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CTP: Beyond the Rearview Mirror

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1 Abstract

This paper examines the last decade of frequency, premium and profitability trends for CTP schemes in Australia. We consider the drivers of trends including:

- Impact of road safety and mobility patterns
- Scheme reforms and legislative change
- Shifts in community behaviours and expectations, such as increased recognition of psychological injuries
- The role of regulators and societal expectations regarding profit.

We then consider the implications for the future sustainability of CTP schemes given some of the changes ahead, such as micromobility trends, new vehicle technologies and applications of AI.

Keywords: CTP schemes, scheme sustainability, claim frequency, profitability, road safety, artificial intelligence

2 Introduction

Much of the information shown in the paper is at the national level (i.e. the aggregation of all schemes). The equivalent individual scheme information is contained in the appendices to this paper. There have been some major changes to some schemes over the period examined largely responding to adverse trends and resulting in a 'correction' of experience. This tendency for schemes to 'self-correct' is consistent with Professor Justin Wolfer's observation in his Keynote Boyer Lecture for 2025 that Australia's institutional structure supports sometimes difficult change to address problems. As a result, we observe that individual scheme trends tend to average out and the national picture is quite stable. The table below summarises the major changes over the last decade which we reference throughout this paper.

NSW	Scheme reforms from 1 December 2017 replaced the pure common law scheme with a hybrid statutory benefit/common law scheme. The Transitional Excess Profits and Losses (TEPL) mechanism that caps insurers profits and losses was also introduced.
Qld	Legislation banning claims farming was introduced in December 2019.
SA	Scheme privatised from 1 July 2016 and vehicles were automatically allocated to insurers on the basis of set market shares. Price competition commenced from 1 July 2019.
WA	Legislation banning claims farming announced in November 2023.

COVID-19 and the associated travel restrictions is also a feature of the period examined. We note that restrictions were longer and more severe in some jurisdictions which had implications for the CTP trends within an individual jurisdiction.

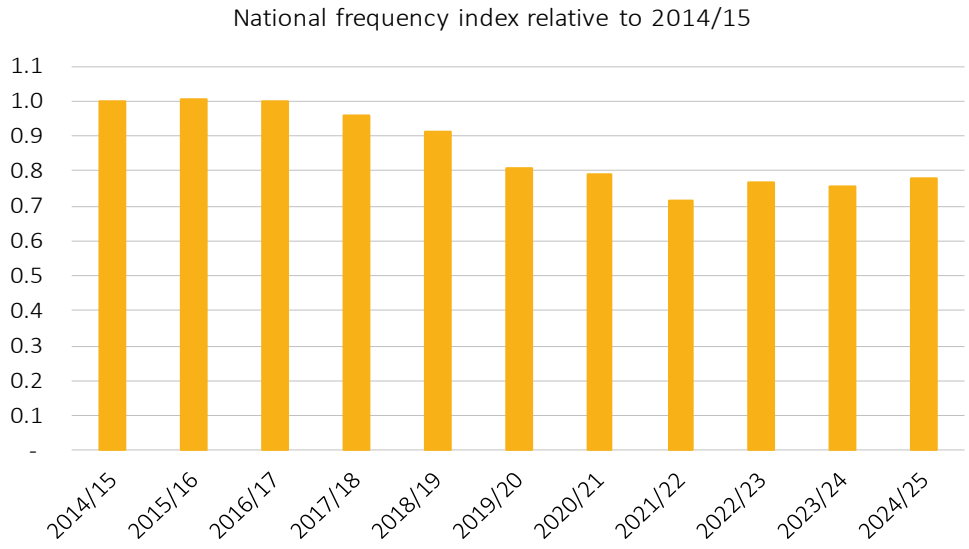
Finally, we apologise that we have not included the ACT in our analysis. We were not able to source the scheme-wide information required for our analysis over the period examined.

3 Frequency

In this section we examine trends in CTP frequency and how this compares with trends in motor vehicle collisions and road fatalities. In each case we have expressed these as an index relative to 2014/15.

3.1 Frequency trends

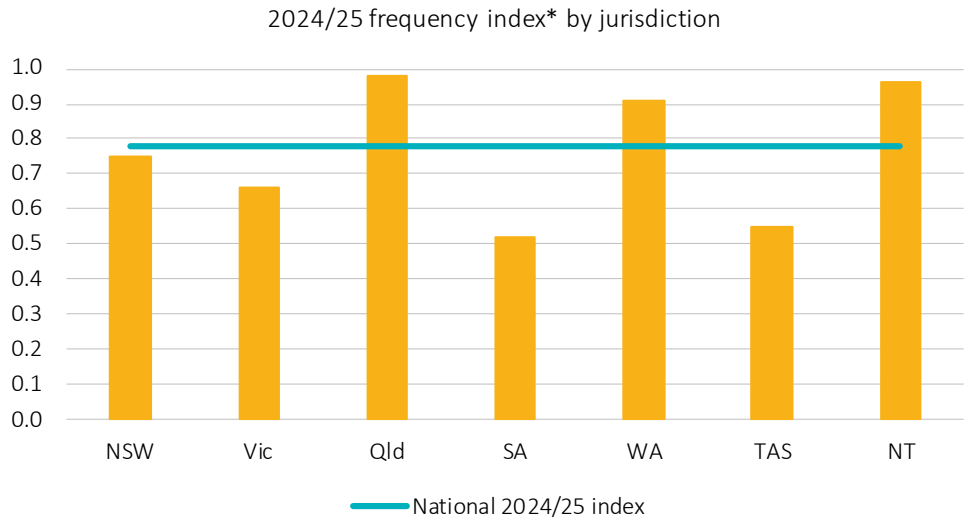
Nationally CTP claim frequency started to decline after 2016/17 with a step-down during COVID-19 (2019/20 to 2021/22). In the post-COVID-19 years, frequency remained well below the pre-COVID-19 experience although has increased slightly in 2024/25, where frequency is estimated to be 78%[1] of the 2014/15 level.



The downward trend in frequency at the national level reflects improvements in road safety and changes in road usage both during and after COVID-19, as well as scheme reforms, legal environment changes and legislative interventions in particular jurisdictions.

The following chart shows the 2024/25 frequency relativity by jurisdiction compared to the national relativity.

[1] We have estimated the 2024/25 position in the absence of consistent information on frequency for this year for SA, Tasmania and NT by assuming the same relativity as 2023/24. We note that the jurisdictions where we do have the frequency for 2024/25 represent 90% of total exposure.



**index relative to 2014/15*

We make the following comments on frequency by jurisdiction:

NSW	• Frequency reduced by 30% following scheme reforms on 1 December 2017. • Strongest recovery of all jurisdictions post-COVID-19 and has continued to increase.
Vic	• Frequency increased between 2014/15 and 2018/19 (+11%). • The sustained COVID-19 lockdowns resulted in lower claim frequency, and this has been sustained post COVID-19 with a further reduction in 2024/25.
Qld	• Frequency increased between 2014/15 and 2017/18 (+14%) driven by higher numbers of low severity legally represented claims linked to claim farming activity. • Frequency reduced from 2019/20 due to anti-claim farming legislation (effective December 2019) and the impact of COVID-19. • Recent increase in frequency for 2024/25.
SA	• Frequency step-down of 20% in 2016/17 and another 20% reduction in 2018/19 is possibly related to the privatisation of the scheme from 1 July 2016. • No COVID-19 recovery in 2022/23 but a strong increase in frequency in 2023/24.
WA	• 2019/20 to 2022/23 impacted by claim farming activity which masked any impacts of COVID-19. We note also that WA had fewer travel restrictions compared to other jurisdictions. • Frequency reduced by 10% in 2023/24 after anti-claim farming legislation was announced in November 2023.
Tas	• Steady reductions over the decade with current frequency stabilising at 55% of 2014/15 levels.
NT	• Frequency increased between 2014/15 and 2018/19 (+32%). • Frequency fell during COVID-19 and remained lower post-COVID-19.

