



## **SA CTP P2P relativities briefing**

Summary of point-to-point vehicle relativities  
advice for the 2021/22 underwriting year

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# 1 Introducing P2P premium class relativities

Taylor Fry estimates the components of the risk premium for the South Australian CTP scheme and advises the CTP Insurance Regulator on these components. The Regulator integrates our advice with its own views to set a floor and ceiling for insurer CTP premiums.

The Regulator uses our advice on relativities to share the scheme average premium between premium classes.

This briefing summarises our relativities advice for point-to-point (P2P) premium classes:

- **Taxis (Classes 5 and 55)** – Taxis registered or licensed under section 45 (1) of the Passenger Transport Act 1994 as metered taxis to operate in Metropolitan Adelaide within the meaning of the Passenger Transport Act 1994, and taxis (country) that are not required to be registered or licensed pursuant to section 45 (2) of the Passenger Transport Act 1994.
- **Ridesharing and chauffeur vehicles (Classes 48, 7 and 57)** – these vehicles were classified together under small public passenger vehicles until 30 June 2019 after which a new premium class was introduced separately for rideshare vehicles.

We do not present results for district 2 relativities for ridesharing vehicles as this class has no exposure. Previously, these relativities have been set equal to the district 1 relativity for the respective vehicle class.

The floor and ceiling premiums for a premium class are calculated as the premium relativity of that class multiplied by the floor and ceiling for Class 1 (private passenger vehicles, district 1). The ratio between the actual premiums offered by the insurers for a given premium class and for Class 1 may be different to the premium relativity of that premium class because insurers may choose to set premiums at different levels within the premium bands.

## 2 Summary of our relativities analysis

We intend our advice on relativities to assist the Regulator to achieve a balance between stability and responsiveness for different premium classes:

- **Stability** – In light of the low number of vehicle registrations in some classes, we take a long-term view of frequency, examining overall trends but avoiding reacting too quickly to potentially anomalous new experience. This caution avoids arbitrary movement in consumers' premiums at each renewal.
- **Responsiveness** – Particularly for classes with high numbers of registrations, it is important that the vehicle relativity reflects the emerging experience.

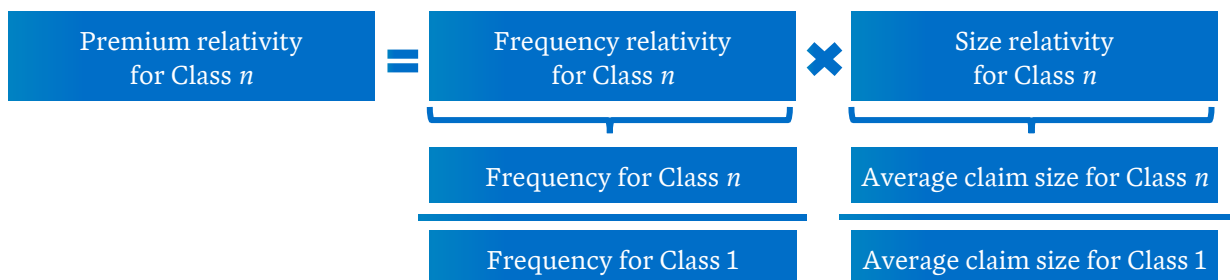
When we report on the experience for each category and the estimated relativities, we illustrate the trade-off between stability and responsiveness by giving 90% confidence intervals around our central estimates of the premium class relativities.

### Impact of COVID-19

Restrictions introduced to contain COVID-19 resulted in a reduction in traffic volume. We remove the COVID-19 impacted accident periods - Jun-20 to Dec-20 inclusive – from our analysis because we expect future experience to be similar to pre-COVID experience.

### Breakdown of premium relativity

Each premium class relativity is the product of a claim frequency relativity, and an average claim size relativity. The claim frequency relativity relates to claim frequency of the relevant vehicle class to the Class 1 (district 1 private passenger vehicle) claim frequency, and the size relativity is defined similarly.



### Claim frequency and size relativities

The claim frequency relativity for each combination of premium class and accident year is modelled using ten years of experience to 30 June 2020 (excluding the COVID-19 impacted quarter), down weighting observations in the oldest two years. Where supported by experience, we allow for trends in the relativity.

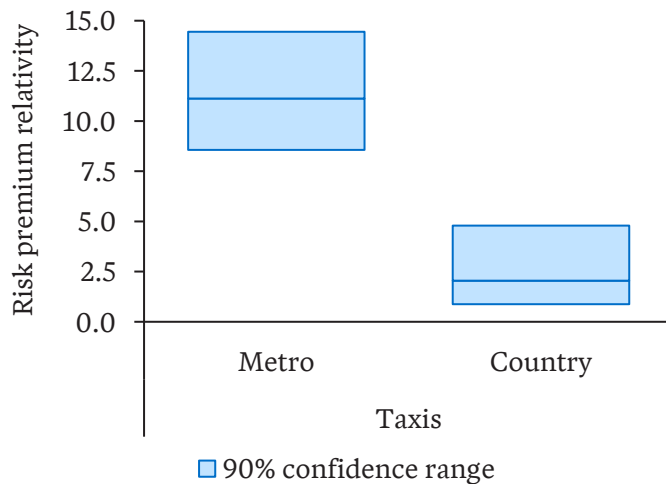
A procedure parallel to that for claim frequency relativities was used for estimation of claim size relativities. We use the ten years of experience to 30 June 2018, down weighting observations in the oldest two years. More recent incurred cost estimates may not be reliable because claimants' medical conditions may not be stable yet which makes estimation of future costs uncertain.

