ERNST & YOUNG

NSW CTP Scheme Performance Update, 2012

Motor Accidents Authority of NSW

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Contents

1. Executive summary

1.1 Introduction and purpose

Ernst & Young have been requested by the Motor Accidents Authority of NSW (MAA) to review the performance of the NSW Scheme (the Scheme or Scheme or NSW Scheme) using key metrics including relevant comparisons with other states where information is available. Ernst & Young is the NSW Scheme's independent actuary.

The Lifetime Care & Support scheme (LTCS scheme) is excluded from the analysis (except in the affordability of premiums) since it is not managed by insurers and is not subject to review by the government.

The purpose of this report is to set out the results of our analysis of key metrics of the performance of the Scheme from late 1999, the period during which the current Scheme has been in operation.

This report presents the results of our work undertaken during the course of 2012. We used the latest data available at the time the work was performed. However, we have not updated our work for the latest available data at the time of this report except for the work to include the impact of the recent premium rate filings of insurers that apply from 1 February 2013.

The results from the work undertaken during the course of 2012 set out the results of key indicators of Scheme performance, identified significant trends, both favourable and adverse and provided comparisons with other schemes. These are brought together in this report.

The metrics covered in this report include:

► Scheme efficiency compared to other states taking into account:

    ► Insurer expenses and profitability

    ► Levies

    ► Legal and investigation expenses by legal representation status and claims size

► Affordability of premiums compared to other states

► Scheme experience including:

    ► Claim numbers

    ► Average claims size

    ► Claims costs per policy

    ► Impact of interest rates and inflation on insurer premiums since 2008

    ► Analysis of medical and care claims costs

    ► Cash flow by year of the Scheme compared to the Victorian transport accident scheme (TAC).

This executive summary sets out the key results from our analysis consisting of:

► The key indicators of the Scheme performance

► Other indicators that show significant trends in Scheme experience.

Details of our work are included in the following sections of this report which include:

► Data used including data inconsistencies and limitations

► Methodology and approach including definitions of the various metrics used

► Results of the analysis.

The results presented in this report include:

► Analysis of Scheme data and experience

► Estimates of future claims experience of the Scheme as estimated in our assessment of the outstanding claims liabilities for the Scheme as at 30 June 2012

► Estimates of future claims experience of the Scheme as at 30 June 2011 by Taylor Fry used for the assessment of Scheme efficiency.

This executive summary presents the major results from our investigations. Judgements regarding the data, methods and assumptions contained in the executive summary and report should be made only after studying the entire report, as conclusions reached by a review of a section or sections on an isolated basis may be incorrect.

The work presented in this report has been peer reviewed by another actuarial firm. The comments and views of the other actuarial firm were taken into account in drafting this report.

1.2 Scheme efficiency results

Scheme efficiency is a key measure of scheme performance and can be viewed by stakeholders as an indicator of value for money. We have defined scheme efficiency, consistent with definitions adopted by other accident compensation schemes in Australia, as:

$$Scheme\ efficiency = \frac{claim\ payments\ received\ by\ claimant}{premium}$$

where:

► Claims payments received by claimants includes estimates of outstanding claims liabilities and excluding legal, investigation and medico legal costs

► Premium excludes the LTCS levy and GST.

The LTCS scheme has been excluded from the calculation of efficiency for the reasons noted in section 1.1.

Based on the methodology and assumptions described in the body of this report we have estimated the following efficiency results.

1.2.1 Overall Scheme efficiency results

The following figure shows that on average, across underwriting years 2000 to 2010, the Scheme has had an efficiency of 50%.

Figure 1: Efficiency for 2000 to 2010 <u>before</u> adjustment for contracted-out[1] legal costs
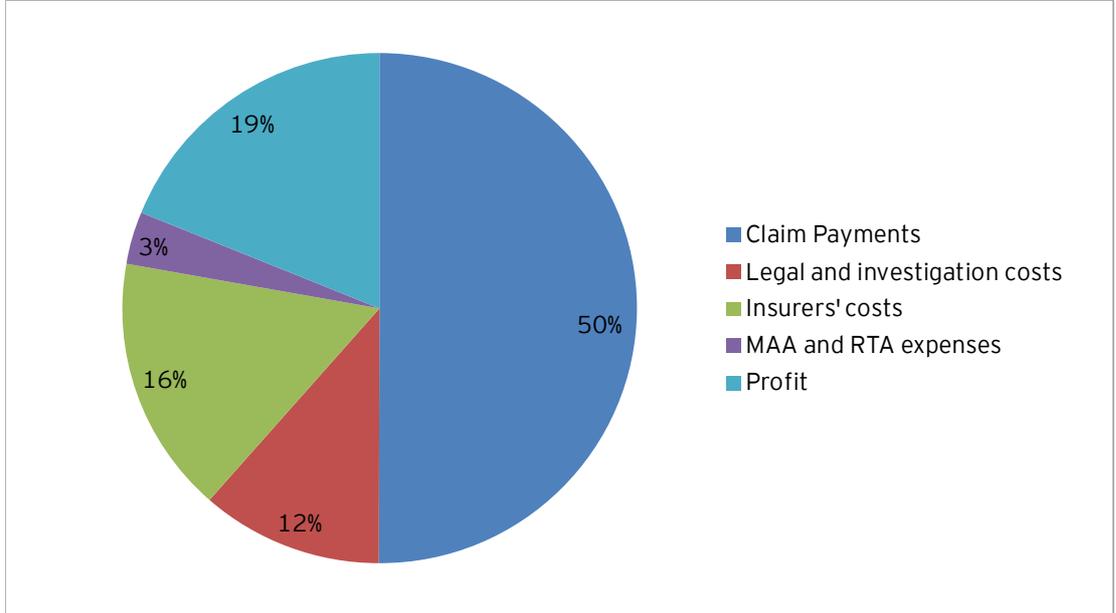
The Scheme efficiency results vary by underwriting year and show volatility by year, as illustrated in the MAA's Annual Report. Due to this year to year volatility efficiency should be assessed on a long term basis (e.g. from 2000 to 2010). Hindsight analysis has contributed to the unexpected high profits for a number of the underwriting years especially in the older years; these higher than expected profits have contributed to the low Scheme efficiency.

Based on the March 2012 insurer premium rate filings the estimated Scheme efficiency is 58% excluding the LTCS scheme.

It should be noted that there is uncertainty in the results for recent years because significant amounts are not yet paid and hence are based on actuarial estimates; actual claim payments may emerge at levels higher or lower than the actuarial estimates.

Adjusting for contracted-out legal costs reduces average Scheme efficiency across underwriting years 2000 to 2010 from 50% to 47% (as shown in the figure below).

