

Report of the
Independent Review
of Insurer Profit
within the NSW
Compulsory Third
Party Scheme

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15 October 2015

Dear Anthony,

I have pleasure in submitting to you my report on the Independent Review of Insurer Profit within the New South Wales Compulsory Third Party (CTP) Scheme.

In preparation of this report, I have been assisted by Deloitte's actuaries and economists. I have benefited from the provision of data and reports by the Motor Accidents Authority (MAA), discussions with the MAA, the Scheme Actuary and other actuaries, and consultations with CTP insurers and other stakeholders. I have also received helpful advice from John Trowbridge and Dr Peter Abelson.

Yours sincerely,

Trevor Matthews
Independent Review Chair

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Glossary and acronyms

ACCC	Australian Competition and Consumer Commission
Accident year	The year in which the vehicle accident giving rise to the claim occurred.
ANF	Accident Notification Form
APRA	Australian Prudential Regulation Authority
AWE	Average Weekly Earnings
CARS	Claims Assessment and Resolution Service
CPI	Consumer Price Index
CR(2)	2-Firm Concentration Ratio
Cross subsidy	Higher premiums are charged to one group of policyholders in order to subsidise lower premiums for another group of policyholders.
CTP	Compulsory Third Party
DAE	Deloitte Access Economics
Evenly-priced	Evenly-priced policyholders are customers who pay a premium price that is based on their risk rating not constrained by the pricing regulations in the NSW CTP scheme.
Free risk rating	Risk-based pricing without regulatory constraints
HHI	Herfindal-Hirschmann Index
ICA	Insurance Council of Australia
IPART	Independent Pricing and Regulatory Tribunal
IRR	Internal rate of return
LTCS	Lifetime Care and Support
MAA	Motor Accidents Authority
MACA	<i>Motor Accidents Compensation Act 1999</i>
MAIC	Motor Accidents Insurance Commission
Overfunded	Overfunded policyholders are those customers who pay a premium price that is higher than they would otherwise pay if there was risk-rated pricing in the NSW CTP Scheme.
PCR	Prudential Capital Requirement
PDG	Premium Determination Guidelines
PICF	Personal Injury Claim Form
PIR	Personal Injury Register
RMS	Roads and Maritime Services

Superimposed inflation	Superimposed inflation is the increase in the average claim size above wage cost inflation.
TAC	Transport Accident Commission
ToR	Terms of Reference
Underfunded	Underfunded policyholders are those customers who pay a premium price that is lower than they would otherwise pay if there was risk-rated pricing in the NSW CTP scheme.
Underwriting year	The year the insurance policy was sold / underwritten.
WPI	Wage Price Index

Executive Summary

This is the report of the Independent Review (the Review) of Insurer Profit within the New South Wales Compulsory Third Party (CTP) Scheme commissioned by the NSW Government.

New South Wales has a compulsory, predominantly common law, competitively underwritten CTP scheme, (the Scheme). The Government's policy goals are for the Scheme to be affordable, sustainable, and efficient¹.

Since the Scheme was introduced in 1988, significant changes have occurred, notably the establishment of the Australian Prudential Regulation Authority (APRA) in 1998 and the introduction of the *Motor Accidents Compensation Act 1999* (MACA). At that time there were concerns about premium adequacy, which led to the introduction of the Fully Funded Premium test in Section 27(8) of the MACA requiring premiums to fully fund liabilities.

Since the 1999 reforms, somewhat contrary to expectations, for almost every year in the past 14 years, actual profits at the Scheme level have exceeded expected profits as reported to the Motor Accidents Authority (MAA). A number of insurers have exited the Scheme since 1997 and there have been no new insurers enter the Scheme for over 17 years.

The level of insurer profits has attracted public and parliamentary criticism. The NSW Legislative Council's Standing Committee on Law and Justice in its July 2014 report on the Twelfth review of the exercise of the functions of the Motor Accidents Authority (12th Review) noted:

*"In regard to profits, it is inarguable that there has been a disparity between prospective and realised profits. On each occasion the disparity has been in favour of the insurers. This is an issue which must be addressed."*²

The long delay between when claims are reported and when claim payments are finalised in the Scheme means that there is significant inherent uncertainty in the ultimate claims costs. Insurers typically allow for this uncertainty in the form of higher premiums. Due to the complexity of the product, it is difficult to predict the level of insurer profit at the time of filing.

The matters for consideration under this Review are complex, requiring a delicate balance of policy goals in this construct of private underwriting of a compulsory public good. These policy goals are met by imposing restraints on insurers, via cross-subsidies in the premium regime, as to the extent that they can price to reflect their own assessments of risk. The Review concludes that broadly the Scheme continues to meet its original policy goals of affordability, sustainability and efficiency. However, there are structural factors within the

¹ These policy objectives reflect the objects set out in the Motor Accidents Compensation Act 1999 and the relevant Scheme performance indicators as reported annually by the MAA. They also are considered by the Standing Committee on Law and Justice.

² Standing Committee on Law and Justice, 2014, referring to profits on underwriting year basis.

Scheme that can be addressed to simplify the premium system and introduce greater transparency.

The Review finds that the uncertainty faced by insurers within the Scheme and insurers' approaches to selecting customers may work against these policy goals and contribute to the disparity between prospective and realised profits. It follows that recommendations to help address the issues would assist the Government to better meet the Scheme's policy goals. The recommendations in this report are intended to meet the current policy objectives of the Scheme by encouraging insurer competition where appropriate and directly limiting premium levels to address affordability. The recommendations are also intended to construct a premium system where there is equitable sharing of experience between insurers and policyholders. So, for example, claims experience better than expected can result in increased profit to insurers and lower premiums to policyholders.

The current Scheme reflects the policy objective of not allowing insurers to distinguish between policyholders with respect to specific attributes, such as postcode, within the MAA-specified geographic regions. The bonus/malus structure also limits the premiums charged to high-risk policyholders. In particular, the elastic-gap mechanism within the bonus/malus structure operates such that the maximum malus (i.e. loading) that an insurer can charge is progressively reduced in line with the extent to which an insurer's base premium exceeds a reference rate set by the MAA. This adds complexity to the Scheme and is a potential deterrent to new entrants.

These inherent cross-subsidies lead to some high risk policyholders being charged less than an actuarially-determined 'sound' premium which would reflect their true riskiness, while other policyholders pay a higher premium than would be the case if such rating factors were permissible. For example, all other things being equal, a sound premium for a 17-year-old vehicle owner is approximately six times that of a 45-year-old owner, but cross-subsidies reduce the premium charged for the 17-year old to just twice that paid by the older owner.

The extent of cross-subsidy which exists within the current Scheme potentially diminishes the effectiveness of CTP premiums as a risk signal to encourage better driver behaviour and may also discourage innovation from insurers. Insurers will naturally tend to try and write better risks. Currently there is a disincentive to lower premiums because the current premium structure means that there is likelihood of attracting worse risks, which goes against basic insurance principles.

The Review recommends simplifying the premium system and encouraging insurers to compete for the majority of risks, and addressing the cross-subsidies in a more effective and transparent way than under the present Scheme. This is likely to reduce premiums for the majority of policyholders while increase premiums for a small proportion of policyholders. To facilitate this free rating for the majority of risks and still meet the policy objective of affordability, the Review recommends the MAA introduces a 'risk-pooling' mechanism for the most underfunded risks and sets a maximum premium. Insurers would be allowed to risk rate vehicle owners outside the pool freely at any rate up to this maximum level. The most underfunded risks would then be distributed among insurers in a 'fair' manner, for instance, in proportion to their market shares. This approach reduces the uncertainty of insurers' exposure to underfunded risks and therefore removes some of the

potential conservatism in pricing. It would also open the system up to new entrants who are currently deterred by the existing cross-subsidies. There is a range of possible risk pooling options to achieve this. Each option has its own advantages and disadvantages, and the details will need to be considered thoroughly.

The Review recognises that it will take time to explore and understand the implications of free rating and the range of options for risk pooling, and to implement the preferred option. Therefore, the Review recommends in the interim a separate set of measures to refine the current Scheme. These measures are intended to be considered as a package as there are dependencies between different recommendations.

The Review also recommends that prior to implementation the MAA should conduct an impact assessment analysis of these recommendations in the context of broader social considerations in order to identify any unintended and undesirable consequences.

Separately, the Review makes a number of recommendations aimed at strengthening the regulatory framework and improving the transparency of information presented to the MAA. This will facilitate better understanding of the Scheme and enhance the role of the MAA as a regulator. APRA's development of a prudential regulatory framework for insurers allows the MAA to focus on market behaviour and business practice.

The Review notes that existing technology allows driver behaviour to be captured directly via an on-board device or mobile phone app (telematics). Such technology would allow premiums to be determined based on actual driving behaviour, rather than by reference to the proxies currently used to determine premiums. Policyholders who drive less, for example, could be charged a lower CTP premium than those who drive more often, all else being equal. Such a technology-driven approach may be a viable option for determining premiums in the long run.

Review Objectives and Terms of Reference (ToR)

The scope of the Review primarily is to test:

- whether the uncertainty of revenues and **scheme design** factors give rise to the difference between filed and realised profits;

ToR 1 Considering the nature of the current design of the scheme, are higher ultimate profits to be expected or reasonable? Are there options to address this?

ToR 2 What level of profit margin should the MAA regard as reasonable in a filing?

- whether measures to stimulate market **competition** would have the effect of self regulating insurer premiums and profits; and

ToR 3 Is there more that could be done to promote competition?

ToR 4 Are profits evenly spread or are some insurers taking a larger slice? Is this evidence of a competitive market or are there systemic problems?

- whether improvements in the **regulation** or design of the Scheme could reduce or remove excess insurer profit.

ToR 5 Can improvements be made to the premium system? Should the MAA have more regulatory power and/or can it use its current powers more effectively?

ToR 6 Are insurers gaining excessive profits by reducing claims or other expenses too much?

We address these ToRs in two sections in this Executive Summary, the findings of the Review and the recommendations of the Review.

Review Findings

What has caused the persistent gap between filed and ultimate profits?

While the Review recognises that a number of reasons have led to the persistent gap between filed and ultimate profits, it is important to note that premiums today are comparable to those of 14 years ago in real terms.

Over the past 14 years, the system has benefitted from favourable conditions in the form of lower than anticipated claim frequencies in the first half of the period and benign superimposed inflation in the second half of the period.

The gap between filed and ultimate profits may be explained in part by these positive unexpected outcomes with respect to claims experience. However, these 'surprises' have persisted for an extended period of time suggesting that the pricing process has not reacted quickly enough to reflect the actual underlying experience.

Some degree of scepticism about the favourable experience is understandable, particularly given the marked increase in the propensity to claim since 2013. There is also ongoing uncertainty around the litigation environment such as the impact of new legal precedents on insurers' costs and the increase in the number of legally represented minor severity claims since 2008. It is possible that the conservative bias may be weighted more towards an over-estimation of costs and an under-estimation of profit margins.

This may be a by-product of the emphasis of the Scheme towards ensuring adequacy and sustainability, rather than towards keeping downward pressure on premiums. Section 27(8) of the MACA states that the MAA can reject premium filings on the following grounds:

“(a) the premium will not fully fund the present and likely future liability under this Act of the licensed insurer concerned, or

(b) the premium is, having regard to actuarial advice and to other relevant financial information available to the Authority, excessive, or

(c) the premium does not conform to MAA Premiums Determination Guidelines in force under this Part, or

(d) the premium has been determined in a manner that contravenes section 30 (Maximum commission payable to insurers' agents).”

The first criterion is commonly referred to as the ‘Fully Funded Premium test’, and the practice has developed of requiring certification by an independent actuary that the aggregate premium will fully fund liabilities. Assessing if a premium is excessive has not been part of the certification.

The high levels of uncertainty of the CTP class make projecting ultimate profits difficult and may translate into more conservative assumptions about the mix of business and claims costs.

Since insurers are required to “write all comers” in the NSW CTP Scheme, uncertainty around the mix of business, namely, the ratio of overfunded³ policyholders to underfunded policyholders, affects profit projections. In a Scheme with cross-subsidies aimed at producing affordable premiums for poor risks, some insurers have been more successful at attracting a higher proportion of good risks. It appears that the profits from these overfunded policyholders have been taken as excess profit rather than used to subsidise the poor risks. This practice appears to be contrary to the original intent of the Scheme and its cross-subsidy arrangements.

From a claims perspective, the claims frequency is approximately one fiftieth that of Comprehensive Motor, while average claim size is approximately thirty times that of Comprehensive Motor. The average duration of claims is approximately eight times that of Comprehensive Motor. If claim frequency and claim size are stable, it should be possible to project profit margins with reasonable degrees of reliability. The converse holds if conditions are volatile: small changes in claim frequency and claim size can have significant impacts on realised profits, and projecting profit margins becomes very difficult.

What level of profit margin should the MAA regard as reasonable in a filing?

The Review considers a reasonable profit margin to be a level that corresponds to the return on capital required by the providers of capital to the insurer, given the riskiness of NSW CTP business and the duration for which the capital is tied up.

There are significant risks in CTP insurance. As mentioned above, insurers are required to “write all comers” in the Scheme. They face uncertainty associated with their projected mix of business, as they cannot perfectly forecast the ratio of overfunded policyholders to underfunded policyholders, or the number of evenly-priced policyholders that they will write for each year. Insurers assume a particular mix of business, and therefore a specific, corresponding level of cross-subsidy between overfunded policyholders and underfunded policyholders. As this differs from what is realised over a year, insurers are exposed to variation in claims costs associated with their mix of business. If the ratio of overfunded to underfunded policyholders is higher than expected, insurers will make higher profits than expected, and vice versa.

³ Overfunded policyholders are those customers who pay a premium price that is higher than they would otherwise pay if there was risk-rated pricing in the NSW CTP scheme. Underfunded policyholders are those customers who pay a premium price that is lower than they would otherwise pay if there was risk-rated pricing in the NSW CTP scheme. Evenly-priced policyholders are customers who pay a premium price that is based on their risk rating not constrained by the pricing regulations in the NSW CTP scheme.

The compulsory nature of CTP reduces business risk for insurers as a group, but business risk remains as insurers still must compete for market share.

This source of uncertainty results from the enforced cross-subsidy operating through the Scheme's premium regulations. This uncertainty represents a risk to the insurer that forms part of the overall risk to their profits from this class of insurance.

It is important to note that since CTP is a long-tail⁴ class of business, investment income represents a relatively higher proportion of insurance profits⁵ than for short-tail classes. The asset allocation of CTP insurers is primarily in low-risk fixed-income assets that produce an investment return in addition to the underwriting profits. It is customary to consider the underwriting profits as a percentage of premiums for this business but it must be remembered that insurers benefit from the relatively higher investment earnings. The insurance margin for CTP business may potentially be notably higher than the underwriting profit margin.

Based on historical filings, there is a perception among insurers that the MAA will accept filed profit margins of 8% of premiums. This contrasts with the post-tax return on capital targets of 15-16% reported in insurers' most recent premium filings, equivalent to profit margins on CTP premiums of between 11% and 15%.

The industry long-run average post-tax return on capital is approximately 15%. The Review considers a profit margin equivalent to this level of return on capital to be a reasonable level that the MAA could adopt as an interim measure. There is an argument that being a compulsory Scheme with social policy objectives, insurers should meet both competitive and social outcomes which are concomitant with a lower return on capital than is required for other non-compulsory lines of business. In the medium term, the Review recommends that the MAA should request public submissions on the appropriate level of return on capital for CTP insurers, to be used as the basis for determining a reasonable profit margin. The Review focuses on return on capital rather than return on equity in order to remove distorting features in an insurer's actual capital structure.

How competitive is the NSW CTP business?

There are barriers to entry into the NSW CTP market, including: the need to write all comers, high capital requirements, premium regulation and the need for specialist skills. Individually, none of these factors appears to be insurmountable. However, given there have not been any new entrants to the Scheme since 1997, the barriers to entry, collectively, might be significant.

Currently there are only five insurers, operating under seven licences, in the NSW CTP market. This is more concentrated than the overall Australian general insurance market.

⁴ The delay between when claims are reported and when claim payments are finalised in the Scheme is, on average, around four years.

⁵ Insurance profit is the sum of underwriting profit and investment income

In contrast, there were fourteen insurers operating in the market in 1996. Some of the withdrawals from the market have been in line with industry consolidation, however, there also have been some voluntary withdrawals.

While the market is concentrated, there is evidence that customers are switching between insurers, which suggests that the insurers are competing for customers. Insurers compete for customers on the basis of price, brand and distribution channels, as in other markets. However, insurers in the CTP market also compete through risk identification and risk selection.

Are profits evenly spread or are some insurers taking a larger slice? Is this evidence of a competitive market or are there systemic problems?

The Review finds that profits are spread unevenly. The Review believes that diversity in profitability is consistent with a competitive insurance market and evidence does not indicate that systemic problems exist, other than the issues with cross-subsidies as discussed above.

Some insurers have developed distribution strategies that have enabled them to secure a higher proportion of low-risk policyholders than the market average. The difference in business mix has resulted in insurers having markedly different profitability. Strategies that optimise risk selection may include selective distribution channels or price competition, such as by providing bundling discounts. It appears that the profits from these policyholders are taken as excess profit rather than used to subsidise high-risk policyholders.

Insurers have different customer acquisition strategies, with acquisition costs in recent premium filings varying between 3% and 13% of premiums. ‘Direct’ insurers sell policies directly to consumers and target acquisition expenditure at the level of the consumer. ‘Indirect’ insurers sell policies through brokers, and correspondingly target acquisition costs at brokers, rather than consumers.

The current Scheme imposes a limit on commissions of 5% of premium, which only affects indirect insurers. There are concerns that insurers may be paying commissions to intermediaries on the basis of their ability to write better risks, rather than on a fee-for-service basis as is the case with most other financial products. Such incentives may encourage behaviour that is contrary to the spirit of the Scheme, which is to “write all comers”. Nonetheless, as there is no corresponding limit on acquisition expenses for direct insurers, this limit places indirect insurers at a disadvantage and creates an un-level playing field between insurers in the market. The Review believes that distribution models should be treated equally, and that the current limit on commissions damages competition.

Overall, the Review believes that insurers being able to adopt different distribution strategies do not constitute a systemic problem in relation to excessive profit levels, as insurers are not prevented from copying the more successful strategies of other insurers. While some insurers have been more successful than others at attracting lower risk portfolios, there is evidence that others have been able to replicate these strategies with varying degrees of success. As this process continues, we expect that any ‘excessive’ profits earned by an individual insurer will be competed away over time.

However, the Review believes that risk selection is an undesirable form of competition that seeks to game or exploit the structure of the cross-subsidy rather than improve the overall outcomes under the Scheme. Thus the Review aims to shift the focus away from the absence or presence of competition and its impact on 'excessive' profits, towards changes in Scheme design that channel competitive pressures to generate outcomes more consistent with the objectives of the Scheme.

Are insurers gaining excessive profits by reducing claims or other expenses too much?

Insurers' claims handling expenses have been filed in a range of 2% to 6% of premiums. It is difficult to disentangle the source of the differences in claims handling expenses. Are the differences due to claims handling efficiency or deliberately aggressive claims management processes? In either case, profits will be higher but distinguishing 'aggressive' from 'efficient' claims management requires a separate analysis related to claims handling regulation that is outside the scope of this review.

The number of claims for minor severity injuries that involve legal representation has increased by nearly 80% between 2008 and 2014. Some stakeholders have argued that this is an indication that claimants perceive they are poorly treated by insurers, while others see it as evidence of claimants initiating legal action because they perceive insurers are not contesting claims as hard as in the past and believe their likelihood of claim payments has increased. The average claim size for minor severity injuries with legal representation is close to eight times that for minor severity injuries without legal representation. The Review has not been provided with evidence of the size of claims payouts to individuals net of legal fees compared to payouts for unrepresented claims.

Recently, the MAA conducted focus groups that shed light on whether claimants feel they have been subject to aggressive claims management. Preliminary findings suggest that some claimants have found the process of accessing the Scheme difficult. However, the Review has not been provided with evidence to suggest that insurers have gained excessive profits by reducing claims or other expenses. Preliminary stakeholder feedback suggests that additional analysis may be required to consider potential changes to the existing claims handling guidelines. This is outside the scope of this Review.

Review Recommendations

The Review explores the issues of the ToR and provides evidence, where possible, to support conclusions reached. The relative merits of a range of alternative policy measures are discussed. The views expressed have benefitted from a series of discussions with stakeholders and CTP experts.

The Review suggests a phased approach to the reforms. The key reforms, which are outlined in Recommendations 1 and 2, involve a significant change to Scheme design and would take a number of years to implement. In the interim, the current Scheme can be refined through Recommendations 3 to 20. The Review notes that Recommendations 5, 11 and 20 require amendments to legislation. The recommendations are intended to be considered as a package as there are dependencies between different recommendations.

Key Reforms

Scheme Design

Intent: Achieve the objectives of promoting competition among insurers and maintaining affordability for poor risks. Simplify premium filings and enable the MAA to focus on market practices.

- 1 Introduce free rating for the majority of risks.**
- 2 Pool the most underfunded policies, say 10% of risks. This is allowable under Section 29 of the Motor Accidents Compensation Act 1999**

Note: These recommendations involve identifying the most underfunded risks and placing them in a 'high risk' pool. These risks would be distributed among Scheme insurers, broadly according to insurers' market shares.

The MAA would set a maximum premium for the Scheme and insurers would freely risk rate up to the maximum premium. The MAA would have the facility to adjust the maximum premium to enable the Scheme to meet policy objectives of the Scheme.

By defining the proportion of risks, say 10% of the market, that will constitute the pool, the size of the pool can be controlled.

Further work would need to be done on the design of the new Scheme, especially on defining the pool and deciding how to distribute the poor risks among insurers and transition arrangements before it is implemented. The suggested reforms have social consequences which will affect individuals in different ways.

The impact of moving to free rating will inject more competition into pricing, with the intention of encouraging downward pressure on premiums. Insurers will be able to compete for risks by using a broader range of risk factors than under the existing Scheme. However, premiums for a small proportion of policyholders will increase to reflect the removal of the cross-subsidy they have been receiving.

The maximum price cap will limit the size of any increase, and the actual level of the maximum price cap can be determined by analysis of impact on policyholder cohorts. It may be practicable to phase in the transition to the new premium levels, for example, by raising and lowering premiums in smaller increments over a number of years.

Interim Reforms

Scheme Design

Intent: Refine the current Scheme to allow insurers to compete on additional dimensions and unwind some cross-subsidies, through a review of the rating factors in the Schedule of Premium Relativities. This is a stepping-stone to implementing free rating and risk pooling.

- 3 Review the current Schedule of Premium Relativities to include other rating factors which are consistent with the objectives of the Scheme.**

Note: Alternative rating factors may have potential equity impacts and may need to be presented to the Government for consideration.

4 The Government should review the causes of superimposed inflation and consider measures to address this source of uncertainty, with the aim of helping to close the gap between filed and ultimate profits.

Competition

Intent: Remove barriers to competition.

5 Abolish the current legislative limit on commissions as a share of acquisition costs, as it discriminates among acquisition channels, and consider introducing a cap on all acquisition costs.

Note: The cap on acquisition costs may be expressed as a percentage of premium.

6 Require insurers to report to the MAA all costs of intermediation.

Note: The MAA would monitor practices, such as risk-based commissions, or others that contravene Market Practice Guidelines, that may work against improving Scheme outcomes.

7 Remove pricing restrictions on fleet vehicles.

Note: Fleet vehicles would need to be defined.

8 Consider removing pricing restrictions on commercial vehicles.

Note: Commercial vehicles would need to be defined.

Regulation

Intent: Further entrench the principles-based approach in the regulatory framework. Increase insurer transparency and accountability, strengthen the regulator's capacity to assess premium filings, and close the gap between filed and ultimate profits.

9 Require CTP insurers to prepare and submit annually to the MAA a retrospective analysis of their profit margins over time, to compare realised profits with premium filings and business plans lodged in prior years.

10 Require CTP insurers to include a standard sensitivity analysis of the key assumptions in their premium filings.

11 Abolish the Fully Funded Premium test.

12 Abolish the role of the Certifying Actuary, which certifies that proposed premiums satisfy the Fully Funded Premium test.

13 The MAA should, upon advice from the Scheme Actuary, work with insurers in closing the gap between filed and ultimate profits.

- 14 **Require the senior management of insurers to have high level commercial discussions with the MAA about the appropriateness of premiums.**
- 15 **Modify the Premium Determination Guidelines (PDG) to require insurers to include in their CEO certificates a statement certifying that the premium filings are on a central estimate basis with no conservatism**
- 16 **Require the MAA to continue to monitor the impacts of the new PDG because an assessment of their effectiveness will take time.**

Note: The new PDG were trialled in late 2012, but not made compulsory until November 2014.

- 17 **The MAA, assisted by the Scheme Actuary, should develop a robust benchmark for a reasonable profit margin, which reflects the return required by providers of capital. This would involve the MAA requesting public submissions on the appropriate level of return on capital for CTP insurers to be used as the basis for determining a reasonable profit margin.**
18. **Given the other recommendations are designed to narrow the gap between filed and ultimate profits the MAA should adopt, as an interim measure, a profit margin benchmark for CTP premiums of 12%, which is broadly equivalent to a target post-tax return on capital of 15%.**
- 19 **The MAA should calculate a standardised internal rate of return (IRR) for each insurer based on standardised assumptions for (i) capital allocation and (ii) investment returns in order to assess premium filings. This would facilitate comparison of returns between insurers and against industry benchmarks in order to assess reasonableness.**
- 20 **The MAA role should be restructured to approve rather than reject insurers' premium filings. A power of approval is also in line with other regulated industries, and could lead to a more informed and consultative process.**

Other

- 21 **The MAA should undertake a subsequent review in three years' time to assess the impact of the new PDG and any of the Review reforms that are implemented.**

1 Background

In response to the recommendations of the NSW Legislative Council's Standing Committee on Law and Justice in its July 2014 report on the Twelfth review of the exercise of the functions of the Motor Accidents Authority (12th Review), the NSW Government commissioned a review of the high level of insurer profits in the NSW Compulsory Third Party (CTP) Personal Injury Insurance Scheme (the Scheme).

In its response, the NSW Government agreed that it would consult stakeholders as part of the review, and that the review would examine scheme design and competition issues, as well as opportunities for improving regulation of the Scheme.

The NSW Government appointed Mr Trevor Matthews as the independent Chair of the review and has engaged the services of Deloitte to provide secretariat support to the Chair in preparation of a report to Government.

1.1 The NSW CTP Scheme

In NSW, all owners of motor vehicles are required by law to insure drivers of vehicles against claims for bodily damages by third parties in motor vehicle accidents. Compulsory insurance in CTP has existed in NSW since 1942 as a means of ensuring that individuals injured in motor vehicle accidents receive appropriate compensation. Importantly, the Scheme ensures that compensation payments are ultimately funded by premiums from motor vehicle drivers.

Figure 1.1: Scheme facts and figures

In the year ending 30 September 2014, the NSW CTP Scheme collected \$2.11 billion in premiums, covering 5.1 million vehicles. A total of 14,360 injury notifications were filed and \$1.42 billion was paid out in benefits, bringing the total quantity of compensation paid out under the scheme since it began in 1999 to \$11.6 billion.

Source: MAA (2014)

The legal basis of the Scheme is the *Motor Accidents Compensation Act (1999)*. The Scheme does not cover damage to property or vehicles. Compensation payments through the Scheme are financed from CTP insurance policies (Green Slips) that are required in order to register a vehicle in NSW.

