

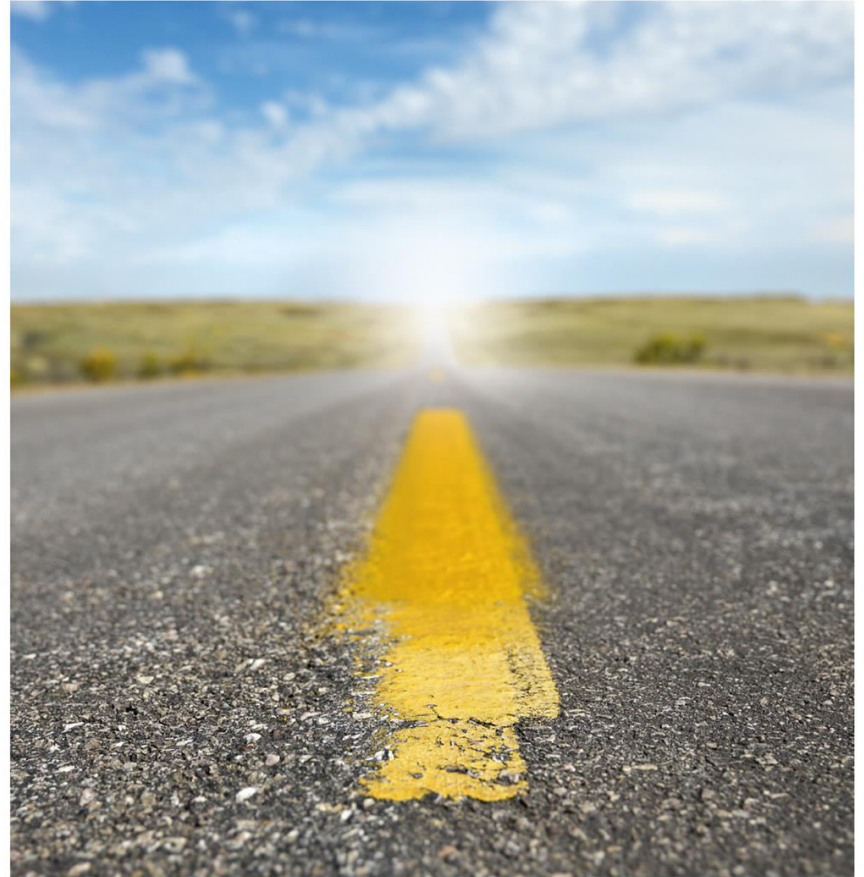
Injury Schemes Seminar

Road to Recovery



**Actuaries
Institute**

8-10 November 2015 • Hilton • Adelaide





The Price is “Write”

**Premium system design and implications on competition for CTP
in a privately underwritten market**

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Injury Schemes Seminar.*

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\$3,440

1

SA CTP

\$

2

ACT CTP

\$

3

WA CTP

\$

4

VIC CTP

\$

5

QLD CTP

\$

6

NSW CTP

\$

7

TAS CTP

\$

338

Purpose

- Cross subsidisation of premiums in a privately underwritten market is a major cause of sub-optimal competition, which may reduce the long term sustainability of the scheme

Agenda

- Define competition
- Unique features of CTP
- Impact of cross subsidisation on competition – simple worked example
- Observations on competition in CTP (including views from the market)
- Compare premium systems
- Premium system design options
- A possible solution: Risk pooling – simple example

Defining competition

- In **economics, competition** is the rivalry among sellers trying to achieve such goals as increasing profits, market share, and sales volume by varying the elements of the marketing mix: price, product, distribution, and promotion. (Source: Wikipedia)
- Sub-optimal competition in Compulsory CTP markets is characterised by:
 - Real or perceived barriers to entry for new entrants
 - Reduction in number of sellers over time
 - Reduced policyholder service to avoid risks
 - Little variation in price
 - Avoidance of distribution channels
 - Disincentives to take out a policy

Unique features of “compulsory” TP insurance

Three key features unique to CTP which influence and explain why insurers behave in a manner perceived as uncompetitive:

1. Compulsory for insurers to offer cover and accept the risk
2. Minimum benefits are defined by legislation – this reduces opportunity for product differentiation
3. There are restrictions on the premiums charged for individual risks (to achieve affordability) – this results in significant cross subsidies in premium

As a result:

If one particular insurer reduces prices (and the other insurers do not) then the insurer with the lower price is likely to attract poorer risks which results in significant financial losses

Simple example of cross subsidies (1/3)