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[1] *Contracted-out* is defined as those costs payable to the legal practitioner representing the claimant, by the claimant, under an agreed private arrangement i.e. those costs in excess of those specified in the MAA Cost Regulation. These costs are not transparent in the insurer or Scheme data held by the MAA
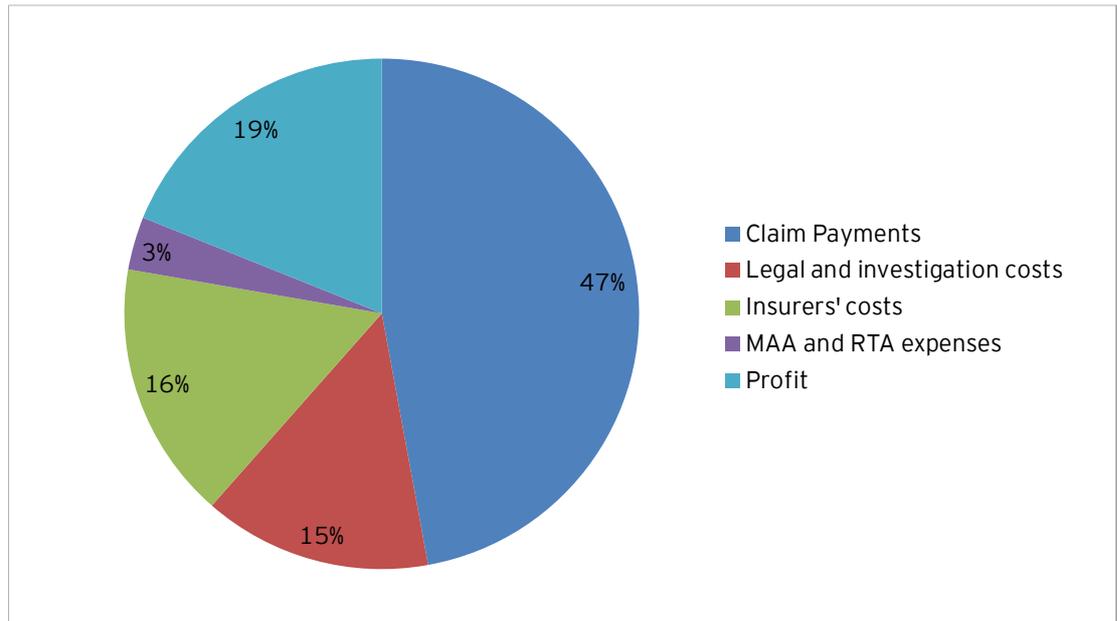
Adjusting Scheme efficiency for estimated contracted-out legal costs provides details of the actual amount received by claimants after all expenses.

Please refer to section 3.4 for further discussion on the results.

1.2.2   Efficiency results by claim size band

The following table shows the efficiency results by claim size band, before and after adjusting for contracted-out legal costs. Providing the split by size band illustrates the relative efficiency between small and large claims. These results are based on finalised claims from accident years 2000 to 2010.

Table 1: Scheme efficiency results by claim size band

Claim size band	Before adjustment for contracted-out legal costs	After adjustment for contracted-out legal costs
<$50K	44%	36%
$50k - $100K	44%	38%
$100k - $200k	46%	42%
>$200k	51%	49%
Total	50%	47%

The above table shows that adjusting for contracted-out legal costs has the greatest impact on the efficiency of smaller claims. It shows that for claims less than $50k, only 36% of the CTP premium is returned to claimants.

Section 3.4 sets out further details.

1.2.3   Efficiency results by legal representation

The following table shows the efficiency results by claim size band and legal representation, after adjusting for contracted-out legal costs. The legal representation split is provided to illustrate the percentage of premium returned to claimants between those claimants who did not use legal representation and those who did. These results are based on finalised claims from accident years 2000 to 2010.

Table 2: Scheme efficiency results by legal representation

Claim size band	Legal represented claims	Claims with no legal representation
<$50K	28%	55%
$50k - $100K	36%	58%
$100k - $200k	41%	59%
>$200k	49%	60%
Total	47%	57%

The above table shows that legally represented claims have lower efficiency than non-legally represented claims. It shows that for legally represented claims less than $50k, only 28% of the CTP premium is returned to claimants.

Our analysis of Scheme experience from 2000 to 2009[2] shows that 67% of full claims[3] finalised excluding workers compensation recovery claims[4] are legally represented. In recent years the amount of legal representation is estimated to be over 75%. These legally represented claims account for over 95% of the claims costs of the Scheme.

Section 3.4 sets out further details.

1.2.4 Comparison to other schemes

The following table shows the efficiency results for other schemes in Australia using the target premium for the latest year in which figures are available. The resulting efficiency could be considered as the current expected or target efficiency for each scheme.

For the purpose of the comparison, the efficiency of the NSW Scheme of 58% was calculated using insurer's March 2012 rate filings and before allowance for contracted-out legal costs. This is different to the average efficiency of 50% observed in the NSW Scheme from 2000 to 2010 before allowance for contracted-out legal costs.

Caution needs to be exercised in interpreting the results of the efficiency comparison in the table below for the reasons outlined in section 3 of the body of the report. There may be different views on how to undertake the comparison and it is difficult to undertake the comparison on a like-with-like basis due to a number of factors as discussed in section 3.5. Actual historical efficiency has varied from expected in the table below, sometimes significantly. For example in past years, the scheme efficiency for Queensland CTP has been lower, as insurer's profits have exceeded the expected profit margins explicitly included in premiums - this arose from claims costs being lower than expected.

Table 3: Efficiency for other Accident Compensation Schemes in Australia

Scheme	Scheme description	Efficiency
Victorian transport accident scheme	No-fault public monopoly with restricted access to common law	80%
QLD motor accident scheme	Fault based fully privatised	67%
SA motor accident scheme	Fault based public monopoly	64%
NSW Scheme	Fault based fully privatised	58%

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[2] Years 2010 and onwards have not been included as they are immature and not representative
[3] A full claim is a claim by an injured person for compensation, for which a notice of claim has been provided to an insurer in accordance with Section 74 of the Motor Accidents Compensation Act 1999
[4] Workers Compensation insurers may seek recovery from CTP insurers under Section 151z of the Workers Compensation Act, where a worker has claimed workers compensation benefits in relation to an accident which would give the worker rights to damages under the Motor Accidents Act.

Note: There is no adjustment for contracted-out legal costs. The assessment is done on a net ITC/DAM basis, excluding stamp duty and GST. The NSW Scheme result excludes the LTCS scheme for reasons set out in section 1.1.

The efficiency measure was calculated using the projected target premium for each scheme except for SA which was taken from the SA Government's CTP Insurance 2012 Green paper. We note this is different to the average efficiency of 50% observed in the NSW Scheme from 2000 to 2010 before allowance for contracted-out legal costs.
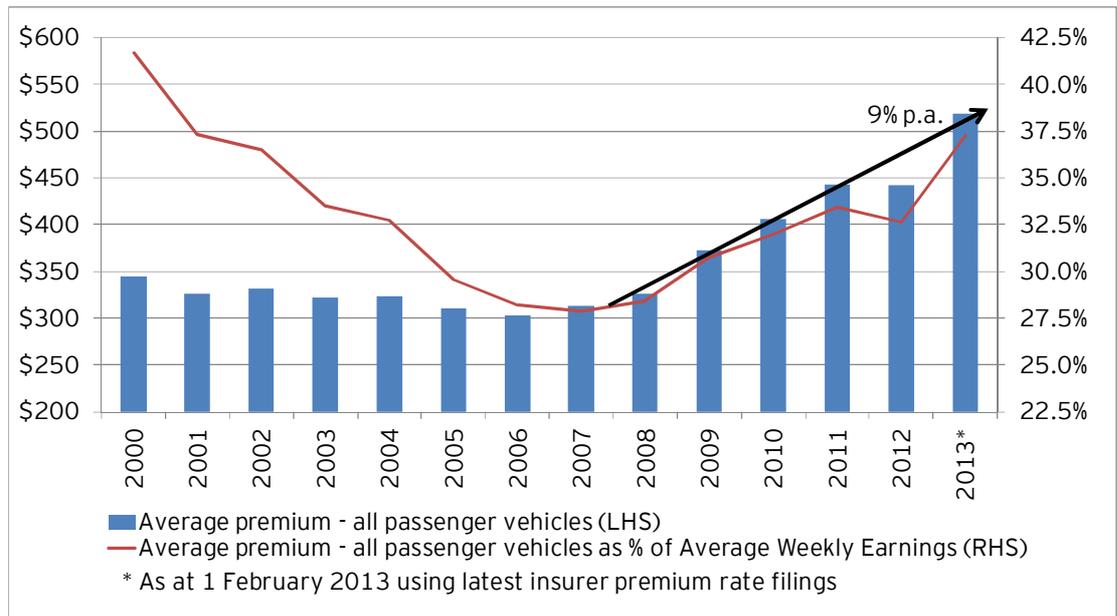
Section 3.5 sets out further details.

1.3   Scheme affordability

Affordability is defined as green slip prices (including levies but excluding GST) divided by average weekly earnings (AWE)[5] consistent with the definition presented in the MAA's annual report and that adopted by other schemes. The higher this ratio the less affordable is the premium.