CTP insurance is provided by five companies (Allianz, IAG/NRMA, QBE, Suncorp and Zurich). Suncorp and Allianz each have two licences (GIO and AAMI and Allianz and CIC-Allianz, respectively).

The NSW CTP Scheme provides compensation for people injured in motor vehicle accidents in NSW that are the fault of another vehicle owner or driver, but also includes some no-fault features.

Injured parties are able to access benefits in two ways.

- **Submitting an Accident Notification Form (ANF):** Anyone injured in a motor vehicle accident is able to submit an ANF within 28 days of the accident, regardless of whether or not they were at fault.
- **Submitting a Personal Injury Claim Form (PICF):** In addition to the benefits available under the ANF, an injured person may also be able to claim personal injury compensation if: another driver or vehicle owner was at fault; the accident was a blameless accident (e.g. sudden illness of the driver, vehicle failure); or the person was less than 16 years old, regardless of fault. The PICF is generally expected to be submitted within six months of the accident, with limited exceptions.

The ANF provides reimbursement for reasonable and necessary medical treatment expenses and payment for past loss of earnings up to a maximum total of \$5,000 in the first six months after the accident.

A personal injury claim may provide compensation that includes payment for: reasonable and necessary medical treatment expenses; economic losses and other expenses (e.g. loss of income and out-of-pocket expenses); and non-economic losses (e.g. for pain and suffering if there is a serious permanent injury). A driver completely at fault may not be eligible to make a PICF claim.

Separately, catastrophically injured persons receive lifetime medical treatment, care and support under the Lifetime Care and Support (LTCS) Scheme, which is funded by a compulsory levy of all CTP policies. The LTCS Scheme is outside the scope of this Review.

The Scheme is highly regulated. The Motor Accidents Authority (MAA) is the statutory corporation responsible for regulation of the Scheme and its participants. Its role is *“to licence and regulate the private insurers that underwrite the CTP Scheme to ensure that premiums charged to vehicle owners are accessible and competitive, and benefits provided to those injured in a motor accident are delivered fairly and quickly.”*⁶

Section 5(1) of the *Motor Accidents Compensation Act 1999* (MAC Act) sets out some of the key objectives of regulation with respect to premiums:

- c) to promote competition in the setting of premiums for third-party policies, and to provide the Authority with a prudential role to ensure against market failure;
- d) to keep premiums affordable, recognising that third-party bodily insurance is compulsory for all owners of motor vehicles registered in New South Wales;
- e) to keep premiums affordable, in particular, by limiting the amount of compensation payable for non-economic loss in cases of relatively minor injuries, while preserving principles of full compensation for those with severe injuries involving ongoing impairment and disabilities;

⁶ Motor Accidents Authority, *Annual Report 2013-14*, p.6

- f) to ensure that insurers charge premiums that fully fund their anticipated liability.

Section 5(2)(c) of the MAC Act notes that it must be acknowledged in applying and administering the Act:

“that participants in the scheme under the Act have shared and integrated roles with the overall aim of benefiting all members of the motoring public by keeping the overall costs of the scheme within reasonable bounds so as to keep premiums affordable”

Section 5(2)(c) of the MAC Act sets out a number of considerations that must be acknowledged in applying the Act:

- i. the premium pool from which each insurer pays claims consists at any given time of a finite amount of money, and
- ii. insurers are obliged under this Act to charge premiums that will fully fund their anticipated liability, and
- iii. the preparation of fully funded premiums requires a large measure of stability and predictability regarding the likely future number and cost of claims arising under policies sold once the premium is in place, and
- iv. the stability and predictability referred to in subparagraph (iii) require consistent and stable application of the law.

The Standing Committee noted that ongoing concerns have been raised about the level of insurer profits during each of the Committee’s 12 reviews. The 12th Review reiterated that:

“Section 5(2)(d) of the Motor Accidents Compensation Act 1999 stipulates that insurers, as receivers of public money that is compulsorily levied, should account for their actual profit margins.”⁷

The General Manager of the MAA suggested to the Standing Committee that promoting competition in the market – including by looking at new entrants, current market practice rules and encouraging vehicle owners to shop for the best price – are options that could help address the issue of realised profits of NSW CTP insurers exceeding their filed profits.⁸

1.2 Premium Determination Process

The current NSW CTP Insurance premium framework is complex and allows risk-based pricing within limits pre-determined by the MAA with the aim of keeping premiums affordable.

CTP premiums generally reflect the underlying risk of the policyholder subject to a cross-subsidy component; essentially good risks subsidise poor risks within imposed limits. These

⁷ Standing Committee on Law and Justice (2014: 25)

⁸ Standing Committee on Law and Justice (2014: 30)

limits are imposed via a bonus/malus structure, that is, a discount and loading, respectively determined according to an MAA specified algorithm. There is a premium filing process to which the MAA requires insurers to adhere before they are allowed to adjust their premium rates.

A full premium filing must be lodged at least once each year by each licensed insurer unless the MAA allows an extension. A full filing must be for a full set of proposed premiums and can be lodged at any time at the discretion of the licensed insurer. A partial filing may be acceptable provided specific conditions are met. The MAA encourages insurers to participate in pre-filing meetings and filing lodgement meetings. Pre-filing meetings take place at least two weeks before lodging a filing or three months before the expiry of the current full filing. Each licensed insurer is encouraged to meet with the MAA when it submits its filing. At this meeting the licensed insurer can present the highlights of its proposed filing, including the context of the filing, material changes from the previous full filing, and any variations to the proposals indicated at the pre-filing meeting.

The MAA can notify a licensed insurer of its decision about a filing any time within six weeks from the day after a premium filing has been lodged. The MAA internal review will firstly consider whether a filing is incomplete. This is determined by conducting a procedural review of the documentation and schedules set out in the PDG, and confirming that there is materially sufficient explanation of the assumptions and filed premium to enable a review of the quantitative and qualitative elements of the filing. If a filing is classified as incomplete, the MAA will request its withdrawal and, if not withdrawn, will reject the filing. Once a filing has been accepted as complete, the MAA will conduct a detailed review of the analysis supporting the change in premium filed to consider whether it has been explained to the satisfaction of the MAA.

1.2.1 Premium Determination

First, an insurer establishes the average premium across its own portfolio.

Second, the insurer determines its Sydney passenger vehicle (i.e. Class 1 Metro) base premium by adjusting its average premium using:

- a factor reflecting its business mix; and
- a factor reflecting its average rate of bonus/malus.

The MAA Schedule of Premium Relativities, which has 34 vehicle classes and 5 geographic regions, is then applied to the Sydney passenger vehicle base premium to calculate the insurer's base premium for each vehicle class and rating region.

Within the limits of the bonus/malus factors, insurers can risk rate based on objective rating factors that are approved by the MAA. Rating on the basis of race, policy duration, input tax credit entitlement and postcode is prohibited. The approved individual rating factors determine the final premium for a specific vehicle class and rating region.

The bonus/malus structure includes an elastic gap mechanism. The elastic gap mechanism progressively reduces the rate of maximum malus that an insurer may apply, in line with the extent to which an insurer's filed base premium for a Sydney passenger vehicle exceeds a reference rate set by the MAA. That is, an insurer with a high base premium relative to

the reference rate will only be allowed to apply a smaller loading compared to an insurer with a low relative base premium.

The MAA and Lifetime Care and Support levies (the Medical Care and Injury Support levy) and GST are added to the premium to make up the total amount payable.

1.3 Objectives of the Review

The Review objectives comprise assessing whether there is failure in scheme design, competition among insurers and regulation of the Scheme. The six terms of reference (ToR) for the review can be considered within this framework and are addressed through the testing of these objectives.

The scope of the Review is primarily to test:

- whether the uncertainty of revenues and **scheme design** factors give rise to the difference between filed and realised profits;

ToR 1 – Considering the nature of the current design of the scheme, are higher ultimate profits to be expected or reasonable? Are there options to address this?

ToR 2 – What level of profit margin should the MAA regard as reasonable in a filing?

- whether measures to stimulate market **competition** would have the effect of self-regulating insurer premiums and profits; and

ToR 3 – Is there more that could be done to promote competition?

ToR 4 – Are profits evenly spread or are some insurers taking a larger slice? Is this evidence of a competitive market or are there systemic problems?

- whether improvements in the **regulation** or design of the Scheme could reduce or remove excess insurer profit.

ToR 5 – Can improvements be made to the premium system? Should the MAA have more regulatory power and/or can it use its current powers more effectively?

ToR 6 – Are insurers gaining excessive profits by reducing claims or other expenses too much?

The Review explores the issues listed above and provides evidence, where possible, to support conclusions reached. The relative merits of a range of alternative policy measures are discussed.

1.4 Review Process

The Independent Review consulted with stakeholders at key points throughout the review process. A detailed list of stakeholders consulted is included at Appendix A.

The review process included:

- interviews with the MAA, the Scheme Actuary and the Scheme insurers between March and April;
- developing an issues paper in April;
- running an industry workshop with the Scheme insurers and the Insurance Council of Australia (ICA) on 17 April;
- circulating the issues paper to a broader group of stakeholders for feedback between April and May;
- developing a draft report in June-August;
- consulting again with industry and other stakeholders on the findings and recommendations in the draft report in July-August; and
- developing a final report in September.

Public release of the final report will be a decision for the Government.

1.5 Structure of the Report

The rest of the report is arranged into three chapters:

Chapter 2 is on uncertainty and scheme design, and contains a discussion on the social policy objectives of CTP, the nature of CTP product, the uncertainty inherent in the product, the persistent gap between filed and ultimate profits and a discussion on what could be considered a reasonable profit margin.

Chapter 3 is on competition and explores the barriers to entry of the CTP market, the extent to which the market is competitive and ways to stimulate competition.

Chapter 4 is on regulation and considers whether improvements in the regulatory framework would be helpful to reduce excess profit.

The terms of reference comprise a series of questions which are broad and interrelated. Given that the issues identified in the above Sections will cut across a number of the terms of reference, to provide clarity to readers of how the Review has addressed the terms of reference, we provide the mapping below.

Table 1.1: Mapping the terms of reference

#	Terms of reference	Report Sections
1	Considering the nature of the current design of the Scheme, are higher Ultimate Profits to be expected or reasonable? Are there options to address this?	The stakeholders' explanations of the gap between the CTP Scheme filed profits and ultimate profits are discussed in Section 2.4. Section 2.6 discusses the concept of "excessive" insurer profits with a view to informing what is a "reasonable" level of profit.
2	What level of profit margin should the MAA regard as reasonable in a filing?	Section 2.6 discusses the concept of a "reasonable" level of insurer profits.
3	Is there more that could be done to promote competition?	Options for reform to the CTP Scheme are discussed in Section 3.4.

#	Terms of reference	Report Sections
4	Are profits evenly spread or are some insurers taking a larger slice? Is this evidence of a competitive market or are there systematic problems?	The distribution of profits between Scheme insurers is discussed in Section 3.3. Competition in the NSW CTP market is discussed in Chapter 3.
5	Can improvements be made to the premium system? Should the MAA have more regulatory power and/or can it use its current powers more effectively?	Chapter 4 discusses potential improvements to the regulatory framework of the CTP Scheme.
6	Are insurers gaining excessive profits by reducing claims or other expenses too much?	This is discussed in Section 4.2.3.2.

2 Uncertainty and scheme design

This Chapter examines the hypothesis that the uncertainty and scheme design factors give rise to the need for conservative price setting of CTP premiums.

2.1 Policy objectives

The NSW CTP Scheme as discussed in Section 1.1 is underpinned by a number of policy objectives⁹. Specifically, these are:

- affordability;
- efficiency; and
- sustainability.

As part of the Review's subsequent consideration of potential reforms to the Scheme, it is prudent to clarify the constraints within which Scheme design must operate. The current design of the Scheme reflects compromises between policy goals. It is important to achieve the appropriate balance between the various goals.

For example, the Scheme as it was introduced by the *Motor Accidents Compensation Act 1999* (MACA) was designed with a view that market competition and not regulation would drive effective pricing. The regulation of premiums to achieve the policy goal of affordability may impact the level of competition within the Scheme. That is, the Scheme lies between two extremes, free pricing and competition at one end and regulated pricing and cross-subsidy at the other.

In this case as in many cases, how far the Scheme moves from where it is today towards either of these extremes on the spectrum is more appropriately decided by the Government.

2.1.1 Affordability

Section 5(1)(d) of the MACA identified that one of the objects of the Act is:

“to keep premiums affordable, recognising that third-party bodily insurance is compulsory for all owners of motor vehicles registered in New South Wales”

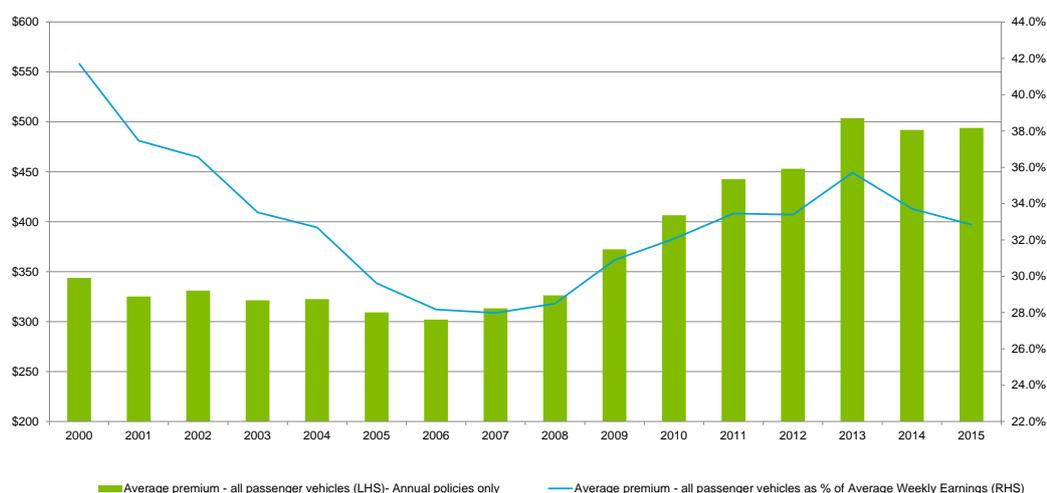
In accordance with the MACA, the MAA clarifies that one of its aims is to ensure that premiums are as affordable as possible for all NSW vehicle owners, including those with the highest risks. This is implemented through the MAA's regulation of CTP premiums, by constraining insurers to pricing within a predetermined band, thereby requiring the lowest risk policyholders to cross-subsidise the highest risk policyholders.

⁹ These policy objectives reflect the objects set out in the Motor Accidents Compensation Act 1999 and the relevant Scheme performance indicators as reported annually by the MAA. They are also considered by the Standing Committee on Law and Justice.

There is some confusion around the definition of affordability. At various times affordability may refer to the highest premium paid by the poorest risks, or the average premium paid by all drivers. Moreover, affordability may refer to drivers of vehicles in the largest group - Class 1 Metro – or broader groups of embracing multiple vehicles classes or regions.

The MAA currently measures performance against this affordability goal by comparing the *average price* of a Green Slip for all passenger vehicles with the average weekly earnings (AWE) in NSW. While AWE is impacted by structural changes, such as shifts in work patterns (full-time versus part-time), it is also used as the denominator in other states. As at 30 June 2015, the MAA reported the average Green Slip premium to be 33% of NSW AWE (Chart 2.1). Against this measure, the affordability of premiums in NSW CTP has deteriorated since 2008, driven by an increase in the average premium. Nonetheless, it is below the levels seen in the first half of the last decade.

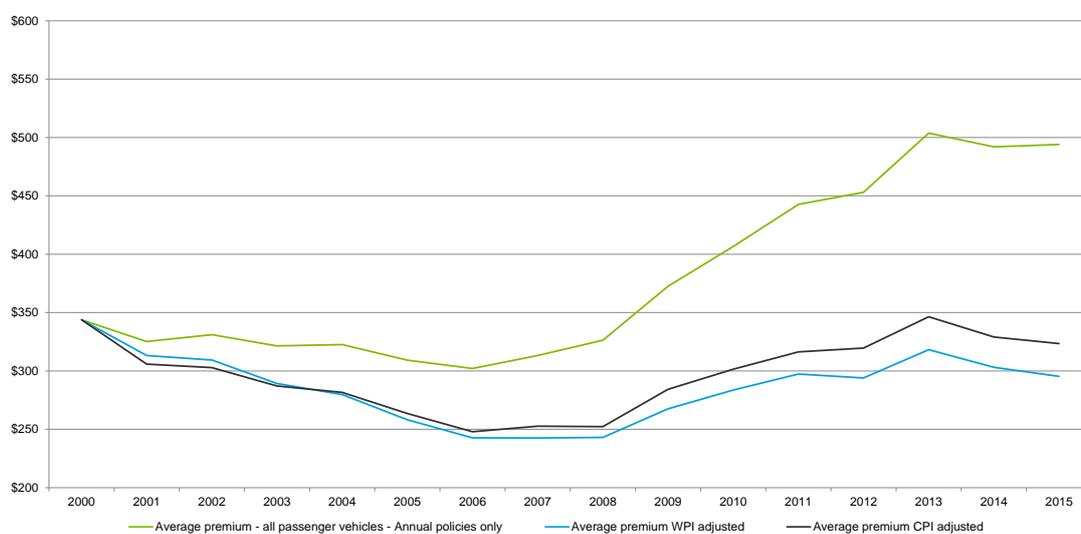
Chart 2.1: Average premium as a proportion of NSW AWE (at 30 June)



Note that these premiums are inclusive of the MCIS levy and exclusive of GST.

Source: MAA

Furthermore, on an inflation-adjusted basis (using the Consumer Price Index), Green Slip premiums are slightly below the levels prevailing at the commencement of the Scheme (Chart 2.2). Adjusting this series using the wage price index (WPI), to understand how premiums have moved against wages and salaries, we see that current premium levels are slightly lower. Most recently, premiums have declined in real terms, so affordability on this measure has been stable for a few years.

Chart 2.2: Average premiums (real prices)

Source: ABS, MAA

Premiums have risen in both nominal and real terms since 2008, which has had the effect of increasing premiums as a share of AWE, although they are below the levels at the turn of the century and have moderated in recent years. However, as noted above, the benchmark for what represents an affordable level of premiums is not well defined. The MAA has indicated that it wishes to contain the average *maximum*¹⁰ CTP premium payable for a NSW passenger vehicle to be within 50% of AWE for NSW workers.¹¹ A focus on the relationship between average premiums and income potentially misrepresents the risk focus of the affordability objective upon which the cross-subsidy is based. For example, a low average premium can mask significant dispersion between the premiums paid by the lowest risk policyholders and the highest risk policyholders.

Clarifying that the affordability objective relates to high risk policyholders is important because this will determine the MAA's implementation of the following policy levers:

- vehicle class relativities – the relative cost of one vehicle class to another;
- regional relativities – the relative cost of one geographical zone to another; and
- maximum bonus and maximum malus – the extent to which insurers can offer premium discounts and loadings based on the policyholder's risk profile.

Essentially, this risk focus is the basis for the design of the cross-subsidies within the Scheme. The level of affordability is also relevant to limiting leakage from the Scheme; that is, to minimise the number of drivers choosing to drive uninsured because of unaffordable premiums.¹² The rate of change in affordability – whether premiums rise steadily but

¹⁰ The focus on the average maximum premium contrasts with the average premium which is the performance measure currently reported in the MAA annual report.

¹¹ Motor Accidents Authority (2014), *Practice Note: MAA Premiums Determination Guidelines*, p.6

¹² Damages in respect of the death of or injury to a person caused by the fault of the owner or driver of a motor vehicle that is not insured may be brought against the Nominal Defendant (ND), who is the MAA. Claims against the ND are paid out of contributions by insurers to the Nominal Defendant Fund.

modestly or intermittently in large steps – also affects how affordability is perceived. Ultimately, the decision on what is acceptable is one for the government to make.

2.1.2 Sustainability

Section 5(1) of the MACA specifies a number of objectives relating to the sustainability of the Scheme:

“(c) ...to provide the Authority with a prudential role to ensure against market failure,

...

(f) to ensure that insurers charge premiums that fully fund their anticipated liability”

In administering the MACA, the MAA conducts prudential monitoring to ensure the continued solvency of licensed insurers, working in partnership with the Australian Prudential Regulation Authority (APRA). The MACA requires insurers to charge premiums that will fully fund their anticipated liabilities, and provides the MAA with authority to reject an insurer’s premium filing if it believes that this is not the case.

However, it is not clear that that the MAA needs to focus on the adequacy of premiums given the establishment of APRA in 1998 with an overall mandate for prudential supervision of insurers. The Fully Funded Premium test is further discussed in Section 2.5.2.2.

2.1.3 Efficiency

Scheme efficiency measures the proportion of each dollar paid in Green Slip premiums that is directly returned to injured people as benefits. A higher proportion of premiums paid as benefits reflects a more efficient Scheme¹³. The MAA calculates this measure excluding the benefits paid out on claims against the LTCS Scheme, which is separately regulated. Based on this measure, across the underwriting years 2000 and 2013, the efficiency of the NSW CTP Scheme averaged 51.5%.

A number of factors have an impact on this measure:

- profit margins (being higher than expected);
- acquisition expenses;
- legal and investigation expenses; and
- other claims handling expenses.

¹³ It should be noted, however, that a scheme with a higher proportion of premiums paid as direct claimant benefits might not outperform a scheme with a lower corresponding proportion. For example, expenditures on claims handling can both improve the operation of the overall scheme and reduce the proportion of premiums paid as direct benefits. Similarly, the impact of higher superimposed inflation on benefits will increase the *measured* efficiency of the scheme without increasing the *actual* efficiency.

The MAA noted that efficiency in the Scheme is low compared to other accident compensation schemes, which reach levels of around 65%.¹⁴ However, cross-scheme comparisons are complicated by the fact that the benefits payable under each scheme differ. In particular, some stakeholders have noted that combining the efficiency measure of the CTP Scheme and the LTCS Scheme would make this more comparable to the third-party insurance schemes in other states. Between the premium filing periods 2007-08 and 2011-12, the MAA reported that the combined measure of efficiency of the NSW CTP Scheme and LTCS Schemes averaged 64.4%.¹⁵

Interaction between the policy goals and scheme design

It is important to recognise that specific choices about the design of the Scheme will interact with the Scheme's policy goals, and in some cases may be in conflict. Some of the key tensions are between:

- the affordability goal and a privately-underwritten scheme, in which private insurers seek to maximise profits;
- the affordability goal, to the extent it aims to lower premiums, and the sustainability goal, in respect to ensuring that premiums will fully fund anticipated liabilities;
- the common law, adversarial nature of the Scheme, which provides a means of redress for claimants, and the affordability goal, which may be impacted by higher friction costs leading to higher premiums;¹⁶
- the common law, adversarial nature of the Scheme, which creates uncertainty in claims payouts for scheme insurers and so increases their required profits, and the affordability goal; and
- the cross-subsidisation of high-risk policyholders, designed to achieve the affordability goal, and price signals which could help discourage high-risk behaviour.

Some of the above tensions could be encapsulated in the position on which the Scheme lies on the spectrum of free risk rating and community rating. Free risk rating would minimise the extent of cross subsidies, however it could lead to higher premiums and jeopardise the affordability goal in the absence of any regulatory caps on premiums.

The optimal balance between these competing tensions is a political judgement that must be decided by the Government.

2.2 Uncertainty of revenues and costs

The return on capital required by insurers to participate in the Scheme is a function of the uncertainty of the stream of revenues received from participating in the Scheme. Investors will require a higher return on their capital to compensate them for a more uncertain revenue stream. The level of uncertainty is influenced by scheme design. Thus, by

¹⁴ MAA (2013), *Reforms to the NSW Compulsory Third Party Green Slip Insurance Scheme*, p.6

¹⁵ Standing Committee on Law and Justice (2014: 25)

¹⁶ The Productivity Commission (2011) found that that a no-fault system is likely to be more efficient than a common law fault-based system.

decomposing the sources of uncertainty, it is possible to understand how scheme design affects profitability.

When calibrating a benchmark level of profit from a comparable scheme to the NSW CTP Scheme, return on capital and profit levels will need to be adjusted for differences in expectation and uncertainty around:

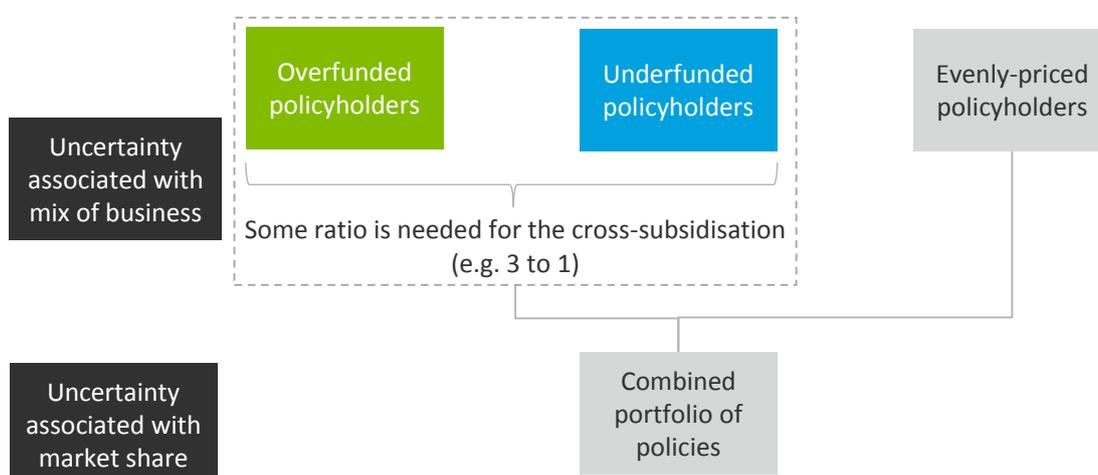
- **premium revenue:** the mix of business or portfolio mix and market share;
- **costs:** claim frequency, benefit payouts, superimposed inflation and the long-term nature of liabilities; and
- **investment return.**

The sections below examine how these components of the NSW Scheme design affect the expectation and uncertainty associated with revenues, costs and investment, and the implications for an insurer's required return on capital and level of profits.

2.2.1 Uncertainty associated with premium revenue

There are two particular sources of uncertainty that relate to the revenue for an insurer over the course of an underwriting year (Figure 2.1). These uncertainties are associated with an insurer's mix of business; i.e. the profile of risks in the insurer's portfolio; and market share.

Figure 2.1: Uncertainty associated with revenue



Source: DAE

2.2.1.2 Mix of business

Insurers are required to write all comers in the NSW CTP Scheme. Consequently, they face uncertainty associated with the projected mix of business, as they cannot forecast perfectly the ratio of overfunded policyholders¹⁷ to underfunded policyholders¹⁸, or the number of evenly-priced policyholders¹⁹ that they will write for each year.

¹⁷ Overfunded policyholders are those customers who pay a premium price that is higher than they would otherwise pay if there was risk-rated pricing in the NSW CTP scheme.

Insurers assume a particular mix of business, and therefore a specific, corresponding level of cross-subsidy between overfunded policyholders and underfunded policyholders. If this differs from what is realised over a year, all other things being equal, insurers are exposed to uncertainty associated with their mix of business. If the ratio of overfunded to underfunded policyholders is higher than expected, all other things being equal, insurers will make higher profits than expected, and vice versa.

