



# Queensland CTP Market Briefing

Review of the risk premium for the 2022Q4 underwriting quarter

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# 1

Risk Premium

Each quarter, Taylor Fry gives advice to MAIC to assist in its role of setting a pricing band for the QLD CTP Scheme (the 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.

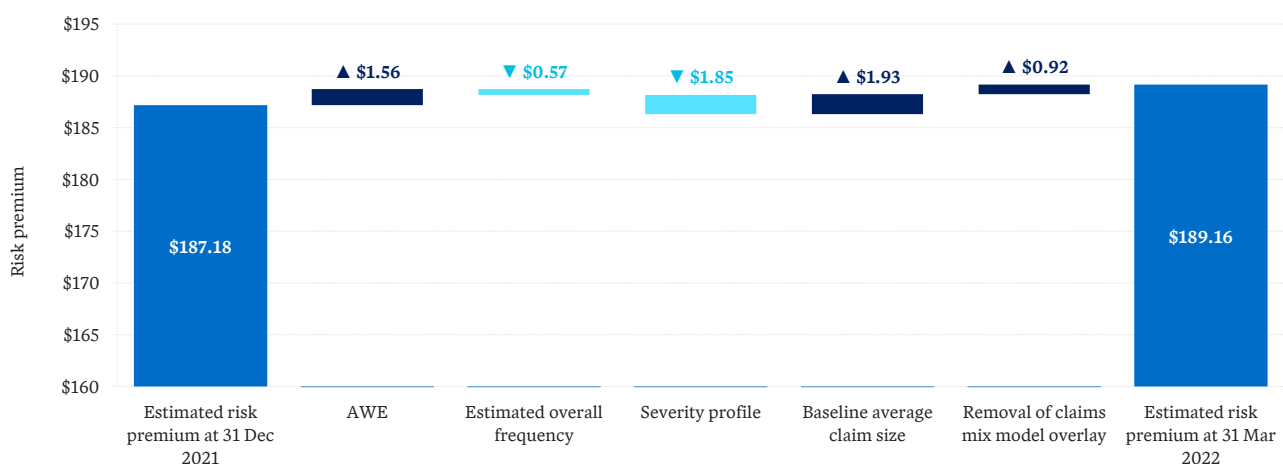
## 1.1 Risk premium and change since last review

Taylor Fry's **estimated** risk premium is **\$189.16** which is **\$1.99 higher** than our estimate made at the previous review. The estimate is in Mar-22 dollars before the application of inflation and discounting. The main contributors to the increase in estimated risk premium are:

- An increase in **Average Weekly Earnings** (AWE) for QLD. Since benefit levels have historically been tied to earnings, we base our estimated risk premium on current and projected Average Weekly Earnings.
- A decrease in our **core claim frequency** assumption driven by lower-than-expected experience over the quarter.
- An increase in baseline **average claim size** driven by higher-than-expected experience over the quarter and the removal of the allowance for trends in average claim size of small non-serious claims.
- A weakening of the **severity profile** due to increased recognition of decreasing frequency trends for severities 2 and 3+.

Figure 1 shows the sizes of the most important changes.

Figure 1– Change in estimated risk premium since the Dec-21 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, which typically relies on the notifications experience from the most recent accident periods, and our estimate of core claim size which relies on a reasonably long history of finalised claim sizes. Table 1 shows the components of our risk premium estimate.

Table 1 - Estimated risk premium at 31 March 2022

	Risk premium component		
	Frequency	Average claim size (\$)	Risk premium (\$)
Core claims	0.1575%	113,577	178.88
NSW accident postcode claims	0.0060%	135,563	8.19
Interstate sharing	0.0015%	67,198	1.01
Workers' compensation recovery	0.0144%	7,507	1.08
Estimated risk premium at 31 Mar 2022	<b>0.1790%</b>	<b>105,676</b>	<b>189.16</b>

### 1.1.2 Risk premium uncertainty

Our risk premium estimate for the 2022Q4 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.

More details on this uncertainty are found in Section 5.