While there are variations by jurisdiction, we generally observe a reduction in CTP claim frequency over this period. Qld, NT and WA show the smallest reductions in frequency, noting that Qld and WA absolute frequency levels were significantly lower than the national average in 2014/15.

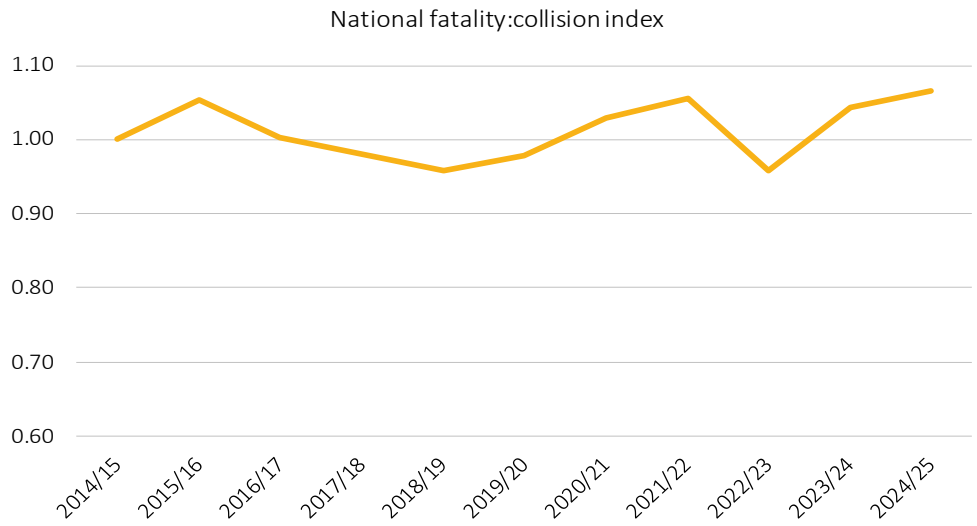
3.2 Road crash trends

In understanding CTP claim frequency trends, a natural starting point would be to compare against road crash statistics as an indicator of road safety improvements. However, crash data published across jurisdictions in Australia is generally not consistent in definitions or availability. This makes it difficult to construct a consistent national time series suitable for comparison with CTP claim frequency trends. We have therefore used road fatalities data published by the Bureau of Infrastructure and Transport Research Economics (BITRE), which is more consistently reported at a national level and by jurisdiction. We constructed an index of the fatality rate per 1,000 vehicles ("fatality index") relative to 2014/15.

We also examined a comprehensive motor collision claim frequency index ("collision index") provided by Insurance Statistics Australia (ISA) as a proxy for underlying crash incidence. The ISA statistics capture motor vehicle damage claims lodged under comprehensive motor insurance policies, and identifies those arising from collisions. While this is not a perfect measure of all crashes (e.g. very minor incidents may go unreported), collision claim frequency over this period provides a relatively stable view of how often vehicles are involved in crashes severe enough to trigger a motor insurance damage claim.

3.2.1 Fatalities vs collisions

The following chart compares the national fatality and collision trends by taking the ratio of the fatality index to the collision index for each year.

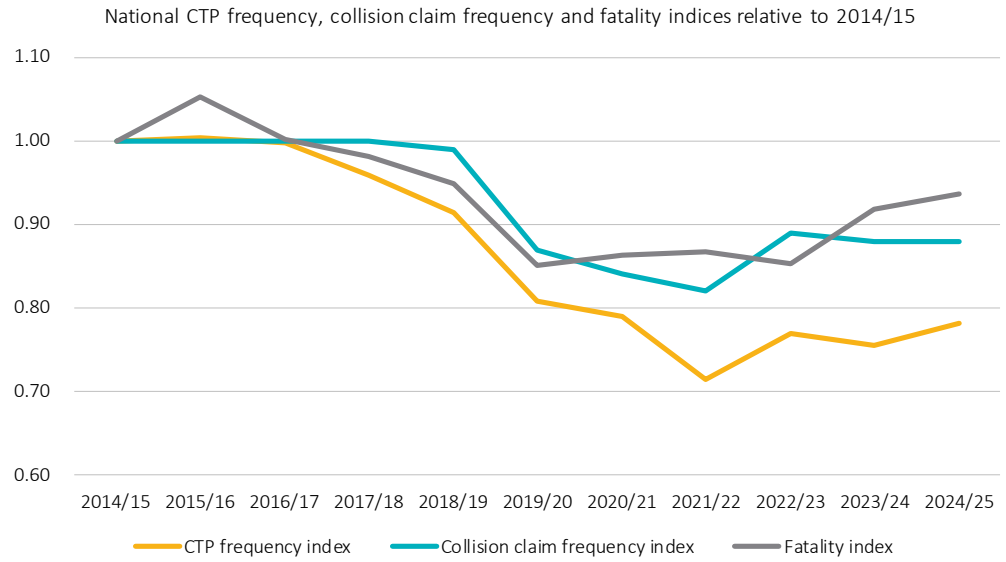


Fatalities are more volatile than collisions but movements are generally consistent over this period (with an average ratio of 1.01). There is some evidence of an increase recently (the ratio averaged 1.05 in the last two years). This may be due to a few factors:

- Changing mobility patterns with more people working from home leading to a larger reduction in low severity or non-injury collisions.
- Some riskier behaviours associated with use of mobile phones and headphones noting that we observe a stronger increase in pedestrian fatalities in the last two years compared with other road users.
- Volatility in the relatively small number of fatalities.

3.2.2 Collision and fatality trends vs CTP claim frequency

The following chart shows the national collision claim frequency index and fatality rate index and compares these to the CTP claim frequency index.



The collision frequency and fatality rate generally move in line although, as noted previously, the fatality rate has been trending up relative to collisions in the last two years. CTP frequency movements are roughly consistent with collisions and fatality movements but the reduction over this period is greater - in 2024/25 the collision frequency index is 88% and the fatality index is 94% compared with the CTP frequency index of 78%.

We note the following:

- NSW accounts for much of the divergence between the CTP and the collision/fatality trend observable from 2016/17 to 2019/20 – coinciding with the introduction of the new CTP scheme in NSW from December 2017.
- There is a greater reduction in CTP claim frequency in 2021/22 compared with either collision claim frequency or the fatality rate. This may reflect the types of accidents that occurred during COVID-19 and/or that the social isolation and distancing requirements were a disincentive to making a CTP claim.
- The recent increase in CTP claim frequency in 2024/25 is not mirrored in the collision index but is visible in the fatality index.