This source of uncertainty results from the enforced cross-subsidy operating through the NSW CTP Scheme's premium regulations. This uncertainty represents a risk to the insurer that forms part of the overall risk to their profits from CTP insurance.

2.2.1.3 Market share

The NSW CTP market is compulsory, such that all owners of motor vehicles need to purchase insurance. Nonetheless, insurers will continue to face uncertainty associated with their market shares, as they cannot perfectly forecast the number of policies that they will write over a year.

In the case of evenly priced policyholders, the variability in the number of such policies written affects an insurer's ability to recover fixed costs and thus contains an element of uncertainty. Similarly, if the ratio of overfunded to underfunded policyholders is held constant, there would still be uncertainty relating to the number of policies that will be written overall.

Thus, insurers face the possibility of writing fewer policies than expected (resulting in lower profitability) as well as the possibility of writing more policies than expected (resulting in higher profitability).

2.2.2 Uncertainty associated with costs

There are a number of sources of uncertainty that relate to the costs of an insurer in relation to a cohort year, notably:

- claims frequency;
- benefit payouts, including superimposed inflation;
- the long tail of liabilities; and
- insurer expenses.

2.2.2.1 Claims frequency

Changes in claims frequency affect insurers' profit outcomes for a given cohort year. As a result of the nature of the filings process, claims frequency estimates in premium filings are

¹⁸ Underfunded policyholders are those customers who pay a premium price that is lower than they would otherwise pay if there was risk-rated pricing in the NSW CTP scheme.

¹⁹ Evenly-priced policyholders are customers who pay a premium price that is based on their risk rating not constrained by the pricing regulations in the NSW CTP scheme.

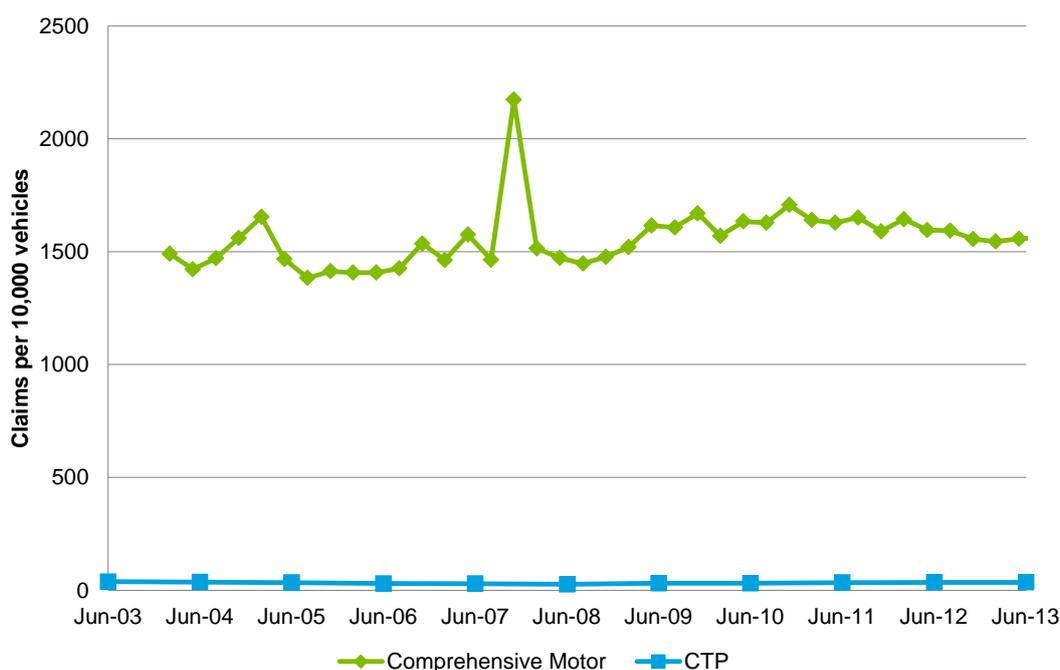
based on experience that is up to 21 months old when the premium comes into effect.²⁰ This leads to uncertainty in the claims frequency anticipated for a given filing.

Stakeholders attributed changes in claims frequency to a number of underlying factors including:

- improvements in safety technology and speed limits that decrease the incidence of accidents and minor injuries (Motor Accident Commission, 2014); and
- the prevalence of legal representation in motor accident claims that appears to coincide with an increase in the number of claims.

Chart 2.3 shows that claim frequency for CTP is lower than that for Comprehensive Motor. On average, claim frequency for CTP is only approximately 2% that of Comprehensive Motor. This means that there is relatively less information for pricing CTP than for Comprehensive Motor insurance and that the CTP claims experience is likely to be more volatile.

Chart 2.3: Comparison of claim frequency for NSW Comprehensive Motor and CTP



Note: The spike in claims December 2007 reflects a severe hailstorm in that period.

Source: ICA, MAA

Recent data show that claim frequency has risen in recent years, although this has not yet fully flowed through to premiums.

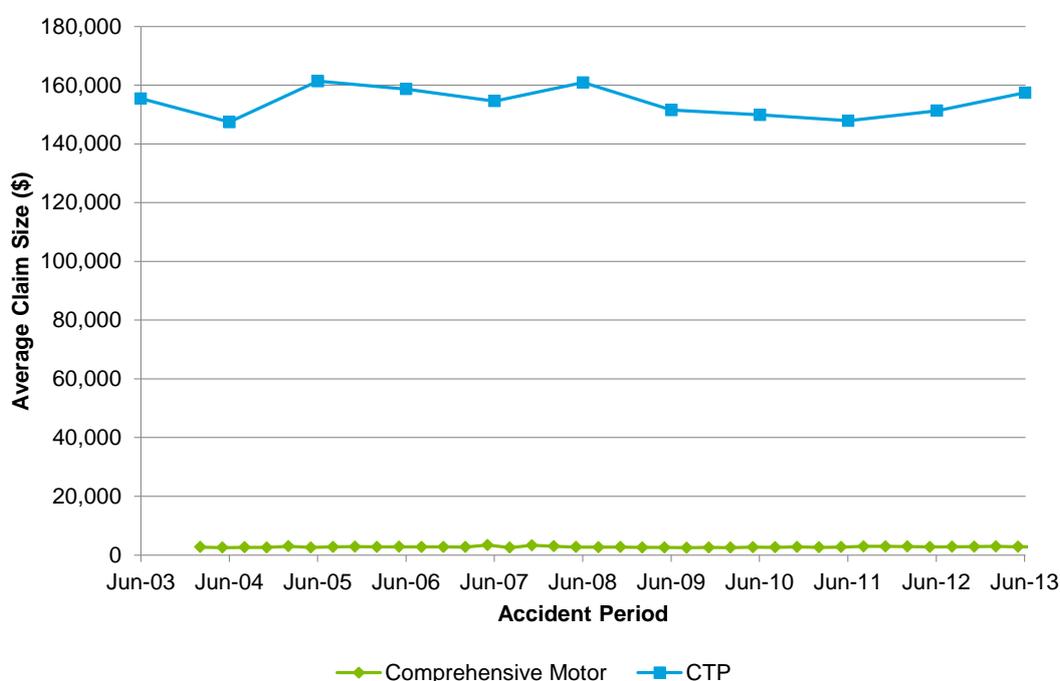
²⁰ Based on historical data provided by an insurer comparing the claims frequency assumptions used in pricing and the actual claims frequency.

2.2.2.2 Benefit payouts

In CTP schemes, there is uncertainty about the number of each type of claim that will eventuate. In common law schemes, where benefits are not clearly defined in regulation, there is uncertainty about the amount of benefit that each claimant will receive for a given injury.

Chart 2.4 shows that average claim size for CTP is higher than that for Comprehensive Motor. Average claim size for CTP is over 30 times that of Comprehensive Motor. Using standard deviation as a simple measure of volatility, the claims costs data indicate that the volatility for Comprehensive Motor is 7% compared to 12% for CTP.

Chart 2.4: Average Claims Cost of NSW CTP²¹ and Comprehensive Motor Vehicle Insurance



Source: ICA, MAA, NSW CTP Industry reports

Moreover, there is additional uncertainty about the likely cap on the claim amount compared to other lines of insurance. For example, a claim against Comprehensive Motor car insurance effectively is capped at the replacement value of the car, while the cost of a claim against CTP is unlimited.

Superimposed inflation

Superimposed inflation is the increase in the average claim size above wage cost inflation. This phenomenon has been noted to exist in schemes with claims payouts that are subject to common law determination (Pearson et al., 2007).

Stakeholders associate superimposed inflation with:

²¹ These figures have been adjusted for the legislative change involving the removal of S151z claims in recent years.

- improvements in healthcare technology,
- the prevalence of legal representation in motor accident claims, and
- legal precedents which set a new, higher benchmark for compensation costs.

There is also a potential for legislative changes to alter claimant behaviour in such a way that might alter the propensity to claim or size of claim costs.

The special features of CTP mean that there is significant inherent uncertainty in the claims costs. Insurers typically allow for the risks associated with uncertainty in costs in the form of higher profit margins.

2.2.2.3 Long tail of liabilities

The delay between when claims are reported and when claim payments are finalised in the Scheme is, on average, around four to five years. Uncertainty about claims is positively related to the time taken for claims to be fully developed. This is in contrast to Comprehensive Motor which is a short-tail class of business, typically with claims liability duration of around three months.

2.2.2.4 Insurer expenses

There may be uncertainty related to insurers' claims handling costs driven by uncertainty in claims frequency. However, this is a relatively small component of premiums and is also relatively stable as a proportion of premium over time (Chart 2.7).

2.2.3 Uncertainty associated with investment returns

Scheme insurers invest their collected premiums until funds are required to pay claims or are released as profit. Insurers need to invest relatively large amounts of capital for longer periods of time compared to most other classes of business to support their NSW CTP business.

Insurers take into account both premium income and investment income when determining premium adequacy; in this respect, the two sources of income are fungible. A shortfall in investment income will need to be made up by increasing premiums. Similarly, increased investment income provides leeway to lower premiums.

Long-tail schemes depend relatively more on investment income to meet liabilities than short-tail schemes; hence, the ratio of investment income to premiums is higher for long-tail schemes. The insurance margin²² for CTP business may potentially be noticeably higher than the underwriting profit margin.

Returns on investment fluctuate in line with movements in asset prices. Insurers report that CTP premiums are largely invested in low-risk fixed-income assets that produce low returns. Given that NSW CTP insurers invest in low risk assets, their assumptions of investment returns have been largely stable over time, although returns were more volatile during the GFC. Also, yields on low-risk fixed-income assets have been below historical norms since

²² Insurance margin is the sum of underwriting profit and investment income as a ratio to premium.

the GFC. Comparisons of the NSW CTP Scheme with other insurance schemes should take investment returns into account.

Assuming that an insurer has the same level of gross written premiums and the same mix of business, in years where their estimated investment returns are lower, their filed profit margins must be higher. So, if an insurer underestimates their investment return in their filing, then their overall profitability will be higher than estimated. This implies that an accurate forecast of their investment returns would have resulted in lower filed profit margins. However, the MAA has limited insight into insurers' realised investment returns, as the prudential oversight of an insurer's investment portfolio resides with APRA. The Review suggests that the MAA assess profit margins based on a benchmark investment return, e.g. the return on low-risk fixed-income assets. This is further discussed in Section 4.4.2.

Reducing the uncertainty around each of the factors discussed in this Section will produce a more predictable set of future revenue streams.

2.3 Design of the scheme

The design of the scheme influences the approach of insurers to pricing; higher profits are a possible by-product of maintaining the Scheme in its current form. Changing the design of the scheme is expected to change pricing. This Section explores, for example, if switching to defined benefits or early resolution of claims will reduce insurer uncertainty, and hence put downward pressure on insurer profit margins. At the same time, placing downward pressure on insurer profit margins may have implications for the sustainability of the scheme. There are trade-offs in the choices of scheme design, but these choices are outside the scope of this Review.

2.3.1 At-fault/common law vs. no-fault

The Scheme is currently predominantly an at-fault common law scheme with some no-fault components. This means that liability for injuries resides with an at-fault party and that liability is determined through a common law process. As a result, at-fault parties do not receive CTP insurance payouts. Furthermore, individuals involved in accidents without an at-fault party also cannot make claims under the Scheme.

An alternative model of assessing liability is through a no-fault scheme. An example of a CTP insurance scheme that operates this way is the TAC in Victoria. No-fault schemes cover all parties to an accident regardless of fault. In the case of a monopoly provider of insurance, there is no need to assess liability.

Moving to a no-fault system would therefore likely lower the transaction costs associated with establishing fault, and would reduce the uncertainty in claim payouts associated with fault determination. However, a no-fault system would expand the number of claimants under the scheme,²³ and in some circumstances, increase the total payout costs of the scheme and CTP insurance premiums.

²³ The Productivity Commission (2011) finds that claim numbers are higher in no-fault schemes.

2.3.2 Common law vs. defined benefits

The Scheme currently determines the quantum of benefits using a common law process. The size of benefits is determined by taking into account the specific circumstances of the injured party. An alternative process for determining the size of benefits is to move to a defined benefits scheme.

Common law benefit schemes are known to produce superimposed inflation, as there is difficulty in predicting future payouts; new legal precedents can set higher benchmarks for payouts. Defined benefit schemes reduce superimposed inflation as regulators can set the quantum of payment for each individual type of injury. Defined benefit schemes can also reduce the transaction costs associated with the common law process.

Defined benefit schemes however, will result in some claimants receiving less money as a result of their individual circumstances not being considered in determining quantum. As the purpose of insurance is to transfer the risk of loss from a motor vehicle accident away from injured parties, a move to a defined benefit scheme can be seen as transferring some risk back onto injured parties.²⁴

2.3.3 Third-party vs. first-party

The current Scheme is a third-party scheme. The claimant is an injured party who is unrelated to either the purchaser of insurance or the insurance company.

A first-party scheme would make the person purchasing insurance the claimant under the scheme.²⁵

First-party schemes are typically no-fault schemes, but can also have some common-law elements e.g. Victoria's TAC, so that an individual can claim for their own injuries without having to establish fault. Moving to a first-party scheme provides an incentive for insurers to improve claims handling and claims management standards, as an individual will also consider the likely claims handling standard of an insurer when purchasing insurance.

Nevertheless, the incentive to compete on claims handling standards may not be as great as desired due to the low number of claims being filed in this Scheme. More specifically, a relatively small number of consumers who purchase CTP insurance will be involved in a crash or accident within a given year. Thus, the proportion of insurance purchasers with first party claims will be relatively modest in any given year.

2.3.4 Factors considered in the schedule of relativities

Increasing the number of factors or increasing the granularity of the factors used in the schedule of relativities can decrease the level of cross-subsidy within the Scheme and may increase the level of risk rating, all other things being equal.

²⁴ Productivity Commission (2011).

²⁵ There will remain third-party claimants (e.g. non-driver pedestrians, vehicle passengers) who would still claim against the at-fault party as a third-party claimant.

Conversely, decreasing the number of factors or decreasing the granularity of the factors used in the schedule of relativities can increase the level of cross-subsidy within the Scheme and decrease the level of risk rating, subject to insurers' scope to set rates.

For a more detailed description of this process, see Section 1.2.

2.3.5 Maximum bonus/malus

Increasing the maximum bonus and maximum malus levels in the Scheme decreases the level of the known cross-subsidy and increases the level of known risk rating.

Conversely, decreasing the maximum bonus and maximum malus levels in the Scheme increases the level of the known cross-subsidy and decreases the level of known risk rating.

2.3.6 Private vs. public underwriting

The NSW CTP Scheme is currently privately underwritten.

Moving to a publicly underwritten scheme would mean that the Government would both earn any profits associated with the operation of a CTP insurance business but also wear any losses associated with that business. Importantly, public underwriting would represent a significant transfer of risk to the State. Public underwriting may also reduce incentives for operating efficiency, as a public underwriter would not face the need to earn profits in a manner comparable to a private company.

A further concern with the public underwriting that was cited in the original design of the Scheme was political risk, in the form of successive governments underfunding the Scheme, effectively passing on additional debt to future governments.

2.4 The gap between filed and realised profits

Given the uncertainty inherent in the CTP product and the specific design of the NSW CTP Scheme, it is understandable that there would be discrepancies between the filed profit and the ultimate profit. In particular, the product's long-tail nature means that the trends do not emerge until a number of years after the policies are underwritten. However, it is clearly observable that the ultimate profit that eventuated has been higher than the filed profit for almost every year in the past 14 years. This begs the question of what is causing this trend. One possibility is the existence of exogenous factors that are outside the control of insurers. Another is to question whether there are any operating practices within insurers that may potentially lead to conservative pricing. Yet another is the insurers' expectation of the level of filed profit deemed acceptable to the regulator.

2.4.1 Size of the gap

After NSW CTP was privatised in 1988 a period of initial profitability (underwriting years 1990-92) was followed by several years of losses (1993-95) and insurers leaving the market. Reforms embodied in MACA (1999) heralded an era of strong profitability for insurers.

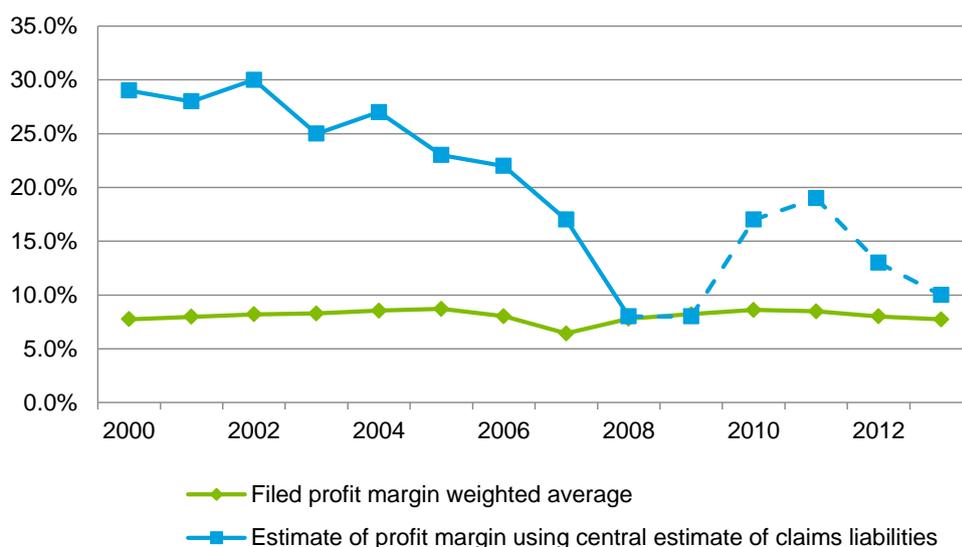
The 12th Review noted:

“In regard to profits, it is inarguable that there has been a disparity between prospective and realised profits. On each occasion the disparity has been in favour of the insurers. This is an issue which must be addressed.” (Standing Committee on Law and Justice, 2014)

Since the early 2000s, there has been a persistent difference at the Scheme level between the insurers’ estimates of profit margin for a given cohort of CTP insurance policies by underwriting year at the time of their rate filing (i.e. filed profits) and the actual profit estimated when the claims of that cohort are finalised (i.e. ultimate or realised profits).

For almost every year in the past 14 years, filed profit margins have consistently underestimated the ultimate profit margins. Chart 2.5 shows the size of the gap, based on underwriting year; alternative bases, such as accident year, show a similar story (see Appendix C).

Chart 2.5: MAA filed versus ultimate profit margin* estimates (on underwriting year basis)



* 2014 underwriting year data is not yet available at the time of writing.

Note: Dotted line represents profits which have not yet stabilised.

Source: MAA (2014)

This has raised questions about what has driven the persistent underestimation of profits, what is the appropriate level of profits, and what could be done to reduce the propensity for higher ultimate profits.

2.4.2 Filed and ultimate profit margins

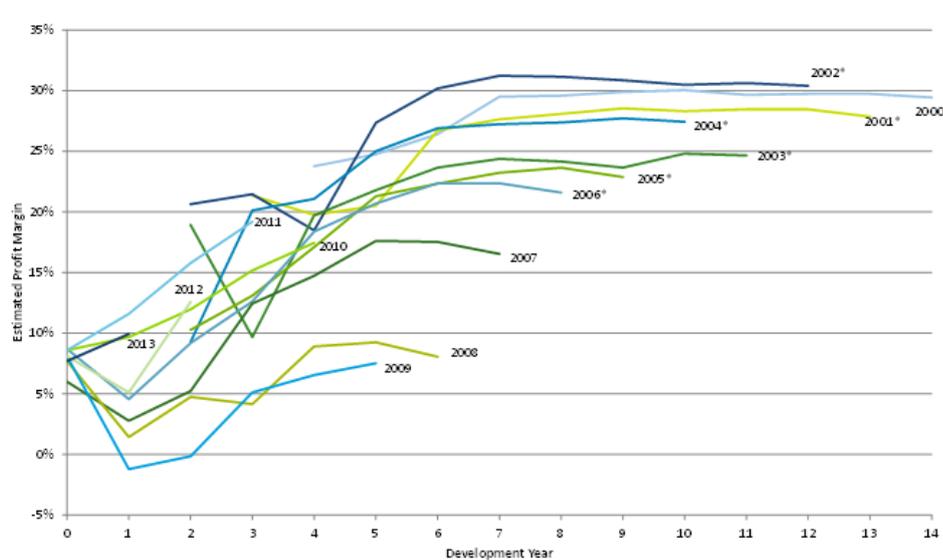
Under the current regulatory regime, insurers are required to submit filings when seeking to change CTP prices. The filing includes an estimate of the profit margin component of the premium. As part of its Annual Report, the MAA publishes estimates of the profit margin for each cohort of policies.

There are different bases on which profits can be viewed. For pricing purposes, underwriting year basis is typically used. This provides a view of the profitability of a specific cohort of policies. On the other hand, claims are typically measured on an accident year basis. Therefore if we consider profitability on an accident year basis, claims need to be matched to the premiums earned over that period. Chart 2.6 shows how the estimates of insurers' profit margins for each underwriting year have evolved over time. Appendix C contains profit margin estimates on an accident year basis.

The estimates for the profit margin for each underwriting year stabilise after a period of approximately five years. Estimated profits beyond that point are referred to as ultimate profits. The 'long-tail' nature of this class of business means that it takes a number of years before realised profits can be calculated. The number of accidents/claims should be known in a year, but superimposed inflation will not be known until claims are finalised.

Insurers' filed profit margins (year 0 on the X-axis of Chart 2.6) have fallen strictly within the narrow band of 6% to 9%. Profit margin estimates have then been revised upwards over time as claims are settled and actuarial estimates of ultimate claim costs for each year become increasingly certain. Early indications are that profit margins have declined in the most recent years due to increased propensity to claim, although estimates of profit margins for 2014-15 have not been released at the time of writing.

Chart 2.6: Evolution of estimates of CTP profit margin by underwriting year



Note: Excludes profit margin estimates prior to 2007 where profit estimates were derived from ultimate claims costs inclusive of risk margins at the 75% probability of sufficiency, rather than the central estimate claims costs. This may lead to potential underestimation of profit margins. Estimates in year 0 are insurer filed profits. Estimates after year 0 are MAA estimates.

Source: MAA Annual Reports

The numerical values underpinning the MAA's estimates of insurer profit margins by cohort year are reproduced in Table 2.1 below.

Filed profits are largely based on models and assumptions about expected claims experience. As with any estimates based on assumptions, there is a potential for differences with actual outcomes. However, the NSW Legislative Council's Standing

Committee on Law and Justice has questioned the consistent differences in the same direction in the estimates.

Table 2.1: MAA profit margin estimates by cohort over time

Under writing Year	Premium Collected (\$m)	MAA Profit Margin Estimates (%) – Year of Estimate (ending 30 Sep)**										
		'04*	'05*	'06*	'07	'08	'09	'10	'11	'12	'13	'14
2000	1,325	23.7	24.8	26.5	30	30	30	30	30	30	30	29
2001	1,321	21.3	19.8	20.5	27	28	28	29	28	28	29	28
2002	1,342	20.6	21.5	18.5	27	30	31	31	31	30	31	30
2003	1,395	15.6	18.9	9.7	20	22	24	24	24	24	25	25
2004	1,476	-	-	9.3	19	21	25	27	27	27	28	27
2005	1,451	-	-	-	10	13	17	21	22	23	24	23
2006	1,426	-	-	-	5	9	13	18	21	22	22	22
2007	1,221	-	-	-	-	3	5	12	15	18	18	17
2008	1,178	-	-	-	-	-	1	5	4	9	9	8
2009	1,328	-	-	-	-	-	-	-1	0	5	7	8
2010	1,529								10	12	15	17
2011	1,698									12	16	19
2012	1,796										5	13
2013	2,012											10

* Estimates prior to 2007 were derived from ultimate claims costs inclusive of risk margins at the 75% probability of sufficiency, rather than the central estimate claims costs. This may lead to potential underestimation of profit margins.

** Shaded cells provide an indication of when profits stabilised.

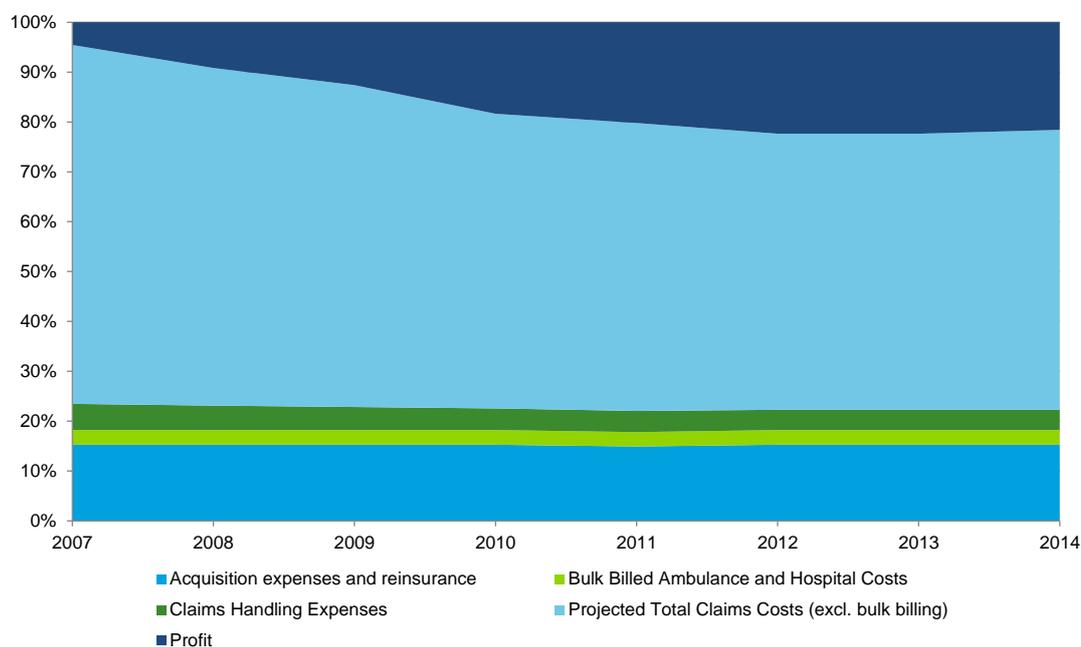
Source: MAA Annual Reports

2.5 Explaining the gap

Insurers have attributed the gap between filed profit margins and ultimate profit margins largely to actual claims experience being better than expected and lower than expected superimposed inflation, which manifested in lower than anticipated total claims costs. Other stakeholders agree that these two factors have played a role, but believe there may be other significant reasons for the gap.