# 2

Frequency

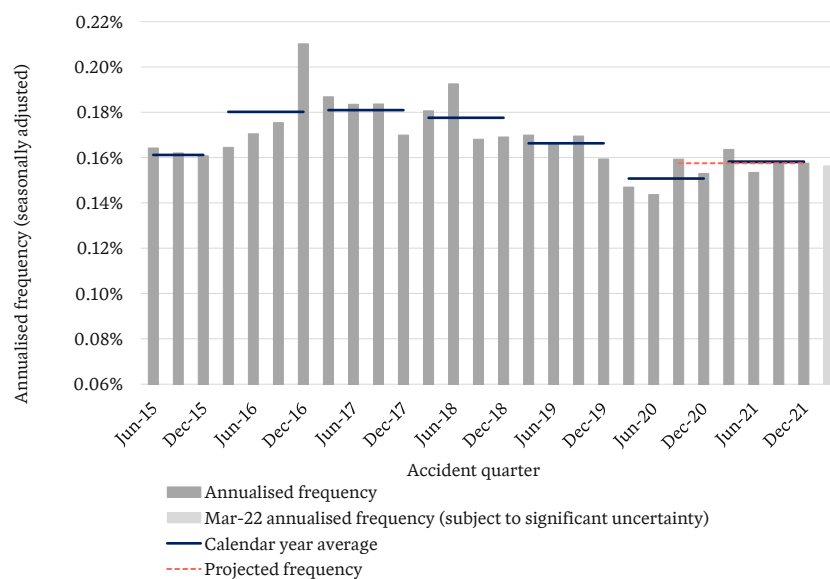
Typically, we review the core claim frequency model at each annual review, but the experience is monitored quarterly, and changes are made if necessary. Our estimated frequency is set using post-claim farming reform notification experience, allowing for the impact of COVID related shutdowns and the apparent change in notification patterns. The frequency assumption and severity profile were previously revised in Dec-21. This section outlines the assumptions for core claim frequency.

## 2.1 Core claim frequency

Notifications over the quarter were 10% lower than forecast at Dec-21.

Insurers reported slowdowns in claim processing and notifications driven by COVID-related staff shortages and the Eastern Australian floods. The lower-than-forecast notifications were experienced across most historical accident quarters, which is consistent with a disruption to claim reporting and/or processing. In response we have not given full weight to the lower-than-forecast experience this quarter when adjusting our frequency estimates

Figure 2 - Estimated annualised core claim frequency as at 31 March 2022



This figure shows the projected ultimate annualised baseline frequency for each historical accident quarter after allowing for seasonality and removing the estimated impact of COVID-19.

Core claim frequency decreased in the early part of 2020 following the introduction of the claim farming reforms. This coincided with a change in the notification pattern and COVID impacted traffic volumes.

Following this drop, claim frequency has settled to a more stable level.

For future accident quarters we now advise a frequency assumption of 0.1575% which is based on the 6-quarter average to Dec-21. This advised frequency represents a 0.3% reduction since the last review.



# 3

Severity Profile

## 3.1 Core claim severity profile

We typically review the severity profile formally every year but monitor experience quarterly and make appropriate adjustments, so MAIC can revise the severity profile if deemed appropriate.

Given 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 baseline severity profile.

Legally represented severity 1 claims (severity 1Y) represent 70% of core claim notifications and 53% of the core risk premium. While there are relatively few high severity claims, these have higher average claim sizes.

Table 2 – Baseline severity profile

Severity	Previous review (Dec-21)	Current review (Mar-22)	Movement
1N	7.4%	7.4%	0.02%
1Y	69.8%	69.7%	-0.16%
2	12.2%	12.0%	-0.22%
3	5.8%	5.7%	-0.11%
4	0.9%	0.8%	-0.06%
5	0.4%	0.4%	0.00%
6	1.0%	1.0%	0.00%
9NA	2.5%	3.0%	0.52%
Total	100%	100%	

Severity 2 notifications have seen a sustained decrease since the Dec-19 accident quarter, in part caused by a claims processing issue reported by one of the insurers. With the resolution of the claim processing issue we have now given more weight to the post-Dec-19 experience when estimating the Severity 2 frequency.

The frequency of claims in higher severities (3-6) have seen a downward trend from AY2016 to AY2020. We have given more weight to this trend for this review.

These two changes were the main driver of the weakening of the severity profile over the quarter.

# 4

Average claim size

## 4.1 Baseline core average claim size

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

The baseline core average claim size has increased since the previous review driven by higher-than-expected experience in severities 1Y.

