



Queensland CTP Market Briefing

Review of the risk premium for the 2019Q3 underwriting quarter

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Risk premium

Taylor Fry estimates the components of the risk premium for the Queensland CTP scheme for each underwriting quarter and advises the Queensland Motor Accident Insurance Commission (MAIC) on these components. MAIC integrates our advice with its own views to set a floor and ceiling for insurer CTP premiums.

The risk premium is the expected future cost of claims made to insurers. We consider “core” claims separately from workers’ compensation recovery (WC) and interstate sharing (IS) claims. Each component is separated into the frequency of claim per registered vehicle and average claim size.

Taylor Fry’s estimate of the headline risk premium is **\$189.27**. This risk premium estimate is before the application of inflation and discounting and is based on modelling net costs to the CTP scheme after removing costs expected to be transferred to the National Injury Insurance Scheme Queensland (NIISQ). This estimate is **\$9.51 higher** than our estimate of risk premium made at the previous review (see Figure 1).

The increase is mainly attributed to:

- » Higher than expected QLD Average Weekly Earnings (AWE), showing a 3.9% increase over the 6-month period to December 2018.
- » Recent poor experience in the average claim size of the legally represented severity 1 claims. The actual claim size for these claims over the Dec-18 quarter was 8% higher than expected. We have increased our estimate of the claim size of this segment of claims in response.
- » The inclusion of gratuitous care costs in the net risk premium for the CTP scheme. Previously, these costs were assumed to be covered by the NIISQ. This change in coverage is a possibility only and the change in treatment for our advice to MAIC should not be interpreted as a definitive position.

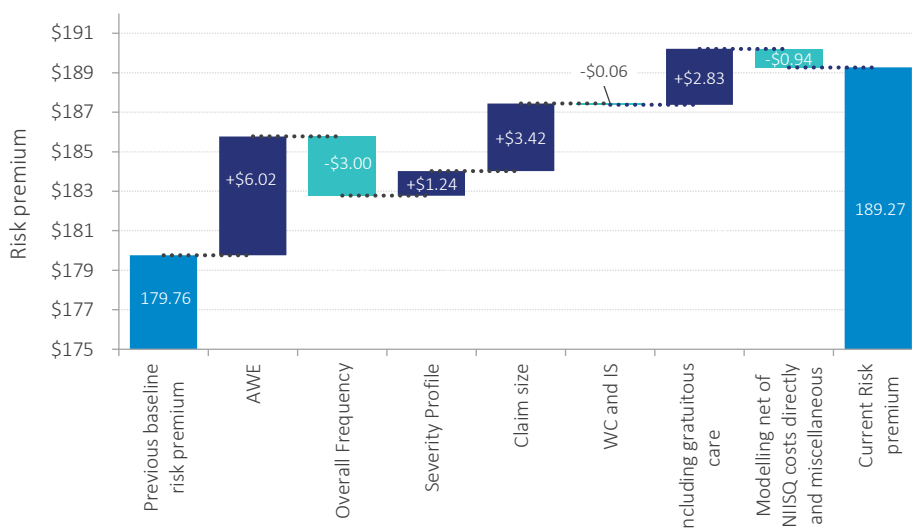
Risk premium

Table 1 Estimate of risk premium at 31 December 2018

	Risk premium component		
	Frequency	Average claim size (\$)	Risk premium (\$)
Core claims	0.181%	102,521	185.56
WC claims	0.012%	10,581	1.23
IS claims	0.004%	58,948	2.48
Net headline risk premium	0.197%	96,076	189.27

Change in estimated risk premium since the previous review

Figure 1 Change in risk premium since the Sep-18 review



The main cause of the increase in risk premium relative to the estimate made at the Sep-18 review is the higher than expected AWE result for the Dec-18 quarter. The increase is also attributed to an increase of the assumed average claim size for core claims and the change in assumption regarding the CTP scheme covering gratuitous care payments rather than the NIISQ.