The premiums for the 2007 underwriting year are broken down into components in Chart 2.7. The 2007 underwriting year is the most recent year for which the profit margin is likely to have stabilised and the trends in the components of the premiums have been broadly similar for the other cohort years. The chart shows that the relative shares of the premiums attributable to acquisition expenses and reinsurance, bulk-billed ambulance and hospital costs and claims-handling expenses have remained relatively steady over time. The gap between filed profit and ultimate profit has been driven primarily by lower than expected outcomes in total claims costs.

Chart 2.7: An illustrative example – Breakdown of premiums for 2007 underwriting year



Source: MAA (2014)

2.5.1 The positive “surprises” in total claims costs

The Scheme Actuary and scheme insurers have suggested that the key driver of falling claims costs have differed for different periods since 2000. These stakeholders attribute the key drivers of changes in expected total claims costs to:

- an unexpected decline in claims frequency; and
- unanticipated benign superimposed inflation.

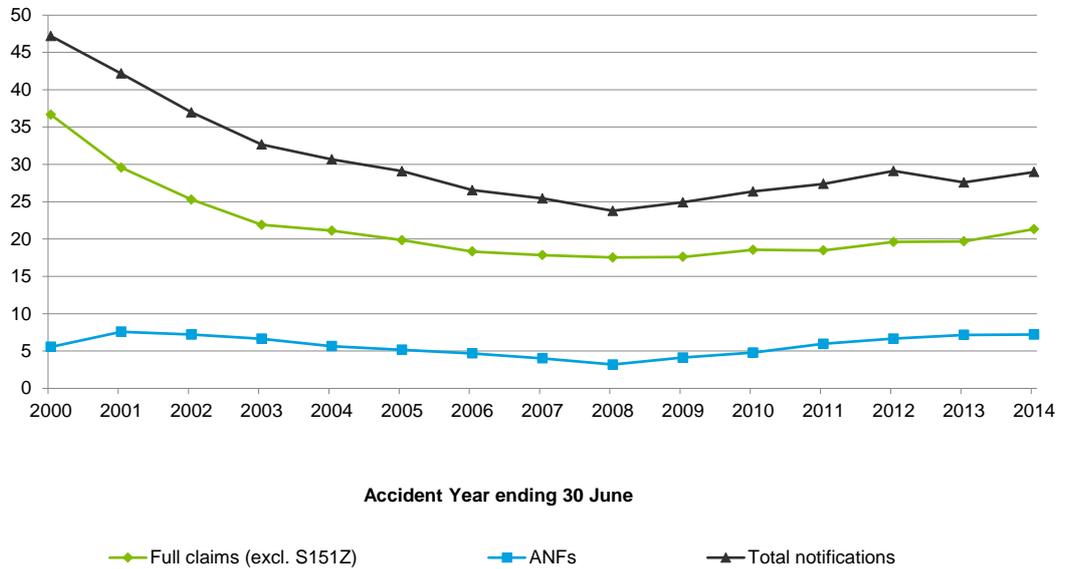
2.5.1.1 Decline in claims frequency from 2000 to 2007

Between 2000 and 2007 the declining frequency of claims led to a fall in total claims costs.²⁶ Full claims are the main drivers of total cost in the Scheme, as these comprise over 70% of all claims. The decline in claims frequency has been attributed to an environment of falling casualty rates and improvements to road safety, as well as changes to the Scheme that restricted access to non-economic losses.²⁷

²⁶ Changes were made to Workers Compensation legislation in 2012 which narrowed the definition of journey claims; as a result there has been a decrease in the number of recovery actions taken by workers compensation insurers. For this reason, workers compensation recoveries have been excluded from the data on full claims.

²⁷ Full claims refer to at-fault personal injury claims or compensation to relative claims which allow claims for compensation for injured parties or relatives of parties who have been killed in crashes respectively. Accident Notification Form (ANF) claims refer to claims up to \$5,000 for treatment and lost earnings that can be filed regardless of who was at fault.

Chart 2.8: Claims frequency per 10,000 vehicles

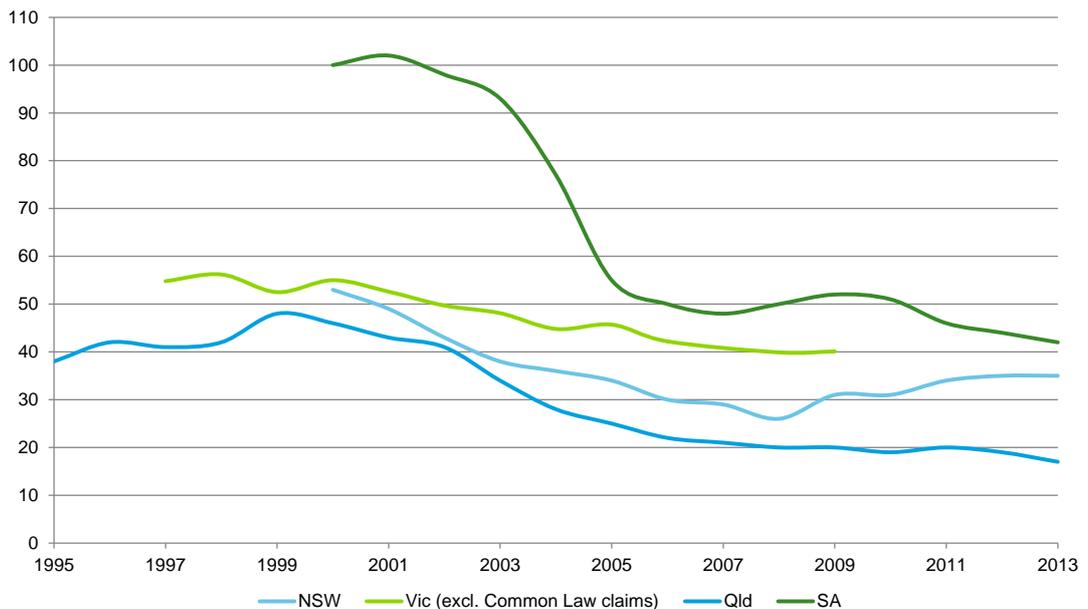


Source: MAA

The stakeholders noted that this phenomenon was not predicted and some insurers suggested that the reasons behind the decline remain unexplained.

However, it is evident that other states also experienced a decline in claim frequency over a similar period (Chart 2.9).

Chart 2.9: Interstate comparison of claims frequency per 10,000 vehicles

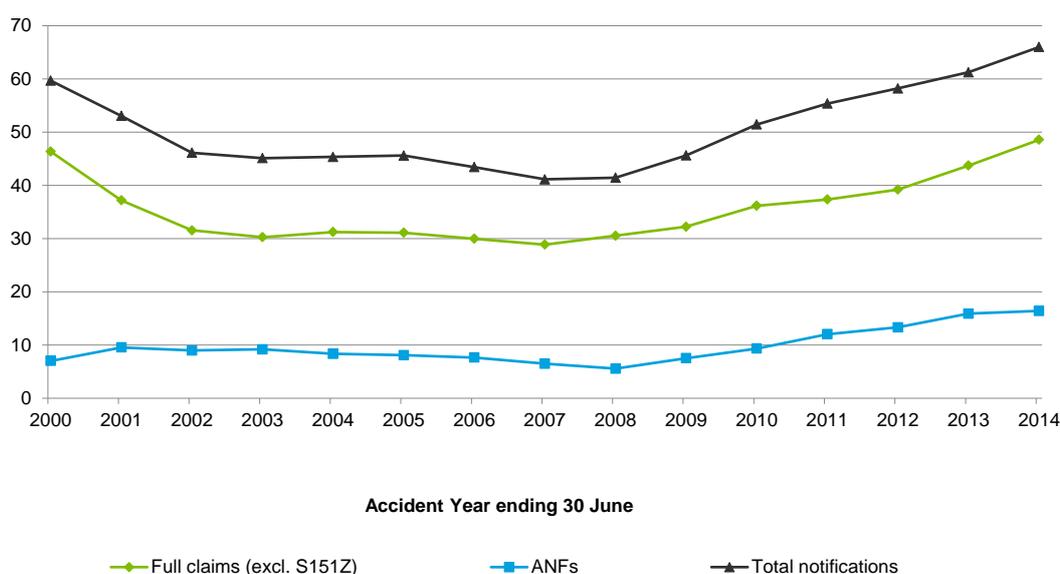


Source: MAA Annual Reports, TAC Annual Reports, MAIC Annual Reports, MAC Annual Reports

While the magnitude of claims frequency and pace of the decline differ by State, it is clear from these experiences that the phenomenon was not a random event, or one that could not be explained. For example, reports from other state regulators attribute this trend to factors including changes in speed limits; proliferation of public road safety programs; higher safety standards of vehicles; use of seat belts and speed cameras; and better treatments for intersections, include installing roundabouts at suitable locations and reducing uncontrolled right turns²⁸.

Casualties per capita continue to fall, reflecting the improvements in safety noted above. However, MAA data indicate the propensity to claim has risen sharply, from around 41 claims per 100 of casualties in 2007 to 66 claims per 100 casualties in 2014. Stakeholders attribute this to a range of causes, including increased legal representation because claimants perceive they are poorly treated by insurers, while others see it as evidence of claimants initiating legal action because they perceive insurers are not contesting claims as hard as in the past and believe their likelihood of claim payments has increased. The Review has not received evidence that unequivocally identifies the cause(s) of the increased propensity to claim.

Chart 2.10: Propensity to claim per 100 casualties



Source: MAA

2.5.1.2 Benign superimposed inflation since 2010

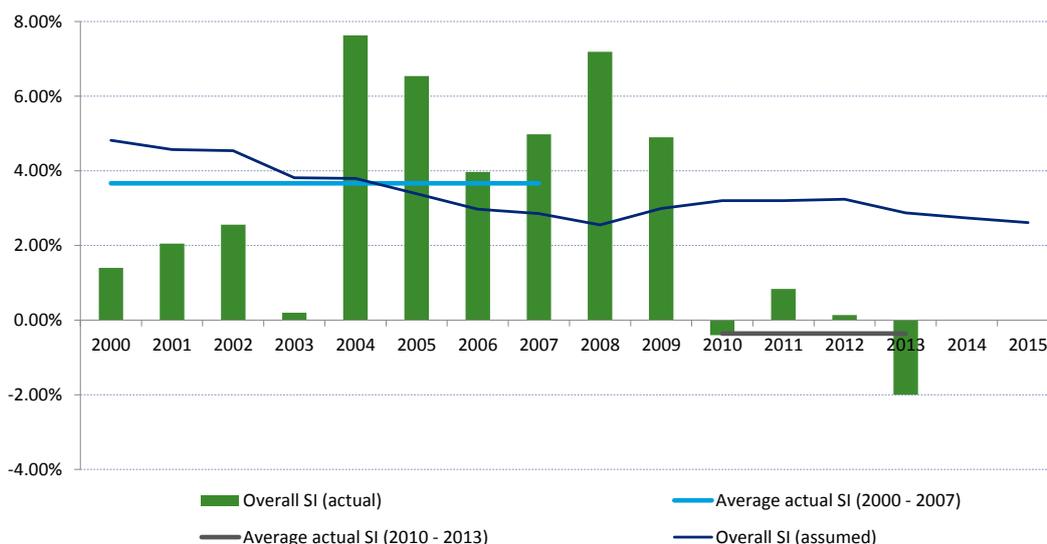
While claims frequency reached its trough in 2008, around 2010 the NSW CTP industry began to experience a more benign environment of superimposed inflation. Superimposed inflation is the excess of increases in average claim costs over wage cost inflation.

Insurers acknowledge that the lower level of superimposed inflation than was assumed in their filings helped drive higher ultimate profits. Chart 2.11 shows that the average level of superimposed inflation (at the industry level) for this period was lower than the previous

²⁸ Department of Planning, Transport and Infrastructure, 2013

long-term average. According to their rate filings, insurers' assumptions for superimposed inflation declined from an average of around 5% to 2-3% in recent years. The assumed level of superimposed inflation remained noticeably higher than the actual average superimposed inflation over this period.

Chart 2.11: Industry Superimposed Inflation



Source: MAA; EY 30 June 2013 OSCL valuation report

Chart 2.11 also shows that actual superimposed inflation has been volatile over time, although since 2010 it has been more benign. Some insurers suggested that despite the recent period of low actual superimposed inflation, the historic volatility of inflation shows that it was not possible to assume the benign environment would persist.

Specific events that occur from time to time can have a significant impact on superimposed inflation, for example, scheme changes and new legal precedents. In recent years, the share of claims that are legally represented has been increasing. This has had a consequent impact on claims costs and claims handling expenses, which have an impact on premiums. Recent work by the Scheme Actuary has shown that the number of legally represented minor severity claims has increased significantly since 2008²⁹. However, superimposed inflation has been falling for much of this period. Insurers have noted this cost trend and suggest that it is a reason to keep their assumptions for superimposed inflation at current levels.

In other common law jurisdictions, Queensland CTP has assumed a level of superimposed inflation of 2.5% since 2013, while it ranged between 2% to 2.5% in the WA workers' compensation scheme. This would suggest that the superimposed inflation assumptions adopted in NSW CTP have been in line with other privately-underwritten, long-tail insurance schemes.

²⁹ Ernst & Young, 2015

2.5.1.3 Do the “surprises” explain the gap?

Future outcomes inherently are uncertain. While the number of claims may be ascertained within a short timeframe, the costs of claims for bodily injuries take a long time to develop, particularly when it takes time for the courts to reach a settlement. Therefore, superimposed inflation is a key source of uncertainty in this long-tail class. It is understandable that there may be discrepancies between what is assumed and the outcome that eventuates. However, if these projections are based on central estimates, it would be natural to expect the discrepancy between filed and ultimate profits would be at times positive and at other times negative. What is surprising is that the discrepancy has been in the same direction for nearly every year in the last 14 years.

Insurers have explained that the reason for the higher than expected profit in the first half of the 2000s is the unanticipated decline in claims frequency, while the discrepancy in the second half of the 2000s is due to benign superimposed inflation. As explained in Section 2.5, at first glance, the data accords with these theories. In effect, the insurers claim that these events were surprises and would not have been predictable with the requisite level of confidence to include in their rate filings at the time. Industry stakeholders explained that ongoing changes to the Scheme contribute to the uncertainty around the assumptions used in their forecasts.

A high-level attribution analysis finds that the overestimation of superimposed inflation would have accounted for approximately 50% of the gap between insurers’ filed and ultimate profit at the Scheme level.³⁰ Similarly the overestimation of claims frequency may explain approximately 60% of this gap. While these account for a sizeable part of the difference, it is also clear that these surprises do not offer a full explanation for the gap. Furthermore, a question that remains is why these experiences were not reflected in insurers’ rate filings in a timely manner. Against this background, the Review considered whether there is a broader issue of conservatism in insurers’ rate filings.

2.5.2 Broader conservatism in rate filings

2.5.2.1 Actuarial practice and the control cycle

At the heart of actuarial work is the control cycle. The control cycle involves setting assumptions based on past experience, monitoring the actual experience that eventuates and comparing actual versus expected experience. Any discrepancy between actual and expected experience is then investigated and appropriately reflected in revised assumptions. The cycle of monitoring and assumption refinement then repeats. For instance, if the control cycle in pricing is operating properly, more favourable actual claims experience should lead to lower claims assumptions over time and have the effect of reducing the gap between filed and ultimate profits, and, potentially, premiums.

For long-tail classes like CTP, it takes a long time between when claims are reported to when they are fully developed. There is also a time lag before actual claims frequency experience is reflected in premium assumptions. Similarly, data at the Scheme level suggest

³⁰ A rule of thumb calculated based on a sensitivity analysis of some insurers’ rate filings suggests that a 1% overestimation of claims frequency contributes to a 0.75 percentage point higher profit margin, while a 25 basis point overestimation of superimposed inflation contributes to a 1 percentage point higher profit margin.

that the assumption for superimposed inflation has typically been filed reflecting a long-term average that diverges from short-term experience.

There are a number of factors contributing to this recognition lag. One reason is that it takes a period of time before it is clear that the improvement in experience is sustained, instead of being a temporary occurrence. Insurers have noted that their judgement about the potential for a higher number of litigated claims, such as due to the Scheme changes and legal precedents, could discourage them from adopting lower claims costs assumptions. Some degree of scepticism about recent favourable experience is understandable, but has ramifications in a compulsory line of business.

It would appear that the insurers' pricing process has not reacted quickly enough to reflect underlying actual experience, given the historical divergence between ultimate and filed profits has been in the same direction for nearly every year in the past 14 years. It is possible that the conservative bias may be weighted more towards an over-estimation of costs and an under-estimation of profit margins. Some of the potential reasons are discussed below.

2.5.2.2 Fully Funded Premium test

Section 27(8) of the *Motor Accidents Compensation Act 1999* (MACA) states that the MAA can reject premium filings on the following grounds:

“(a) the premium will not fully fund the present and likely future liability under this Act of the licensed insurer concerned, or

(b) the premium is, having regard to actuarial advice and to other relevant financial information available to the Authority, excessive, or

(c) the premium does not conform to MAA Premiums Determination Guidelines in force under this Part, or

(d) the premium has been determined in a manner that contravenes section 30 (Maximum commission payable to insurers' agents).”

The first criterion is commonly referred to as the 'Fully Funded Premium test'.

The Fully Funded Premium test may be a potential source of cost over-estimation bias. In accordance with the Institute of Actuaries of Australia's *Professional Standard 310: Actuarial Certification of Premium Rates under the NSW Motor Accidents Scheme*, the Certifying Actuary must certify whether the aggregate premium (i.e., the average premium multiplied by the number of policies written) passes the Fully Funded Premium test of Section 27(8) MACA. In particular, Section 1.4.2 of PS310 explicitly states that the

"Certifying Actuary is only required to form an opinion on whether the premium will fully fund...and is not required to form an opinion on any other MAA criteria for rejecting a premium filing."

It would seem that the balance between the first two criteria of Section 27(8) has been lost and only the fully funded aspect has received continuing attention from actuarial certification.

The Fully Funded Premium test was introduced in the *Motor Accidents Act 1988*, and was justified by two reasons³¹:

1. To avoid the possibility of unfunded liabilities which could threaten the solvency of insurers in the Scheme. As part of the legislative debate at the time, it was expected *“that the solvency of general insurers is monitored closely by the Insurance and Superannuation Commission at a Federal level”* and that the MAA would have a role *“in monitoring ... the solvency of the individual general insurers in the Scheme”*.
2. To address the concern *“that publication of an analysis of the financial performance of the Scheme could be misunderstood and could ultimately lead to political pressure which would undermine the full funding”*.

This second reason indicates that that legislation of a requirement for premiums to be fully funded was designed to put a floor under the level of premiums to insulate insurers from political pressure to reduce premiums, potentially, to an unviable level.

Against this background, and given that there is no similarly well-defined benchmark to assess whether the premium level is excessive, there remains a question of whether this one-sided Fully Funded Premium test potentially leads to higher premiums. While it is difficult to find a transparent causal link between the Fully Funded Premium test and premium levels, there is a clear perception that the focus on adequacy may take precedence over the focus on affordability.

2.5.2.3 Role of Certifying Actuaries

Insurers' pricing processes are heavily reliant on actuaries. Typically, insurers have their internal pricing actuaries determine the technical premium based on underlying claims experience and centrally allocated expenses and capital. The technical premium may be adjusted for commercial considerations. The responsibility of whether or not premiums are “excessive” currently lies with the MAA. The MAA makes this assessment with the assistance of the Scheme Actuary.

While the relationship between each insurer and its Certifying Actuary differs, some insurers discuss their underlying assumptions with the Certifying Actuary as part of the pricing process. In other instances, the insurer prepares the filing and the Certifying Actuary carries out a non-concurrent review.

The PDG require the Certifying Actuary to be external to the insurer and to certify that the proposed premiums satisfy the Fully Funded Premium test. This framework is a ‘one-sided test’ and there is no requirement on either the insurer or the Certifying Actuary to consider whether the premiums are excessive. The current framework under which the Certifying Actuaries carry out their work is not structured in such a way as to encourage the alignment of filed and ultimate profits. There has been discussion in the past about turning the Certifying Actuary role into a two-sided test. While reaction from the actuarial profession is

³¹ Reiterated by the Standing Committee on Law and Justice, Legislative Council during their discussion on the Report on Motor Accidents Scheme (Compulsory Third Party Insurance) in 1997 (<http://www.parliament.nsw.gov.au/prod/parlment/hansart.nsf/V3Key/LC19970514047>).

mixed, the Actuaries Institute has previously indicated³² it prefers the current one-sided test as it considers it is the role of the MAA to assess whether proposed premiums are excessive.

2.5.2.4 Regulator's expectations

Section 27(1)(c) of the MACA provides authority to the MAA to reject an insurance premium if, with regard to actuarial advice and other relevant financial information, it is excessive. However, in contrast to the Fully Funded Premium test, the Act does not define what is considered excessive.

A number of insurers indicated that they perceived the MAA to have an expectation that the profit margins in their filings should be around 8% of the filed premium.³³ Insurers say that they have historically filed profit margins that take into account this expectation. A visual analysis of historical filed premiums indicates that insurers have tended to follow this practice despite their claims that this upper bound on the profit margin may be equivalent to a return on capital that is lower than their company-wide target rates of return. Based on their most current rate filings, the majority of insurers filed profit margins which corresponded to a lower return on capital than their company-wide targets. This typically has been explained in insurers' rate filings as being due to commercial reasons, including that supplying a NSW CTP product in its portfolio supports its broader business.

That some insurers are filing profit margins below their shareholders' expectations of return on equity is in stark contrast to the persistent higher levels of profits that some insurers have realised over the past decade. For some insurers, this suggests that should they have filed profit margins at levels equivalent to their shareholders' expected returns, the gap between filed and ultimate profits would have been narrower.

Regardless of what drives the mis-estimation leading to the gap between filed and ultimate profits, in a competitive market, we should expect these to be corrected by competitive pressures. This correction could be driven by insurers' managements pushing for more aggressive pricing to increase their market shares in a profitable product. Furthermore, if the level of ultimate profits is, in fact, high, then we should also expect new entrants to enter the market thus eroding high profits. We discuss competition in the NSW CTP market in Chapter 3. To understand whether these expectations are valid, it is necessary to come to a view of whether these profits are high, or whether they are reasonable.

2.5.2.5 APRA capital requirements

APRA has published prudential standards that require insurers to maintain adequate capital against risks associated with their activities. The quality and level of capital held by an insurer is to be commensurate with the scale, nature and complexity of its business and risk profile such that it is able to meet its obligations under a wide range of circumstances³⁴. From a capital adequacy measurement perspective, APRA broadly categorises risks into insurance risk, insurance concentration risk, asset risk, asset concentration risk and

³² Actuaries Institute "Review of the MAA Premium Determination Guidelines" submission to the MAA, 2014

³³ This view is both prevalent and persists despite the fact that the MAA has never formally or informally communicated such a requirement.

³⁴ APRA Prudential Standard GPS 115 Capital Adequacy: Insurance Risk Charge

operational risk. There is a risk charge associated with each of these categories. Broadly speaking, riskier classes will attract a higher capital factor, e.g. for insurance risk, CTP attracts an outstanding claims risk capital factor of 14% compared to 9% for Comprehensive Motor; similarly CTP attracts a premium liability risk capital factor of 21% compared to 13.5% for Comprehensive Motor. APRA adopts a risk-based approach to determine the minimum level of capital, the Prudential Capital Requirement (PCR), required for each insurer. The actual amount of capital held by each insurer will vary depending on the risk appetite of each insurer endorsed by its Board. Industry statistics show that on average general insurers hold 1.9 times the PCR.³⁵

Within each insurer, the total amount of capital is then allocated to individual classes of business. Typically, the larger classes and the more volatile classes have a higher allocation of capital, all else being equal. The process of capital allocation has recently been made more transparent with the latest PDG changes. It may be possible to infer that some of the excess capital above PCR is allocated to the CTP class and therefore the capital held against this class is higher than the implied minimum from the PCR. Any capital allocated to a class of business will need to be serviced by a profit margin. To the extent that the capital allocated to CTP is higher than the implied minimum, the required profit margin will need to be higher.

2.6 Defining “reasonable” profits

A central question is, “Do insurers earn reasonable profits, with respect to the risks of the business, the cost of capital and the scheme design, or do they make excess profits?”

The existence of a gap between insurers’ filed profits and realised profits does not indicate necessarily that realised profits are not reasonable. Given the significant differences between the business models of the insurers in the Scheme, a reasonable level of profits is not likely to be the same for all insurers.

This Section seeks to do two things. First, it reviews methods of determining reasonable profits. Second, it reviews observed levels of profit in comparable schemes.

2.6.1 Determining ‘reasonable’ profits

The Review will first approach the question of what is reasonable, and hence what is excessive, from an economic and capital markets theory perspective.

In the Review’s judgment, a reasonable profit margin is a level that corresponds to the ex-ante returns the providers of capital require given the risks in CTP insurance. Importantly, this means that a ‘reasonable’ profit bears no relation to, and should not be determined by reference to ‘affordable’ premiums or ‘affordability’.

³⁵ APRA General Insurance Institutional-level Statistics as at June 2014

2.6.1.1 Risk and return on capital

The ‘returns the providers of capital require given the risks in CTP insurance’ refers to the return on capital that is adequate to ensure the participation of private insurers in the Scheme. Return on capital is measured in a variety of equivalent ways.

The return on capital is determined to be the net-present value of the stream of profits made by an insurer discounted by capital holders at the risk-adjusted rate of return. The rate of return is comprised of the risk-free rate of return and a risk-adjustment to reflect the risk associated with the relevant stream of profits.

A consequence of this formulation of return on capital is that capital owners will only take on higher levels of risk if there is a corresponding higher level of expected return.

2.6.1.2 Components in determination of ‘reasonable’ profits

An assessment of a reasonable profit margin will require reference to an insurer’s target return on capital and assumed return on investment. The practical method of determining these values requires constructing a financial model of an insurer.

Constructing a financial model of a CTP insurer will require constructing their streams of revenue, cost and investment. There exist several financial models that can be used to determine the profit margin that corresponds with a reasonable level of profit. Different financial models rely on different metrics to determine return on capital.

Currently, the MAA requires that an insurer to disclose its internal allocation of capital for NSW CTP, the target rate of return on capital, and the assumed rate of investment return on capital when determining its profit margin.

One set of financial models is built around measuring and refining components of the return on equity as defined in the DuPont Identity as illustrated in Figure 2.2.

Figure 2.2: Return on equity in the DuPont Identity

$$\begin{aligned}
 & \textit{Return on equity} \\
 & = \textit{profit margin} \times \textit{asset turnover} \times \textit{financial leverage} \\
 & = \frac{\textit{Profit}}{\textit{Premiums}} \times \frac{\textit{Premiums}}{\textit{Assets}} \times \frac{\textit{Assets}}{\textit{Equity}}
 \end{aligned}$$

Other work has focused on CTP insurance in particular. For instance, Taylor (2001) and Taylor (2004) consider two key economic constructs to assess a reasonable premium. In particular, they reference the Myers-Cohn and internal rate of return (IRR) methods and argue that the reasonable profit margin would be between 4% and 6% of premiums. Most insurers have indicated they consider this level of profitability to be unsustainably low. The MAA also has not adopted this benchmark in its assessment of insurers’ rate filings.

In practice, the application of a benchmark would require accounting for the fact that insurers participating in the current Scheme also sell multiple lines of insurance. Essentially, to view the value of capital ownership of a CTP insurance business in isolation is likely to

provide an incomplete perspective. For example, the use of bundling discounts by some insurers means that their CTP profit margins may not reflect the overall cost of providing CTP.