The figure below shows the historic affordability of green slips in NSW for all passenger vehicles[6] from financial years ended 30 June 2000 to 30 June 2012 and the affordability of premiums for all passenger vehicles effective on 1 February 2013 from recent insurer premium rate filings. The premiums paid in the quarter ending each 30 June from the insurers premium returns to the MAA are used to calculate affordability for each year from 2000 to 2012.

Figure 3: Green slip affordability for all passenger vehicles

Average premium - all passenger vehicles (LHS)
Average premium - all passenger vehicles as % of Average Weekly Earnings (RHS)
* As at 1 February 2013 using latest insurer premium rate filings

Whilst premiums were relatively stable between 2000 and 2007, the affordability measure significantly improved. Since 2007, when measured against AWE, the price of an average NSW green slip has increased from around 28% of AWE in 2007 and 2008 to around 37% of AWE in February 2013. The trend increase in the average green slip prices from 2007 to 2013 is 9% p.a. which is about three times the increase in price inflation over that period.

The green slip prices shown in Figure 3 consist of both the insurer premium and levies; this reflects the total amount paid by policyholders excluding GST. On this basis green slip premiums increased between June 2008 and 1 February 2013 by about 60%; this

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[5] Earnings; Persons; Full Time; Adult; Ordinary time earnings; New South Wales;
[6] Class 1 vehicles

translates to a 30% increase after adjusting for wage inflation. Excluding levies which represented just the insurer component of green slip prices, prices have increased between the middle of the year to June 2008 and 1 February 2013 by about 70%; this translates to about a 40% increase after adjusting for wage inflation. The increase in green slip prices above wage inflation over this period is due to a range of factors as analysed in section 5 of this report; the main reasons being increasing claims numbers, higher legal representation and reductions in interest rates.

Section 4.4 sets out further details.

1.4   Green slip affordability by state

The table below shows the affordability of green slips for all passenger vehicles by state at 1 February 2013. The same definition of affordability was adopted for the state comparison as for NSW above.

Table 4: Affordability of CTP premium for all passenger vehicles by stated at 1 February 2013

State	Premium (incl. levies, excl. GST) $	Affordability %
NSW	518	37
SA	470	37
ACT	526	32
NT	456	31
VIC	362	27
TAS	319	26
QLD	299	22
WA	247	16

Green slips in NSW are least affordable compared to the other jurisdictions in Australia, marginally less affordable than South Australia. South Australia has announced reforms to their scheme which is expected to reduce premiums by around $110 from 1 July 2013 and by $50 from July 2014. South Australia's reduction in premiums of $110 from 1 July 2013 will reduce their affordability to around 30% which will make NSW's affordability significantly worse than all other states.

The relative ranking of the affordability of each state's premium varies over time from the frequency of changes in premium rates and average weekly earnings. For example most states only change premiums annually whereas in NSW they change more frequently which may impact the relative ranking of NSW's affordability relative to other states.

The results above are based on data that has been sourced through jurisdiction agencies, and a range of publically available scheme reports. Adjustments have been made to align the comparisons on a consistent basis between states.

Section 4 sets out further details.

1.5   Claims experience

1.5.1   Claims numbers including Accident Notification Forms[7] (ANFs)

As the MAA's Independent Scheme Actuary, we have assessed the NSW Scheme's outstanding claims liabilities as at 30 June 2012. We have analysed the claims based on the maximum injury severity level recorded for the claimant except for claims which are ANFs and workers compensation recovery claims from workers compensation insurers. The cost

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[7] The Accident Notification Form provides for the early payment of reasonable and necessary medical expenses and/or lost earnings up to a maximum of $5,000. ANFs can be lodged by at fault and not at-fault injured parties.

of ANFs and workers compensation recovery claims represent a claims cost less than $10 per policy (ANFs are less than $2 per policy).

The table below shows the injury severity level classifications. Specialised insurer staff classify each claimant's injury severity based on the Abbreviated Injury Scale set by the Association for the Advancement of Automotive Medicine.

Table 5: Injury severity levels classification

Injury severity level code	Description
1	Minor
2	Moderate
3	Serious
4	Severe
5	Critical
6	Maximum
9	Unknown

Throughout this report, we use "serious" severity to refer to claims for serious severity, severe severity, critical severity and maximum severity injuries on the Abbreviated Injury Scale. Also we use "minor severity" to refer to claims for minor severity and unknown severity injuries.

The figure below shows our ultimate estimated number of full claims and ANFs (which includes claims incurred to 30 June 2012 but not yet reported) by accident year, since 2000. Full claims are broken into minor, moderate, serious and workers compensation recovery claims; minor claims have been split into legally represented and non-legally represented claims.

Figure 4: Ultimate number of full claims and ANFs

* s151z claims refer to workers compensation recovery
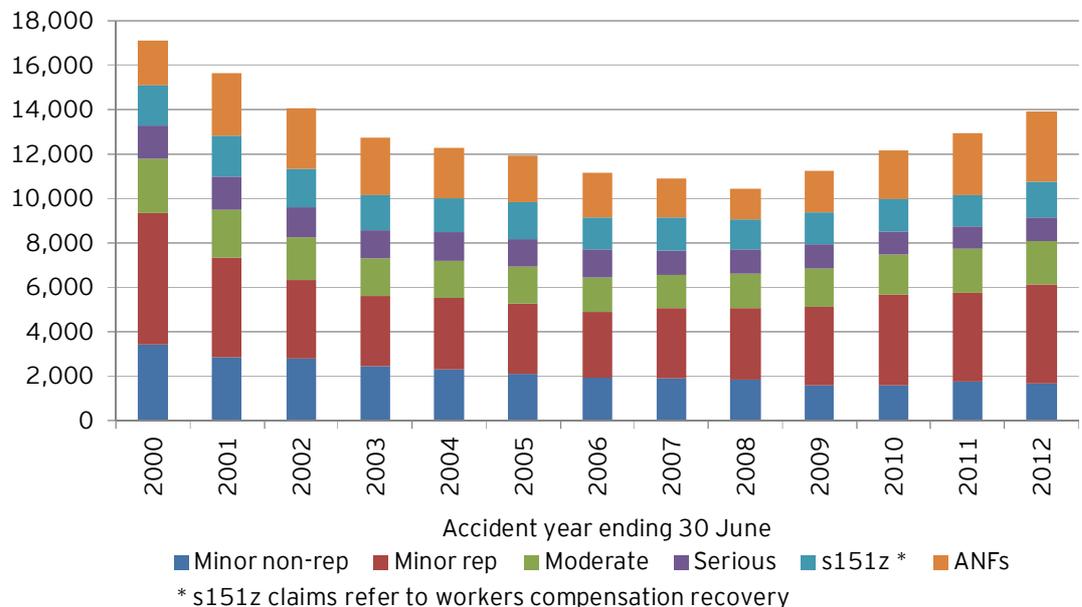
The number of claims consistently reduced until accident year 2008. As can be seen from the above figure, full claim numbers have been growing since 2008, this increase has been mainly from minor severity injuries with legal representation and moderate severity injuries which are mostly legally represented. The number of minor non-legally represented claims has fallen since 2008.

The number of ANFs has increased since 2008. The ANF benefit was increased from $500 to $5,000 in 2009 for not at-fault claims and at-fault ANFs were introduced in 2010. These two changes have contributed to increasing ANFs.

Of the total number of claims in 2012 of 9,162 excluding workers compensation recovery claims, 6,126 claims or 67% were minor severity claims.

From the above figure our estimate of full claim numbers since 2008 has increased by 19% from 9,047 to 10,750 in 2012 which is 13% above the increase in road casualties of 6% during the same period.

The figures below sets out more clearly the trend in the ultimate number of claims for minor severity legally represented claims.

Section 5.2 sets out further details.