- Year 1
 - 3 insurers each charge same premium (capped at \$300 per policy), same number of policies (100,000), same mix of business and same cost per risk level. Each have a premium pool of \$30m pa
 - CTP renewals are paid with registration renewal; one rating region

Insurer	Number of policies			Premium charged (vs actual cost)			Profit (margin)
	High risk	Mid risk	Low risk	High risk	Mid risk	Low risk	
A	12,000	70,000	18,000	\$300 (\$600)	\$300 (\$250)	\$300 (\$100)	\$3.5m (12%)
B	12,000	70,000	18,000	\$300 (\$600)	\$300 (\$250)	\$300 (\$100)	\$3.5m (12%)
C	12,000	70,000	18,000	\$300 (\$600)	\$300 (\$250)	\$300 (\$100)	\$3.5m (12%)
Market							\$10.5m (12%)

- Each insurer makes a profit of \$3.5m or 11.6% of premiums (total industry profit of \$10.5m):

Simple example of cross subsidies (2/3)

- Year 2
 - Insurer A pursues a growth strategy, dropping its price. It increases its market share significantly for high risk policies, moderately for medium risks, and only slightly for low risks

Insurer	Number of policies			Premium charged (actual cost)			Profit (margin)
	High risk	Mid risk	Low risk	High risk	Mid risk	Low risk	
A	21,600	84,000	18,720	\$285 (\$600)	\$285 (\$250)	\$285 (\$100)	-\$0.4m (-1%)
B	7,200	63,000	17,640	\$300 (\$600)	\$300 (\$250)	\$300 (\$100)	\$4.5m (17%)
C	7,200	63,000	17,640	\$300 (\$600)	\$300 (\$250)	\$300 (\$100)	\$4.5m (17%)
Market							\$8.6m (10%)

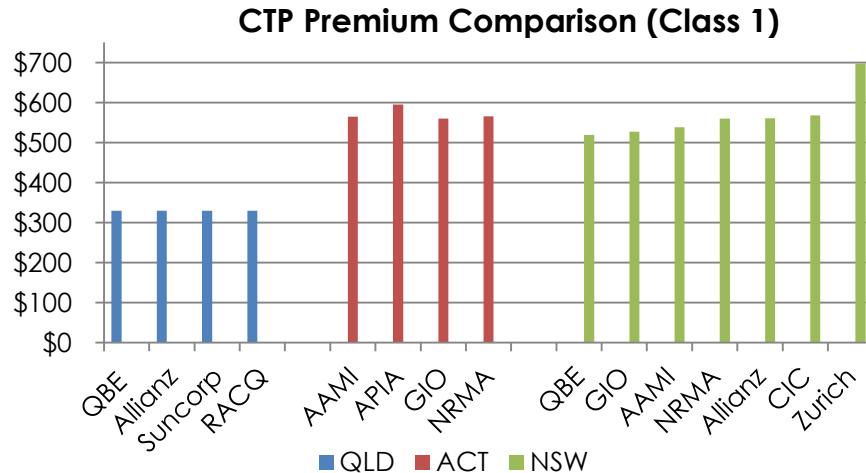
Simple example of cross subsidies (3/3)

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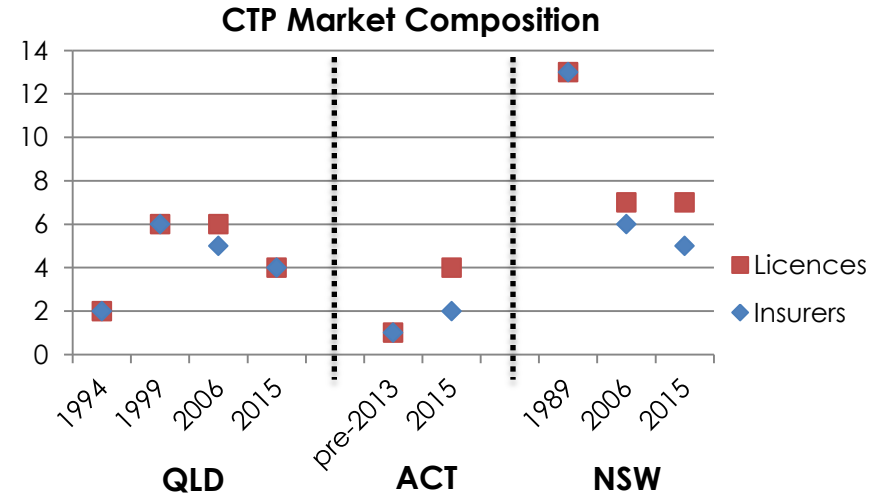
- Insurer A cannot raise its premium above the cap of \$300 per policy
 - Difficult to shed the poor risk business as there is no incentive to change insurers
 - Difficult to increase its share of better risks as it is unable to compete on price
- For Insurers B and C, they achieve very healthy profits and there is little incentive to reduce premiums (but would counter any non-price competition from Insurer A)
- Eventually insurer A exits the market and other insurers increase market share
- The regulator cannot merely increase the premium cap so Insurer A can make a profit
 - Insurer A will increase premium – shedding some of its poor risks
 - Insurers B and C have incentive to increase premium to match insurer A to avoid increasing their share of poor risks

