than the most recent finalised claim data available at this review. Historically there have been large movements in the risk premium over a four-year period. In general, these movements are not predictable in advance.
- Historical risk premium estimation uncertainty – even for past underwriting quarters where a good volume of finalised claims data is available, there is considerable uncertainty in relation to the cost of claims yet to finalise.

We have quantified this "business as usual variation" and have found that there is an approximately 50% chance that the actual risk premium will fall within the range:

- 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 summarized 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	**+$14.2 / -$14.2**
Frequency scenarios	
6 quarter averaging period for core claim frequency	**+$1.9**
Increase in proportion of Severity 1 direct claims, shifting from Severity 1Y to Severity 1N, including illustrative ACS impact	**-$0.7**
Severity 3+ frequency develops in line with AY2021	**+$3.4**
Severity 3+ frequency develops in line with AY2022	**-$2.1**
Average claim size (ACS) scenarios	
Severity 1Y ACS emerges in line with the finalisation experience over the last 1 year	**-$4.4**
Severity 1Y ACS emerges in line with the finalisation experience over the last 3 years	**-$1.4**
Severity 2 ACS emerges in line with the finalisation experience over the last 3 years	**+$0.7**
Severity 2 ACS emerges in line with the finalisation experience over the last 4 years	**-$0.4**

5.2.1 Uncertainty in the frequency of core claims

Our baseline frequency assumption is based on the average frequency experience over the 4 accident quarters from Jun-22 to Mar-23.

If a 6-quarter averaging period was used instead, which includes the higher frequency experience over Dec-21 and Mar-22, the risk premium would increase by $1.9.

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 Mar-20 to Dec-22. As a *fairly aggressive* scenario, we consider calibration of the proportion of Severity 1N claims to experience of the two accident quarters Sep-22 and Dec-22 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 $2.1.

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 $2.1 decrease discussed above. As an *illustrative example*, assuming that 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 $0.7 (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 been volatile. 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 2024Q1 is assumed to emerge similarly to that projected for AY2021 then the risk premium estimate would increase by $3.4.

If the frequency for 2024Q1 is assumed to emerge similarly to that projected for AY2022 then the risk premium estimate would decrease by $2.1.

5.2.4 Uncertainty in the core average claim size

Severity 1Y average claim sizes increased for finalisations between the Mar-21 and Jun-22 quarters, however have finalised at a lower level since, more closely reflecting experience before Mar-21. Our baseline projection at Jun-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 recent post-Jun-22 experience, the risk premium would decrease by $4.4. If we calibrated to a 3-year average throughout, reflecting more of the lower experience prior to Mar-21, the risk premium would decrease by $1.4.

The Severity 2 average claim size has stepped up materially for finalisations since Dec-20. Our baseline projection at Jun-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 some of the lower ACS experience before Dec-20, the risk premium would increase by $0.7. If we calibrated to a 4-year average throughout, reflecting more of the lower experience prior to Dec-20, the risk premium would decrease by $0.4.

6

Structure of Risk Premium advice

6.1 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.

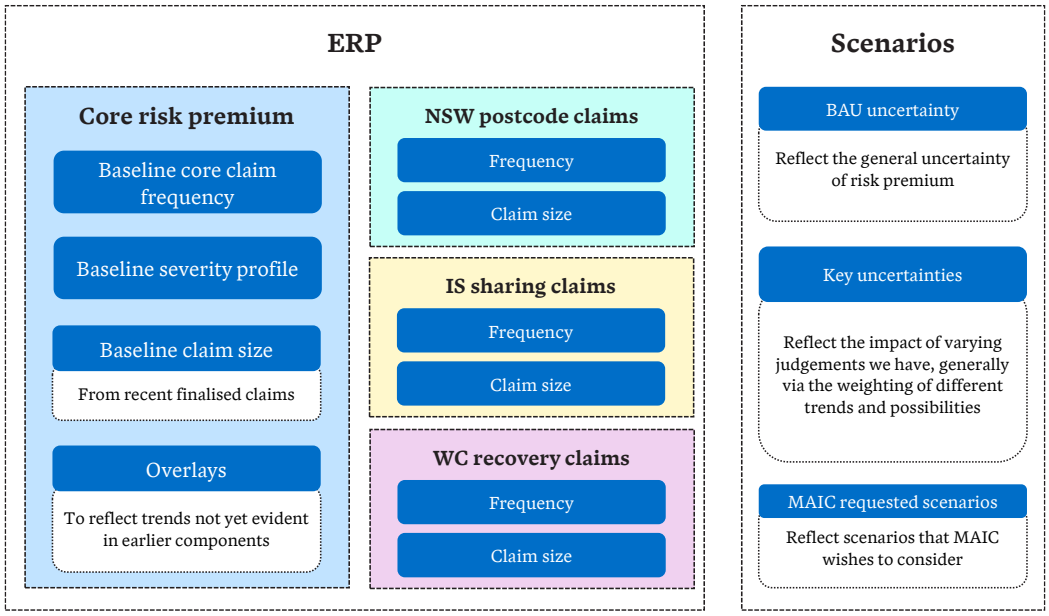
Our Estimated Risk Premium (ERP) for a given future underwriting quarter is comprised of our **baseline risk premium estimate** and **overlays**. The ERP reflects **risk premium** implied by **the most recent past accident periods**, adjusted for the impact of changes which meet the following criteria:

- 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.

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.

A

About the Market Briefing

A.1 About the Market Briefing

This report, alongside the accompanying market briefing and associated insurer annex spreadsheet, is provided by Taylor Fry to Queensland Motor Accident Insurance Commission (MAIC) for distribution to QLD CTP insurers each quarter.

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.

TAYLOR
FRY