To establish a more robust benchmark, the MAA needs to understand better the assumptions that determine insurers' decisions about the profit margin. Abelson³⁶ (2011), as described in Figure 2.3, provides a good template for this.

Figure 2.3: Approach of the Abelson (2011) model

The internal rate of return (IRR) on capital for a policy cohort can be compared to an insurer's cost of capital for the purpose of judging if pricing is reasonable. This process is widely used in price regulation regimes including by IPART and the ACCC.

Formally, the IRR of an investment is the discount rate at which the present value of all cash flows from the investment is equal to zero. Calculating an expected IRR for a given set of CTP policies would require information on premium, expected claims payments and other expenses, financial variables and regulatory requirements.

It is also important to distinguish between prospective and retrospective assessments of IRR. Prospectively, an insurer will expect to achieve a particular IRR on the basis of a number of assumptions – in particular, expected claims size and frequency. Prospective or expected IRRs can be meaningfully compared against benchmarks or against an insurer's cost of capital, provided the assumptions used to calculate the expected IRR are reasonable. An approach to enable comparison of the expected IRR across insurers is to standardise capital allocation and investment assumptions in the premium filings. This allows the regulator to conduct sensitivity analyses for each of the assumptions in an insurer's filings on a common, comparable basis.

Abelson (2011) considers an adequate return on capital to be viewed as the minimum IRR that investors require in order to provide capital to a particular line of business and an excessive return on capital to be viewed as an IRR significantly above that required by investors.

The model can be used by the MAA to verify the IRR calculations performed by the insurers; and to examine how the IRR is affected by any variation in the assumptions used.

Source: Abelson (2011)

The data required to apply that model has traditionally not been collected by the MAA. Insurers, however, are now required to disclose that data under the new PDG including:

- methods of allocating capital to lines of business;
- the process for determining target rates of return;

³⁶ Abelson (2011) is an internal MAA report.

- target rates of return on capital; and
- details of how proposed profit margins are set as percentages of premiums.

2.6.2 Observed levels of profits

Determining a reasonable profit level from an economic and capital markets theory perspective is both involved and may produce a range of results depending on the assumptions used. A complementary approach to benchmarking a reasonable level of profits could be to consider insurer profitability and profit margins in comparable insurance schemes in other jurisdictions. This Section reviews observed levels of profit in the following categories:

- General insurers in Australia
- Privately underwritten casualty insurers
 - CTP insurance schemes in Australia
 - Privately underwritten, compulsory, long-tail schemes in Australia
 - Privately underwritten CTP insurance schemes in overseas jurisdictions.

2.6.2.1 General insurers in Australia

A starting point for a reasonable profit margin is likely to be a level that corresponds to a return on capital that is closer the insurers' company-wide targets. Based on discussions with stakeholders and stockbroker estimates of historical returns on equity for the general insurance industry, the long-run post-tax return on shareholder capital has been around 15% pa.³⁷

However, it is also necessary to adjust for the specific uncertainties inherent in the NSW CTP Scheme that will affect the required return on capital. This suggests that the returns required for capital invested in the NSW CTP Scheme could be higher than these company-wide targets. It is also important to bear in mind that the presence of bundling in the Scheme (see Section 3.1.2.4) means looking at single lines of business may be misleading without considering the other available lines of business.

According to CTP filings, some insurers' company-wide post-tax returns on equity are around 15-16%. Depending on the assumptions surrounding capital allocated, this equates to CTP profit margins of between 11% and 15% of filed premiums. There is an argument that being a compulsory Scheme with social policy objectives, insurers should meet both competitive and social outcomes which are concomitant with a lower return on capital than is required for other non-compulsory lines of business.

2.6.2.2 Privately underwritten casualty insurers

This Section compares the profitability of NSW CTP insurance with other, privately written, casualty insurance schemes. Where possible, comparisons to compulsory schemes have been made.

As profitability itself is difficult to measure, profit margins are instead used. It should be noted that profit margins do not include investment returns. Furthermore, profit margins

³⁷ Various sources

do not take into account the timing impact associated with reserving requirements and therefore do not fully capture the profitability of a line of insurance business.

In absence of a benchmark for reasonable profits, comparing insurer profit margins in the NSW CTP Scheme with other comparable schemes can provide a guide of what to expect. The comparisons could be conducted with:

- CTP insurance schemes in Australia;
- privately underwritten, compulsory, long-tail insurance schemes in Australia; and
- privately underwritten, compulsory third party insurance schemes in overseas jurisdictions.

2.6.2.3 CTP insurance schemes in Australia

The most comparable CTP insurance schemes to the NSW Scheme are the Queensland and ACT schemes, which are also fault-based and privately underwritten CTP schemes. The SA Government announced in its 2014-15 State Budget that it will privatise its CTP insurance scheme from July 2016³⁸. This would provide another point of comparison in the future.

A retrospective examination of profitability by cohort year was not possible for the Queensland scheme, as insurers' ultimate profits are not estimated, as is the case in NSW. However, the Queensland Motor Accidents Insurance Commission (MAIC) publishes estimates of past scheme performance under a scenario of 2.5% superimposed inflation. In its 2013-14 Annual Report, the MAIC estimated that average scheme profit margins over the most recent 2, 3 and 5 years were 15.0%, 18.1% and 22.3%, respectively. The MAIC has indicated that actual superimposed inflation over the period has been more benign than assumed in their scenarios, suggesting that insurers' ultimate profits are likely to be higher.

The ACT scheme only achieved contestability in CTP insurance in 2013, prior to which the market had a single insurer, and has therefore not produced sufficient data for analysis.

The Victorian CTP scheme, which is administered by Transport Accidents Commission (TAC), on the other hand, is different to that in NSW. The Victorian scheme is publicly underwritten and operates on a 'no-fault' basis. It is the only CTP scheme in Australia with a funding ratio of less than 100% for a prolonged period, i.e. total assets are lower than total liabilities. Access to common law is restricted to those who suffer a 'serious injury' as defined by the Transport Accident Act 1986 where another person was to blame for the accident. The premiums are charged as part of the annual registration renewal fee for the vehicle a person owns. From an affordability perspective, the affordability index (as a percentage of AWE) is slightly lower in VIC than in NSW^{39 40}.

2.6.2.4 Privately underwritten, compulsory, long-tail insurance schemes

The Western Australia workers' compensation insurance scheme provides a point of comparison for profit margins. While it is not a file and write scheme and has a different premium regulation, it is a privately-underwritten, compulsory insurance scheme that is

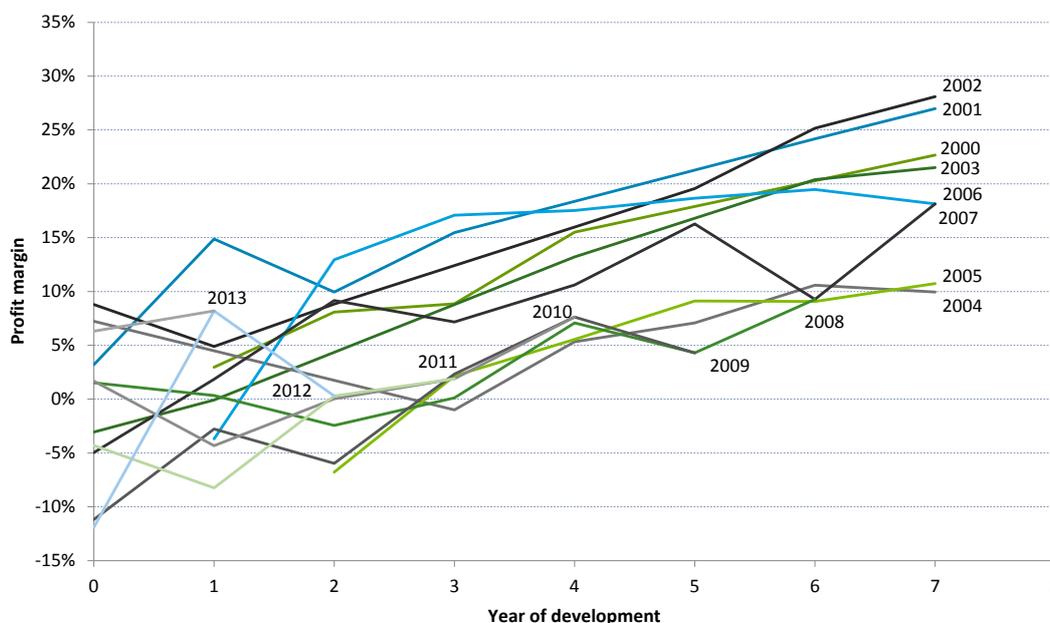
³⁸ Government of South Australia, 2015

³⁹ Finity, 2014

⁴⁰ The Victorian scheme fixes premium increases at the rate of inflation via legislative fiat.

long-tail in nature. The filed and ultimate profit margins in the WA workers' compensation scheme (Chart 2.12) are broadly comparable to those in the NSW CTP Scheme (Chart 2.6).

Chart 2.12: Evolution of profit margin estimates in the WA Workers' Compensation scheme by cohort



Source: WorkCover WA Recommended Premium Rates 2007-2008 to 2014-15

Similar to the NSW CTP Scheme, over the past 14 years, insurers' realised profit margins in the WA Scheme have consistently exceeded expected profit margins. The profit margins in the WA workers' compensation scheme for some cohort years have also reached similar levels to that in the NSW CTP Scheme.

However, it is worth noting that the WA Scheme is based on a 'no-fault' principle. Under the WA Scheme, the WorkCover WA Board is responsible for determining the recommended premium rates for the WA workers compensation scheme. Scheme insurers have discretion to discount the recommended rate by any amount, or surcharge by up to a limit of 75% of the applicable rate. Subject to the approval of the WorkCover WA Board, an insurer may surcharge more than 75% if their claims experience warrants it.

These scheme design differences make direct comparisons between NSW CTP insurance and WA workers' compensation difficult, and an awareness of these differences should be kept in mind when making comparisons.

The Tasmania and ACT workers' compensation schemes are privately-underwritten schemes which also provide for access to common law (Safe Work Australia, 2015). The WorkCover Tasmania Board published a set of actuarially assessed industry premium rates for the 2014/15 underwriting year which allowed for an insurer margin of 12.0% of premiums⁴¹.

⁴¹ Finity, 2014a

The Chief Minister and Treasury Directorate in ACT published the ACT Workers' Compensation Review of Scheme Performance 2012-13, which suggested reasonable premium rates for the 2014/15 underwriting year. These estimates included an insurer margin of 12.5% of premium⁴².

2.6.2.5 Privately underwritten, compulsory third party insurance schemes in overseas jurisdictions

There is more competition in US CTP markets and commensurately lower returns on capital. However, equivalent CTP insurance schemes in the United States are significantly more limited in scope and hence, have less uncertainty about revenue flows to insurers. As a result, the returns to investors in US schemes will be lower than the returns in the NSW Scheme.

CTP insurance schemes in the United States differ between states, as compulsory insurance is not required to cover the entire cost of liability resulting from at-fault vehicle crashes. Instead, all states have minimum levels of cover, beyond which drivers are free to remain uninsured. This cover also includes damage to third party property.

For example, in Maine and Alaska, which have the highest levels of cover in compulsory insurance, the level of cover required is \$50,000 of coverage for "bodily injury", \$100,000 of coverage for "injury/death to more than 1 person" and \$25,000 of "damage to property".

Thus under the minimum level of compulsory insurance in Maine, an insurer would have its payout costs under a CTP premium capped at \$50,000 in relation to bodily injury to any one person. For each policy, payout costs would be capped at \$100,000 in relation to the total payout in relation to injury and death to all persons affected. Lastly for each policy, damages to property would be capped at \$25,000.

Vehicle insurance is also not compulsory in some States, due to the limited level of insurance cover required. New Hampshire and Virginia both allow drivers to post bonds or cash equal to the level of liability cover required under vehicle insurance in lieu of actually purchasing insurance.

Thus, for the purpose of analysis, States are grouped into categories based on the minimum coverage required in compulsory insurance for the purposes of injury/death to more than 1 person.

⁴² Finity, 2014b

Table 2.2: Summary of US Auto schemes 2012

Minimum coverage for injury/death to more than 1 person (2012 US\$)	Number of States	Return on net worth 2002-2012
100,000	3	8.82%
60,000 – 65,000	5	7.81%
50,000	27	8.02%
40,000	7	8.28%
30,000	7	4.95%
20,000 - 25,000	2	7.32%

Source: National Association of Insurance Commissioners, 2012 Competition Database Report

Table 2.2 provides the simple average across states of the return on net worth, which is similar to the return on equity. As noted above, due to significant differences in scheme design, these values are expected to be below the levels that would be required by providers of capital to insurers in the NSW Scheme.

2.7 Recommendations to strengthen competition by allowing greater risk rating

2.7.1 Risk pooling

The use of risk pooling can resolve many of the Scheme's issues that result from the current cross-subsidies and can promote more competition within the Scheme.

The Review recommends risk pooling for the most underfunded risks while allowing free rating of the majority of risks, subject to an MAA-specified maximum premium.

This is intended to achieve the following objectives:

- reduce the uncertainty of insurers' exposure to underfunded risks and therefore remove the potential conservatism in pricing;
- simplify the premium system through free rating;
- maintain affordability through specifying a maximum premium for each policy;
- fund the cross-subsidies from within the Scheme;
- eliminate the incentives for risk selection within the Scheme;
- ensure that poor risks are fairly distributed among insurers; and
- remove impediments to price competition within the Scheme.

However, changes to cross-subsidies will necessarily affect the distribution of the cross-subsidies among policyholders. A more thorough analysis is required to determine the trade-offs involved. The Review's two key recommendations are as follows.

1. Introduce free rating for the majority of risks.

2. Pool the most underfunded policies, say 10% of risks. This is allowable under Section 29 of the *Motor Accidents Compensation Act 1999*

The impact of moving to free rating will inject more competition into pricing, with the intention of encouraging downward pressure on premiums. Insurers will be able to compete for risks by using a broader range of risk factors than under the existing Scheme. However, premiums for a small proportion of policyholders will increase to reflect the removal of the cross-subsidy they have been receiving.

The maximum price cap will limit the size of any increase, and the actual level of the maximum price cap can be determined by analysis of impact on policyholder cohorts. It may be practicable to phase in the transition to the new premium levels, for example, by raising and lowering premiums in smaller increments over a number of years.

2.7.1.1 Risk pooling options

Risk pooling is a process where the poorest risks are removed from the market and placed into a pool to be dealt with separately.⁴³ There are many ways of doing risk pooling. For example, two possible ways of introducing risk pooling are ‘risk pooling by maximum price’ or ‘risk pooling by predefined category’.

The Review notes that these Scheme designs are consistent with the risk pooling mechanisms recommended in Abelson (2011).

The Review also notes that the current legislation MACA (1999) Section 29 allows for the possibility of risk pooling:

“The Authority may enter into any one or more of the following arrangements with licensed insurers, ... (a) an arrangement for allocating high risk third-party policies among insurers”.

Under ‘risk pooling by maximum price’, the most underfunded risks, say 10% of the market, are identified and placed in a ‘high risk’ pool. The MAA sets a maximum premium for the Scheme and insurers can freely risk-rate as long as the premium is below the maximum.

Individuals who are in the ‘high risk pool’ are charged the maximum premium. Policies from the ‘high risk pool’ may then be allocated to insurers at random, in proportion to each

⁴³ Risk pooling is sometimes referred to as risk equalisation, i.e. sharing of risks between scheme insurers on a prospective basis. The allocation of risks is thus on a prospective basis and not affected by claims outcomes. This is distinct from claims equalisation, which is used in health insurance. The Review advocates risk equalisation rather than claims equalisation, as the latter reduces the incentive for insurers to manage claims efficiently.

insurer's market share.⁴⁴ Under this option, individuals within the risk pool will be allocated an insurer and therefore unable to select their own insurer. Consumer surveys suggest that motorists consider premium affordability more important than the 'choice of CTP insurer, price competition or access to multi-policy discounts'. (MAIC, 2013)

Once a policy is assigned to an insurer, it is treated the same as any other policy of that insurer originating from the market. The insurer will be responsible for both claims assessment as well as the underwriting of the assigned policy. This provides an incentive for the insurer to properly assess claims. It is up to the insurer to decide how to pass on the underfunded costs to its policyholders from the market.

There are a number of options on which the level of the maximum premium could be based, including:

- the share of total CTP policies to be allocated to the risk pool, e.g. 10%;
- a pre-determined ratio to a measure of equity, such as a ratio of the maximum premium to the average premium, e.g. no more than twice the average premium;
- a pre-determined ratio to an absolute measure of affordability, such as NSW AWE, e.g. no more than 50% of AWE; and
- a model-driven outcome which optimises the impact on the nominal insurer scheme, e.g. does not increase the number of drivers who choose to drive without insurance.

Some of these options will involve judgement about the community's opinion on fairness. Such decisions may be more appropriately placed with Government, rather than treated as an administrative decision.

Setting a maximum premium may simplify the pricing process and potentially remove the need for insurers to submit rate filings, as the affordability objective is addressed by a regulatory price cap and the competitive market is free to determine prices below the maximum. The regulator's focus can then be directed towards the assessment of market conduct and business processes based on the Market Practice and Business Plan Guidelines.

Under 'risk pooling by predefined category', the MAA would define the criteria to be used to determine which individuals should be placed in the high risk pool. For example, the MAA could mandate that the high risk pool would constitute all individuals under the age of 25. All such identified individuals would then be placed in the high risk pool.

Insurers can then offer CTP premiums to all other individuals at any price. This allows for free pricing for the remaining individuals in the market. Policies from the risk pool are then allocated to insurers at random, with the number of high-risk pool policyholders being allocated in proportion to each insurer's market share.

There are variations to the two options described above. For instance, instead of random allocation of underfunded policies among insurers, individuals may wish to choose the insurer from whom they purchase CTP. Under this approach, a mechanism can be

⁴⁴ As the number of high-risk pool customers is allocated by market share, insurers will be incentivised to establish a fixed price mark-up on their free-priced customers to cover the cost of the cross-subsidy. Thus individuals who are free-priced will all contribute equal dollar amounts to the cross subsidy, distributing the cross-subsidy more broadly and more evenly than in the current system.

established to 'equalise' the risks among insurers financially. This ensures each insurer is financially responsible for a fair allocation of the most underfunded risks, e.g. in proportion to its market share.

A review of the international motor vehicle insurance experience shows that 43 states in the United States have risk pooling. One of the concerns raised about risk pooling is the risk of an increasing proportion of poor risks entering the high risk pool and therefore a decreasing proportion of the voluntary market having to subsidise these poor risks. In the extreme case, this may create market distortions through a significant increase in the average premium for risks in the voluntary market, therefore causing the good risks to leave the market. While this may be a material issue for non-compulsory lines of business, it may be more subdued for compulsory markets such as CTP.

Under 'risk pooling by maximum price', this concern can be addressed by setting a level of maximum premium to ensure a fixed percentage of risks is placed in the high risk pool. Alternatively, under the 'risk pooling by predefined category', the MAA can specify the category of the market that constitutes a fixed proportion of the market, say 10%, to be in the high risk pool.

2.7.1.2 Addressing competition issues

Risk pooling in this manner addresses a range of competition issues while simultaneously achieving the social goals of the Scheme. Specifically, it addresses the issues of risk selection.

Firstly, risk pooling improves the incentive for insurers to compete on price and risk identification (see Section 3.1.2.1), as there will be free pricing for the majority of the market. Furthermore, given that there is free pricing, insurers can compete directly and more aggressively on price without being hampered by the bonus/malus restrictions.

Secondly, risk pooling removes the undesirable competition on risk selection (see Section 3.1.2.2) within the Scheme. Insurers will receive a proportion of underfunded policyholders relative to the number of free-priced individuals in the regime. This may reduce the marketing and acquisition costs within the Scheme, as insurers will have less incentive to spend as much money on distribution channels thus lowering costs across the Scheme. Alternatively, increased competition may encourage insurers to increase their advertising and marketing budgets.

Thirdly, risk pooling removes the concerns around bundling, particularly around the idea that bundling can be used to undermine the cross-subsidy within the Scheme (see Section 3.1.2.4). Opening up portions of the Scheme to free pricing removes any incentive to cherry pick overfunded policyholders. Thus the cross-subsidy within the Scheme will be more evenly and fairly applied across insurers.

Fourthly, risk pooling removes any advantage or disadvantage under the cross-subsidy achieved through dual licensing (see Section 3.1.2.6). As firms will be able to price freely outside of the risk pool, insurers will no longer have any advantage associated with filing two separate sets of premiums through separate licensees. It should be noted that firms might choose to continue to write policies under separate brand names.

Fifth, risk pooling will simplify the premium filing process and premium regulation (see Sections 3.2.2.2 and 3.2.2.4). Firms will no longer have to base filings on a prescriptive set of PDG, as free pricing will be permitted for the portions of the market that they choose to compete for. This reduces the extent to which premium regulation and compliance costs operate as a barrier to entry into the Scheme.

2.7.1.3 Trade-offs between options

Each of the two risk pooling options has particular advantages and disadvantages.

‘Risk pooling by maximum price (for a class of vehicle)’ allows for the Scheme regulator to ensure directly that premiums remain broadly affordable. A long term aim may be to peg the maximum price in the Scheme to an affordability measure (e.g. a fixed percentage of AWE or the current maximum price faced by CTP consumers). This allows the regulator to ensure directly that the maximum price of CTP insurance remains affordable, without having to perform complex calculations and set relativities within the regime.

This approach has two related drawbacks. First, the extent of redistribution and the determination of the boundary of ‘affordability’ is seen by some stakeholders as a political judgment rather than a purely technical one. This would imply that it is the Government rather than the MAA that should determine ‘affordability’. Thus, unilateral action by the MAA may be seen as unwarranted or inappropriate by stakeholders in the process. Second, placing the maximum price in the Scheme too low can result in forcing out marginal insurers in the Scheme.

‘Risk pooling by predefined category’ has the advantage of allowing the size of the risk pool to be determined with greater certainty prior to the filing process by insurers. Under ‘risk pooling by predefined category’, the Scheme regulator can directly target the size of the high-risk pool by selecting the predefined categories of individuals who will fall into the pool. This allows for more direct control of the size of the high-risk pool.

2.7.2 Review of factors in the schedule of relativities

The Review recognises the recommendations of free rating and risk pooling will take a number of years to implement, exploring with the industry the costs and benefits of the alternative approaches, and deciding on and implementing the most optimal model. The Review therefore recommends that in the interim a separate set of measures to refine the current Scheme be implemented.

The Review understands that the redistributive objective of the current Scheme is to enforce a cross-subsidy based on risk, where low-risk individuals subsidise high-risk individuals.⁴⁵ The Review finds the current schedule of relativities is somewhat arbitrary, without a strong link between the factors used in calculating premium relativities and the objectives of the Scheme. Stakeholders have suggested that the current boundaries of rating districts are unrelated to risk or Scheme goals such as equity.

⁴⁵ Stakeholders have presented ideas to the Review that either implicitly or explicitly suggest that redistribution in the scheme should be done along income or wealth lines (that the rich should subsidise the poor) or lines of size and affordability (that big businesses should subsidise small business). The Review believes that neither of these are appropriate objectives of the cross-subsidy in the scheme.

There are three possible categories of risk factors.

- Factors used for the premium relativities
- Factors used for bonus/malus
- Factors prohibited from being used.

Each category corresponds to a different balance between risk rating and cross subsidy as shown in Table 2.3.

Table 2.3: Summary of correspondence between rating factors and criteria

Rating Factor	Implication for cross subsidy
Factors used for the schedule of premium relativities	Complete risk rating and no cross-subsidy along these factors.
Factors used for bonus/malus	Partial risk rating and partial cross subsidy along these factors.
Factors prohibited from being used	No risk rating and complete cross-subsidy along these factors.

2.7.2.1 Factors used for the schedule of premium relativities

Factors used for the schedule of premium relativities are completely risk rated and do not have a cross-subsidy along them.

Thus for example, there is no cross-subsidy between vehicles classes (such as between motorcycles and passenger vehicles).

Currently, only vehicle class and rating district are contained within the premium relativities.

Rating factors should be included in this category where the MAA believes that individuals should be fully risk rated along that rating factor, and that there should be no cross-subsidy along that dimension.

2.7.2.2 Factors used for bonus and malus

Factors that are used in bonus/malus calculation provide some level of risk rating. However, the Scheme enforces a cross-subsidy along these factors.

Thus for example, driver age is a factor along which there is some risk rating. However, the Scheme enforces a cross-subsidy by driver age, where older drivers subsidise younger drivers, through the bonus/malus restrictions. The extent of the cross-subsidy varies by individual, as it only applies when an individual is either at maximum malus or maximum bonus.

Currently, these factors are determined by insurers (with the approval of the MAA). Examples of such factors include, vehicle age and driver age.

Rating factors should be included in this category where the MAA believes that individuals should be partially risk rated along that rating factor, but where there should also be a cross-subsidy along that rating factor.

2.7.2.3 Factors prohibited from being used

These are factors over which a cross-subsidy is completely maintained, and over which no risk rating is permitted.

Currently insurers are prohibited from using the following rating factors: race, policy duration, input tax credit entitlement and postcode.⁴⁶ Rating factors should be included in this category where the MAA believes that individuals should not be risk-rated at all along that rating factor, and where there should be a complete cross-subsidy along that rating factor.

2.7.2.4 Elastic gap mechanism

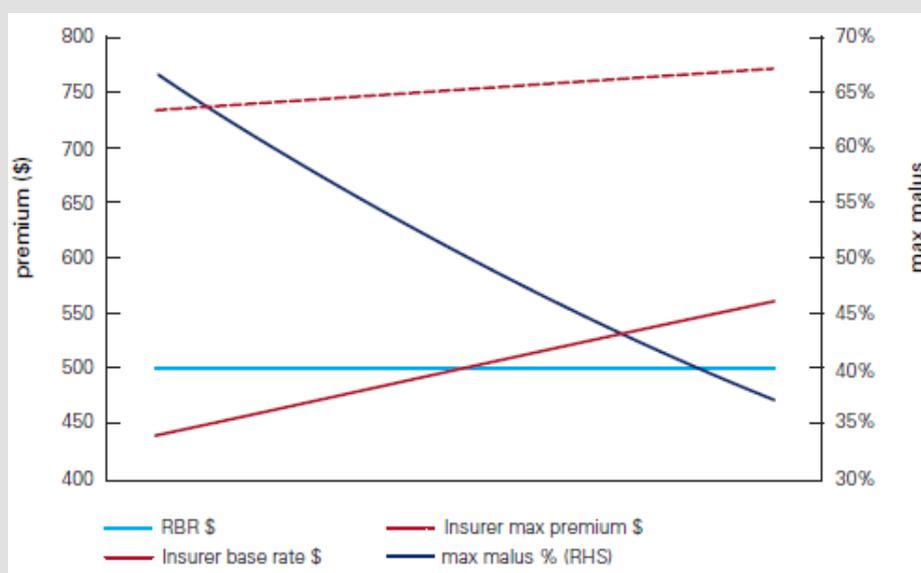
The elastic gap mechanism included in the current bonus/malus structure progressively reduces the rate of maximum malus that an insurer may apply, in line with the extent to which an insurer's filed base premium for a Sydney passenger vehicle exceeds a reference rate set by the MAA. That is, an insurer with a high base premium relative to the reference rate will only be allowed to apply a smaller loading compared to an insurer with a low relative base premium.