1.5.2   Minor severity injuries legally represented

Figure 5: Ultimate number of claims for minor severity injuries legally represented

Accident year ending 30 June
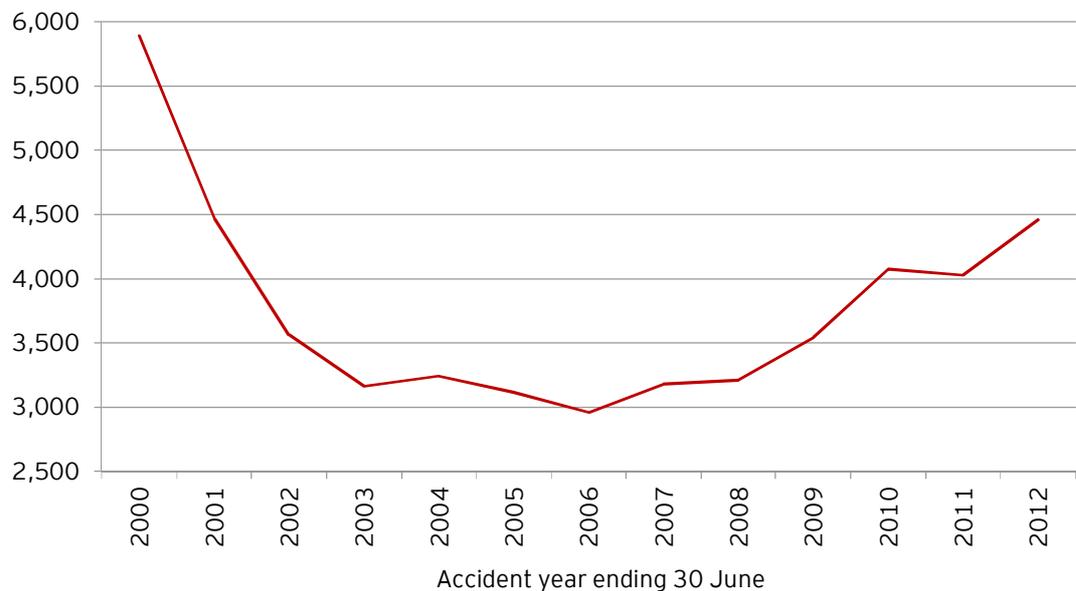
The number of full claims for minor severity injuries that involve legal representation almost halved from 2000 to 2003. From 2003 to 2008, the number of claims was relatively stable. Since 2008, the number of full claims has increased by about 40% compared to claims for serious severity injuries and minor severity injuries without legal representation which have been stable or decreased over that period. In 2012 the number of CTP claims for minor severity injuries with legal representation is about 2.6 times the number of for minor severity injuries without legal representation whereas before 2009 the ratio was only about 1.7.

Section 5.2 sets out further details.

1.5.3   Moderate severity injuries

Figure 6: Ultimate number of claims for moderate severity injuries
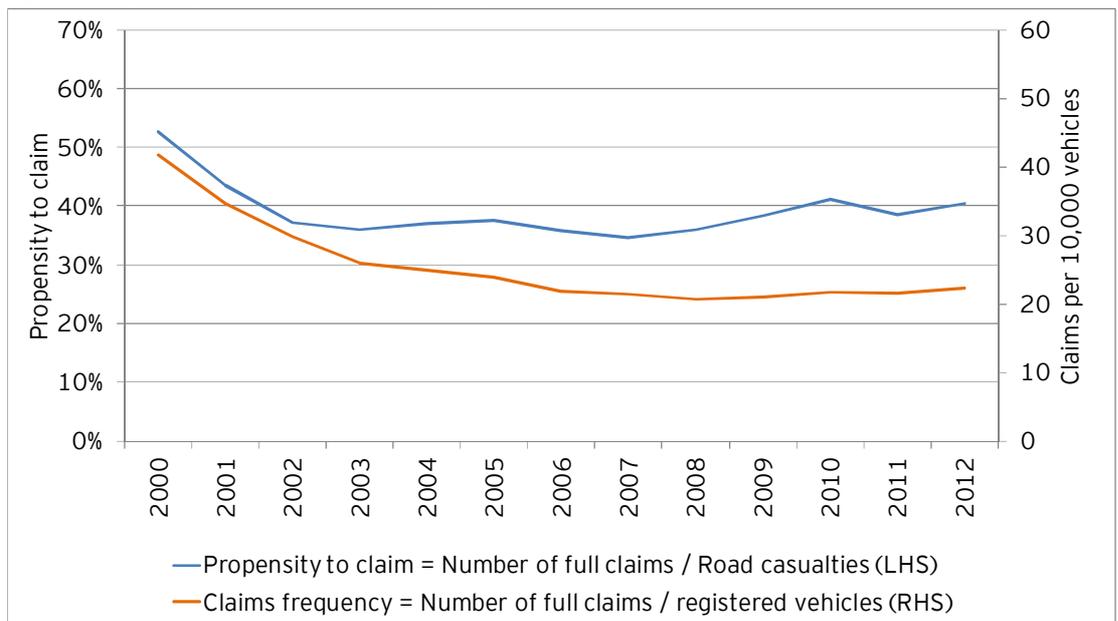

Accident year ending 30 June

The number of claims for moderate severity injuries reduced by 40% from 2000 to 2007. Since 2007 the number of claims has increased by about 30% despite casualty numbers over increasing by a small amount.

Section 5.2 sets out further details.

1.5.4   Claims frequency and propensity to claim[8]

The figure below shows the propensity to claim and the claim frequency per 10,000 vehicles since 2000 for full claims (i.e. including workers compensation recovery claims but excluding ANFs).
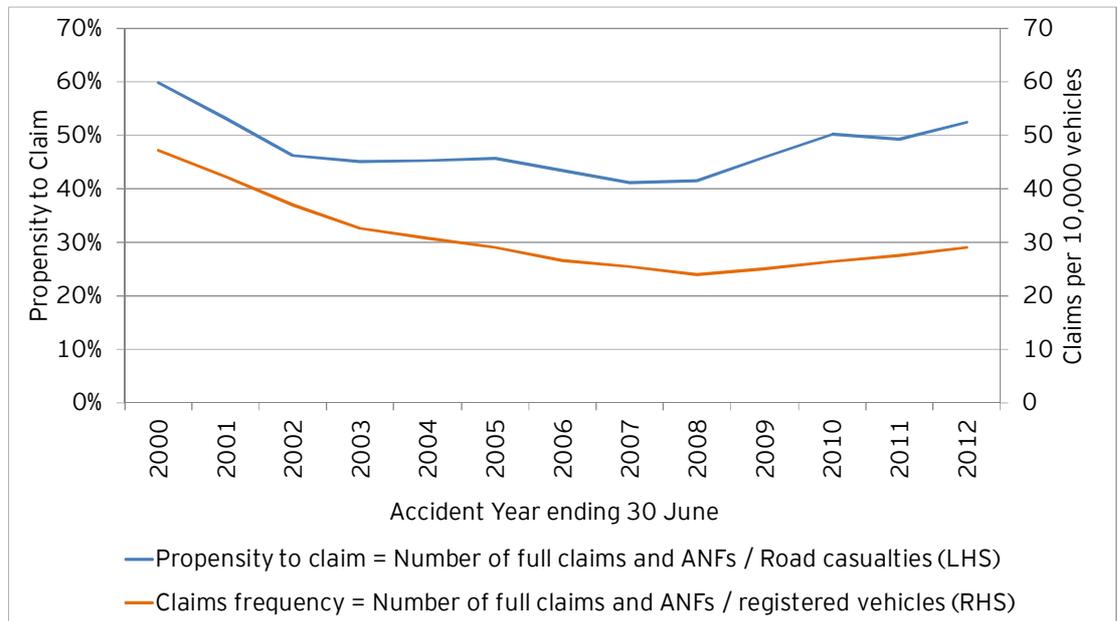
Figure 7: Propensity to claim and claim frequency for full claims

—— Propensity to claim = Number of full claims / Road casualties (LHS)
—— Claims frequency = Number of full claims / registered vehicles (RHS)

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[8] Propensity to claim is defined as the number of claims divided by the number of road casualties

The figure below shows the propensity to claim and the claim frequency per 10,000 vehicles since 2000 for full claims and ANFs.