The frequency and size relativities of district 2 to district 1 are modelled as common to all vehicles classes (except taxis, where premiums are not rated by garaging address).

### 3 Taxi relativities

Taxis are split into two classes – metro and country. There were 912 metro taxis and 260 country taxis registered as at 31 December 2020.

Figure 3.1 – Comparison of taxi premium relativity



We show the 90% confidence range for the taxi relativities, with the central line showing our central estimate.

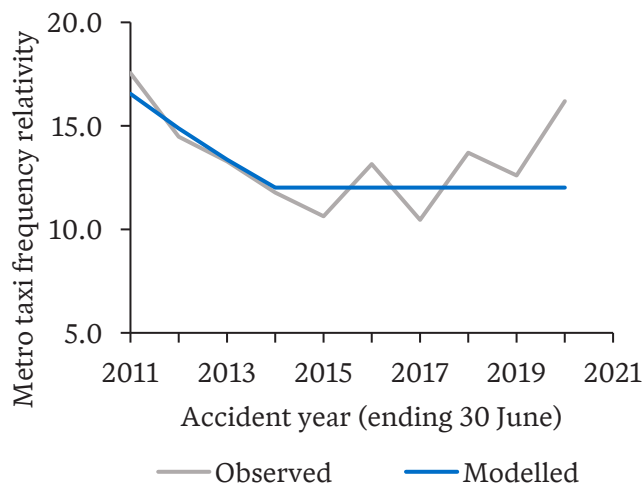
Our range acknowledges the downward trend observed in metro taxi relativity observed over the past decade.

The country taxi relativity has low exposure (fewer than 300 registrations per year) but has consistently been well below metro taxis. As such, we model the country taxi relativity to be 0.18 of the metro relativity for taxis.

Table 3.1 – Details of taxis

Vehicle	Garaging location – Class	Earned exposure (19/20)	Relativity central estimate			90% confidence range	
			Freq	Size	Premium	Lower	Upper
Taxi	Metro – 5	1,017	12.02	0.93	11.13	8.57	14.45
	Country – 55	264	1.75	1.17	2.05	0.88	4.79

Figure 3.2 – Trend in metro taxi frequency



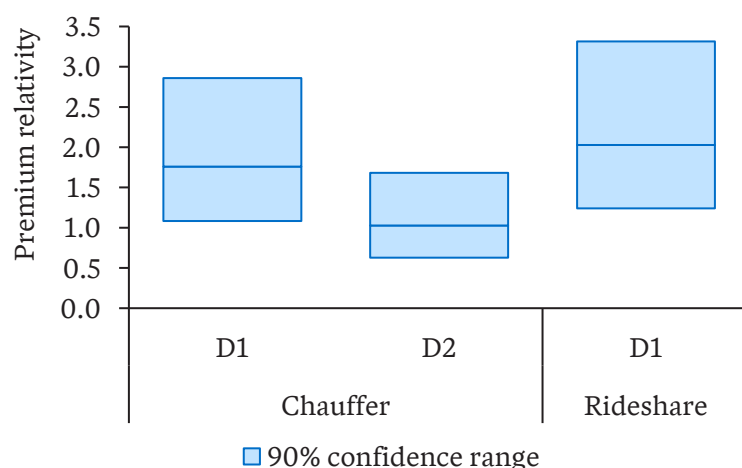
We observe a steady decrease in the metro taxi frequency relativity for taxis up to 2014. We have recognised this reduction in relativity by fitting a downward trend in taxi claim frequency, giving more credibility to recent experience when modelling the central estimate. Our central estimate for the metro taxi frequency relativity is 12.02.

We do not model a trend for country taxi frequency relativity.

## 4 Ridesharing and chauffer vehicle relativities

Ridesharing and chauffer vehicles were classified together under small public passenger vehicles until 30 June 2019 after which a new premium class was introduced separately for rideshare vehicles. There were 4,498 rideshare vehicles and 764 chauffer vehicles registered as at 31 December 2020.

Figure 4.1 – Comparison of ridesharing and chauffer vehicles



We show the 90% confidence range for the chauffer and rideshare relativities, with the central line showing our central estimate.

We estimate the relativity for rideshare vehicles using actual experience in 2019/20 and 'imputed' experience – where the Regulator has retrospectively identified rideshare vehicles – in 2017/18 and 2018/19.

We have insufficient experience to set the size relativity for rideshare vehicles different to Class 1.

Table 4.1 – Details of ridesharing and chauffer vehicles

Vehicle	District – Class	Earned exposure (19/20)	Relativity central estimate			90% confidence range	
			Freq	Size	Premium	Lower	Upper
Chauffer	D1 – 7	957	1.76	1.00	1.76	1.08	2.86
	D2 – 57	244	0.81	1.27	1.03	0.63	1.68
Rideshare	D1 – 48	3,444	2.03	1.00	2.03	1.24	3.32



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