⁴⁶ The prohibition on the use of postcodes is designed to ensure that geographic rating is based on the motor district rating factor currently used in the schedule of relativities. Notably, the NSW motor districts do not correspond to any conception of risk rating. In contrast, the Victorian TAC scheme risk rates by classifying each postcode into one of three groups according to risk.

Figure 2.4: An example of the elastic gap mechanism

An insurer with a higher filed base premium will be limited to a lower maximum malus rate than an insurer with a lower filed base premium. This rate depends on the extent to which the insurer’s filed base premium for a Sydney passenger vehicle exceeds the Reference Base Rate (RBR).

The RBR is set by the MAA with consideration of the premium affordability objective of the Motor Accidents Compensation Act 1999. The MAA Premium Determination Guidelines – Practice Note (2014) notes that: *“The MAA wishes to contain the average maximum CTP premium payable for a NSW passenger vehicle to be within 50% of NSW AWE.”*



Source: MAA Premium Determination Guidelines – Practice Note

The above diagram demonstrates how the elastic gap mechanism determines the relationship between the insurer’s base rate (i.e. Sydney passenger vehicle base premium) and their maximum malus if the RBR is set at \$500. For example, an insurer filing a base rate of \$450 may charge a maximum malus of 63%, while an insurer filing a base rate of \$550 may only charge a maximum malus of 39%.

It is possible to adjust the elastic gap mechanism to enable insurers to better risk-rate. This can be achieved by setting the parameter, D, in the malus limit formula⁴⁷ to zero. This would keep the maximum premium at 150% of the ratio between the reference base rate

⁴⁷ MAA PDG Section 8.5 specifies the malus limit formula as follows

$$\text{Malus limit} = \left[(150\% - D) \times \frac{RB}{IB} \right] + D$$

where IB is the insurer’s filed premium for a Class 1 Metro vehicle for which the policyholder is not entitled to any ITC; RB is the reference base rate at the time of filing; and D is 30% unless otherwise advised by the MAA.

and the filed base premium, and therefore de-couple the linkage between the minimum and the maximum premium.

2.7.2.5 Conclusion

The Review believes that the MAA should examine the schedule of premium relativities and consider risk factors in the above three categories to better match the relativities to the objectives of the Scheme. The process of classifying rating factors into each of these categories should help balance the need for cross-subsidy with the desire for more risk-based pricing in the insurance market. It is envisaged that the insurers would be able to set premiums at levels that more fully reflect risk. This provides insurers with greater scope to compete on price when seeking to attract consumers. However, how risk rating is implemented will directly affect the cross-subsidies in the Scheme and have implications for affordability.

3. Review the current Schedule of Premium Relativities to include other rating factors which are consistent with the objectives of the Scheme.

Superimposed inflation is a key source of uncertainty in this Scheme and contributes to the disparity between filed and realised profits. The Review recommends that the causes of superimposed inflation be reviewed.

4. The Government should review the causes of superimposed inflation and consider measures to address this source of uncertainty, with the aim of helping to close the gap between filed and ultimate profits.

3 Competition

This Chapter seeks to examine the extent to which the market is competitive. If the market is competitive, we would expect “excessive” profits made by insurers to be eroded over time through competitive pressures as referenced in the Review Objectives.

In this Section, competition is thus analysed at two levels:

- competition at the intensive margin: competition between existing competitors in a market, on factors such as price and convenience; and
- competition at the extensive margin: firms entering (or exiting the market) and thus increasing or decreasing the level of competition in the market

If competition at the intensive margin is particularly keen, excessive profits are unlikely to arise. Determining if the market is competitive at the intensive margin involves examining market concentration, levels of customer switching, and competition between insurers on price, expenses and risk selection.

However, if the market is not competitive at the intensive margin, the arrival of new entrants into the market should erode excessive profits. Thus, competition at the extensive margin is considered through an examination of the historical entry and exit of insurers in the market.⁴⁸

The Review also examines barriers to entry that may deter new entrants from entering the market. In some cases, impediments to competition and barriers to entry emerge as a side effect of the pursuit of the social goals of the Scheme. As such, there exist trade-offs on several dimensions where relaxing a particular policy designed to achieve a social goal will result in greater competition within the Scheme, or conversely, where a greater pursuit of a social goal directly harms competition within the Scheme.

As a result of this, some of the reforms proposed might encourage competition, but also consequentially impact the social goals of the Scheme. Striking the balance between the objectives of competitiveness and a social goal, such as equity, is a decision for the Government. Where possible, the Review has highlighted the trade-off involved and made a recommendation in line with its terms of reference.

3.1 Competition at the intensive margin

To determine the competitiveness at the intensive margin, this Section considers indicators of market concentration and the level of customer switching at a high level. This Section then examines market dynamics to understand competition on price, risk selection, customer acquisition, bundling, other expenses and dual licences.

Under these measures, the market appears to be concentrated but does have a high rate of customer switching, which indicates a degree of competition between insurers. Insurers also do compete on price (with risk identification) and expense reduction.

⁴⁸ We consider market entry and exit since the introduction of MACA in 1999.

Importantly however, insurers compete on risk selection, in a manner that is not consistent with the objectives of the Scheme. This behaviour exists as a direct result of the nature of the cross-subsidy introduced to further the social objectives of the Scheme.⁴⁹ Reforms in this regard will therefore necessarily impact the social objectives associated with equity and redistribution under the Scheme.

3.1.1 High Level Analysis

The high level analysis in this Section examines market concentration and levels of customer switching to examine competition at the intensive margin.

3.1.1.1 Market Concentration

Understanding the level of concentration in the market is often the starting point for considering the level of competition in a market. The Review finds the CTP insurance market to be concentrated.

Market concentration can be an indicator of the level of competition, but by no means is it determinative of competition in itself, nor does it accurately reflect the market power of firms. According to ACCC (2008):

“... market concentration is not determinative in itself. For example, firms can gain a high market share by adopting more efficient technology, lowering costs and reducing prices. In such cases, high levels of market concentration are not necessarily reflective of a non-competitive market. Measures of concentration in markets characterised by product differentiation may also obscure the closeness of competitors.”

It is important to keep in mind that competition at the extensive margin can overcome deficiencies in competition at the intensive margin.

3.1.1.2 Concentration in the overall market

The Review considered two standard measurements of market concentration; the *Herfindahl-Hirschmann Index* (HHI) and the *2-Firm Concentration Ratio*, CR(2).

HHI

The HHI measures the sum of the squares of the market shares of firms,⁵⁰ and is useful in determining whether a market is dominated by a few firms (or one firm).

The HHI is widely used in competition law and regulation, particularly as a screening device for merger analysis. The ACCC considers mergers in a market with a HHI score higher than 2,000 as requiring closer scrutiny (ACCC, 2008).

⁴⁹ More specifically, the cross-subsidy requires that insurers take all comers, which affects risk selection behaviour.

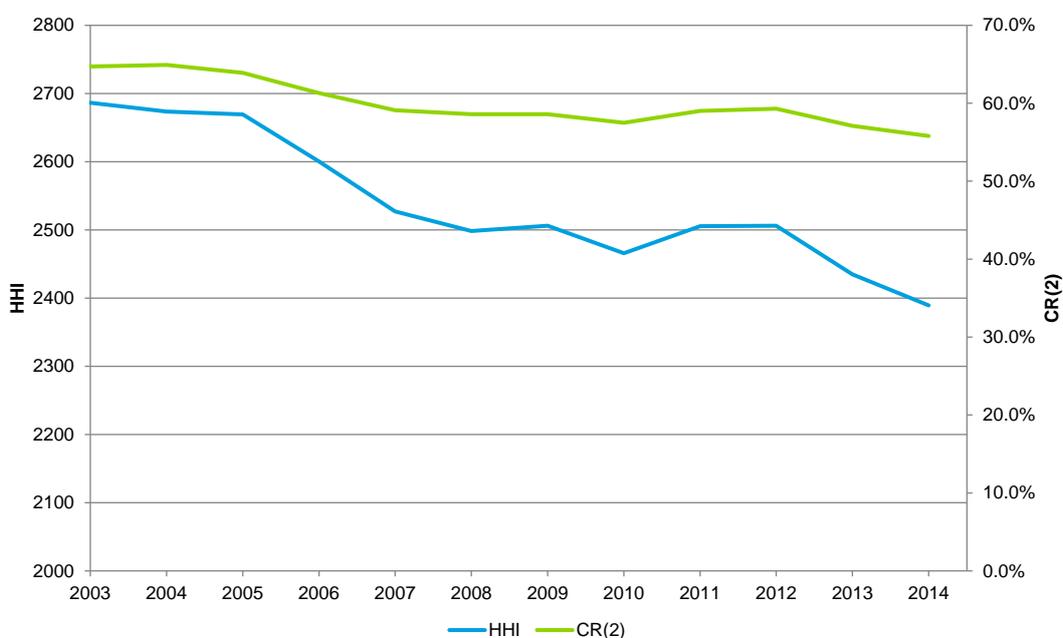
⁵⁰ Although there are seven licensees, there are in fact five companies (Zurich, Suncorp, QBE, IAG, Allianz) that own all seven licences. HHI is calculated at the company level.

CR(2)

An alternative indicator, CR(2), is a measure of combined market share of the two largest providers in the market.⁵¹ Although less sophisticated than HHI, CR(2) provides a simple illustration of the level of concentration in the market. A score of 80% or higher is interpreted to indicate that the market is a duopoly.

Chart 3.1 illustrates the evolution of the HHI and CR(2) in the NSW CTP market. It shows that the HHI score was above the ACCC threshold in 2014, at 2,389, although it has declined since 2003. This decline is driven by a redistribution of market shares between the incumbent insurers, which is also reflected in the CR(2) indicator.⁵² The CR(2) was 51% in 2014, which is considered high, but has also declined since 2003. Despite this decline, these indicators suggest that the NSW CTP market is relatively concentrated.

Chart 3.1: NSW CTP market concentration, 2003 - 2014



Source: MAA

The level of concentration in the CTP market in NSW is at a level that is slightly higher than the level of concentration in the broader insurance industry. However, insurers view CTP as part of a suite of personal line products that they offer, rather than as a standalone product.

As such, the concentration in the NSW CTP market, while high, is at a level that is broadly reflective of the levels of concentration in the general insurance industry (Table 3.1).

⁵¹ CR(*n*) refers to the combined market share of the *n* largest firms in a given market.

⁵² However, noted below, an HHI score of above the threshold is not determinative of a lack of competition. In fact, in a market with five competitors (such as the NSW CTP market) with equal market shares, the HHI score would be 2,000.

Table 3.1: Concentration of insurance industry

Insurance Market	CR(5)
NSW CTP insurance	100%
Personal lines of insurance	80%
Direct Insurance	70%
Commercial Lines	60%

Source: APRA (2014), MAA (2014)

3.1.1.3 Concentration in sub-markets

An examination of submarkets reveals that the level of concentration in NSW CTP market is higher than the aggregate figure suggests, but remains broadly reflective of the levels of concentration in the general insurance industry. This is because, despite the need to write for all comers, some insurers have implemented marketing and acquisition strategies which have allowed them to target specific segments of the CTP market (discussed in Section 3.1.2.3). This has led to uneven levels of market concentration across different sub-markets.

Table 3.2 shows the HHI scores for the sub-markets relating to the two largest vehicle classes.⁵³ It shows that the market concentration within different sub-markets varies significantly. This suggests that competition is not uniform across the whole market, with insurers competing at different levels for different sub-markets at any given point in time.

Table 3.2: CTP market segment HHI, by vehicle classification, 2013/14

Vehicle Code	Vehicle type	Metro	Outer Metro	Newcastle	Wollongong	Country	All regions
1	Motor car	2,604	2,740	2,799	2,740	3,119	2,716
3c	Goods Vehicle <= 4.5T GVM	2,301	2,192	2,537	2,301	2,895	2,482
All segments							2,645

Source: MAA

3.1.1.4 Customer switching

Insurers' active policy portfolios are driven by the renewal of existing policies, new risks that are gained (i.e. newly registered cars), and existing risks that are gained from other insurers.

Vehicle registration data from the NSW Roads and Maritime Services (RMS) from 2007 to 2011 shows the average rate at which individual licensees' total active CTP policies are subject to switching over this period, i.e. the rate at which CTP policyholders switch insurers.

⁵³ The analysis of sub-markets differs slightly from aggregated analysis of the market as the information used is sourced from insurer filings. The data is used is a collation of the policy data that insurers have included when filing. Where available, the latest insurer filings were taken. As a result of the asynchronous nature of insurer filings, the insurer filings represent the number of policies written at slightly different points in time.

This rate of switching differs between individual licensees; it has ranged from 12% to 38% of total active CTP policies over this period. The weighted average switching rate for the NSW CTP industry was 21%. Over the same period, the Private Health Insurance industry has experienced an annual average rate of switching of around 10% to 15%⁵⁴. Roy Morgan (2014) consumer surveys indicate that the proportion of insurance policies in the combined home and Comprehensive Motor vehicle insurance market in Australia that will not be renewed within the year is 3.8%. The proportion of home insurance policies that will not be renewed at a given insurer ranges from 3.6% to 7.5%.

The vehicle registration data provides a breakdown of the policy flows into and out of each licensee's CTP portfolio. The breakdown of these flows indicates that the rate of switching for individual licensees seems to be largely reflective of the individual licensees' marketing strategies, including their acquisition strategies.

Thus, while the market is concentrated, consumers are able to switch between insurers easily. Furthermore, customers are switching between insurers which suggests that the insurers are competing for consumers within the market.

3.1.2 Market Dynamics

In this section, a more granular analysis of competition is provided by examining how insurers compete on the following dimensions:

- Price (and risk identification);
- Risk selection;
- Customer acquisition;
- Bundling;
- Other expense reduction;
- Dual licenses; and
- Other dimensions of competition;

It should be noted however, that as a consequence of the pursuit of social objectives, regulation in NSW CTP insurance market results in competitive behaviour that is different from competitive behaviour in other insurance markets.

3.1.2.1 Price (and risk identification)

Notionally, CTP insurers can compete aggressively on price. The effectiveness of price competition is increased by the fact that it is particularly easy for consumers to compare prices as a result of the price comparator run by the MAA.

Although insurers in this market compete on CTP premiums (price), they are only able to do so in a limited way due to restrictions on the maximum bonus and malus that can be offered within the Scheme. The restrictions of the bonus/malus factor, which sets the ratio between the highest and lowest premiums around a base premium, are designed to enforce a cross-subsidy within the Scheme.

⁵⁴ Private Health Insurance Administration Council, 2013

More specifically, insurers are constrained in their ability to compete on price for two groups of consumers:

- **Underfunded policyholders** that would be risk rated at premiums above the maximum malus. This group of policyholders are inadequately funded, that is, their premiums are insufficient to cover the expected costs of their policies as determined by their risk.
- **Overfunded policyholders** that would be risk rated at premiums below the maximum bonus. This group of policyholders are effectively subsidising the underfunded policyholders, that is, their premiums are higher than is required to cover the expected costs of their policies as determined by their risk.

Nonetheless, for those policyholders who do not fall into the above groups, and are risk priced, insurers compete with each other on their ability to identify and price these risks more accurately. Based on projected written policies in insurers' recent rate filings, we estimate that approximately 60% of all NSW CTP policies written in a filing period are expected to be risk priced, and insurers are able to compete on their abilities to identify and price these risks more accurately.

The remaining 40% of all CTP policies are written at either the maximum malus or the maximum bonus, with nearly one-third of all policies being priced at the maximum bonus. The existence of the underfunded and overfunded groups of policyholders gives insurers an incentive to compete with their competitors for overfunded policyholders, while simultaneously seeking to avoid underfunded policyholders. The current limitations on risk pricing mean that an insurer would only be able to reduce the premiums offered to overfunded policyholders if the premiums offered to underfunded policyholders are also lowered at the same time, although not by an equivalent amount.⁵⁵

Since attracting a subset of consumers based purely on price is not possible, insurers select risks using a variety of strategies, including advertising, distribution channels and bundling. These all allow insurers to compete for overfunded policyholders. This is discussed in Section 3.1.2.2.

3.1.2.2 Risk selection

As mentioned above, insurers compete heavily on risk selection, particularly through distribution channels and bundling. This behaviour is a direct consequence of the cross-subsidy imposed to promote the social goals of the Scheme.

As a result of the enforced maximum bonus, there exists a pool of overfunded policyholders who are priced at a level above what insurers would charge in a freely priced regime. Insurers compete for these policies, as they are profitable policies to write.

More specifically, insurers compete to try and write a disproportionate share of overfunded policyholders, while simultaneously attempting to avoid underfunded policyholders.

One way that insurers do this is by competing for access to distribution channels that provide a disproportionate share of overfunded policyholders. For example, new cars are

⁵⁵ The formula for determining the malus limit includes a "dampening factor" which is designed to ensure that an insurer lowering (raising) their base premium is not able to reduce (increase) their minimum (maximum) premium by the full amount.

less risky than old cars and insurers have targeted motor vehicle dealers as a distribution channel for new car CTP policies.

Alternative methods of risk selection include using bundling to provide lower bundled prices for overfunded policyholders, while avoiding underfunded policyholders who are less likely to purchase a particular bundle of insurance products. While this occurred outside the CTP Scheme, this reflects price competition. This results in an effective reduction in prices for some consumers that is not captured in the price data collected by the MAA.

Importantly, competition on risk selection results in higher overall marketing and acquisition costs within the Scheme. The act of avoiding underfunded policyholders merely results in a transfer of a bad risk to a rival insurer within the Scheme.

Therefore, the act of insurers competing for overfunded and underfunded policyholders using risk selection strategies increases the overall costs within the CTP Scheme, which potentially reduces affordability of premiums and scheme efficiency (as, *ceteris paribus*, premiums increase while the amounts paid out in claims do not).

Due to the way in which risk selection flows from the cross-subsidy in the Scheme, any attempt to address this issue may also impact the way in which the Scheme pursues its social objectives. Recommendations in this regard will represent a trade-off between efficiency through competition and the social goals of the Scheme.

3.1.2.3 Customer acquisition and distribution

Insurers in the Scheme compete on distribution and customer acquisition.⁵⁶ To some degree, this is fuelled by the process of risk selection described above.

Independently of the desire for risk selection, insurers still compete for customers through acquisition costs such as marketing and paying for distribution. However, the current restriction on the payment of commissions distorts competition within the Scheme.

Insurers, notably have different customer acquisition strategies, with acquisition costs in recent premium filings varying between 3% and 13% of premiums.⁵⁷ Direct insurers attempt to sell policies directly to consumers and target acquisition expenditure at the level of the consumer. Indirect insurers sell premiums through brokers and agents, and correspondingly target acquisition costs at intermediaries, rather than consumers.

The current Scheme however, imposes a limit on commissions of 5% of premium, which only affects indirect insurers. Given that there is no corresponding limit on acquisition expenses for direct insurers, this limit places indirect insurers at a disadvantage and creates an un-level playing field between insurers in the market. The Review believes that distribution models should be treated equally, and that the current limit on commissions, damages competition at the intensive margin.

⁵⁶ Acquisition costs in this section are inclusive of commissions.

⁵⁷ The Review notes that there are unequal outcomes in customer acquisition between insurers within the scheme. This by itself however, does not warrant regulatory intervention as long as other insurers are capable of replicating each other's strategies. The review expects that any "excessive" returns from a particular acquisition strategy are likely to be competed away over time, as other insurers replicate that strategy.

Furthermore, the limit on commissions creates an uneven playing field between indirect insurers, as some indirect insurers are able to circumvent the limit on commissions by offering discounts on other products within the suite of policies offered to brokers. This advantages indirect insurers with a broad category of products over indirect insurers with a narrower category of products. Stakeholders have also mentioned that some insurers pay incentives to intermediaries where commissions are set to reflect the risk rating of the policyholder rather than based on the work done by an intermediary.

The limit on commissions is also significant as it is likely to have an effect of deterring potential entrants from entering the CTP insurance market. As a result of the nature of these distribution models, a degree of incumbency is required to operate as a direct insurer. Direct insurers need to have an established brand and direct distribution channels (such as storefronts) which consumers can access. New entrants however, may potentially be more likely to use indirect distribution channels, if they lack an existing distribution network and are more likely to offer a narrow set of insurance products, particularly if they are not entering the CTP insurance market with an established brand in an adjacent insurance market.

There may be a case for considering the introduction of a cap of all acquisition costs. This cap may be expressed as a percentage of premium.

5. Abolish the current legislative limit on commissions as a share of acquisition costs, as it discriminates among acquisition channels, and consider introducing a cap on all acquisition costs.

6. Require insurers to report to the MAA all costs of intermediation.

The Review has opted to recommend the abolition of the limit on commissions, rather than opting to expand the limit to all acquisition costs due to the position of the CTP insurance market in the broader economy. This will require an amendment to Section 30 of the MACA.

For many insurers, CTP insurance is one line of insurance among a suite of products on offer. It is not realistic to expect a regulator, or external party, to distinguish acquisition costs for CTP insurance from the broader acquisition costs of an insurer, or even the operating costs of an insurer more generally. Attempts to do so are also likely to create an unlevel playing field, thereby hurting competition between firms within the CTP insurance market and deterring potential entrants from entering the market.

3.1.2.4 Bundling

Insurers also compete by offering discounts associated with product bundles. For example, NRMA offers a Loyalty Discount with greater discounts available as a person holds a larger number of eligible policies.

Bundling occurs in the insurance market more generally, and is often used to directly pass on savings associated with administrative costs and acquisition costs for additional policies.

Figure 3.1: NRMA Loyalty Discount

Years of relationship	1	2	3-4	5-7	8-9	10+
25+*	12.5%	15%	17.5%	20%	22.5%	25%
10-24	10%	12.5%	15%	17.5%	20%	22.5%
5-9	7.5%	10%	12.5%	15%	17.5%	20%
3-4	5%	7.5%	10%	12.5%	15%	17.5%
0-2	0%	5%	7.5%	10%	12.5%	15%

Source: NRMA

Bundling impacts competition in the CTP insurance market by allowing for targeted discounting, that potentially circumvents the bonus/malus restrictions, and by shifting competition into the level of multiple product bundles.

Bundling allows insurers potentially to circumvent the bonus/malus restrictions by offering discounts on overall bundles or other insurance products to a customer, in lieu of offering a discount on CTP insurance. This is done by allowing customers who currently hold other insurance policies with the same insurer to access discounts that are not captured in the listed price of CTP insurance.

For example, in Figure 3.1, NRMA considers CTP insurance an eligible policy for determining the level of a loyalty discount, but does not allow the loyalty discount to be applied to CTP insurance premiums.

This allows NRMA to maintain a CTP insurance sticker price within the bounds of the bonus/malus restrictions while also making the effective cost of CTP insurance for a customer lower than the sticker price. More specifically, a customer who already has other NRMA policies, would find the effective cost of a CTP insurance premium to be the sticker price of CTP insurance less any additional loyalty discount unlocked by signing up for CTP insurance.

Given that there are legitimate reasons for seeking to provide bundle discounts, it is difficult to determine the extent to which bundled pricing undermines the bonus/malus restrictions within the Scheme. Furthermore, given that the extent of a bundle discount varies by individual, it is difficult to provide any meaningful estimate of the scope of bundling on the CTP insurance market.

More generally, bundling also shifts competition in the insurance market towards the overall bundle rather than towards individual insurance products. In an insurance market

with significant bundling, consumers look for the lowest overall bundle price rather than the price on any individual insurance product.

It thus becomes important for regulators to be aware of and actively consider that insurers compete at a bundle level, rather than at a product level, and that a narrow focus on individual product pricing, e.g. by insisting that CTP cannot be recognised for loyalty discounts, may have consequences for adjacent insurance markets.

3.1.2.5 Other expense reduction

Insurers compete by trying to reduce expenses. Other than acquisition costs, customer acquisition and distribution costs, the main expenses of an insurer relate to claims handling expenses. Claims handling expenses vary between 2% and 6% of premiums.

There are other expenses, such as the cost of reinsurance, but these are generally less than 1% of premiums.

Insurers appear to have strong incentives to minimise expenses, and no evidence was provided to suggest that there were issues relating to competition along the dimension of expense reductions.

3.1.2.6 Dual licences

Insurers also compete through the use of dual licences. Both Allianz and Suncorp maintain two licences each within the Scheme with the other insurers operating on a single licence. Each licensee is required individually to comply with all of the regulations under the Scheme including the bonus/malus restrictions.

In the Scheme, dual licence holders use their different licences to pursue multiple business strategies simultaneously, while enjoying the benefits of lower costs through economies of scale and consolidation of expenses.

For example, the Allianz brand is used to target retail consumers, while CIC-Allianz is aimed primarily at businesses with fleets. The two licensees file different prices, which each comply with the price regulations under the Scheme and correspond to the mix of business that each one receives. On the cost side, the two licensees do share some fixed costs and achieve the benefits associated with returns to scale.

As a result, firms with dual licences are capable of offering prices in a single submarket across a wider range than a single licence, with one licensee having a higher maximum price (and higher minimum price) than the other licensee.

Dual licensees exploit the imperfect nature of price competition within the market while still complying with the pricing restrictions in the Scheme. In a perfectly competitive market, a dual licence strategy would not make sense, as consumers would simply select the insurer with the cheapest price.

Notably however, obtaining additional licences is an option available to all insurers under the Scheme. Furthermore, each licensee is required to comply with the pricing restrictions under the Scheme itself. Competing against an insurer with two licences is thus akin to

competing against two separate insurers pursuing different strategies, a state of affairs that is entirely within the contemplated boundaries of the Scheme.

3.1.2.7 Other dimensions of competition

Insurers in the Scheme also compete on reputation and benefits. These factors are discussed for completeness, even though stakeholders did not identify any problems with the way competition along these dimensions have played out.

Firms compete based on their reputations, particularly around customer service. Notably, this reputation is likely to be captured in related measures such as brand value. Reputations, particularly in consumer products, are also likely to be shared across product lines and are thus likely to be built on insurers' behaviours across all of their general insurance lines.

Insurers also compete on benefits. Although benefits are very similar across all insurers, some insurers do differentiate themselves by offering additional benefits. Notably, some insurers offer a set of at-fault driver cover with the benefit limits and exclusions under each policy differing slightly. While insurers do compete in this regard, at-fault cover does not appear to be a major driver of competitive behaviour between insurers.

3.2 Competition at the extensive margin

Competition at the extensive margin involves examining the ability of insurers to enter and exit the market. In this Section an historical analysis of entry into and exit from the market is first undertaken, followed by an analysis of barriers to entry.

3.2.1 A brief history of market entry and exit

Market entry is normally determined by a comparison of the profits associated with entering a market and the costs and risks associated with entering (and exiting) that market.

The absence of new entrants suggests that potential entrants (in this case, other personal lines insurance companies), either view the profits within the market as not likely to be excessive in the future or that barriers to entry are sufficiently high that potential entrants are deterred from entering the market. This would arise if the costs associated with entering the market were higher than the net present value of the stream of excessive profits that would be earned through entering the market.

When the current CTP insurance regime began, there were 14 CTP insurers in NSW. After a series of exits from the market, industry consolidation and the collapse of HIH, the industry stabilised at its current makeup. This reflected developments in the broader insurance industry at the time.

NSW CTP insurance is currently provided by five companies (NRMA, Suncorp, QBE, Allianz and Zurich). Suncorp and Allianz operate two licences each (AAMI and GIO and Allianz and CIC-Allianz respectively).