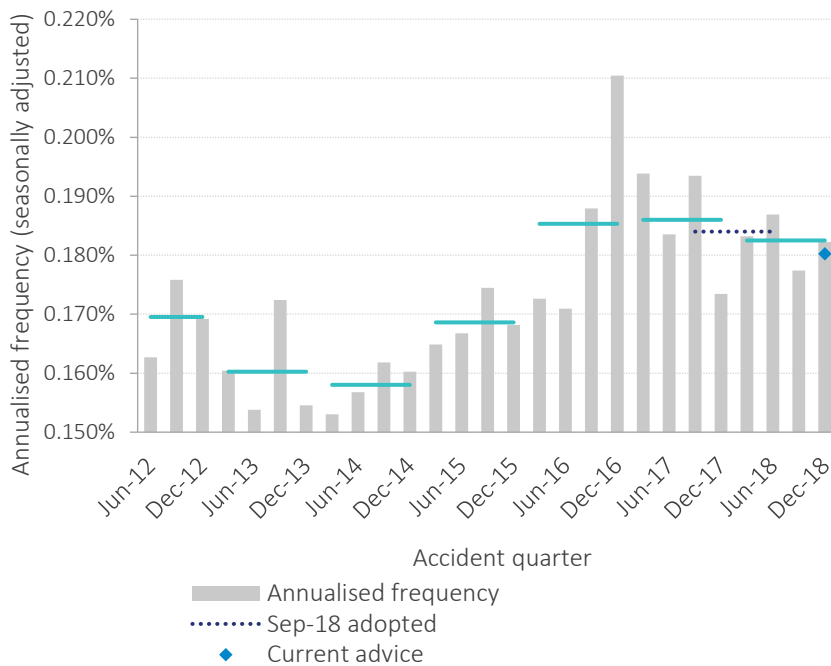
Partially offsetting this increase is a decrease in the assumed core claim frequency which has been a prominent trend over the 2018 year.

Core claim frequency and severity

Typically, Taylor Fry reviews the core claim frequency and severity profile each at each annual review, but the experience is monitored quarterly and changes made if necessary. For this annual review we have reviewed and updated the core claim frequency and severity profile assumptions used to set the risk premium. The severity profile was previously revised in Jun-18 and the frequency assumption was last updated in Sep-18.

Overall core claim frequency

Figure 2 Estimated annualised core claim frequency as at 31 December 2018



This figure shows the projected ultimate annualised frequency for each historical accident quarter after allowing for seasonality.

We have observed a decreasing trend from the peak in late 2016.

For future accident quarters we now advise a frequency assumption of 0.181% equal to our current estimate of the core claim frequency for the four quarters to Sep-18. This is a 5% decrease relative to the 0.191% we advised at Dec-17 and a 2% decrease relative to the 0.184% adopted by MAIC at Sep-18.

Severity profile

The majority of claims are legally represented severity 1 claims (severity 1Y). These contribute 69% of core claim notifications and 52% of the core risk premium. While there are relatively few high severity claims, these have higher average claim sizes.

Figure 3 Severity-specific frequency

Severity	Proportion	Advised frequency
1N	8.3%	0.01514%
1Y	68.6%	0.12420%
2	12.2%	0.02213%
3	5.3%	0.00953%
4	0.8%	0.00150%
5	0.4%	0.00070%
6	1.1%	0.00198%
9NA	3.2%	0.00582%
Total	100%	0.1810%

At this annual review, we have updated the severity profile assumptions.

We have responded to two major trends in the experience:

- » The proportion of severity 1 claims with legal representation has been increasing.
- » The severity profile has been weakening and we now expect a lower proportion of severity 2 and 3 claims.