3.3 CTP utilisation trends

To control for changes in collision incidence and fatality rate, we define a CTP utilisation index as:

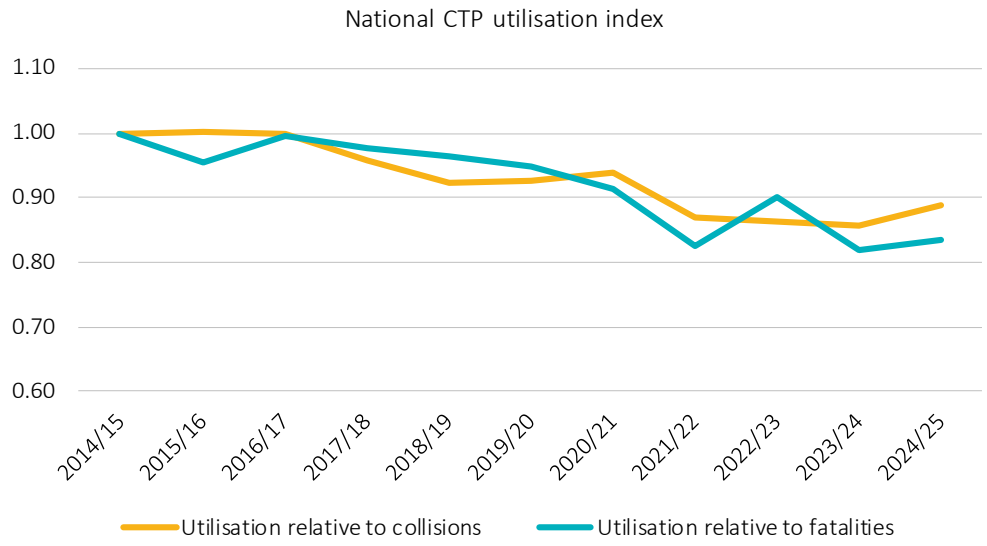
$$\text{CTP utilisation index} = \frac{\text{CTP frequency index (relative to 2014/15)}}{\text{Crash risk index (relative to 2014/15)}}$$

where

$$\text{Crash risk index} = \begin{cases} \text{Collision claim frequency index}, & \text{if measuring utilisation relative to collision risk} \\ \text{Fatality rate index}, & \text{if measuring utilisation relative to severe crash outcomes} \end{cases}$$

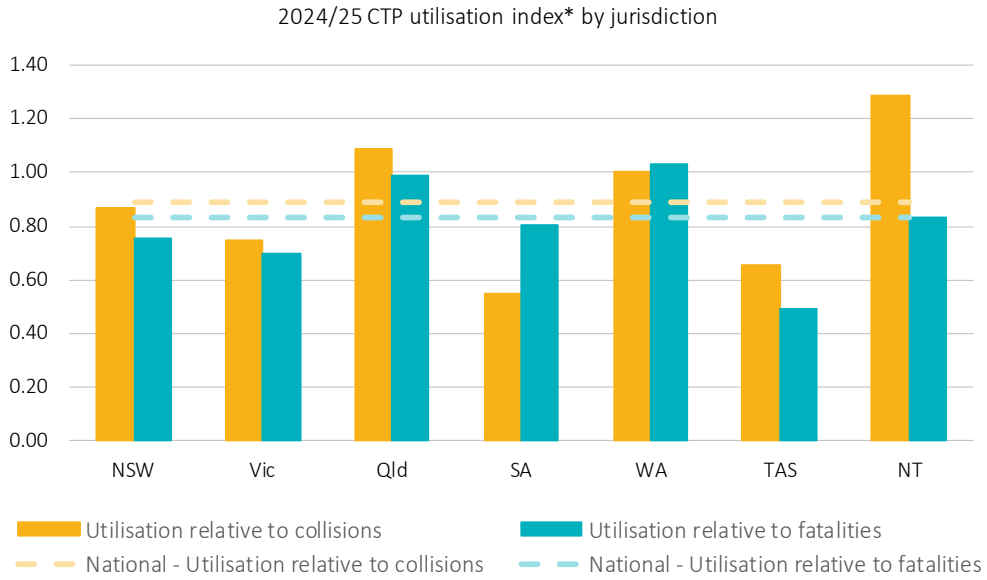
This utilisation index measures the number of CTP claims that arise per unit of motor collision claim activity or fatality relative to 2014/15.

An index greater than 1 suggests that relative to 2014/15, the utilisation of CTP scheme benefits is greater, and vice versa. Trends over time can therefore provide an indication of whether there were changes in scheme design, claimant behaviours or the external environment impacting CTP claiming behaviour.



The declining utilisation measures up to 2021/22 represent the previous observations made about the absolute differences in the indices. Increased utilisation since then is more apparent in the collision utilisation although is still visible in the fatality utilisation. In 2024/25 the CTP utilisation index is measured at 83% for fatalities and 89% for collisions indicating that utilisation has decreased by 10% to 15% since 2014/15.

Jurisdictional differences in utilisation movements since 2014/15 are summarised in the following chart.



**index relative to 2014/15*

We make the following observations about utilisation by jurisdiction:

- NSW – utilisation reduction since 2014/15 is similar to the national experience. This is impacted by the new CTP scheme introduced at the end of 2017 and the stronger bounce back in CTP frequency post-COVID-19.
- Vic, SA, Tas – utilisation has reduced by more than the national level; we noted previously that these jurisdictions saw larger reductions in CTP frequency than nationally. This is not explained by different collision or fatality trends (for Vic and Tas) but may be partially explained by a stronger reduction in fatalities in SA.
- Qld, WA and NT – utilisation has not decreased as much. For Qld and WA, claim farming during part of the period is a contributing factor to this result. Volatility in the various measures may partially explain the NT result.

3.4 Conclusions

Our key conclusions on frequency trends since 2014/15 are:

- CTP claim frequency has broadly tracked collision and fatality trends over the past decade, reflecting changes in road usage, driving behaviour and road safety.
- Generally, COVID-19 had a larger impact on CTP frequency than either collision or fatality rates. This may reflect the types of accidents that occurred during COVID-19 and/or that the social isolation and distancing requirements were a disincentive to making a CTP claim.
- Fatalities per collision have increased slightly recently. It is possible that the change in mobility patterns has led to more severe accidents.
- CTP utilisation relative to both collisions and fatalities has reduced since 2014/15. This is impacted by scheme design changes and structural changes in claiming behaviour during COVID-19 that has only recently started to reverse.
- Jurisdictional differences in utilisation trends highlight scheme-specific and behavioural factors across this period, for example:
  - Scheme reform in NSW.
  - Claim farming in Qld and WA.

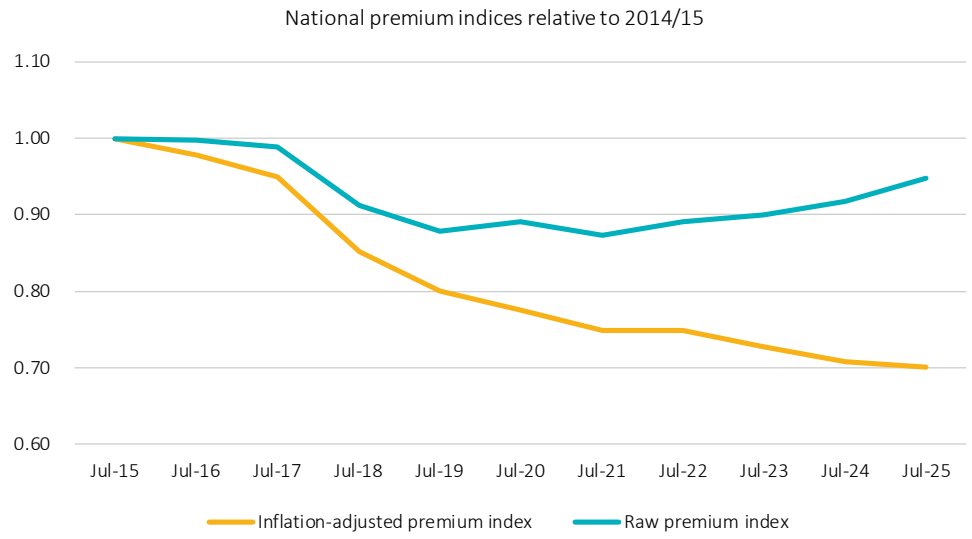
4 Premiums

In this section we examine trends in premiums including how these relate to frequency trends.