The box below provides a timeline of consolidation in the NSW CTP industry in the mid-1990s to early 2000s.

Consolidation in the NSW CTP industry

1996: 14 insurers in the market (AAMI, AMP, CIC, FAI, GIO, MMI, Mercantile Mutual, NRMA, NZI, QBE, Royal & Sun Alliance, VACC, Zurich, Commercial Union).

1997: Commercial Union leaves the market.

1997-1998: SGIO Insurance enters the market; AMP leaves the market.

1998-1999: Allianz buys MMI; Mercantile Mutual leaves the market. Fortis Insurance Limited (formerly VACC) exits the market.

1999-2000: NZI leaves the market.

2000-2001: Allianz buys CIC and FAI; Royal & Sun Alliance and SGIO leave the market.

2001: Suncorp (AAMI) buys GIO.

It is notable that there have been neither entries to nor exits from the market since 2001. Given that “excessive” profits ought to induce other insurers to enter the market, the next section examines barriers to entry that would deter potential entrants from entering the market.

3.2.2 Barriers to entry

In terms of market contestability, while there are barriers to entering the NSW CTP market, individually none of these barriers appears to be insurmountable. Collectively however, these barriers to entry may be significant. This conclusion is also consistent with the fact there have been no new entrants to the Scheme since 1997.

The likelihood of future entry into the market is determined by expectations of future profits, rather than historical profits. As such, if expectations of future profits are low, no new entrants will enter the Scheme. However, if future profit expectations are high and potential entrants continue to refuse to enter the market, there will be a case to consider policy options that reduce barriers to entry.

Given that the barriers to entry arise from varied sources, no single solution will resolve all entry issues. Rather, a collection of solutions could be required to address the different barriers to entry that exist.

This section examines various barriers to entry, which impose costs on potential entrants to the CTP market. Regulations that constitute barriers to entry are often pursued with other policy objectives in mind. When considering barriers to entry, it is important to compare the size and impact of a barrier to entry with its intended policy objective.

3.2.2.1 Need to write for all comers

Regulation requires that Scheme insurers must provide a price and write policies for all comers. This policy is intended to prevent insurers from avoiding the cross-subsidy by cherry picking portions of the market.

This requirement means that it may be more difficult for a new entrant looking to build its customer base. For example, a new entrant would not be able to choose to not write policies for certain customers as a way to build an attractive mix of business; instead it would likely be required to invest in sophisticated pricing and distribution strategies.

Stakeholders consulted indicated that given the relative inexperience of a new entrant in terms of distribution strategies, new entrants face a risk of having to write a disproportionate share of underfunded policyholders which can make their CTP business unprofitable for a sustained period of time. However, no statistical or actuarial evidence that new entrants would face a particular risk of writing a disproportionate share of underfunded policyholders was provided.

3.2.2.2 Premium regulation

A new entrant may also be deterred from entry as a result of an inability to enter a market through aggressive pricing. A traditional strategy for market entrants has been to enter a new market through aggressive pricing for a period of time, so as to build the scale necessary to operate competitively in the relevant market. This is not possible in the NSW CTP market as a result of the Fully Funded Premium test and, possibly, the relative price sensitivity of consumers.

Price sensitivity

All stakeholders consulted claimed that underfunded policyholders are the most price sensitive category of consumers. They reason that younger drivers are poorer risks than older drivers; brand loyalty builds up over time; and young drivers have lower incomes than older drivers; therefore, poor risks are more price sensitive.

Insurers provided an example where aggressive pricing by an insurer lead to a poor mix of business. Insurers specifically mentioned the experience of AAMI, which in 2005, was pricing new policies very aggressively and ultimately received a mix of business that was unfavourable.

If poorer risks have a more elastic demand curve, being an aggressive price leader in CTP insurance would lead to a disproportionate number of underfunded policyholders switching to the lowest-cost provider; which would negatively impact that insurer's mix of business. As mentioned earlier, this cross-subsidy disproportionately disadvantages new entrants seeking to build scale via entering a market with an aggressive pricing strategy.

Nevertheless, the Review has not been provided with statistical evidence showing that underfunded policyholders are in fact more price sensitive than other consumers or the degree to which different policyholders are price sensitive. Moreover, there appears to be a tension in this line of reasoning: if poorer risks are more price sensitive, it should be easy to remove an unfavourable mix of business by increasing the price they pay. The elastic gap mechanism would also push up the price for good risks, but as these less-risky policyholders

are less price responsive to price changes than the poor risks, the mix of business should improve. That is, if poor risks are relatively more sensitive to price cuts than good risks, then they should also be more sensitive to price increases.

3.2.2.3 Capital requirements

APRA is responsible for the prudential regulation and supervision of insurers. As mentioned in Section 2.5.2.5, APRA has specific capital requirements for general insurers. The capital requirement imposed on CTP insurance products (and other long tail products) is higher than that imposed for some other general insurance products. In a market where risk portfolios can take approximately 4 to 5 years to mature, the cost of holding additional capital is not insignificant. This requirement may be a larger burden for smaller insurers with more limited access to capital considering market entry.

Some stakeholders noted that the capital intensive nature of CTP insurance might not align with the business models of some of the recent foreign entrants into other Australian insurance markets. For example, it was suggested that these insurers might run business models based on capital ratios significantly lower than is required for CTP. Stakeholders identified several insurers that had recently entered the Australia comprehensive car insurance market as having this business model.

While this explains why some insurers, which have recently entered the Australian comprehensive car insurance market, may be deterred from entering the NSW CTP market, it does not adequately explain why the substantial number of other insurers with capital intensive insurance models or ready access to capital would also be deterred from entering the market.

3.2.2.4 Compliance costs

The NSW CTP market is subject to significant regulatory compliance costs. The intrusiveness of the regulation from pricing to claims management imposes significant operational costs on the insurer. High fixed costs related to regulatory compliance may deter market entrants as new players' abilities to dilute these costs are limited by their lack of scale.

Some stakeholders have suggested that the complexity of the regulation in NSW CTP may deter the entry of some foreign insurers otherwise not used to operating in a regulated product market.

While the total value of compliance costs has not been estimated, there is no evidence that the magnitude of these costs by themselves is sufficient to deter entry substantially.

3.2.2.5 Economies of scale

Some stakeholders have claimed that an insurer's portfolio of CTP policies needs to be of a sufficient scale to operate competitively in the CTP market.

Scale provides several key advantages.

First, a large customer base would provide an insurer with a richer dataset on which to run data analytics. Larger insurers have sophisticated data analytics capabilities which allow them to further segment the market by pricing risks at a more granular level.

To some extent, this issue is mitigated by access to the Personal Injury Register (PIR) maintained by the MAA. The PIR receives and validates monthly claims data and quarterly payment information from insurers. PIR claims data (on a de-identified basis) is available to insurers for analysis. However, stakeholders acknowledged that the data available through the PIR is relatively narrow in scope compared to what would be used by insurers to price risk.

Recently, the MAA gained access to additional policy level data. If this can be made to incumbents and potential new entrants, this would likely ameliorate the impact of information asymmetries on entry.

Second, given the independent nature of the risks, scale reduces the overall risk associated with the book that an insurer writes in CTP.

Third, scale provides a larger base of customers over which fixed costs can be apportioned. Given the significant fixed costs in CTP insurance associated with actuarial costs, regulatory compliance costs, and the costs of building targeted distribution channels and claims management expertise, having sufficient scale is necessary for an insurer to achieve a viable cost-per-policy (Konstantinidis et al., 2007).

As a result, potential entrants may be deterred from entering the market place as a result of uncertainty around their ability to achieve sufficient scale to be viable.

3.2.2.6 Economies of scope

There are significant advantages for insurers in the NSW CTP market associated with being able to offer a broad suite of products. All of the insurers see NSW CTP as one product in a portfolio of insurance products that they offer customers.

Having a suite of products to offer allows insurers to:

- use their general insurance customer base to cross-sell CTP insurance and vice versa;
- offer bundling discounts on other insurance products to customers with multiple policies;
- offer a complete suite of products so that customers can benefit from the convenience of a “one-stop shop” (e.g. farm insurance packages); and
- develop more sophisticated data analytics capabilities, by using claims experience data in other products to infer risk in CTP.

Some stakeholders have also claimed that the cap on commissions paid to intermediaries has led to some insurers providing remuneration through other means, including by offering these intermediaries discounts on other insurance products. For example, an insurer looking to enter into a distribution arrangement with an intermediary, such as a motor vehicle dealer, would be able to offer a more attractive overall proposition if it provided discounts on a broader suite of insurance products for the dealership.

Once again, this barrier to entry would deter potential entrants from selling CTP insurance as a standalone product, but should not have an impact on insurers who currently operate in other insurance markets.

3.2.2.7 Need for specialist skills

Generally, stakeholders identified the need for specialist skills in three areas: (i) underwriting; (ii) distribution; and (iii) claims management.

Insurers noted that while the underwriting process was not unique for CTP, it is more important to set the right price for the right risk in a long-tailed insurance business such as CTP as claims take approximately four to five years on average to be finalised. Stakeholders also suggested that this may be particularly important for new entrants, who would not have an appropriately diversified mix of business in their existing book to be able to sustain picking up poorer risks due to mispricing. As noted in Section 3.2.2.5, some of the larger insurers with sophisticated data analytics capabilities, consisting of both people and systems, may be able to price risks at a more granular level.

The use of specific distribution channels is an important part of insurers' strategies for risk selection. It was suggested that some insurers might be more effective in the use of certain distribution channels. The skills and experience of their staff contribute to their relative proficiency.

Some insurers suggested that the need for specialist skills was potentially greater for CTP compared to other insurance products. For example, claims management staff need to be able to deal with claimants with potentially complex medical issues as well as with medical professionals. It was also noted that the prevalence of litigated claims required staff to be able to deal with legal professionals. On the other hand, one stakeholder noted that given CTP is a long-tail product, there is less urgency for a new entrant to have a fully developed claims management capability from the outset. Furthermore, new entrants can outsource some of their claims management if necessary.

Most insurers acknowledged that it was possible for new entrants to hire skilled staff rather than train new staff, such as by attracting them from incumbent insurers. As such, it seems that this need for specialist skills is not insurmountable.

3.2.2.8 Long-tail nature of CTP

Some incumbent insurers have claimed that the long-tail nature of CTP insurance may not be compatible with the business models of some of the new insurers, for example Youi and Budget Direct, which have recently entered other Australian insurance markets but have not entered the CTP insurance market.

Potential new entrants, particularly those who do not currently provide a long-tail insurance product, could be deterred by the additional risks related to the longer duration of CTP as it may not align with their investment preferences, since the CTP market requires that their capital be put at risk and profit not be realised for a longer period of time. However, given an insurer has the option to divest its book, it seems that there is flexibility for an insurer to exit the market should it need to unlock the capital invested in CTP.

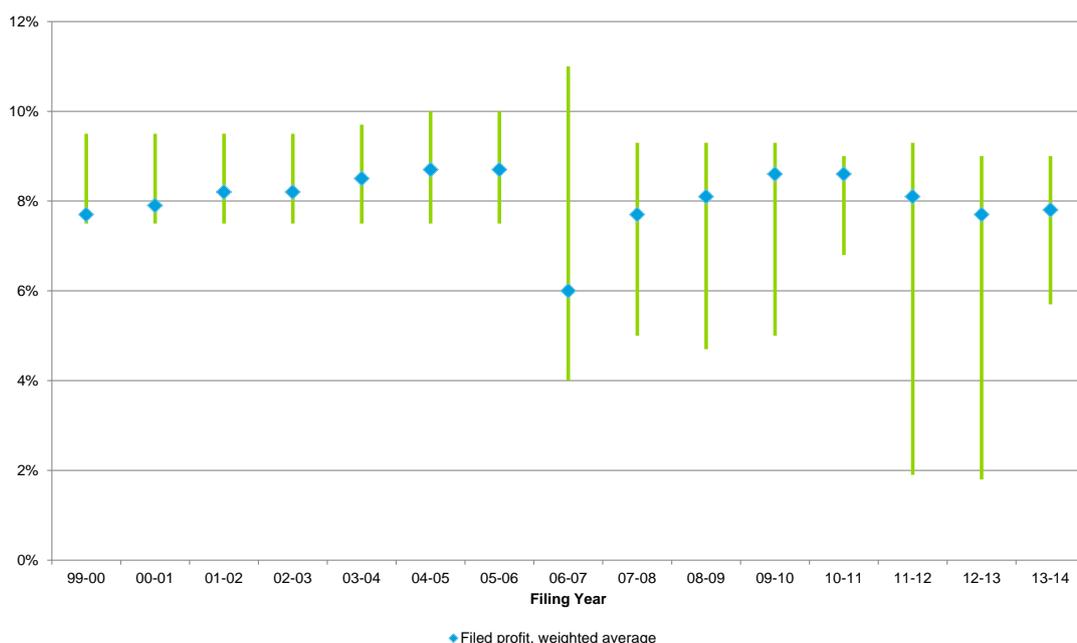
The long-tail nature of the Scheme also implies that potential entrants are unlikely to be persuaded to enter a market by a temporary period of profits. However, given the sustained period of high profits over the last decade, this line of reasoning appears to be less relevant to the CTP market today.

3.3 Differential profits

While Section 2.4 examines the profit margin aggregated at the Scheme level, this approach hides significant differences between individual insurers. The Review finds that profits are spread unevenly, but that this does not indicate that the Scheme is uncompetitive. The Review believes that diversity in profitability of itself is consistent with a competitive insurance market.

The individual licensees' profit levels have been higher or lower than the Scheme average, sometimes significantly. While data are not publicly available for the realised profits for individual insurers, there are significant differences in their filed profits as seen in Chart 3.2. The range between the highest level of filed profit and the lowest level has varied between 1999-00 and 2013-14, from a low of 2.0 percentage points to a high of 7.4 percentage points.

Chart 3.2: Insurer filed profit margins



Note: Weighted average of market shares for preceding 4 quarters.

Source: MAA Annual Reports

The differences in profitability between insurers are to be expected given that different insurers pursue different business strategies and thus experience different outcomes. The different levels of profitability between individual licensees are largely driven by differences in their mixes of business, which is, to a large extent, determined by their approach to pricing and risk selection (discussed further in Section 3.1.2.2). An insurer's mix of business determines its risk premium, which is the total estimated claims cost an insurer must fund through gross written premiums. For the same level of premium, keeping all else equal, a higher claims cost will mean a lower profit margin.

Data by individual insurers on their mix of business also show significant differences. While prices are regulated in the NSW CTP market insurers are able to adjust the premiums on an individual policy depending on its risk characteristics provided they are within the range set by the MAA's PDG. These restrictions effectively create a subset of policies which can be priced in accordance to their risk rating. The extent to which an insurer holds a large proportion of policies which cannot be risk priced will have a significant impact on their profits. The Review analysed data on the proportion of policies at various price levels for each insurer and found that the proportions of their portfolios that are non-risk priced range from 20% to 90%.

These differences are also observable in the cost components of each individual insurer's premium filings. For example, in the filings for one underwriting year, the company risk premium as a share of the filed premium has ranged from around 75% to 85%. Insofar as acquisition costs and claims handling expenses contribute to the dispersion in profits, individual insurers' rate filings revealed that acquisition costs ranged between 3% and 13% of premiums, and claims handling expenses ranged between 2% and 6% of premiums.

The difference in business mix has resulted in insurers having markedly different profitability outcomes. Insurers who succeed therefore often have strategies that optimise risk selection, using selected distribution channels or price competition, such as by providing bundling discounts.

Nevertheless, the Review believes that by itself, this does not constitute a systemic problem in relation to "excessive" profits, as insurers are not prevented from copying the more successful strategies of other insurers. While some insurers have been more successful than others at attracting lower risk portfolios, there is evidence that others have been able to replicate these strategies with varying degrees of success. As this process continues, we expect that any "excessive" profits earned by an individual insurer will be competed away.

However, the Review does believe that risk selection is an undesirable form of competition that seeks to game or exploit the structure of the cross-subsidy rather than improving the overall outcomes under the Scheme. Thus the Review aims to shift the focus away from the absence or presence of competition and its impact on excessive profits, towards changes in Scheme design that channel competitive pressures to generate outcomes more consistent with the objectives of the Scheme.

3.4 Recommendations to support competition

This section discusses recommendations to support competition within the Scheme. Each recommendation is described in greater detail within the sub-sections. The impact of each recommendation on the market dynamics identified in Section 3.1.2 and the barriers to entry discussed in Section 3.2.2 is then discussed.

The Review understands that the implementation of a risk pooling mechanism will both take time and require additional work. A more immediate method to improve competition and reduce barriers to entry would be to abolish pricing restrictions on fleet vehicles.

7. Remove pricing restrictions on fleet vehicles.

8. Consider removing pricing restrictions on commercial vehicles.

There are three key types of vehicles: privately owned, business and commercial. Cross-subsidies currently apply to vehicles including those that are in commercial use. First, it is not clear that the intent of the affordability outcome was for it to apply to businesses. Second, premium regulation is shielding businesses from the price signal associated with the risk of injuring third parties. Third, fleet owners, unlike individual consumers, have significant bargaining power when purchasing CTP insurance.

Permitting free pricing of fleet vehicles allows for the expansion of risk pricing without compromising the affordability of CTP for personal-use vehicles.

The Review recognises that defining commercial-use or fleet vehicles is a complex task. The Review also acknowledges that such a move may adversely affect high-risk drivers (such as those under the age of 25) who currently operate motor vehicles in a commercial setting and raise equity concerns. Furthermore, free pricing in fleet vehicles may impact insurance premiums throughout the Scheme, as there may be a cross-subsidy between fleet vehicles and the rest of the vehicles in the Scheme. Moving towards free pricing in fleet vehicles will therefore require consultation to ascertain the impact on individuals.

This reform could affect a sizeable share of the market, as non-motor cars, such as goods vehicles, hire cars, taxis (i.e. the non-Class 1 vehicles in the MAA's Schedule of Relativities), comprise over 20% of the market. There is also a portion of the motor cars class of vehicles (Class 1) which are also used for business purposes or partially used for business purposes. Further consideration of this proposal would need to clarify the scope of the term commercial use or fleet vehicle.

Importantly, introducing free pricing in the fleet vehicle market will unlock some of the benefits associated with free pricing mentioned in Section 2.7.1.2, specifically by:

- improving the incentive for insurers to compete on price and risk identification;
- removing the unproductive competition on risk selection;
- removing the concerns around bundling;
- removing any advantage or disadvantage under the cross-subsidy achieved through dual licensing; and
- simplifying the premium filing process and premium regulation.

4 Regulation

This section explores whether improvements can be made to certain aspects of the regulatory framework.

4.1 Principles for government regulation

As a starting point, unless there is market failure, with significant implications for the efficient and effective allocation of resources, there would not be a role for government intervention.

In order to make an assessment of the regulatory framework, it is important first to establish the principles behind government intervention. The Financial System Inquiry Interim Report (2014) outlined general principles of government intervention; that it should:

- be outcome-focused, reflecting the desired policy outcomes and not so prescriptive that it simply encourages a compliance culture;
- be forward-looking so it is flexible to change, which lends itself to being principles-based rather than rules-based;
- be cost-effective, that is, it should be imposed only if its benefits outweigh its costs;
- be competitively/technologically neutral;
- be targeted and proportionate, so it minimises adverse effects on entities for which it is not needed and be as simple as possible;
- take a system-wide approach, so the interdependence, interconnectivity and feedback in the system are taken into account;
- be transparent, so it is consistent, predictable and obvious to those being regulated; and
- hold the regulator to a high level of accountability, by ensuring they have a clear mandate and operate independently.

Sometimes these principles may be in conflict, and in many cases the appropriate outcome may be for the Government to allow market forces to operate. However, should government intervention be deemed necessary, these principles provide a basis for considering the approach to regulation.

4.2 The regulatory framework

Profits are a component of premiums; the extent to which the MAA restricts premium setting will have an impact on profits. It is important to establish at the outset that the regulatory framework of the NSW CTP Scheme focuses on regulation of Green Slip premiums. However, the MAA does not set premiums. These are competitively determined by the Scheme's insurers within the pricing restrictions set by the regulator. The Scheme as it was introduced by the MACA in 1999 was designed with a view that market competition and not regulation would drive effective pricing. Section 5(1)(c) of the MACA outlines that one object of the Act is:

“to promote competition in the setting of premiums for third-party policies, and to provide the Authority with a prudential role to ensure against market failure”

Furthermore, it should be recognised that the MAA does not directly regulate insurer profits, nor should it. Profit regulation distorts incentives for insurers to operate more efficiently, which would be at odds with the goals of affordability. The MAA acknowledged this concern in its consultation with the Independent Review. There also exists a tension between regulation of profits and retaining/attracting insurers in the CTP market.

However, the MACA recognises that, given the compulsory nature of the CTP insurance, insurers have an obligation to account for their profit margins. Section 5(2)(d) of the MACA acknowledges *“that insurers, as receivers of public money that is compulsorily levied, should account for their profit margins, and their records should be available to the Authority to ensure that accountability.”*

Given the MAA’s role in ensuring the accountability of insurers, in relation to the persistent gap between filed and realised profits, the NSW Bar Association raised questions about the MAA’s effectiveness. In reference to the failure of the Scheme’s insurers to adjust to the decline in claims frequency between 2000 and 2007, it posed the question:

“Why wasn’t the MAA ever able to catch up with the developing trend and force insurers to adjust to it rather than allowing them to continue to make super profits each year by over-estimating the number of accidents that would in fact occur?”

The NSW Bar Association also posed this question with regards to inability of the MAA to address the recent over-estimation of superimposed inflation in a timely way.

Against this background, the Review considers three aspects of the regulatory framework that likely affected the MAA’s ability to respond.

1. the institutional capacity of the MAA;
1. the MAA’s powers as provided in legislation; and
2. the MAA’s Premium Determination Guidelines (PDG) and Claims Handling Guidelines (CHG) in encouraging appropriate behaviour by industry.

4.2.1 The institutional capacity of the MAA

Assuming that the regulatory framework of the NSW CTP Scheme is well designed, it must be translated into practice, and this relies on the effectiveness of the regulator. In turn, this effectiveness will depend on the regulator having a good understanding of insurers’ premiums, including the individual components of premiums, such as profit margins.

Under the MACA, the MAA has six weeks to consider an insurer’s rate filings, which are large and complex documents. The MAA currently has powers in legislation to require information to be provided by insurers. Section 24 of the MACA provides for the MAA to specify in its PDG any additional information required to accompany its premium filings. The Independent Review considers that there is scope to improve the information available to the MAA for making its premium filing determinations.

The information collected through the premium filings has been related to prospective (or filed) profit margins. There has not been adequate information to calculate a credible estimate of retrospective (or realised) profit margins. Additional disclosure on retrospective profit margins may assist the MAA to understand the credibility of insurers' previous filing assumptions. Improving the MAA's understanding of insurers' premium filing assumptions will help the MAA make more definitive assessments about the reasonableness of the assumptions, and place it in a better position to take action. Along these lines, the Review recommends measures to increase disclosure to help improve the MAA's understanding of all the components of insurers' CTP premiums that affect their profit results.

The MAA currently estimates realised profits for CTP insurance policies by underwriting year based on movements in claim reserves. Requiring reports from insurers of their retrospective profits on an annual basis, will help the MAA to understand better whether there are emerging patterns that require further attention. The Review understands that this issue has been considered in the past but did not result in additional reporting requirements. The implementation design of additional reporting requirements will need to consider the cost implications for insurers.

These additional requirements would be complemented by processes to improve communication and engagement between the regulator and insurers. The Independent Review understands that over the last couple of years the MAA has been initiating meetings with individual insurers to discuss their rate filing assumptions prior to formal submission. These meetings allow the MAA to seek further information, as well as share its views, set expectations, and agree on any necessary refinements to insurers' filings. This is a positive step towards greater transparency and communication between the MAA and insurers and should be further encouraged.

4.2.2 The MAA's powers as provided in legislation

The MAA having sufficient information to make an assessment about insurers' filings should be the starting point when considering intervention. Should it be deemed necessary to intervene, it should have adequate powers to do so. The NSW Bar Association noted in its submission to the Independent Review:

"For insurers to continue making super profits, the regulator has to permit the insurer to keep filing premiums based on the expectation that there will be no further decline in accident numbers, contrary to an established trend."

Similarly, the NSW Bar Association also suggested that the MAA has been one step behind the recent trend of benign superimposed inflation and that this is allowing insurers to continue to make excessive profits.

With this in mind, the Independent Review has considered whether the reasons that the MAA may use to reject rate filings may be a constraint on its ability to act. At present, the Section 27(1) of the MACA allows the MAA to reject insurers' premium filings if it is of the opinion that it is: not fully funded; excessive; does not conform to the PDG; or commissions paid to intermediaries exceed a regulatory limit. The Independent Review considers that the ambiguity around the excessive premiums criteria is likely to provide the MAA sufficient scope to reject a filing. Furthermore, the MAA has demonstrated on occasions over the past decade that it is willing and able to reject filings.

More broadly, the current legislation places the onus on the MAA to make a case to reject filings. In other insurance markets, such as health insurance, the onus is on the insurer to prove to the regulator why their filing should be approved, although these markets are typically more heavily price regulated. While such a distinction may be subtle, the Independent Review considers that a shift in the basis of the determination may influence filing behaviour. Placing the onus on insurers to seek approval could result in higher quality and more comprehensive information accompanying insurers' rate filings, and more proactive engagement by the insurer.

However, in considering a shift in the basis of the determination, it will be critical to implement this with a view towards transparency. The legislative criteria for approval must ensure consistent and predictable application by the regulator. Furthermore, it is not suggested that an approval determination would be applied in a materially different way from a rejection determination. That is, this change does not signal that that MAA is now implementing a cap on premiums.

4.2.3 MAA's Published Guidelines

4.2.3.1 Premium Determination Guidelines

Between early 2013 and mid-2014, the MAA worked with insurers to review the operation of the premium filing process.⁵⁸ The aim of the review was to:

- create a more robust filing process from both the insurer and MAA perspectives;
- create a more transparent process for filings, including a process to avoid unexpected findings and results; and
- clarify and communicate the MAA's expectations about insurers' rate filings submissions.

The MAA released revised PDG on 30 June 2014, which came into effect from 1 November 2014, although these have been in place informally since trials began in late 2012. The new guidelines have increased the transparency of the filings. For instance, insurers have added disclosure requirements around claims and expenses experience, superimposed inflation, and other assumptions. The new PDG also stipulate that each assumption for claims costs as well as expenses must be determined on a central estimate basis and not contain any implicit or explicit margins. This additional transparency provides MAA with more information to assess the reasonableness of filed premiums.

The MAA asserts these new PDG mean insurers can expect a smoother and more robust filing process with clearer guidance from the MAA. Some insurers have indicated the additional reporting is onerous and has yet to deliver shorter turnaround times by the MAA. As a means to address the burden of the PDG requirements, insurers have suggested that the MAA should take a more principles-based approach to regulation rather than being too prescriptive. A principles-based approach means that the MAA should be outcome-focused rather than compliance-focused. It does not preclude the regulator from exercising appropriate supervisory oversight through regular communication and close engagement with insurers, which remains an important part of the regulatory toolkit.

⁵⁸ MAA (2014), Review of MAA Premiums Determination Guidelines (PDG), https://www.maa.nsw.gov.au/__data/assets/pdf_file/0012/13044/PDG_Explanatory_Note_2014.pdf

The Scheme Actuary indicated that the new PDG appear to be bringing additional transparency to the filing process. However, it is not yet clear if the effectiveness of the new filing process is due to the PDG or more effective application by the MAA upon advice by the Scheme Actuary. It will be important for the MAA to continue monitoring the outcomes of this change to determine whether increased requirements have improved the transparency of insurer filings.