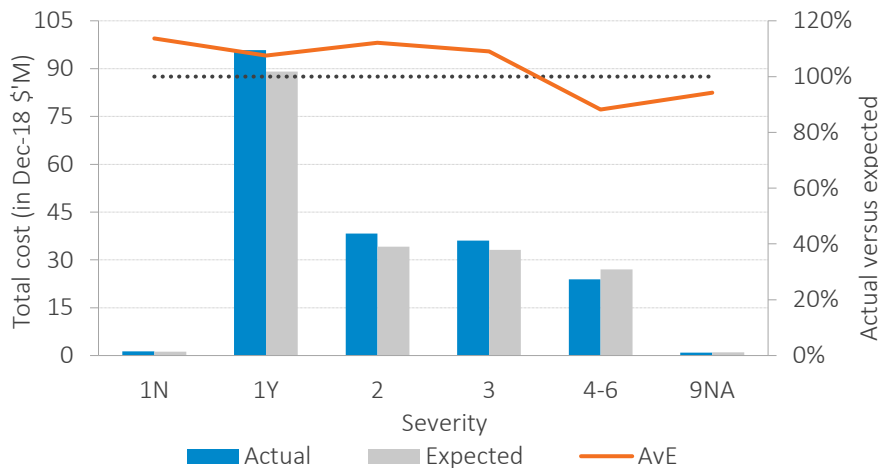
Finalised average claim size

Taylor Fry reviews the average claim size by severity every quarter based on finalised claims.

Total cost of claims by severity

We compare the total cost of finalised claims in the Dec-18 quarter to what was forecast at the previous review for the same number of claims. This reveals the difference in, and materiality of, movements in average claim size by severity.

Figure 4 Total cost of finalised core claims in Dec-18 quarter by severity



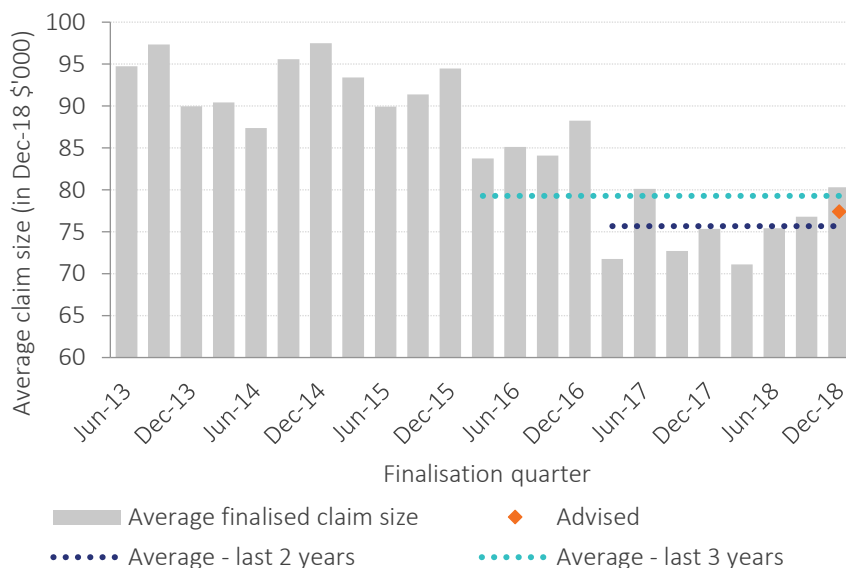
The average finalised claim size in severity 1Y was 8% higher than forecast at the Sep-18 quarterly review. This result is particularly important because severity 1Y claims comprise 52% of the total cost, and outcomes are less volatile than higher severities.

Severity 2 and 3 claims have also finalised for higher amounts than expected.

High severity 4-6 claims have finalised for lower amounts than expected.

Severity 1Y average finalised claim size

Figure 5 Severity 1Y average claim size



We have increased the baseline average claim size for severity 1Y by 4% to \$77k.

The Dec-18 average finalised claim size was influenced by higher than expected experience for mature claims. Mature claim outcomes are relatively volatile, so we have responded to the prior low experience cautiously.

The advised baseline average claim size is lower than the average over the past three finalisation years and higher than the average over the past two finalisation years.

Change in advised baseline average claim size since the previous review

Table 2 Change in advised baseline average claim size by severity (\$'000, adjusted for inflation)

	Severity								All
	1N	1Y	2	3	4	5	6	9NA	
Advised at Sep-18	7	74	152	324	673	1,216	235	16	100
Advised at Dec-18	7	77	153	325	657	1,182	234	15	103
Change	-0%	+4%	+0%	+0%	-2%	-3%	-0%	-5%	+3%

Risk premium scenarios

There is considerable uncertainty in the assumptions underlying our risk premium estimate. There is a risk that the claim frequency and size that ultimately emerge for the 2019Q3 underwriting quarter turn out to be different to our assumed values. The table below shows the impact on the risk premium for some plausible scenarios with alternative sets of risk premium assumptions.