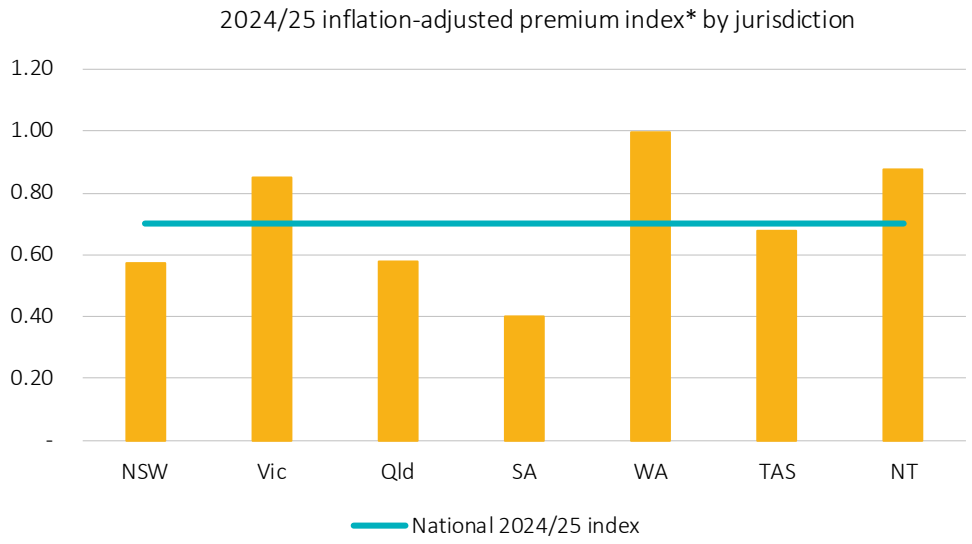
4.1 Premium trends

To analyse premium trends, we collated average premiums for Class 1 vehicles effective on 1 July each year and adjusted for historical inflation since 2014/15 using AWE[2] published by the Australia Bureau of Statistics.

The chart below shows the raw and inflation-adjusted national premium indices.



At a national level, raw premiums have reduced over the last decade with current 2024/25 levels sitting 5% below 2014/15 levels, although have been increasing over the last four years. After adjusting for AWE inflation, real premiums have trended down over this period and by 2024/25 are 30% below 2014/15 levels.



**index relative to 2014/15*

[2] 6302.0 Average Weekly Earnings; "*Earnings; Persons; Full Time; Adult; Total earnings*" by jurisdiction

By jurisdiction, the NSW, Qld and SA premium index at 2024/25 is lower than the national average. Of these we note that:

- NSW is impacted by scheme reforms in 2017 which led to a 'one-off' 30% reduction in average premiums.
- Following the 2016 scheme review in Qld, the regulator reduced the ceiling margin and superimposed inflation allowances which contributed to a 20% drop in price between July 2015 and July 2017.
- In SA, the introduction of competitive pricing from 1 July 2019 (in combination with the 1 July 2013 tort reform and 1 July 2016 privatisation) led to a 35% reduction from the 1 July 2015 regulated premiums.

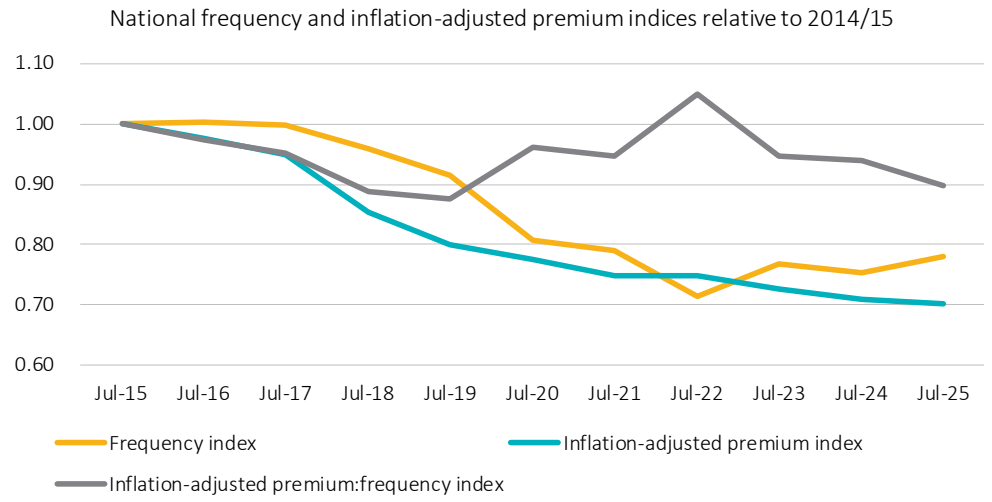
WA has the highest inflation adjusted premium index at just under 1.0 indicating that premiums in 2024/25 are similar to 2014/15; we have previously noted the different frequency trend in WA through COVID-19, partly because of claim farming.

We also note that the Vic, Tas and NT schemes include lifetime care benefits and some of the trends in the cost of these benefits have been different from other CTP benefits.

4.2 Premium vs frequency trends

To understand to what extent premiums respond to changes in frequency, we divide the inflation-adjusted premium index by the frequency index. A result around 1.0 suggests that other components of the premium – average claim size (including superimposed inflation and economic impacts), expenses and profit margin – have been stable and that changes to premium have been driven by changes in frequency. A result greater or less than 1.0 suggests that changes in those other components have contributed to premium changes.

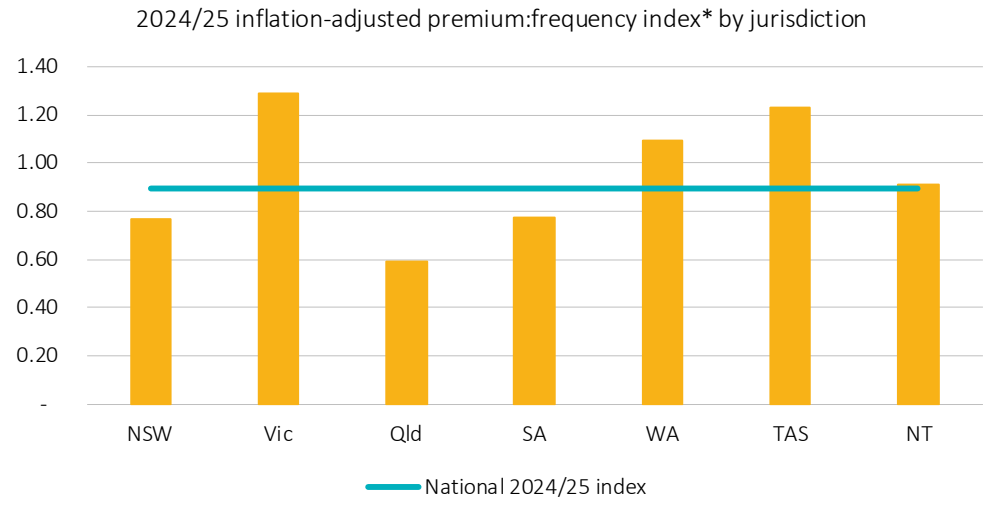
The chart below shows the national frequency index, inflation-adjusted premium index and the ratio of the two indices.