Figure 3 – Finalisation experience by severity in Mar-22 against Dec-21 model

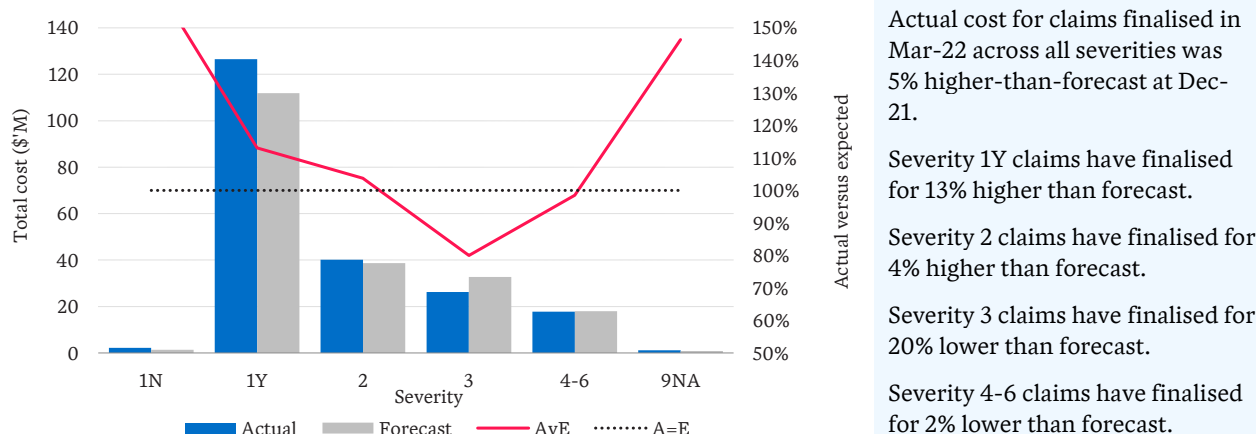


Table 3 – Change in baseline average claim size by severity excluding changes in SP (\$'000, adjusted for inflation)

	Severity								All
	1N	1Y	2	3	4	5	6	9NA	
Baseline at Dec-21	8	85	171	350	631	968	304	13	112
Baseline at Mar-21	9	86	173	350	638	965	292	13	114
Change in baseline	+5.4%	+1.7%	+1.1%	+0.0%	+1.1%	-0.3%	-3.8%	+2.3%	+1.1%

Figure 4 – Average claim size by finalisation quarter

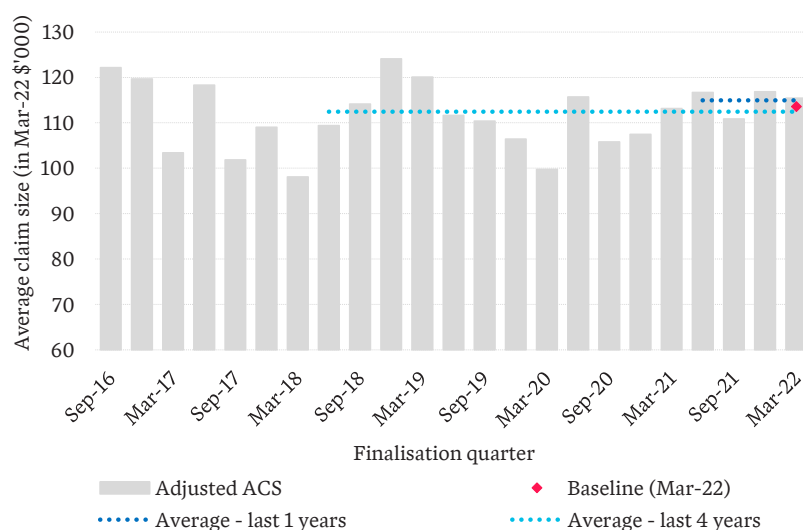
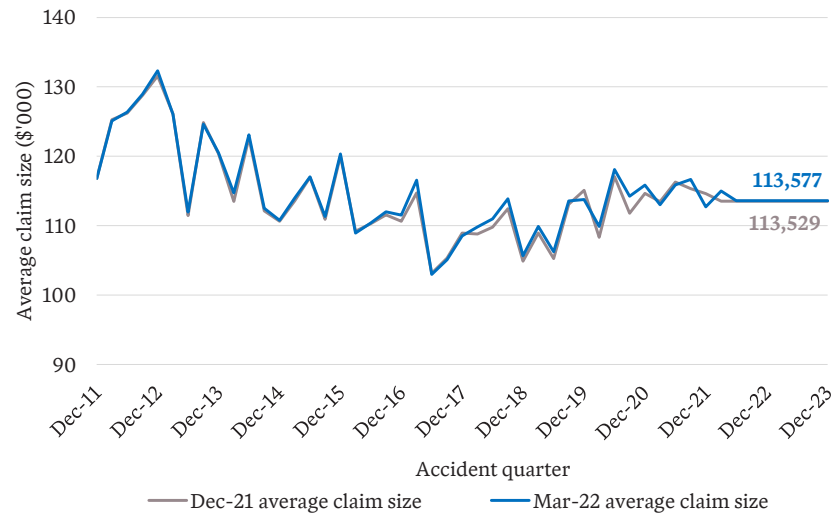


Figure 4 shows historical finalised claim sizes by finalisation quarter standardised for severity profile and changes in the rate of finalisations across accident periods.