Figure 8: Propensity to claim and claim frequency for full claims and ANFs

Both propensity to claim and claim frequency reduced until 2008. Since 2008 propensity to claim including ANFs, has increased by an average of 6%p.a. and the equivalent claims frequency has increased by 5%p.a. with propensity claims being 52% in 2012. Excluding ANF propensity to claims has increased since 2008 by an average of 3% p.a. and the equivalent claims frequency has increased by an average of 2% p.a. since 2008 (or by a cumulative 8%).

Section 5.2 sets out further details.

1.6   Scheme average claim size

Over 95% of the Scheme claims costs consist of serious, moderate and minor severity legally represented claims. The following figures show the average claim size by accident year, since 2000, for each injury severity. So that average claims sizes can be compared on a like with like basis over time they have been adjusted for average wage inflation (AWE)[9] and for superimposed inflation [10] as follows:

► The average claim sizes are inflation adjusted using AWE at 30 June 2012 values, and are gross of input tax credits and decreasing adjustment mechanism. They reflect past and future claim payments, with future claim payment payments based on our valuation assumptions

► Claim sizes also incorporate actual past superimposed inflation, and future assumed superimposed inflation but exclude future wage inflation.

The figures below demonstrate that minor severity legally represented claims and the moderate severity claims have exhibited strong super imposed inflation over the history of the existing scheme.

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[9] All historical payments have been inflated from time of payment to 30 June 2012 using the average weekly earnings index for New South Wales.
[10] Superimposed inflation is the increase in average claim costs over and above economic inflation.

**Figure 9: Average claim size (in 30 June 2012 values) for minor severity injuries legally represented**
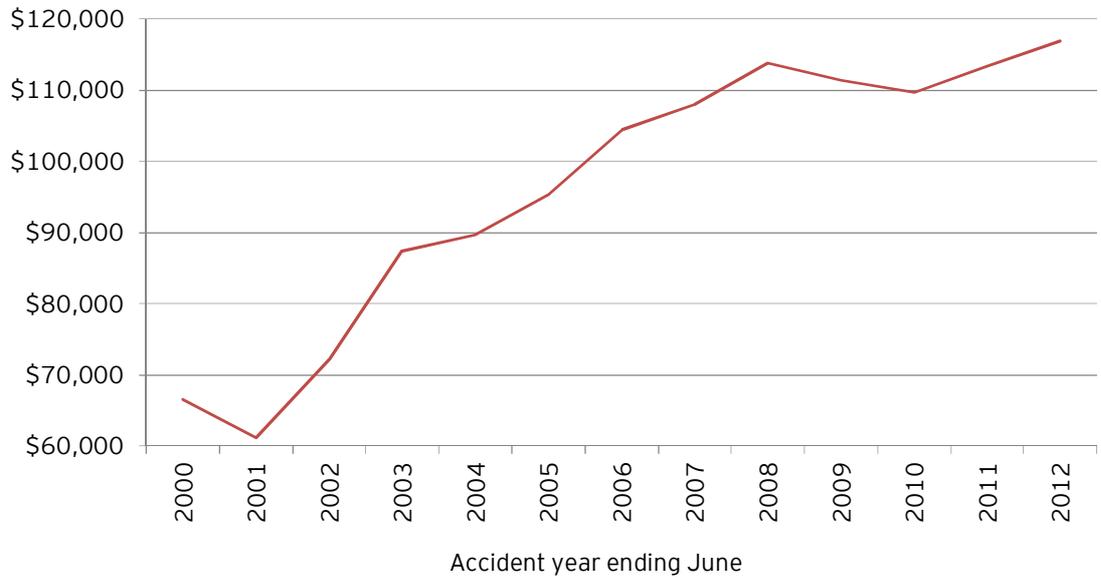
There were significant increases in the average claim size for minor severity injuries that involve legal representation from 2001 to 2008 but it has been relatively flat from 2008 to 2012. The average claims size has nearly doubled in real terms from 2001 to 2012 having increased by about 6%p.a. above wage inflation or about 10%p.a. including wage inflation.

Figure 10: Average claim size (in 30 June 2012 values) for moderate severity injuries

The average claim size for moderate severity injuries has increased from about $120,000 to $210,000, an increase in real terms of nearly 80% since 2000 or about 5%p.a. above wage inflation or about 9%p.a. including wage inflation.

Figure 11: Average claim size (in 30 June 2012 values) for serious severity injuries
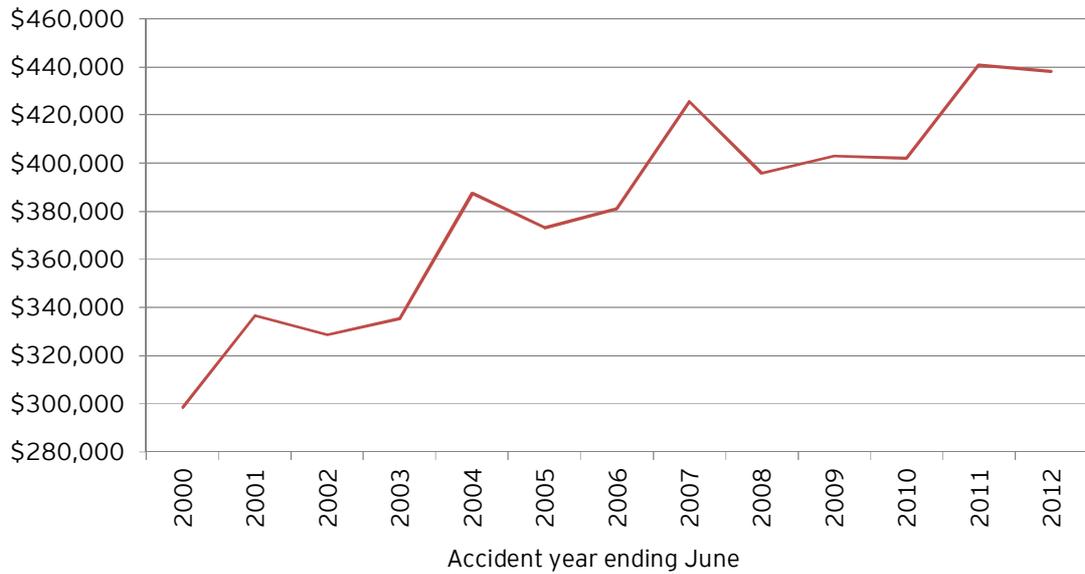

The change in average claim size for serious severity injuries is volatile but there is a clear increasing trend. The long term real increase is moderate being about 3%p.a. above wage inflation.

Section 5.3 sets out further details.

1.7   Cost per policy

The figure below shows the fully inflated cost per policy for all the claims in the NSW Scheme by accident year. The cost per policy is the number of claims multiplied by the average claims size then divided by the number of insured motor vehicles in NSW. So the comparison between years is on a like with like basis, the claims cost includes past claim payments and future claim payments including future wage inflation and superimposed inflation. The figure excludes the impact of falling interest rates since 2008 which is considered separately in section 1.8.