At a national level, inflation-adjusted premiums reduced by more than frequency up until July 2019 (premium: frequency ratio of 0.87). After this, premium reductions were less than the reduction in frequency and as a result the premium:frequency ratio index increased and averaged 0.96 between July 2020 and July 2025. At July 2025 the ratio is 0.90 indicating that across this whole period premiums have reduced by 10% more than frequency. Reasons for some of the movements in this ratio over this period include:

- Changes to economic assumptions; the gap between future wage and interest rates peaked at 1 July 2020 and accounts for much of the movement in this ratio for private schemes that use current risk-free interest rates in pricing. In the last three years the gap has reduced and has supported lower premiums – reducing this ratio by 0.04 for private schemes.
- Premium movements lag frequency movements (particularly during COVID-19 periods) and probably contributes to the high ratio at July 2022.
- Frequency reductions after July 2019 were driven by a reduction in less severe claims with a resultant increase in average claim size.
- Deterioration in average claim size; a number of jurisdictions have called out pressures around treatment and care costs and an increasing level of claims with a psychological injury component.

Jurisdictional differences provide some further insight.



**index relative to 2014/15*

- NSW – the ratio averaged 1.00 up to July 2023 meaning premium reductions mainly followed frequency reductions, but recent premium increases have not kept pace with frequency increases – reducing the index to 0.77 at July 2025. We suspect this may be due to a lag in premiums responding to frequency increases rather than a reduction in average size; we note there is an increasing proportion of claims with a psychological component in the NSW scheme which would be expected to place pressure on claim sizes.
- Qld – the ratio dropped to 0.66 between July 2015 and July 2017 reflecting both lower severity claims from claim farming and the regulator reducing some margins in the ceiling price. The ratio was quite stable after this meaning that premiums were moving in line with frequency, but dropped to 0.59 at July 2025. As for NSW, we suspect that this may indicate a lag in prices responding to the recent increase in frequency.
- SA – the ratio jumped to 1.2 in July 2017 as premiums were 'fixed' during the early post-privatisation years and stayed around this level until 2023 meaning that prices broadly moved with frequency. Since then, prices have reduced more than frequency with the ratio ending at 0.77 at July 2025.
- Vic and Tas – large reductions in frequency in each of these jurisdictions which have been sustained post-COVID-19 have not led to commensurate premium reductions suggesting that frequency reductions are from less severe claims. Both Vic and Tas have also noted pressure on treatment and care costs.

4.3 Conclusions

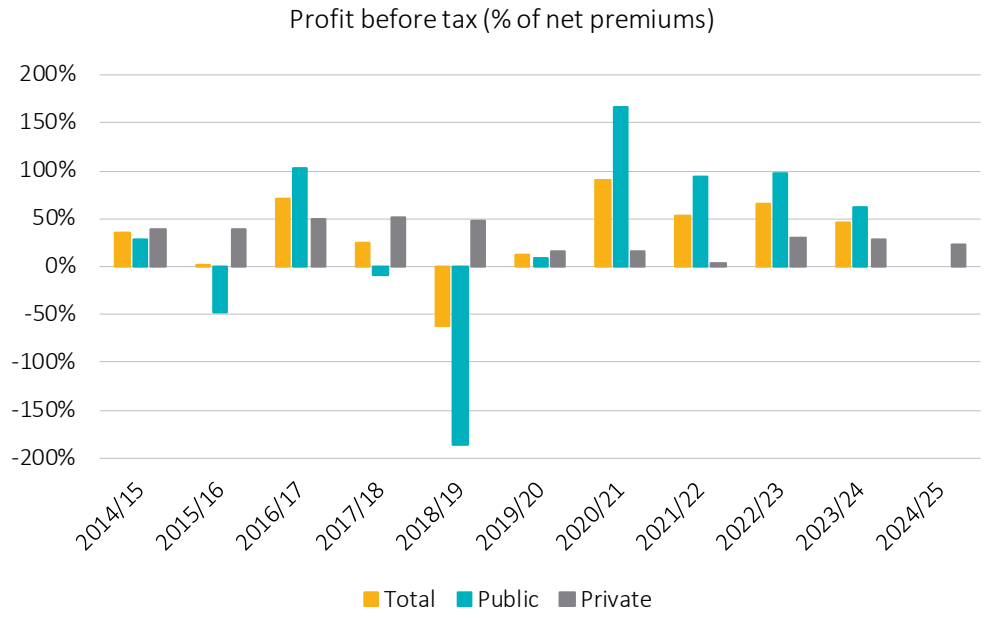
Our key conclusions are:

- CTP premiums are more affordable in 2024/25 than 2014/15 with inflation-adjusted premiums 30% lower than 11 years ago.
- This is the case in most jurisdictions. Jurisdictions with the greatest premium reductions generally had 'one-off' impacts such as scheme reforms.
- Lower frequency is a major contributor to the reduction in inflation-adjusted premiums although overall premiums have reduced 10% more than frequency. Reduction in margins in some private schemes as well as some lags in responding to recent frequency increases and relatively favourable current economic conditions are also contributors to this result.
- Since July 2019, premiums have reduced by slightly less than frequency which may be due to:
  - > Some of the frequency reductions being due to fewer low severity claims.
  - > Pressure on some elements of claims costs – especially treatment and care for long term benefits.
  - > More claims with a psychological component which are generally more subject to disputation and have a higher cost.

5 Profitability

To understand profitability for CTP schemes across Australia, we looked at APRA's statistics for privately underwritten jurisdictions and annual reports for the government underwritten schemes. Since APRA's statistics do not publish investment income at a class of business level, we have allocated overall industry-level investment income to CTP by considering the class-specific technical provisions, as well as an allocation of industry-level capital to class.

The chart below shows the accounting year before-tax profit[3] as a % of net premiums for public and private schemes and in total since 2014/15. Profit results for 2024/25 were only available for private schemes at the time of writing.



In total, CTP scheme profitability was volatile over the past decade. Profit before tax ranged from -62% in 2018/19 to +90% in 2020/21, averaging 34% over 2014/15 to 2023/24.

Profit for the public schemes was very volatile, ranging from -187% to +167%, averaging 35% over 2014/15 to 2023/24. External factors such as inflation and interest rate movements have very significant impacts on reported results for Vic and Tas due to the very long-tail nature of the lifetime treatment and care liabilities in these schemes. In other jurisdictions, these benefits for the catastrophically injured sit in separate schemes which are not part of this study.

In contrast, profit for the private schemes were more stable and ranged from +3% to +50%, averaging 32% over 2014/15 to 2024/25.

[3] We have made some adjustments to the reported before-tax profit for public schemes. For Vic we have excluded dividend payments to the Government. For WA we have excluded the Bell settlement proceeds for 2020/21 and 2021/22.

5.1 Public schemes

By jurisdiction across 2014/15 to 2024/25:

- Vic reported a profit of 29% of premium
- WA reported a profit of 43% of premium
- Tas reported a profit of 79% of premium.

The public schemes do not operate with a profit motive. Their primary focus is often on other aspects of scheme sustainability such as premium stability and maintaining scheme funding ratios within a target band to secure the long-term health of the scheme. The very long tail nature of the Vic and Tas liabilities and their investment strategy mean that investment income is very significant for these schemes, representing 58% of premiums for Vic and 81% of premiums for Tas over this period. This compares with 35% of premiums for WA and 18% of premiums for the private schemes which have shorter durations and (for the private schemes) more conservative investment strategies.