Risk premium scenarios

We have constructed scenarios with different assumptions for core claim frequency, average claim size, NISQ coverage and AWE. The core claim frequency scenarios include an alternate treatment of the substantial reduction in reported NSW accident postcode claims observed in 2018. The average claim size scenarios incorporate both the variability in severity profile and the variability in the size of claims within severities. Although the table below shows the impact of each scenario in isolation, it is possible that more than one scenario may occur at the same time. If more than one scenario was to occur, we estimate the impact to be approximately additive.

Table 3 Change in risk premium in plausible alternative scenarios

Risk premium scenarios	Impact on risk premium
Frequency scenarios	
Change of - 5% / +5%	-\$10 / +\$10
Treat reduction in NSW claims as reporting delay	+\$4
Average claim size scenarios	
Incurring cost emerges at the levels of accident year 2015	+\$11
Incurring cost emerges at the levels of accident year 2016	+\$0
Trends in severity profile continue	-\$2
Adjusting the average claim size for established decreasing trend in non-serious claims	-\$4
Adjusting the average claim size for accelerated decrease in non-serious claims as indicated by insurer case estimates	-\$16
Incurring cost emerges at the levels of accident year 2017	-\$22
NISQ scenario	
Gratuitous care costs are covered by NISQ and not the scheme	-\$3
AWE inflation scenario	
Deloitte Access treat recent high AWE as a timing issue	-\$5

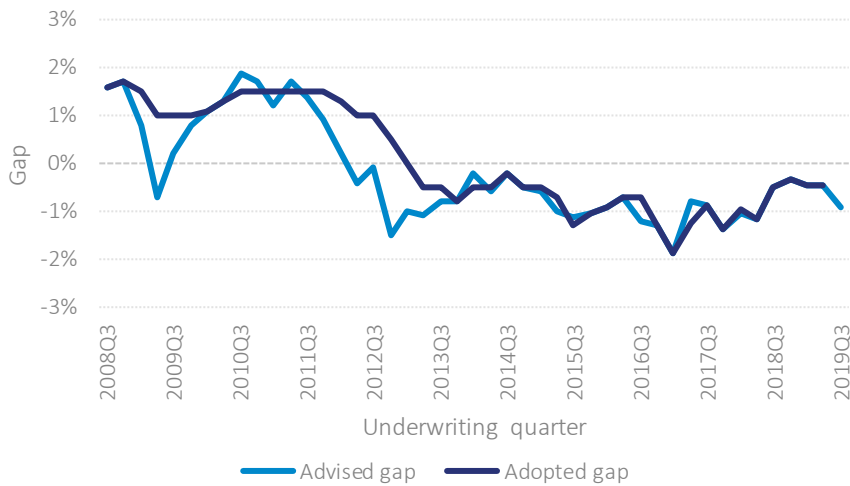
Economic assumptions

Taylor Fry advises on the economic gap (the difference between risk-free investment return and QLD AWE inflation rate) and monitors superimposed inflation each quarter.

Economic gap

The economic gap is the difference between the projected risk-free investment return and the projected QLD AWE inflation rate up to the time of claim payment. This is derived from prevailing Australian Government bond yield curves and Deloitte Access Economic inflation forecasts available at the time of premium setting. A higher economic gap translates to a lower CTP premium.

Figure 6 Economic gap



For the 2019Q3 underwriting quarter, the advised economic gap is **-0.90%**. This is made up of:

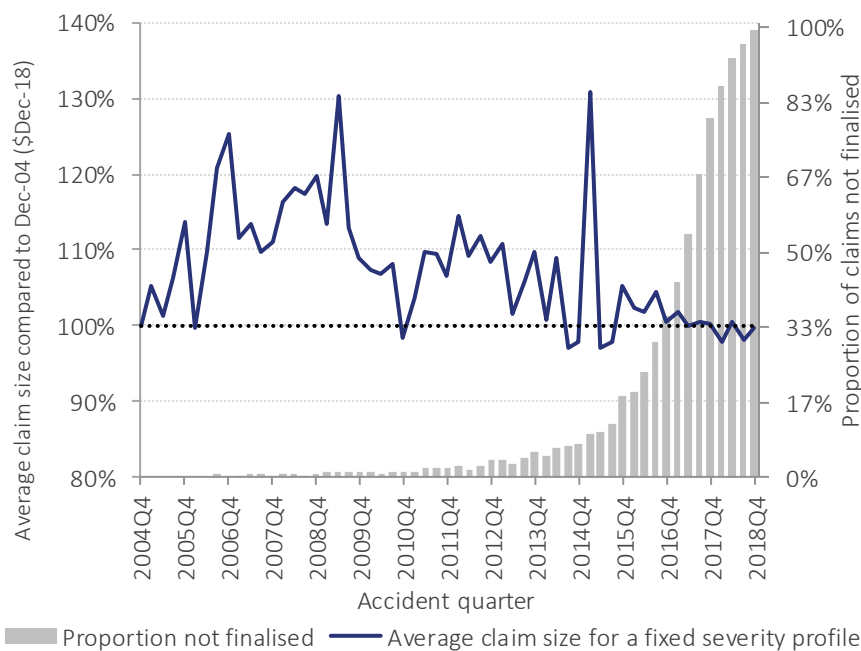
- » Wage inflation of 2.75% p.a.
- » Discount rate of 1.84% p.a.

The economic gap decreased from -0.44% advised at the previous review primarily due to a decrease in the future discount rate.

Superimposed inflation

In the premium setting process, superimposed inflation is the growth in average claim size above the QLD AWE inflation rate that cannot be explained by changes in the severity mix. Currently, MAIC set the future superimposed inflation assumption at 1% p.a.

Figure 7 Superimposed inflation illustration (adjusted for AWE inflation) assuming 0% p.a. future superimposed inflation



Superimposed inflation has been benign over the past decade. That is, average claim size has not increased at a materially faster rate than QLD AWE inflation.

With a high proportion of claims not finalised, there is potential for the average claim size for accidents in 2017 and 2018 quarter to exhibit superimposed inflation before finalisation:

- » At 0% p.a. future superimposed inflation, the 5-year change in average claim size to Dec-18 is -1.9% p.a.
- » At 1% p.a. future superimposed inflation, the 5-year change to Dec-18 is -1.4% p.a.

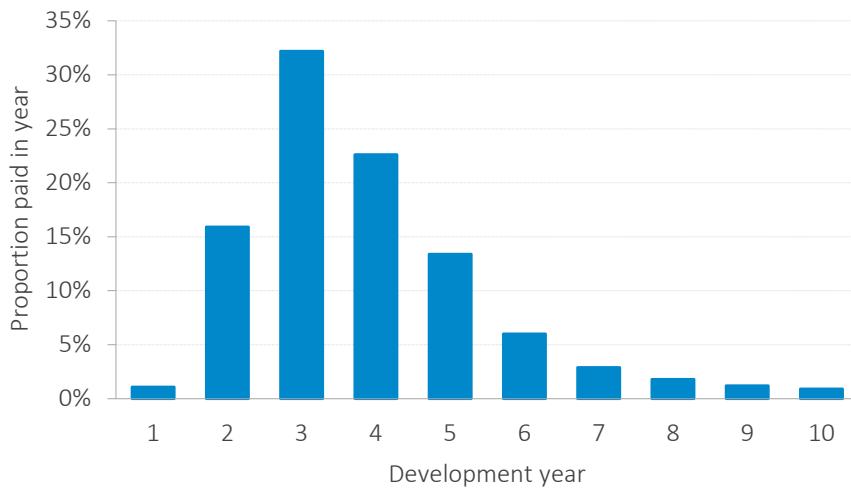
Other premium components

Taylor Fry advises on the pattern of future payments for applying the economic assumptions, and the vehicle class relativities.

Payment pattern

The payment pattern shows when claim payments are expected to be made following underwriting.

Figure 8 Payment pattern



We have updated the payment pattern assumption at this annual review. The mean term from underwriting to payment has slightly shortened to 3.50 years from 3.54 years advised at Dec-17.



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