Our current estimate of claim size lies between the average experience over the last four years of finalisations and the experience over the last finalisation year.

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



Our projected baseline average claim size has increased slightly from the previous review. The current estimate is \$113,577.

This slight increase includes the combined effect of an increase in the selected average claim size assumptions and a weakening of the selected severity profile basis.

## 4.2 Claims mix model

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At this review we have removed the claims mix model overlay. This overlay adjusted our average claim size assumption to allow for the decreasing trend in average claim size that had been observed historically for small non-serious claims. The weight given to this model has been reducing gradually over the last several reviews as the impact of this trend is absorbed into the estimates of our baseline average claim size.

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Historically, our advice regarding emerging claim size has been informed primarily by the **size of finalised claims**. This is a proven and robust methodology and is established actuarial practice. However, it can be slow to recognise changes to the mix of claims or changes to the management/settlement environment, especially when the claims affected have not yet finalised. One way we monitored the impact of claims mix changes is through a **separate claim mix model** that found trends in the mix of claims yet to be finalised, such as legal representation, accident circumstance and hospitalisation.

The **claims mix model** was first introduced in 2017 in response to a longstanding decreasing trend in average claim size between 2012 and 2017 that was in part driven by a weakening in the mix of claims notified. The model indicated a growing frequency of legally represented, non-serious, same direction claims until the 2017 accident year and an established, decreasing claim size trend for all legally represented, non-serious claims.

In our previous reviews, we have incorporated the impact of the identified trends in the claims mix model only up to the introduction of claim farming reforms since the reforms were expected to result in significant changes in the mix of claims in the scheme. Additionally, the weight given to these trends has been gradually reducing as their impact is absorbed into the estimates of our baseline average claim size model. At this review we have recognised that the effect of change in claim mix up to the introduction of claim farming reforms is now mostly captured in our finalisation models and no further adjustment is warranted.

# 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 2022Q4 will finalise around four years after the date of the data available to estimate the 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.
- 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
<b>Business as usual variation</b>	
Estimated risk premium +/- 7.5%	+\$14 / -\$14
<b>Frequency scenarios</b>	
Lower-than-expected notification experience over the quarter given no weight and assumed to be driven by floods/absenteeism	+\$0.8
Lower-than-expected notification experience over the quarter given full weight and assumed to be not impacted by floods/absenteeism	-\$1.0
Full weight given to post-claim farming severity 2 proportion forecasts	-\$0.5
Severity 3+ frequency is in line with 2017	+\$2.0
Severity 3+ frequency is in line with 2019	-\$1.6
<b>Average claim size (ACS) scenarios</b>	
ACS across all severities emerges similar to the finalisation experience over the last 12 months	+\$2.1
ACS across all severities emerges similar to the finalisation experience over the last 4 years	-\$1.8
Severity 1Y ACS emerges similar to the finalisation experience over the last 2 years only	+\$1.4
Severity 1Y ACS emerges similar to the finalisation experience over the last 3 years	-\$1.1
Severity 3 ACS emerges similar to the finalisation experience over the last 3 to 4 years	-\$0.6



### 5.2.1 Impacts of floods and absenteeism on notification experience

Notifications this quarter have been 10% lower than expected. Insurers reported slowdowns in claim processing and notification driven by COVID-related staff shortages and the Eastern Australian floods. Our selection gives partial weight to the possibility of a slowdown in claim reporting and processing in core claim frequency this quarter.

If we gave full weight to the lower notification experience over the Mar-21 quarter, there would be a \$1.00 decrease to risk premium. If we assume that the lower than forecast experience over Mar-22 was entirely due to delays in notification and processing, then the risk premium would *increase* by \$0.80.

### 5.2.2 Severity profile emerging differently than allowed for following the claim farming reforms

Severity 2 notifications have emerged lower than expected since the introduction of claim farming reforms. At previous reviews we had not given weight to this lower-than-expected experience as it was largely attributed to a claims processing issue at one insurer. With this issue now rectified, we have given partial weight to this lower-than-expected experience. If we had given full weight to this experience, the reduction in severity 2 claim proportion would result in a \$0.50 *reduction* in risk premium.

There is also significant uncertainty around the frequency of high severity (3+) claims which has historically been very volatile. Disruptions to the notification pattern over the 2020 notification period added additional uncertainty to the frequency of high severity claims. If the frequency for severity 3+ claims emerges similarly to accident year 2017, then the risk premium would *increase* by \$2.00. If the frequency for severity 3+ claims emerges similarly to accident year 2019 then our risk premium estimate will *decrease* by \$1.60.