5.2 Private schemes

In total, private sector insurers reported a profit for CTP of 32% of premium over the last eleven years. They reported a profit of 45% of premium between 2014/15 to 2018/19 which reduced to 20% of premium between 2019/20 to 2024/25. We observe there has been a greater regulatory focus on profit across all the private schemes over this period which, together with competition, has contributed to a significant reduction in underlying profitability.

Qld	• The average 'hindsight' profit margin as assessed by the Scheme Actuary reduced from 25% across underwriting years 2015 to 2017 to 9% for the 2020 to 2024 years[4]. • One insurer withdrew from the Qld CTP scheme due to lower profit viability while another insurer has said that its Qld CTP portfolio has been considered onerous (i.e. loss-making) since 2021/22.
NSW	• Between 2021 and 2024, the scheme regulator triggered the Transitional Excess Profits and Losses (TEPL) mechanism (which caps profits at 10% for insurers) for the 2018 and 2019 years of the NSW CTP scheme; recouping $543m in total to date[5]. • Increases in the frequency and average size of statutory benefit claims since 2023 and the flow on impacts for common law claims mean that excess profits are less likely for the 2023 accident year onwards. Some insurers have noted higher claims costs impacting their reported FY25 results.
SA	• Prior to price competition between insurers, the hindsight profit margin[6] measured by the Scheme Actuary averaged 51% and subsequently fell to 27% after price competition commenced on 1 July 2019. • Profit margin reduced to 11% for the most recent underwriting year (12 months to December 2024).

[4] "Motor Accident Insurance Commission: Retrospective profit study of Queensland CTP premiums as at 31 December 2024", published 3/06/2025

[5] https://www.sira.nsw.gov.au/resources-library/regulation-and-fraud/transitional-excess-profits-and-excess-losses-tepl

[6] "CTP Insurance Regulator: Review of scheme efficiency as at 31 December 2024", published 18/06/2025

5.3 Conclusions

Our key conclusions on profitability are:

- Financial management for public schemes is different to private sector schemes, with factors such as premium stability being of greater importance.
- Reported results for public schemes are extremely volatile due to the very long tail nature of the Vic and Tas schemes; however, over this period the overall profitability relative to premiums was broadly similar to private schemes.
- Private sector reported profitability has declined over the last eleven years and more than halved in the second half of this period due to regulatory focus on profit and competition. From an underlying profitability perspective (i.e. underwriting year profitability) there are indications that recent profitability levels in some schemes are insufficient (at least for some insurers). Sustained low profitability may influence insurer participation and investment in innovation, technology or customer experience – factors that could otherwise enhance scheme efficiency and claimant outcomes.

6 Thoughts for future scheme sustainability

In considering future scheme sustainability we have considered three sustainability criteria:

- Consumer premiums are affordable and equitable.
- Scheme design and claims management encourages recovery and outcomes.
- Schemes meet 'capital provider' expectations.

We discuss each of these below.

6.1 Consumer premiums are affordable and equitable

Looking at the last eleven years we have observed that premiums in 2024/25 are lower than in 2014/15 and that this is the case for almost all jurisdictions. A significant driver of this is a reduction in CTP claim frequency which has largely followed reductions in collisions and fatalities (from safer roads and vehicles) and benefited from the 'one-off' impact of the change in mobility patterns post-COVID-19.

Experience for individual jurisdictions over the period examined highlights that changes in claiming behaviour (such as the impact of claim farming) can counteract underlying improvements in frequency which means that the benefit of investment in these areas is not passed on to consumers.

Looking to the future we, therefore, identify two key areas to maintain or improve premium affordability:

- Further improvements in vehicle and road safety (a necessary precursor to reductions in CTP claim frequency).
- Careful monitoring of CTP utilisation (i.e. the number of CTP claims per some measure of collisions) to ensure that benefits of vehicle and road safety improvements are passed on to consumers through lower premiums.

In terms of the former, we note that investments in these areas nationally and in both public and private schemes support improvements. For example, TAC in Victoria invested 12%[7] of premiums and MAIB in Tasmania invested 4%[8] of premiums over the period examined in road safety initiatives. In NSW, the scheme regulator provided funding for research initiatives run by Monash University and Suncorp (AAMI) aimed at improving young driver behaviour and safety using telematics technology, smartphone apps and behavioural incentives. Nationally, the Australian Government committed almost $3b to the Road Safety Program over six years from January 2021. In the private sector, AAMI launched its nationwide AAMI Driving Test[9] which uses its AAMI app to collect mobile telematics data to measure driving behaviour – as an engaging way to encourage drivers to adopt safer driving habits with personalised insights to compete for the title of the country's safest driver.

AI technology is also being increasingly used to improve road safety through a mix of real-time monitoring, preventative technologies, and data-driven intervention strategies. Some examples being deployed/tested in Australia and internationally include:

- Real-time incident detection and video analysis – AI is used to automatically detect when a near-miss, crash or hazardous behaviour occurs and records a short video of the incident. In NSW, the Road Safety

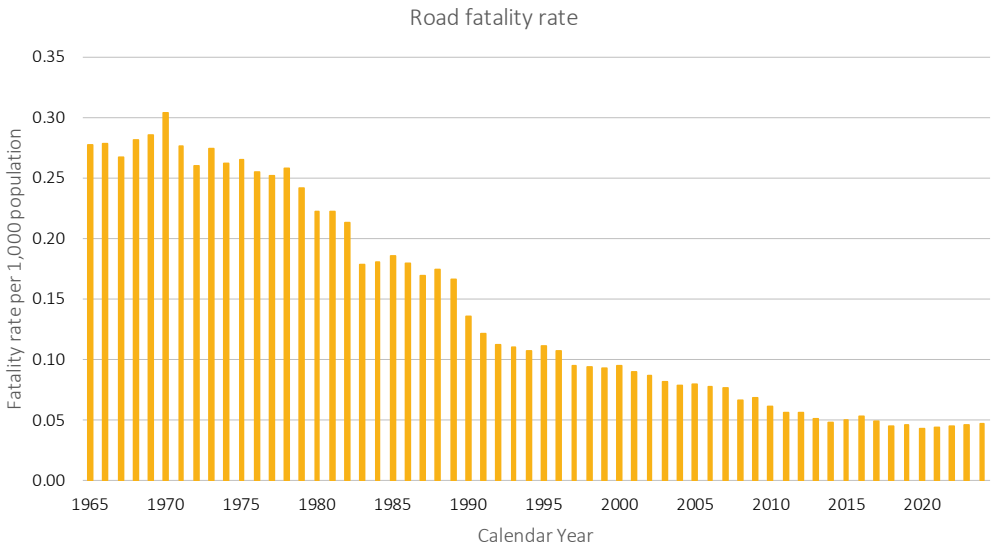
[7] "Safer system road infrastructure" and "Marketing and road safety" expense items
[8] "Road safety initiatives" expense item
[9] Running from October 2025 to early February 2026

Incident Investigation Camera (ROSIICAM) is being trialled to better understand the number and nature of incidents at a location, helping to identify dangerous sites and enable targeted intervention.

- Adaptive and predictive traffic management – AI is used for adaptive traffic signals to predict and respond to real-time traffic conditions, reducing congestion and collision risk.
- Data-driven road infrastructure safety – projects like AiRAP (run by the International Road Assessment Programme) use AI to capture and analyse large amounts of road safety-related data, automating road safety assessment, crash risk mapping and identifying locations requiring upgrades and investment.
- Post-crash emergency response – AI helps dispatch emergency responders more effectively by analysing incident locations, severity, and traffic conditions to improve outcomes for victims.