Observations on competition in CTP

- Limited variability in “headline” price
- Number of insurers reducing (QLD/NSW)
- By most measures competition is low

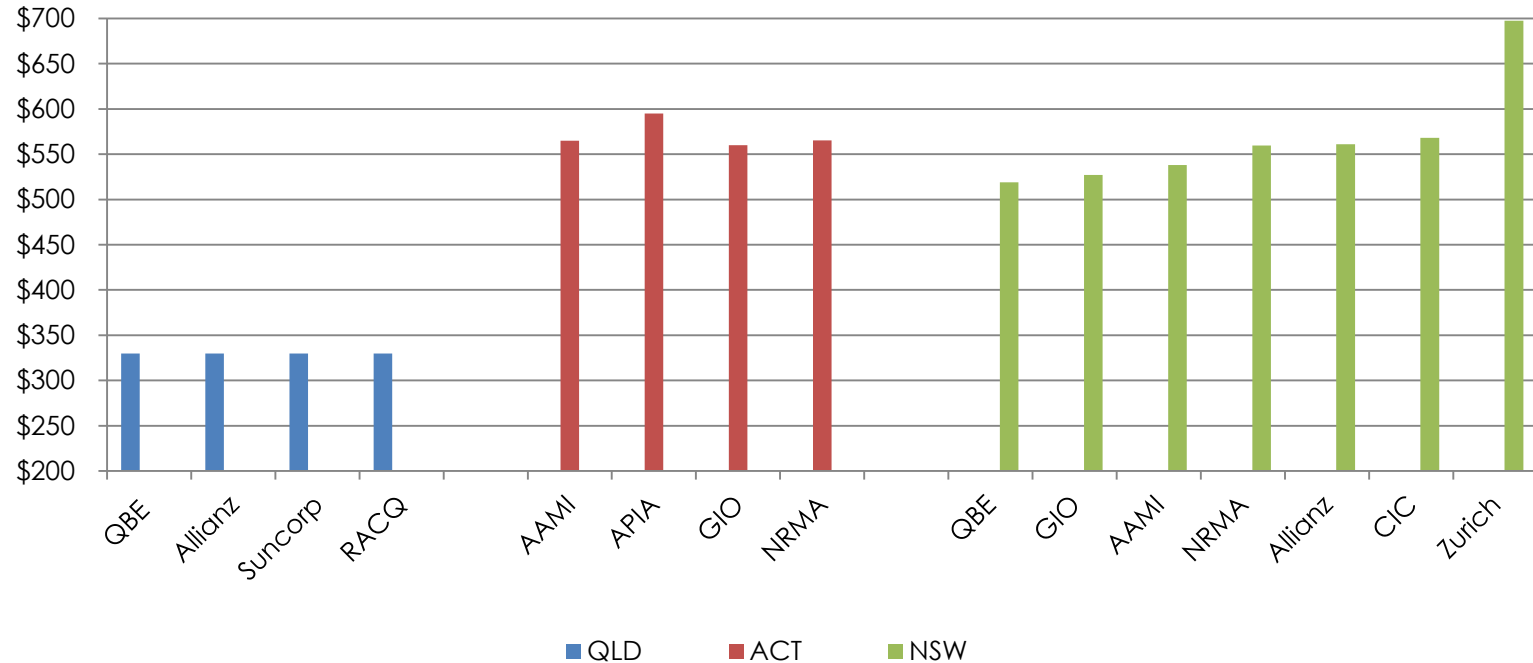


*as at October 2015



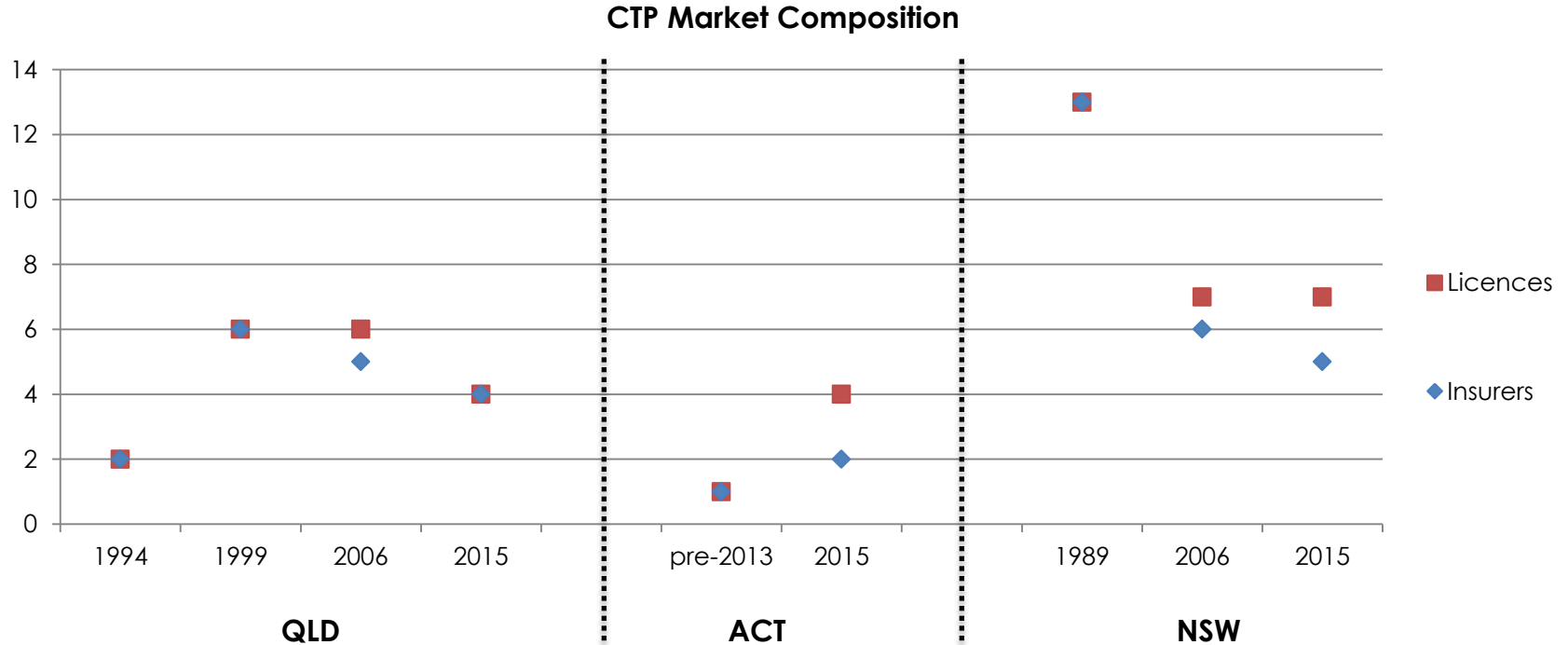
Observations on competition in CTP

CTP Premium Comparison (Class 1)



source: relevant regulator's websites
 Rates effective October 2015

Observations on competition in CTP



Observations on non-price competition

- Non-price competition is strong
 - Discounts / incentives for multi product purchase
 - Strategies to gain distribution channel advantages, e.g. new car dealers
 - Brand in the direct market
 - Product enhancements such as Driver Protect
- It also means there is significant incentive to avoid poor risks, and substantial resources are expended in this activity e.g.
 - Limit distribution channels in areas of high risk
 - Incentives to new car dealers
 - Not offering driver protection for poor risks
 - Poorer customer service for poorer risks, e.g. older example of being put on hold for young drivers

Premium systems across states

Element	Queensland	ACT	NSW						
Rating factors that MUST be used	▶ Vehicle class	▶ Vehicle class	▶ Vehicle class ▶ Region (5)						
Optional rating factors used by insurers	None	None	<table border="0"> <tr> <td>▶ Age of driver</td> <td>▶ Driving history</td> </tr> <tr> <td>▶ Age of vehicle</td> <td>▶ Distribution channel</td> </tr> <tr> <td>▶ Usage (business or private)</td> <td>▶ Other motor insurance held</td> </tr> </table>	▶ Age of driver	▶ Driving history	▶ Age of vehicle	▶ Distribution channel	▶ Usage (business or private)	▶ Other motor insurance held
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Limits by regulator	Regulator sets price band around a central estimate	n/a	Regulator limits maximum discounts and loadings (as a %, historically between 25% and 50%)						
Link to vehicle registration	Renewed with existing insurer on rego unless changed	Nominate insurer on rego	Purchase CTP from insurer. Insurer to notify registering body.						