Figure 12: Cost per policy for all claims including ANFs
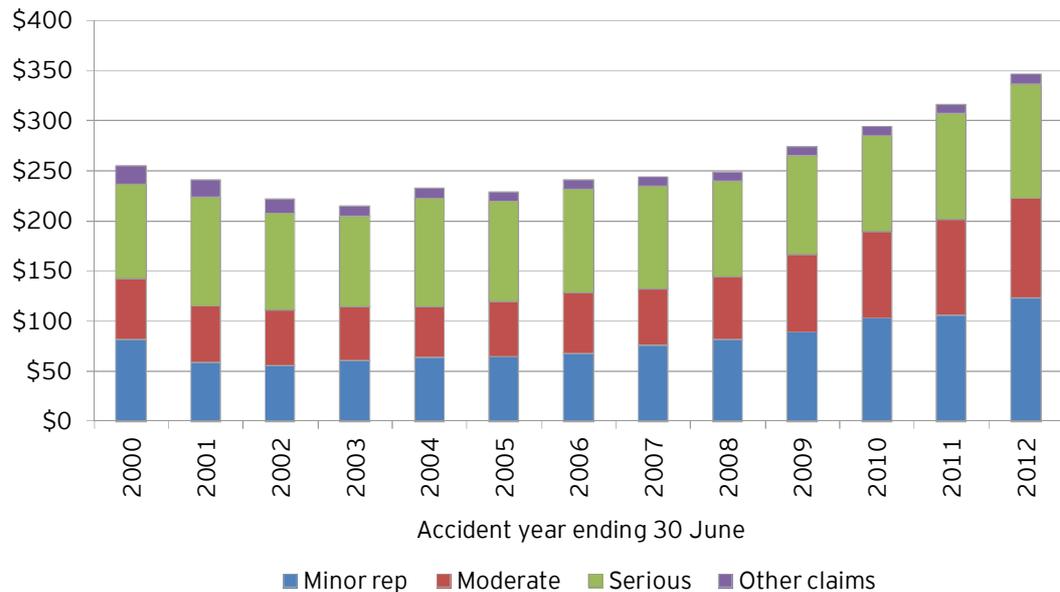
Gross of ITC and DAM

Cost per policy for all claims was relatively stable but showed some volatility until 2008. The stability in cost per policy means that there were real reductions in the cost per policy until 2008. Cost per policy has increased since 2008 by an average of 9% per annum. The main drivers of the increase since 2008 are greater claim numbers for minor severity injuries <u>with</u> legal representation and for moderate severity injuries.

The cost per policy for minor severity injuries <u>with</u> legal representation has increased by $42 or 51% since 2008 and for moderate severity injuries has increased by $37 or 59% since 2008. The increases for minor and moderate severity injuries are significantly above normal wage inflation increasing about 11%p.a. and 12%p.a. respectively or 7%p.a. and 8%p.a. above wage inflation. The cost per policy for serious severity injuries has been relatively stable.

The above figure also shows that workers compensation recovery claims, minor severity non-legally represented claims and ANFs represent less than 5% of the cost of claims.

It should be noted that there is uncertainty in the results for recent years because significant amounts are not yet paid and hence are based on actuarial estimates; actual claim payments may emerge at levels higher or lower than the actuarial estimates.

Section 5.3 sets out further details.

1.8 Impact of interest rates and wage inflation on insurer premiums

The purpose of insurer premiums is to collect the money needed to pay for future claims. Since the premium is collected upfront, there is a pool of funds that insurers invest to earn a return; the resulting investment income is used to help pay claims. Interest rates affect the investment return on this pool of funds and therefore the premiums insurers need to charge.

Since 2008 interest rates have fallen significantly reducing insurer investment income available to meet claim payments. Wage inflation expectations have also reduced since 2008 which partially offsets the reduction in interest rates.

The overall impact of the reduction in interest rates and wage inflation is an increase of about $55 to the premium (including levies but excluding GST).

1.9 Care and medical payments

We have analysed the trends in claim payments by type of payment (i.e. economic loss, non economic loss, medical, care and legal and investigation costs). The proportion of total claims payments for each type of payment, as a percentage of total payments, has been reasonably stable since 2000 except for care which has grown substantially. Medical costs exclude public hospital costs.

The following figure shows the proportion, as a percentage of total claim payments, for care and medical and related payments since 2000. So that there is a complete picture of all payments on claims the figure:

▶ Only considers claim payments on all finalised claims reported since 1989 that were paid in each of the years ended 31 December 2000 to 2010

▶ The claim payments have been allocated to the year that the claim is finalised rather than the year the payment is made.

Figure 13: Split of claims costs between care and medical costs as a proportion of total claim payments
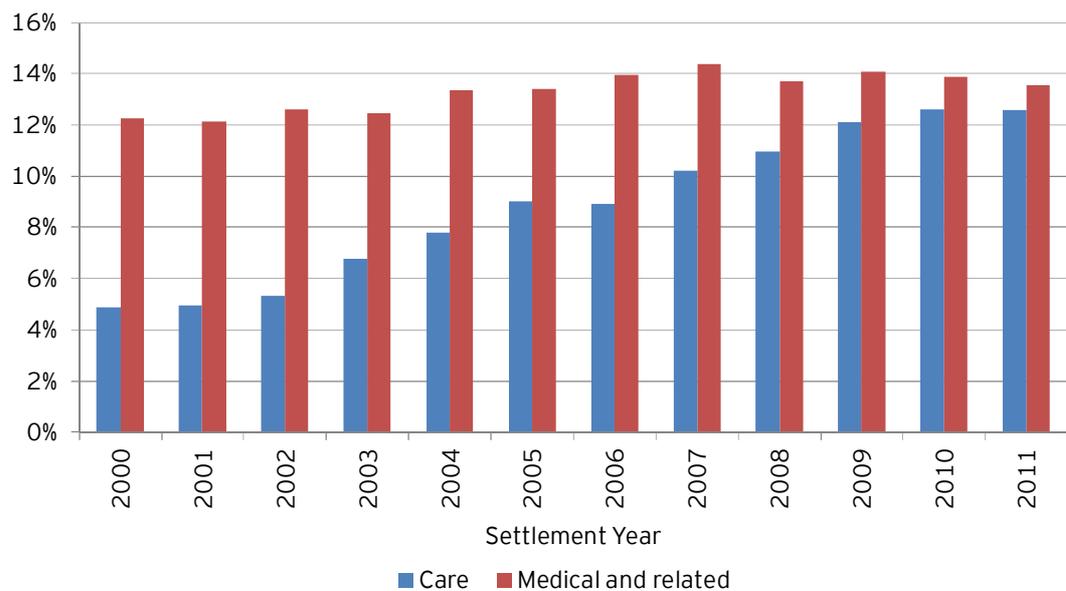
The above figure shows that the care proportion of total payments has increased from 5% in settlement year 2000 to 13% in settlement year 2011. In comparison the medical and related costs proportion of total payments has remained relatively stable between 12% and 14% of total claim payments during the same years.

Our analysis of superimposed inflation for care payments in the body of the report shows average care costs have increased significantly between 2002 and 2011; the annual average superimposed inflation has been greater than 12%. That is claims inflation has been 12% above wage inflation or about 16% total inflation in the 10 years ending June 2011.

Between 2000 and 2011 legal and investigation payments have been a consistently higher proportion of total claim payments than medical and related payments (which excludes care

costs); on average they have been over 50% higher. Legal payments alone have been over 30% higher than medical and related payments, and in any one year they have been at least 19% higher than medical and related payments; furthermore, this has been increasing in recent years. The figures for legal costs would be significantly higher if contracted-out legal costs were included.

Section 5.5 sets out further details.

1.10   Cash flow comparison

The benefit design of a scheme has a significant impact of the speed at which claims receive benefit payments.

As an illustration, the following figure compares the estimated cash flow profile between the NSW Scheme and the Victorian transport accidents scheme which have different benefit designs. In addition Victoria and NSW have similar populations and urban/regional population distributions.