Developments in autonomous vehicle (AV) technology – such as Tesla's introduction of its "Full Self-Driving (Supervised)" capabilities in Australia in 2025 (with more advanced automation expected in future) and the continuation of a number of autonomous vehicle trials – highlight both the opportunities and challenges ahead. On one hand, advancements in vehicle technology and safety systems hold the promise of reducing collisions and fatalities over time. For example, a Swiss Re study[10] found AV technology led to a ~90% reduction in bodily injury claims compared to human drivers. Another study[11] by Allianz forecasted a 20% reduction in road-traffic accidents in Europe by 2035 as the mix of vehicles change.

Over the longer term we have observed a reduction of over 80% in the motor vehicle fatality rate (see chart below) through initiatives such as drink-driving laws, mandating seat belts lowering speed limits and generally safer vehicles, as well as investments in safer roads.



It seems reasonable that as AV technology evolves and with greater uptake, together with ongoing focus and investment on safer roads, the downward trajectory in fatalities (and collisions) can be expected to continue.

However, the transition phase involving mixed fleets could raise questions around liability – in the near term it may increase disputes around fault determination. Without clear regulatory guidance, costs of AV-related crashes could counteract improved frequency. In addition, the adoption of Tesla's (and other) autonomous technology is expected to alter the profile of risks on roads. The transition phase could bring new safety

[10] Di Lillo, L., Gode, T., Zhou, X., Scanlon, J. M., Chen, R., & Victor, T. (2024). Do Autonomous Vehicles Outperform Latest-Generation Human-Driven Vehicles? A Comparison to Waymo's Auto Liability Insurance Claims at 25.3m Miles.

[11] Allianz SE. (2025). "Allianz Motor Day 2025: Hands off – The safety promise of autonomous driving"

challenges, such as over-reliance/misuse of new vehicle technology or the technology failing to appropriately respond on the road.

In addition, the rapid uptake of e-scooters and other micromobility devices has led to an increase in injuries and fatalities over recent years. Data relating to e-scooter accidents is not collected consistently nationally, however a number of jurisdictions have reported increased hospital presentations and fatalities due to e-scooter (and other micromobility device) usage[12]. While regulations and safety requirements differ to some extent between jurisdictions, generally there are no registration or CTP insurance requirements for these devices – resulting in potential coverage gaps for both injured riders and third-parties. If CTP schemes were expanded to cover micromobility accidents, insurers and regulators need to consider the likely increase to scheme costs and how to fund this equitably.

From a sustainability perspective, the long-term safety gains from technology need to be realised and translated into lower claim frequencies and premiums, while avoiding short-term leakage, for example through increased dispute costs and administrative friction.

Most CTP schemes are not able to provide premium incentives for safer vehicles or safer driving behaviours (except for NSW through the bonus-malus). Given the potential for significant reductions in road accidents through AV uptake, scheme regulators may need to consider the role pricing plays regarding promoting road safety to provide greater equity for consumers and incentivise safer vehicles and behaviours.

6.2 Scheme design and claims management encourages recovery and outcomes

Over the last eleven years there has been significant discussion about the impact of scheme design and claims management on recovery and health outcomes for injured people, with research[13] generally concluding that when an injury occurs in a compensable setting, the probability of a poor health outcome is significantly higher than for the same condition in a non-compensable setting. Various factors associated with better or poorer outcomes include:

- Speed of claim lodgement and access to treatment and support, with earlier lodgement and access associated with better outcomes.
- Disputation, with high levels of disputation and lengthy dispute resolution associated with poorer outcomes.
- Legal representation, which is likely associated with disputation.
- Power imbalance between the claimant and the insurer leading to lack of trust in decision-making.
- Perceived injustice and/or blame.
- High levels of stress attributable to the claims process itself.

The NSW and ACT schemes both underwent significant changes to scheme design – moving from common law systems to hybrid defined benefit/common law systems. Part of the rationale for the changes was to improve recovery through earlier access to treatment, care and income support, as well as to reduce the adversarial nature of the schemes. SIRA has undertaken research on outcomes of people injured in the new CTP scheme through the Social Research Centre. The research (which is ongoing) identified areas that SIRA and insurers could focus on to improve outcomes, such as customer service and early identification of probable mental illness and pain.

[12] Australian Lawyers Alliance, "E-scooters and other e-mobility devices", https://lawyersalliance.com.au/Web/Advocacy/Papers/e-scooters.aspx

[13] Frost, D. & Sheppard, D. "*The Impact of Compensation on Recovery: Why do people with compensable injuries report worse functional outcomes?*"

In the Qld scheme there has been a strong focus by insurers recently to reduce legal representation on claims to achieve faster, less adversarial settlements. This strategy appears to be having some success, although there is challenge from some areas of the legal profession.

One feature of several schemes over the period examined has been an increasing proportion of claims with a psychological injury component. This may be due to greater societal awareness around mental health issues, scheme design challenges (for example as a pathway for claims to exceed injury thresholds or to increase the quantum on a claim) or influence from legal representation[14]. We observe that claims with a psychological injury are more prone to disputation due to greater potential for conflicting medical opinion and challenges around assessing the impact of the psychological injury on compensation. In addition, the longer duration of treatment for mental health conditions and its impact on work capacity can lead to higher claims costs. Claims with a psychological injury generally see higher average claim sizes and potentially worse health/recovery outcomes.

Treatment and care costs have been growing at a higher rate than normal inflation for several schemes over the last few years. There are probably a few factors at play:

- Potential over-servicing of some claims.
- Supply and demand issues for care services with growing demand across the broader disability and aged care sectors.
- Ongoing Fair Work Commission decisions on award wages for support worker (SCHADS) including the outcome of the recent provisional decisions on gender undervaluation.

Looking ahead, there is the opportunity to support future sustainability through continued investment in understanding how schemes impact recovery and outcomes, and making changes to both claims management and scheme design to promote better outcomes for injured people. Research will need to specifically examine psychological injuries and how scheme design could better respond to these types of injuries. Ultimately the goal should be for lower frictional costs associated with disputation and lower compensation amounts due to better recovery and life outcomes for those injured.

Schemes have identified value-based health care (VBHC) as another opportunity to support sustainability by promoting evidence-based best practice treatment models that support health outcomes and reduce over-servicing. For example, TAC is continuing to embed the principals of VBHC through its many programs of work[15], and SIRA has commenced all VBHC initiatives outlined in its Implementation Plan[16]. Over time, embedding outcome measurement, data sharing and incentives for effective care could enable schemes to achieve better health outcomes at lower cost. As digital health data and AI-driven insights mature, schemes will increasingly be able to measure provider performance and recovery outcomes, embedding feedback loops that better support claimant experiences.

In addition, applications of analytics and AI techniques that insurers can use as part of their toolkit to deliver better claims outcomes continue to expand. We observe these technologies being used across the claims process including:

- Optimising resource allocation, claims triaging and recommending the next claims action.
- Agentic AI for claims – including capability as a frontline claims staff and claims assessor.

[14] In NSW we have observed a correlation between first legal representation and recognition in the injury coding of a psychological injury for a claim.

[15] https://www.tac.vic.gov.au/providers/working-with-the-tac/vbhc

[16] https://www.sira.nsw.gov.au/resources-library/across-schemes/implementation-plan-for-value-based-health-care-in-nsw-wc-and-ctp-schemes-progress-report-september-2024

- Designing personalised recovery plans for claimants.
- Enhancing the identification of fraudulent claims by identifying over-servicing and over-billing within provider networks.