### 5.2.3 The core average claim size emerges differently than allowed for

Core average claim size experience has historically been very volatile. To provide accurate claim size estimates in the face of this volatility we base our core claim size assumptions on averaging periods of two years and greater. This means we have not fully responded to the higher-than-forecast experience that has emerged over the last year. If future average claim sizes emerge at levels similar to experience over the last 12 months, then our risk premium estimate will be *too low* by \$2.1. However, if future average claim size emerges at levels similar to experience over the last 4 years, then our risk premium estimate will be *too high* by \$1.8.

Severity 1Y has had particularly poor average claim size experience over the last 5 notification quarters. If we were to give more weight to this high experience by adopting a two-year average of recent finalization experience, then the risk premium estimate would *increase* by \$1.40. Alternatively, had we adopted a three-year average, our risk premium estimate would *decrease* by \$1.10.

Severity 3 experience over the last couple of years has on average been lower than our current assumption. Had we estimated the Severity 3 assumption using an averaging period one year shorter, the risk premium estimate would *decrease* by \$0.60.

# 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.

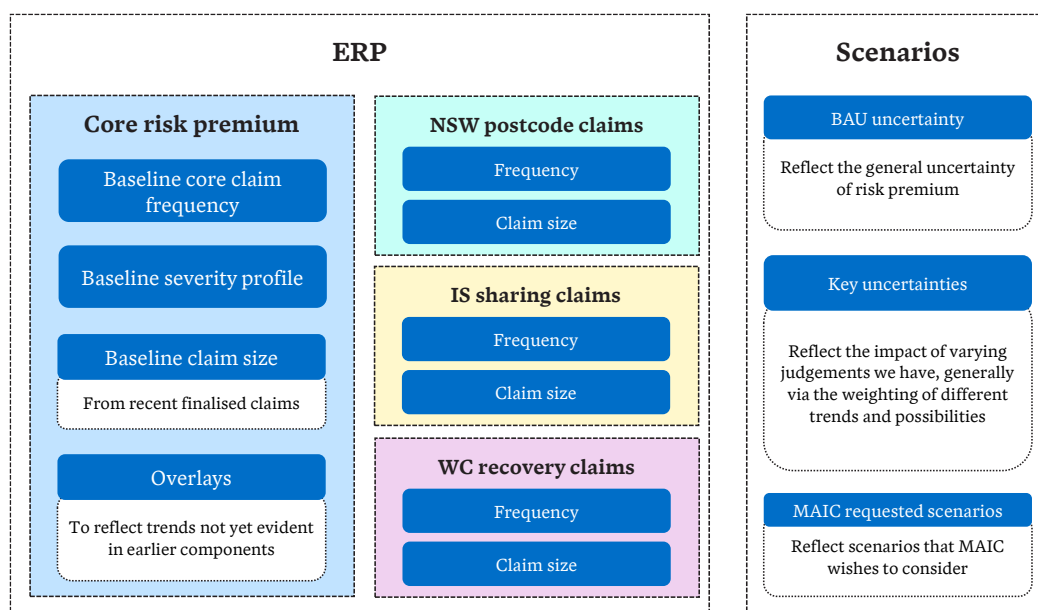
Our Estimated Risk Premium (ERP) for a given future underwriting quarter is comprised of our **baseline risk premium estimate** and **overlays**. The ERP reflects **risk premium** implied by **the most recent past accident periods**, adjusted for the impact of changes which meet the following criteria:

- 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.



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

<b>Claim</b>	All claims recorded as notified in the Scheme data, other than Nominal Defendant claims, but specifically including those for nil or trivial amounts.
<b>Claim Severity</b>	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.
<b>Core claims</b>	Claims excluding those categorised as workers' compensation recovery, interstate sharing claims or NSW accident postcode claims.
<b>Operational time</b>	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%.
<b>Interstate sharing claims (IS) claims</b>	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.
<b>Workers' compensation recovery (WC) claims</b>	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.
<b>NSW accident postcode claims</b>	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.
<b>Claim frequency</b>	Number of claims per registered vehicle.
<b>Severity profile</b>	The severity profile refers to the final proportion of claims related to each claim severity.
<b>Average claim size</b>	Average size of claims with non-zero cost.
<b>Risk Premium (RP)</b>	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.
<b>Estimated risk premium (ERP)</b>	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.
<b>Claim farming reforms</b>	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.



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