Figure 14: Percentage of claims costs paid out by year post-injury (excluding LTCS claims)
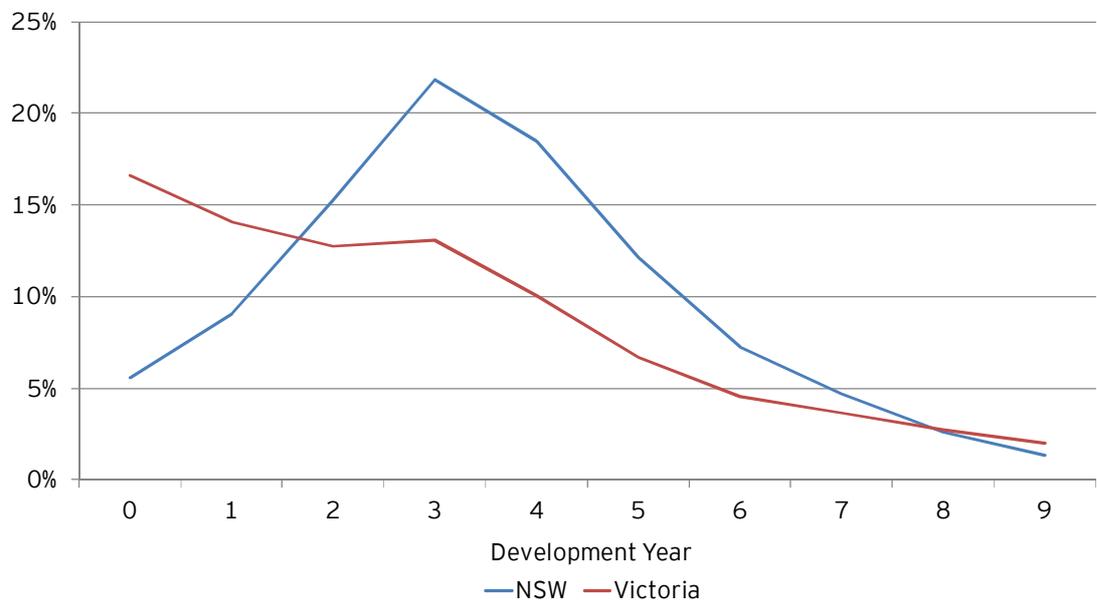
The NSW Scheme typically pays out the majority of benefits between 3 to 5 years after the accident (approximately 52%). In the Victorian Scheme, a considerable proportion is paid out within the first two years after accident (approximately 30% vs. 15% for NSW).

Section 5.6 sets out further details.

1.11   Summary of Scheme performance indicators

The table below summarises some of the performance indicators for the Scheme. The years were selected to represent the current situation and the situation five years ago when the scheme trends were relatively stable.

Table 6: Summary of Scheme performance indicators

	2007	2012
Number of Green Slips[1]	4.3 million	4.8 million
Number of claims (full and Accident Notification Forms)[2]	10,900	13,937
Number of claims per 10,000 vehicles[3]	25	29
Propensity to claim[4]	41%	52%
Average premium (All passenger vehicles excluding GST)	$313[5]	$518[6]
Affordability[7]	28%	37%

[1] *Average number of registered vehicles for the year ended 30 June from Table 19 in this report*

[2] *Estimated ultimate number of claims (including claims incurred but not reported claims) for accident year ended 30 June from Table 19 in this report*

[3] *For the accident year ended 30 June, number of claims = ultimate number of claims from note 3 from Table 19 in this report*

[4] *For the accident year ended 30 June, propensity to claim = ultimate number of claims from note 3 / number of road casualties from Table 19 in this report*

[5] *For the financial year ended 30 June 2007 from Figure 3 in this report*

[6] *From 1 February 2013, calculated from insurers' latest rate filing not rejected by the MAA from Table 4 in this report*

[7] *Average passenger vehicle premium excluding GST as a percentage of average weekly earnings from Figure 3 and Table 4 in this report*

The average efficiency of the NSW Scheme from 2000 to 2010 before contracted-out legal costs is shown in the table below and it is sourced from section 3 in this report.

Table 7: Scheme efficiency – average 2000-2010

Scheme efficiency – average 2000-2010
50%

1.12   Uncertainty

There is significant uncertainty associated with actuarial estimates. Estimates of future claims experience (claims numbers and payments) are always inherently uncertain because they depend on the outcome of future events which cannot be forecast precisely. Examples of claims experience that are particularly challenging to forecast include changes to social, economic and legal environments. Therefore, actual claims experience may emerge at levels higher or lower than the actuarial estimates.

As noted in the report there are significant caveats in relation to our assessment of the efficiency of other schemes and consequently there is significant uncertainty in relation to the results.

Further comments on uncertainty are included throughout the report; however the most important are outlined in Section 6.

1.13   Reliance and limitations

In undertaking this review, reliance has been placed upon the data provided to us by the MAA, Taylor Fry, FMRC, public reports from other schemes and information from Victorian Transport Accident Commission (TAC) and Motor Accident Insurance Commission (MAIC) With regards to the MAA data we are specifically relying on the accuracy by which insurers have provided their data to the MAA.

There are differences between results presented in this report compared to the MAA Annual Report due to the analysis being conducted on differing bases.

It is essential that any reader of this Report understand its associated qualifications and limitations. These are described throughout this report; however the most important are outlined in section 7.

2. Introduction

2.1 Introduction and purpose

Ernst & Young have been requested by the MAA to review the performance of the NSW Scheme using key metrics including relevant comparisons with other states where information is available. Ernst & Young is the NSW Scheme's independent actuary.

The LTCS scheme is excluded from the analysis (except in the affordability of premiums) since it is not managed by insurers and is not subject to review by the government.

The purpose of this report is to set out the results of our analysis of key metrics of the performance of the Scheme from late 1999 the period during which the current Scheme has been in operation.

This report presents the results of our work undertaken during the course of 2012. The results from that work set out the results of key indicators of Scheme performance, those that identified significant trends, both favourable and adverse and comparisons with other schemes and are brought together in this report. We have updated the work to include the impact of the recent premium rate filings of insurers that apply from 1 February 2013. As a consequence the analysis presented in this report uses data at different dates as that was the latest data available when the work was undertaken during 2012 and has not been updated for the latest available data at the time of this report.

2.2 Scope

Ernst and Young have been requested by the MAA to:

► Define Scheme efficiency and investigate and provide an efficiency measure of the NSW Scheme. We also analysed legal and investigation costs

► In addition, we compared the efficiency of the NSW Scheme with other CTP schemes in Australia

► Assess the affordability of the NSW scheme since June 2000 by reference to the average passenger vehicle premium charged within the Scheme

► Assess the affordability of motor accident scheme premiums for passenger vehicles for each Australian state and territory as at 1 February 2013

► Undertake specified analysis of the NSW Scheme:

  ► Trends in ultimate claim numbers, including trends in legal representation, and the trends in propensity to claim and claim frequency

  ► Trends in average claims size

  ► Trends in scheme claims cost per policy

  ► Impact of interest rates and inflation on insurer premiums

  ► Trends in care and medical payments

  ► A comparison of the time to payment (i.e. payment/cashflow profile) between the NSW Scheme and Victorian transport accident scheme.

2.3 Data

The data, data adjustments and methodology used to perform the above analyses are described within the relevant sections of this report.

For the analysis presented in section 5 we have developed an algorithm to identify Life Time Care Scheme (LTCS) eligible claims and remove the LTCS related costs from the historical payments for accident periods prior to the commencement of LTCS scheme for adults in 2007. We removed these costs so that our analysis, and resulting conclusions, reflect the current scheme design.

All results in this report exclude GST and except for prem affordability the LTCS scheme, both claims and levy has been excluded from the analysis since insurers do not manage the LTCS scheme and the LTCS scheme is not under review by the Government.

3. NSW scheme efficiency

3.1 Definitions

3.1.1 Scheme efficiency

In this report we have defined Scheme efficiency as the amount of each dollar paid in premiums that is returned to injured people i.e.

$$Scheme\ efficiency = \frac{claim\ payments\ received\ by\ claimant\ \{\ 1(a)\ \}}{Premium\ \{\ 1(a) + 1(b)\ +\ 2 + 3 + 4\ \}}$$

where:

1. Claims payments:

    a. All claim costs excluding those in 1 (b). Claims costs include estimates of outstanding claims liabilities

    b. Legal, investigation and medico legal costs. These costs also include estimates of outstanding claims liabilities in respect of legal, investigation and medico legal costs

2. Insurer costs

3. Scheme expenses (MAA administration costs and Roads and Maritime Services (RMS) levy)

4. Insurer profits.

We have assumed that:

► Claim payments received by claimants include loss of earnings, general damages, medical and related costs paid on claimants behalf, care, rehabilitation, Bulk Billing levy and miscellaneous costs (home modifications, travel, etc).