With thoughtful investment and collaboration between insurers, regulators and technology providers, AI could evolve from supporting functions such as claims assessment and risk monitoring to becoming an active 'recovery companion' – helping claimants navigate through treatment, improving engagement to return to function more effectively and ultimately helping schemes deliver better outcomes efficiently. Harnessed responsibly, AI can play a pivotal role in shaping the next generation of sustainable, efficient and human-centred CTP schemes.

The cost of care is likely to be an ongoing challenge for schemes. The ageing population will increase demand for care workers. While there are strategies in place to increase worker supply, a consistent and strong co-ordinated approach covering migration, wages, training and technology will be needed and will probably take time.

6.3 Meeting 'capital provider' expectations

Meeting 'capital provider' expectations is important in both the public and private schemes. In public schemes, maintaining funding ratios is an important financial management discipline that promotes sound pricing and claims management to ensure schemes are fully funded over the long-term.

In private schemes, ensuring an adequate return on capital at risk means schemes can continue to attract private-sector capital and maintain insurer participation. We have seen all the private scheme regulators place emphasis on "scheme efficiency" over the period examined by monitoring and reporting on the percentage of premium paid as claimant benefits rather than delivery costs, frictional costs (such as legal fees) and profit to insurers. Our observation is while this has helped improve transparency and cost discipline, it has also contributed to a reduction in private sector profitability over this period (we previously noted reported profit (before tax) reduced from 45% in the first half of this period to 20% in the second half). Despite this, insurer participation in the NSW and SA schemes has increased over the period examined, with one new insurer in each scheme. However one insurer has exited the Qld scheme. We note insurer participation depends not only on current profitability but also on confidence in the long-term predictability and stability of scheme outcomes and legislation.

From a future sustainability perspective, it is important to strike the right balance between scheme efficiency and adequate profitability for insurers. Capital expectations could be considered in the context of emerging scheme risks and uncertainties (for example, around AVs and micromobility devices discussed previously). Sustainable schemes will need to ensure that pricing and capital frameworks remain responsive to changing risk profiles rather than fixed profit margins. Further work could be done to understand what constitutes an adequate return for insurers and how to deal with 'excess' profits in this context. Engagement with the prudential regulator (APRA) would also be helpful to ensure consistency in scheme oversight of profitability with prudential regulatory requirements and financial system expectations. This would help schemes remain adequately funded without discouraging innovation or participation.

6.4 Conclusions

Our key conclusions about the future sustainability of CTP schemes are:

- While vehicle technological advances may present some short-term challenges, ultimately the long-term safety gains from technology should translate to lower CTP claim frequencies and premiums, supporting affordability and sustainability. In addition, scheme regulators and insurers could play a role to incentivise safer vehicles or driving behaviours (both in pricing and beyond).

- Ongoing investment in understanding recovery and health outcomes for injured people is needed to support changes in claims management, evidence-based treatment plans and scheme design – to reduce frictional costs and improve outcomes, including for people with a psychological injury.
- Continued investment in AI can enhance both road safety and improved recovery outcomes to support scheme sustainability – future applications such as personalised recovery companions can help improve claimant experiences and recovery outcomes.
- The cost of care is likely to be challenging over the next decade due to high demand for care workers.
- There are some recent challenges to underlying profitability in some of the private schemes, and excess profits which have contributed to lower scheme efficiency in the past have been eliminated. We expect that rational pricing will lead to improved profitability, however ongoing dialogue around what constitutes adequate and sustainable profitability is important to ensure long-term scheme resilience.
- As history shows, schemes have demonstrated the ability to 'self-correct' in the face of adverse experience. Their continued adaptability to emerging challenges, evolving risks and changing community expectations will be essential to ensuring they remain sustainable, resilient and fit for purpose.

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Appendix A: Information used in this paper

The following table summarises the sources of information used in this paper.

	NSW	Vic	Qld	SA	WA	Tas	NT
CTP claim frequency	Finity analysis of industry UCD	TAC	Finity analysis of industry claims data	CTP Insurance Regulator annual reports	ICWA annual reports	MAIB annual reports	MACC annual reports
Collision frequency index	Insurance Statistics Australia						
Fatalities	1990 onwards: Australian Road Deaths Database from Bureau of Infrastructure and Transport Research Economics Pre-1990: Australian Transport Safety Bureau						
Premium	SIRA	TAC	MAIC	CTP Insurance Regulator, SA Gov	ICWA	MAIB	NT Gov
Profitability	APRA Quarterly General Insurance Performance Statistics, Finity analysis	TAC annual reports	APRA Quarterly General Insurance Performance Statistics, Finity analysis	APRA Quarterly General Insurance Performance Statistics, Finity analysis	ICWA annual reports	MAIB annual reports	MACC annual reports

Appendix B: Individual scheme information

Select individual scheme information is shown in the tables below.

CTP frequency index

FY	NSW	Vic	Qld	SA	WA	TAS	NT
2014/15	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2015/16	1.08	1.02	1.02	0.91	0.85	0.94	1.12
2016/17	0.98	0.99	1.16	0.72	0.94	0.86	1.23
2017/18	0.83	1.05	1.14	0.71	0.88	0.89	1.26
2018/19	0.69	1.11	1.06	0.58	0.92	0.83	1.32
2019/20	0.63	0.86	0.91	0.49	1.07	0.72	1.06
2020/21	0.65	0.72	0.97	0.49	1.04	0.65	1.09
2021/22	0.49	0.71	0.88	0.46	1.02	0.56	1.03
2022/23	0.63	0.78	0.89	0.46	0.99	0.54	1.08
2023/24	0.69	0.72	0.88	0.52	0.89	0.55	0.96
2024/25	0.75	0.66	0.98	0.52	0.91	0.55	0.96

Fatality rate index

FY	NSW	Vic	Qld	SA	WA	TAS	NT
2014/15	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2015/16	1.24	1.02	1.02	0.84	0.93	1.21	1.05
2016/17	1.11	1.00	1.02	0.70	0.99	0.92	1.04
2017/18	1.20	0.87	0.98	0.83	0.88	0.87	0.99
2018/19	1.09	0.94	0.88	0.86	0.90	0.87	0.89
2019/20	0.94	0.81	0.91	0.81	0.74	0.84	0.77
2020/21	0.84	0.70	1.11	0.79	0.86	0.86	0.88
2021/22	0.81	0.83	1.07	0.66	0.77	1.29	1.06
2022/23	0.82	0.89	0.95	0.73	0.84	0.89	0.72
2023/24	0.94	0.94	1.01	0.77	0.82	0.63	1.30
2024/25	0.99	0.95	0.99	0.65	0.88	1.12	1.16

Inflation-adjusted premium index

	NSW	Vic	Qld	SA	WA	TAS	NT
Jul-15	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Jul-16	1.04	0.98	0.89	0.86	1.03	0.96	0.94
Jul-17	1.05	0.96	0.77	0.86	1.06	0.87	0.92
Jul-18	0.73	0.95	0.73	0.88	1.06	0.85	0.90
Jul-19	0.65	0.94	0.71	0.59	1.05	0.82	0.93
Jul-20	0.63	0.89	0.69	0.58	1.06	0.81	0.94
Jul-21	0.60	0.88	0.64	0.55	1.02	0.75	0.95
Jul-22	0.59	0.90	0.64	0.55	1.02	0.73	0.95
Jul-23	0.59	0.86	0.62	0.49	0.99	0.71	0.95
Jul-24	0.57	0.86	0.58	0.42	0.99	0.69	0.92
Jul-25	0.57	0.85	0.58	0.40	0.99	0.68	0.88