4.2.3.2 Claims Handling Guidelines

The Review has been asked to investigate whether insurers are gaining excessive profits by reducing claims or other expenses too much. The Claims Handling Guidelines establish general principles in relation to the management of claims, including that insurers should:

- endeavour to provide a claimant or injured person with relevant factual information in the insurer's possession that will promote a just and expeditious resolution of the claim; and
- ensure that investigators and legal practitioners acting on its behalf, medico-legal practitioners and staff employed or contracted by the insurer operate in a professional and ethical manner.

Insurers' claims handling expenses have been filed at a range of between 2% to 6% of premiums. It is difficult to disentangle the source of the differences in claims handling expenses, whether it is due to claims handling efficiency or deliberately aggressive claims management processes. In either case, profits will be higher but distinguishing 'aggressive' from 'efficient' claims-management behaviour is difficult.⁵⁹

Some stakeholders said that insurers use aggressive claims management to reduce payments to claimants.

The MAA has recently conducted focus groups to shed light on whether claimants feel they have been subject to aggressive claims management. Preliminary findings suggest that some claimants, in particular those with major claims, have found *"the process of accessing the Scheme being as damaging, or more damaging, than the motor vehicle accident itself."* However, the Review has not been provided with evidence to suggest this is a significant factor affecting insurer profits. While these results indicate that there may be broader customer experience issues within the Scheme, this is outside the scope of the Review. Further work will be required by the MAA to determine whether this is a systemic issue.

On this issue, the NSW Bar Association submission to the Review noted that:

"There is clear evidence that the unrepresented do not claim all the available heads of damage and don't know their proper entitlement to damages. They accept low offers from insurers out of ignorance."

On the other hand, stakeholders said there are other reasons that claimants may not receive the full benefit to which they are entitled, for example, where incomplete or incorrect information is used to make the initial assessment, or where the full extent of

⁵⁹ The Review is aware that the MAA has recently conducted focus groups which could shed light on whether claimants feel they have been subject to aggressive claims management; these results were not available at the time of drafting.

injuries is not apparent at the time of assessment. Nonetheless, it is for such circumstances that the system provides claimants access to dispute resolution through Claims Assessment and Resolution Service (CARS) and recourse through legal or court proceedings. The right to legal representation is part of both these processes, and there is evidence of an increase in legal representation of NSW CTP claims.⁶⁰ On average, the size of legally represented claims is larger than for non-legally represented claims.⁶¹

That said, the extent that aggressive claims management by insurers encourages greater use of legal representation by claimants will increase friction costs (e.g. fees paid to lawyers) and the average size of claims within the Scheme. Should insurers be able to reduce these costs compared to their premium filing assumptions, they would earn higher profits. Further analysis of the retrospective profit reports from individual insurers could help the MAA determine the extent to which there may be a systemic issue.

The question of whether legally-represented claimants achieve better outcomes on an after-fees basis, compared to a scenario where they were not legally represented, is outside the terms of reference of the Review.

A further concern has been raised by some insurers around the CARS process, such as observed inconsistency between the sizes of claim payouts for similar cases. Such inconsistency leads to uncertainty and raises the return required by insurers to participate in the Scheme. Another safety net would be a move to defined benefits, but as noted in Section 2.3 this has broader implications. However, an assessment of the CARS process is outside the scope of this Review. A separate assessment should be conducted to verify these claims prior to determining whether action is necessary.

4.3 Additional regulatory powers

Some stakeholders have suggested implementing a number of additional regulatory tools which directly target insurers' profits, including:

- risk equalisation involving the ex-post reallocation of claims costs between insurers, from those with better risks to those with poorer risks;
- 'claw back' of insurers' profits in certain circumstances; and
- imposing a levy on 'excessive' profits.

Generally, the Independent Review cautions that focusing regulatory pressure on the most profitable insurers introduces perverse incentives. It would blunt insurers' incentives to achieve high profits, which in turn dampens their competitive instincts. They will have less incentive to innovate, lower costs and keep customers satisfied when higher profits attract a higher level of scrutiny from the regulator. In the extreme, it may lead to insurers exiting the Scheme, which would have an adverse impact on competition.

⁶⁰ Analysis by the Scheme Actuary finds that the number of claims for minor severity injuries that involve legal representation has increased by nearly 80% between 2008 and 2014, to be approximately 1.5 times the claim numbers for minor severity injuries without legal representation.

⁶¹ While analysis by the Scheme Actuary finds that the average claim size for minor severity injuries with legal representation is close to eight times that for minor severity injuries without legal representation, it is not clear whether legal representation leads to higher claims payouts or whether claimants with more serious minor injuries tend to seek legal representation.

In addition to the distortion of incentives, the practical implementation of these proposals will also have broader policy implications. For example, implementing 'claw back' of profit from insurers will also require a mechanism for government to fund below target profits or losses. The Government will need to consider whether it is willing to accept the market risk associated with this Scheme, such as when the industry is making below target profits.

Over the past two decades, regulatory approaches in all other spheres of the economy within Australia have either removed or minimised regulation targeting individual business ex-post profits precisely for this reason. Economic regulators such as the ACCC⁶² at the Federal level and economic regulators in New South Wales⁶³, Queensland⁶⁴, South Australia⁶⁵, and Western Australia⁶⁶ along with wider research in public regulation⁶⁷ all exercise caution in the application of ex-post profit regulation due to its incentive effects.

More broadly, the principles for government intervention discussed in Section 4.1 should be the starting point for considering additional regulation. In particular, any regulatory proposal should be assessed against its cost-effectiveness, including the regulatory burden on industry.

4.3.1 Forward-looking regulation

In line with the general principles for government intervention, it is important for any new regulatory framework to be adaptive to changes brought about by the use of new technologies. The MAA will need to work with industry to ensure that it understands the implications of new developments.

Technology has developed which allows driver behaviour to be captured directly via an on-board device or mobile phone app (telematics). Such technology would allow premiums to be determined based on actual driving behaviour rather than by reference to proxies. Policyholders who drive less, for instance, would be charged a lower CTP premium than those who drive more often, all else being equal. Such technology would potentially also capture details on vehicle accidents and help expedite the claims process, by providing evidence to determine fault. We believe that such a technology-driven approach is an option for the MAA to consider.

⁶² Willett, Ed (2004) Energy Market Access and Regulation

⁶³ Cambridge Economic Policy Associates Ltd. (2009) Review of IPART's Approach to Incentive Based Regulation

⁶⁴ Queensland Competition Authority (2014) Incentive Regulation: Theory and Practice

⁶⁵ Electricity Pricing Order as made by the Treasurer, pursuant to s.35B of the Electricity Act 1996, on 11 October 1999

⁶⁶ Economic Regulation Authority Western Australia (2015) Estimating the return on debt

⁶⁷ Albon, Robert (2000) Incentive regulation, benchmarking and utility performance; Vogelsang, Ingo (2001) A 20-Year Perspective on Incentive Regulation for Public Utilities; Biggar, D. (2011) Public utility regulation in Australia: Where have we got to? Where should we be going?

4.4 Recommendations to strengthen the regulatory framework

4.4.1 To improve transparency and accountability

The following recommendations strengthen the regulatory framework by increasing the transparency of premium filings to the MAA and strengthening insurers' accountability for their filings. In doing so, increased transparency should help the MAA better understand the link between the required return on capital and profit margins, and to better assess the reasonableness of filed premiums. Steps to strengthen insurers' accountability for their premium filings and of the gap between filed and actual profit margins are expected to help guard against any insurer bias towards conservatism, intended or otherwise.

The Review proposes that insurers be required to submit a retrospective analysis of their profit margins on CTP insurance each year. As noted in Section 2.5.2.1, insurers have suggested that there has been a significant lag in recognising changes in trends. Requiring insurers to undertake a mandatory review of actual profit performance on an annual basis is expected to achieve two goals:

- reinforce the operation of the actuarial control cycle by focusing insurers' attention on emerging trends on an annual basis; and
- provide the MAA with a more timely and reliable basis to make its assessments of premiums, including to help them understand better whether there are emerging patterns requiring further attention.

Nonetheless, there will be complexities in implementing retrospective profit reporting, such as the need to align policies priced on an underwriting year basis and claims experience collected on an accident year basis. These issues will represent transition costs for insurers. On the other hand, the MAA will need to ensure that it has the systems in place to collect, store and analyse these new data and provide relevant data to insurers.

9. Require CTP insurers to prepare and submit annually to the MAA a retrospective analysis of their profit margins over time, to compare realised profits with premium filings and business plans lodged in prior years.

The Review recommends that the MAA should require insurers to include a sensitivity analysis of their key rate filing assumptions. Ideally, a set of pre-defined scenarios should be modelled, and should include, at a minimum, the impact of higher and lower claims frequencies, investment returns and superimposed inflation. By providing the MAA with clarity about the significance of each filing assumption, the MAA will be able to direct its focus to testing the reasonableness of the assumptions which could have the largest impact on profit margins. Using standardised scenarios will support comparability between insurers, and allow the MAA to identify whether there may be trends across the industry.

10. Require CTP insurers to include a standard sensitivity analysis of the key assumptions in their premium filings.

In addition to encouraging more timely consideration of Scheme trends, the Review considers that a number of regulatory factors may be contributing to conservative bias among insurers, including the Fully Funded Premium test and the actuarial role in the filing process. The Review makes recommendations on these factors with the aim to further address conservatism in premium filings to narrow the gap between filed and realised profits.

As discussed in Section 2.5.2.2, the Fully Funded Premium test may be a potential source of conservatism. The Review considers that the prudential objective of the Fully Funded Premium test may no longer be relevant given APRA's role as the prudential regulator of insurers. There is a clear perception that the focus on adequacy may take precedence over the focus on affordability. The Review recommends amending the MACA to remove the requirement for premiums to be fully funded.

11. Abolish the Fully Funded Premium test.

Each CTP insurer is currently required by the MAA to engage an independent Certifying Actuary to provide an actuarial certification that the insurer's proposed premium meets the Fully Funded Premium test in Section 27(8) of the MACA. If the Fully Funded Premium test is abolished in accordance with Recommendation 18, then the Certifying Actuary in its current form will no longer be required, or its role will need to be reconsidered.

As outlined in Section 2.5.2.3, the Certifying Actuary role was designed to address a premium adequacy issue. However, the issue that has arisen over the last 14 years is the divergence between filed and realised profits. Discussions with the Certifying Actuaries and other members of the actuarial profession have not indicated any generally acceptable way to revise the actuarial certification role to address the gap between filed and ultimate profits.

12. Abolish the role of the Certifying Actuary, which certifies that proposed premiums satisfy the Fully Funded Premium test.

In addition to assisting the MAA with assessing insurers' rate filings, increasing transparency and accountability should also help to mitigate tendencies towards conservatism in filing assumptions.

While the above recommendations amend the regulatory requirements for premium filings, this is only part of the response. An effective regulatory framework will be contingent on effective supervision by the MAA. The Review understands that the MAA is initiating meetings with individual insurers to discuss their rate filing assumptions prior to formal submission. These meetings allow the MAA to seek further information, as well as share its views, set expectations, and agree on any necessary refinements to insurers' filings.

Along these lines, the Review encourages the MAA to make greater use of meetings with individual insurers to discuss their rate filing assumptions prior to formal submission. In

particular, the Review recommends that the Scheme Actuary plays a more direct advisory role in these interactions. In this context, the Scheme Actuary should be tasked with the role of advising the MAA on whether premiums are excessive based on MAA guidelines. Refocusing and increasing the frequency of communication between the regulator and insurers will also complement the objective of improving transparency and accountability within the Scheme.

13. The MAA should, upon advice from the Scheme Actuary, work with insurers in closing the gap between filed and ultimate profits.

Nonetheless, the current discussions around the appropriate level of premiums have tended to be technical discussions on pricing assumptions between actuaries. While this is important it must be complemented by a commercial discussion between the MAA and the senior management of insurers. A small variance around an actuary's estimates is not unreasonable, yet it may potentially lead to a significant change in the level of premiums from the consumer's perspective. The MAA has suggested that the lack of commercial aspect to the discussions has made the MAA's assessment of the appropriateness of premiums relatively difficult.

14. Require the senior management of insurers to have high level commercial discussions with the MAA about the appropriateness of premiums.

Along the above lines, insurers' senior management should also play an explicit role in addressing the issue of conservatism. The Review notes that the current CEO certificate involves the CEO's acknowledgement of the actuarial advice being provided, the appropriateness of the underlying data, technical and commercial assumptions, appropriateness of the filing to the insurer's financial condition and strategy, compliance with the CTP insurance licence and the MAA's PDG. However, it does not explicitly address whether there is any conservatism in the premium filings. The Review recommends making this a distinct requirement.

15. Modify the Premium Determination Guidelines (PDG) to require insurers to include in their CEO certificates a statement certifying that the premium filings are on a central estimate basis with no conservatism.

The above recommendations build upon the changes implemented by the updated November 2014 PDG, which aimed to:

- create a more robust filing process from both the insurer and MAA perspectives;
- create a more transparent process for filings, including a process to avoid unexpected findings and results; and
- clarify and communicate the MAA's expectations about insurers' rate filings submissions.

The new PDG have increased the transparency of the filings. For instance, insurers have added disclosure around claims and expenses experience, superimposed inflation, and other assumptions.

It is still too early to conclude about the effectiveness of the new filing process. The MAA should continue to monitor the outcomes of this change to determine whether increased transparency requirements have improved the quality of insurer filings.

16. Require the MAA to continue to monitor the impacts of the new PDG because an assessment of their effectiveness will take time.

4.4.2 To strengthen the MAA's capacity to assess premium filings

In order to regulate premiums, the MAA needs to be able to decide objectively if insurers' premium filings are reasonable. In the Review's judgment, a reasonable profit margin is a level that is based on what ex-ante returns the providers of capital demand given the risks in CTP. This definition is recognised in Section 27(8)(c) of the MACA. The Review recommends a process to come to agreement on a reasonable level of profits.

The Review has provided a framework for assessing a robust benchmark for the return on capital in Section 2.6. With the additional information on capital allocation in the new PDG, the MAA, with the assistance of the Scheme Actuary should be more able to better relate return on capital targets and profit margins for insurers writing CTP insurance.

Based on discussions with stakeholders and stockbroker estimates of historical returns on equity for the general insurance industry, the long-run post-tax return on shareholder capital has been around 15% per annum.

However, there are a number of specific CTP Scheme design features that lead to greater uncertainty of insurers' revenues compared to other general insurance product lines; this suggests that expected returns may be higher. The MAA should begin the process of stakeholder consultation, including with the broader public, to determine what a suitable return should be for CTP. These should be balanced against the Government's expectations of what it is willing to accept as reasonable for a Scheme that it considers as meeting a social need and has been made compulsory.

17. The MAA, assisted by the Scheme Actuary, should develop a robust benchmark for a reasonable profit margin, which reflects the return required by providers of capital. This would involve the MAA requesting public submissions on the appropriate level of return on capital for CTP insurers to be used as the basis for determining a reasonable profit margin.

However, this process for agreeing a reasonable return on capital for the industry is likely to be involved and may take an extended period of time. More immediately, the MAA could adopt, as an interim measure, a profit margin benchmark that is equivalent to the historical long-run average post-tax return on capital in the industry of approximately 15%.⁶⁸ This also accords with the hurdle rates for investment decisions as cited in Lowe (2015).⁶⁹ The

⁶⁸ Estimates for long-run averages range from 12% (Ord Minnett, 2015) to 16.3% (APRA, 2015).

⁶⁹ Lowe, P. (2015) Managing Two Transitions, Speech at the Corporate Finance Forum, Sydney, 18 May 2015; Deloitte (2014) Global CFO Signals: Geopolitical risks cast shadows, November 2014

Review focuses on return on capital rather than return on equity, as the decision on the capital structure (ie the mix of debt and equity) for backing the CTP business is a commercial one which varies by individual insurer.

18. Given the other recommendations are designed to narrow the gap between filed and ultimate profits the MAA should adopt, as an interim measure, a profit margin benchmark for CTP premiums of 12%, which is broadly equivalent to a target post-tax return on capital of 15%.

The MAA could similarly determine industry-wide benchmarks for the other components of CTP premiums, such as the notional capital allocation to the CTP product line and expected returns on invested CTP premiums. The MAA would publish its expectations for these industry-wide benchmarks. The MAA would effectively be stating that should an insurer make a commercial decision to allocate more capital to CTP than the APRA-minimum, or adjust the risk-return profile of its investment portfolio, these decisions should not affect the MAA's assessment of whether the CTP premium is excessive.

The MAA would use these benchmarks to calculate a standardised IRR for each insurer. This recommendation draws heavily on Abelson (2011). Each insurer's standardised IRR would be used to inform the MAA's assessment of insurer profitability at the time it makes a decision whether or not to reject the insurer's filing. Should this calculated standardised IRR be "too far" above the reasonable return on capital, then the MAA could consider rejecting the filing.

By conducting the assessments on an ex-ante basis, i.e. at the time of filing, rather than on an ex-post basis, the MAA avoids the risks related to focusing regulatory pressure on the most profitable insurers. Focusing on individual insurer's ex-post realised profits would also be in direct contrast to the regulatory approach in other regulated markets, such as electricity and gas.

19. The MAA should calculate a standardised internal rate of return (IRR) for each insurer based on standardised assumptions for (i) capital allocation and (ii) investment returns in order to assess premium filings. This would facilitate comparison of returns between insurers and against industry benchmarks in order to assess reasonableness.

As discussed in Section 4.2.2, changing the MAA's authority from rejection of insurers' rate filings to approval could influence insurers' filing behaviour and further strengthen their engagement in the premium filing process. In other insurance markets, such as health insurance, the onus is on insurers to convince the regulator why their filings should be approved. While the current legislative criteria does not seem to be a constraint on the MAA's ability to reject rate filings, placing the onus on insurers to seek approval could result in higher quality and more comprehensive information accompanying their filings, and more proactive engagement. Changing the basis of the MAA's authority will require amendments to the MACA.

20. The MAA role should be restructured to approve rather than reject insurers' premium filings. A power of approval is also in line with other regulated industries, and could lead to a more informed and consultative process.

4.5 Other recommendations

The Review recommends that a subsequent review be conducted in three years' time, to examine the impact of the changes already implemented and to consider if fundamental changes to the Scheme are necessary.

21. The MAA should undertake a subsequent review in three years' time to assess the impact of the new PDG and any of the Review reforms that are implemented.

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Appendix A

Stakeholders Consulted

- Motor Accidents Authority
- Ernst & Young (Scheme Actuary)
- Allianz
- NRMA
- Suncorp
- QBE
- Zurich
- Mr John Trowbridge
- Dr Peter Abelson
- Mr Graeme Adams (Finity Consulting)
- Mr David Brown
- Mr Neil Singleton (the Queensland Motor Accident Insurance Commissioner)
- Mr Andrew Stone
- Actuaries Institute
- NSW Motorcycle Alliance
- Australian Lawyers Alliance
- NSW Bar Association
- Insurance Council of Australia

Appendix B

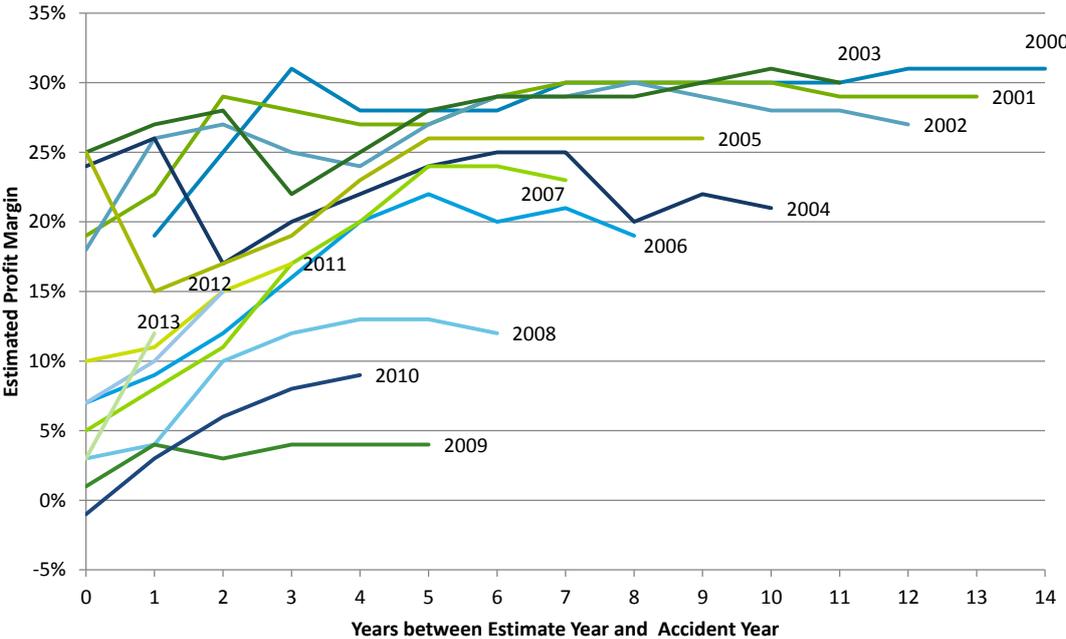
Submissions Received

- Australian Lawyers Alliance
- NSW Bar Association
- Law Society of NSW
- Motorcycle Council of NSW
- NSW Motorcycle Alliance
- Allianz
- Australian Medical Association (nil submission)

Appendix C

Profitability by accident year

Chart C.1: Evolution of estimates of CTP profit margin by accident year



Source: Scheme Actuary

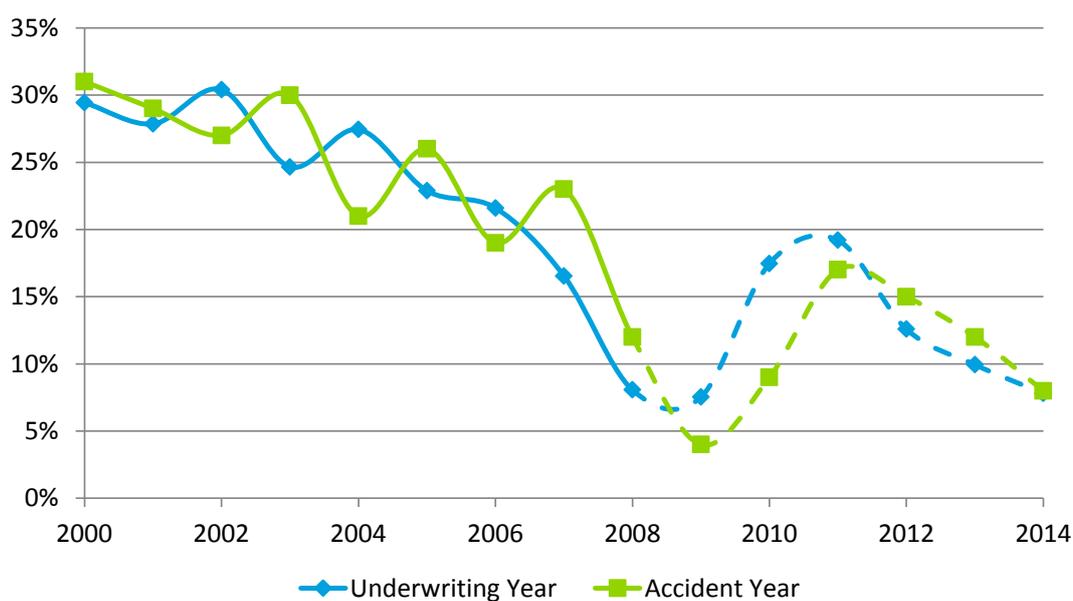
Table C.2: MAA profit margin estimates by accident year

Accident Year	MAA Profit Margin Estimates (%) – Year of Estimate (ending 30 Jun)													
	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14
2000	19	25	31	28	28	28	30	30	30	30	30	31	31	31
2001	19	22	29	28	27	27	29	30	30	30	30	29	29	29
2002		18	26	27	25	24	27	29	29	30	29	28	28	27
2003			25	27	28	22	25	28	29	29	29	30	31	30
2004				24	26	17	20	22	24	25	25	20	22	21
2005					25	15	17	19	23	26	26	26	26	26
2006						7	9	12	16	20	22	20	21	19
2007							5	8	11	17	20	24	24	23
2008								3	4	10	12	13	13	12
2009									1	4	3	4	4	4
2010										-1	3	6	8	9
2011											10	11	15	17
2012												7	10	15
2013													3	12
2014														8

* Shaded cells provide an indication of when profits stabilised.

Source: Scheme Actuary

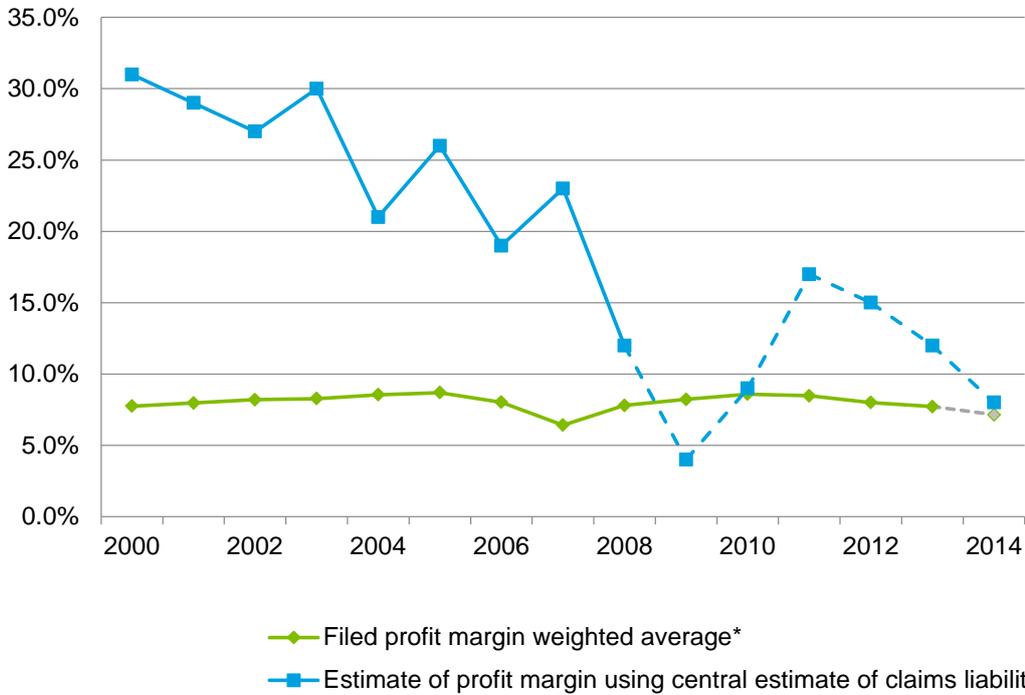
Chart C.2: MAA profit margin estimates by underwriting year and accident year



Note: Dotted line represents profits which have not yet stabilised.

Source: Scheme Actuary

Chart C.4: MAA filed versus ultimate profit margin estimates (on accident year basis)



* The weighted average filed profit margin in 2014 are calculated based on insurers' premium filings; prior years are based on the published data from the latest MAA Annual Report, and may not be directly comparable.

Note: Dotted line represents profits which have not yet stabilised.

Source: Insurers' premium filings, MAA (2014), Scheme Actuary