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Thoughts from the market

- We interviewed a number of regulators and market participants and some selected views expressed were :
 - “There is fierce competition so why change the premium system”
 - “Market is very price sensitive and competition is adequate; we as a major player dropped our premium by only \$10”
 - “Premium filing system is too time consuming and decisions are slow”
 - “Cross subsidies could be considered over the lifetime age of a driver rather than in one annual period”
 - “Risk pooling can be problematic as the entry to the pool can potentially mean that insurers/ lobby groups push more risks into the pool”
 - “Allowing one or two new entrants will not alter the level of competition; changing elements of the premium system will”

Some existing options

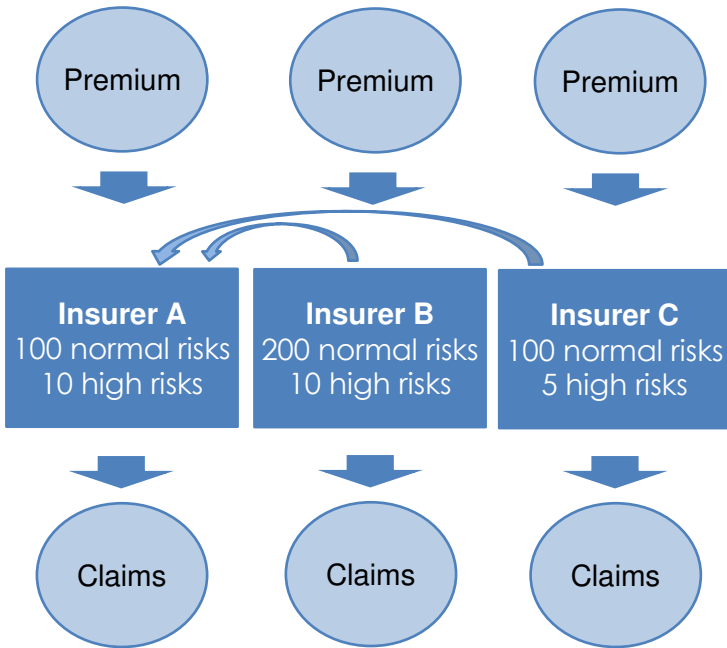
Options	Pros	Cons
1. Permit / mandate additional rating factors (e.g. region, driver age)	Reduces cross subsidisation	Higher price for some segments More complexity in renewals/pricing
2. Decouple CTP renewal from rego	Allows more non-price competition	Increase in renewal complexity and cost
3. Less regulation on premium, eg regulate a few maximum prices, deregulate commercial classes	Enables greater competition for good risks	Potentially increases in premium for other risk segments to compensate
4. Multi licencing (multi brands)	Allows more competition in specific market segments	Enables insurers to bypass some of the restrictions on pricing
5. Risk pooling	Discussed in the following slides	

A more significant change – risk pooling

- Way to reduce the impact of cross subsidisation

Type	Pros	Cons
Assigned risk pool (ARP) – eligible poor risks are written by a separate entity	<ul style="list-style-type: none"> Remove risk of disproportionate share of poor risks Encourage price competition in funded risks Does not increase the premium payable by poor risks 	<ul style="list-style-type: none"> Increases complexity of the system Insurers do not retain customer ownership Insurers have no control over ARP claims costs though they fund it Poor risk customers lack choice
Claims equalisation - Eligible poor risks claims costs are shared, irrespective of volume of poor risks written or claims management efficiency	<ul style="list-style-type: none"> Insurers retain ownership of all customers Minimal impact on customer experience 	<ul style="list-style-type: none"> Reduced incentive for insurer to manage claims cost for poor risks Challenges with timing and basis of (retrospective) adjustment due to long tail nature
Risk equalisation - Subsidies are redistributed, reflective of the insurer's weight in poor risks	<ul style="list-style-type: none"> Incentive to select/price risks Positive incentive to better manage claims for poor risks 	<ul style="list-style-type: none"> Challenges with estimating the (prospective) adjustments

Risk equalisation – simple example



Transactions between insurers facilitated by the regulator/clearinghouse

	Insurer A	Insurer B	Insurer C	Market
Normal risks (a)	100	200	100	400
Poor risks (b)	10	10	5	25
Proportion of poor risks in portfolio (c = b/a)	10%	5%	5%	6.25%
Difference from the industry (d = c_{insurer} - c_{industry})	Overweight by 3.75% in poor risks	Underweight by 1.25%	Underweight by 1.25%	Zero sum game for the market
Transaction (e = d * a * pre-defined subsidy)	Receives 3.75 units worth of cross subsidies*	Pays 2.5 units worth of cross subsidies	Pays 1.25 units worth of cross subsidies	

How can we know it will work?