► Legal expenses (plaintiff and defendant), investigation expenses and medico legal costs, MAA administration costs and RMS levy are not classified as claim payments received by claimants.

The Lifetime Care & Support scheme (LTCS scheme) is excluded from the analysis since it is not managed by insurers and is not subject to review by the government. We have adopted the above definition of efficiency as it consistent with definitions adopted by other accident compensation schemes in Australia. GST is also excluded from the premium.

Scheme efficiency is a key measure of the Scheme performance and can be viewed by stakeholders as an indicator of value for money.

3.1.2 Contracted-out legal costs

The Scheme has regulations relating to legal costs (legal cost regulations) which stipulate the maximum amount in plaintiff legal costs and medico legal costs that are payable to plaintiff lawyers by insurers. These costs are reflected in insurer claims data (i.e. the MAA claims data). However, this does not restrict the actual fees charged by plaintiff lawyers to claimants as the parties are free to negotiate their own fee arrangement. We have identified the difference between actual fees charged by plaintiff lawyers and the amounts recorded in

insurer data as contracted-out legal costs. Claimants would pay for contracted-out legal costs from the settlement amount they receive.

Due to the presence of contracted-out legal costs using just the legal and investigation costs captured in the MAA's industry claims data to assess the Scheme efficiency, our analysis does not necessarily reflect the true cost of plaintiff legal costs. Contracted-out legal costs reduce Scheme efficiency as they reduce the amount of claim payments received by claimants.

To a lesser extent, the defendant (i.e. insurer) legal costs captured in the MAA's industry claims data may not accurately reflect the true legal costs incurred by insurers as they may utilise internal legal services. However, these costs are captured as part of insurer expenses. We do not believe unidentified defendant legal costs would materially change the efficiency results.

We have not considered contracted-out legal costs for other schemes as data is not available to make the adjustments.

3.2 Data, approach and methodology – NSW

3.2.1 Summary of methodology

We have assessed the historical Scheme efficiency for underwriting years ended 30 September 2000 to 30 September 2010.

To assess the historical efficiency of the NSW Scheme, we have split the historical premiums for each year as follows:

1. Claims payments split into:

    a. Loss of earnings, medical/hospital/rehab, care and general damages (i.e. the amount returned to the injured person). The ratio of this component to the total of four components (claim payments, insurer expenses, Scheme expenses and insurer profits) represents the claim payments received by the claimant. Claim payments include estimates of outstanding claims liabilities.

    b. Legal, investigation and medico legal costs which include estimates of outstanding claims liabilities. As discussed earlier, we have initially estimated the amount of these costs based on insurer data (i.e. the MAA claims data). We have then made allowance for contracted-out legal costs based on the results of an FMRC report prepared for the MAA in 2008.

2. Insurer expenses

3. Scheme expenses (MAA and RMS)

4. Insurer profits.

The approach and components used to determine the value of each category and the source of information for each category are described in the table below.

Table 8: Approach/components and sources for splitting the premium

Item	Approach/components	Source
Premiums	Adjusted for 2007 to 2010 to include Bulk Billing, RMS and MAA levies (previous years included figures for these items)	► "Estimates at 30 June 2011 of profitability of past NSW compulsory third party premiums written by insurers" and dated 10 November 2011 (Taylor Fry's 30/6/11 Scheme profitability report) ► Bulk billing and MAA/RMS levies information was provided by the MAA
Total claims costs	Estimated Scheme claims costs	Taylor Fry's 30/6/11 Scheme profitability report
Split of claims cost	► Loss of earnings ► Medical/hospital/rehab ► Care ► General damages ► Legal and investigation ► Other ► Includes bulk billing levy	► Ernst & Young valuation model by payment type using MAA claims data and RMS casualty data ► Bulk billing levy from Taylor Fry's 30/6/11 Scheme profitability report (for 2006 and prior years) and the MAA for 2007 to 2010
Legal and investigation costs	Split of legal costs into defendant and plaintiff	► Ernst & Young valuation model by payment type using MAA claims data and RMS casualty data ► FMRC 2008 report prepared for the MAA
Insurer and Scheme expenses	► Claims handling expenses ► Acquisition and policy expenses ► Reinsurance costs ► Commissions ► MAA/RMS levies	Taylor Fry's 30/6/11 Scheme profitability report
Insurer profits		Taylor Fry's 30/6/11 Scheme profitability report

3.2.1.1 Taylor Fry 30/6/11 Scheme profitability report

This report provides the MAA with estimates of the profitability of past NSW premiums written by licensed insurers under the Scheme.

3.2.1.2 FMRC 2008 report

In 2008 FMRC was engaged by the MAA to study the impact of the Motor Accidents Compensation Regulation 2005 (the Regulation), and legal costs on CTP insurance claimants. The study sought to:

► Identify the proportion of legally represented CTP claimants who have a costs agreement with their solicitor

► Identify the types of costs agreements being utilised

► Identify the 'gap' between legal fees charged to claimants and legal costs recovered from insurers

► Identify the range of legal fees charged to claimants for similar legal services.

In total eight legal firms participated in the study and 56 files were reviewed. FMRC state in their report that "it was considered that the sample obtained was sufficient for the purposes of the study". In our discussions with them, FMRC have confirmed that they believe the findings of their study are representative of the CTP Scheme in 2008.

The FMRC report provides estimates of the total amount of plaintiff legal costs, beyond the amounts captured in insurer claims data. The results are presented by claim size bands.

3.2.2 Split of claims cost

The claims cost split between payment types has been determined based on the MAA claims data as at 31 December 2011. The claims cost has been split into the following payment types:

▶ Loss of earnings (both past and future)

▶ Medical, hospital, rehabilitation and allied health payments

▶ Care payments

▶ General damages / non-economic loss payments

▶ Legal (plaintiff and defendant) and investigation payments.

We have used a Payment per Claim Finalised in Operational Time (PPCFOT) model to estimate the ultimate claims cost by payment type for each accident year and hence the split of claims cost for the purposes of the efficiency analysis.

Our valuation is not intended to provide an independent assessment of the outstanding claims of the NSW Scheme but rather an independent assessment of the relative cost of each payment type.

Historical claim payments were inflated to current values using NSW AWE as provided by the Australian Bureau of Statistics (ABS). Therefore, our PPCFOT model initially calculated the outstanding claims cost in current values and then we allowed for inflation (normal and superimposed) and discounting to 31 December 2011. Following this we further discounted both the outstanding claims and historical payments to the middle of their relevant premium year based on the discount rates used in Taylor Fry's 30/6/11 Scheme profitability report.

Once we estimated the ultimate claims cost split between the aforementioned payment types we adjusted the amount allocated to legal and investigation payments to allow for contracted-out legal costs. Our method for this is described in section 3.2.3.

3.2.2.1 *Calibrating our results to the Taylor Fry results*

The Taylor Fry Scheme profitability report estimates total claims costs for underwriting years ending 30 September. Our valuation results are based on accident years ending 31 December.

To determine the split of claims cost we have assumed that our results are directly comparable to the Taylor Fry estimates (i.e. the results for accident year ended 31 December 2010 are matched against the results for underwriting year ended 30 September 2010).

We do not believe this approach will materially affect the efficiency results due to the consistency in the relative claims cost from year to year (as shown in section 3.3) and as most CTP policies are in-force for one year.

3.2.3 Contracted-out legal costs

To determine the amount of contracted-out legal costs we have used the results of the FMRC 2008 report. The FMRC report provides estimates of the total amount of plaintiff

legal costs, beyond the amounts captured in insurer claims data. The results are presented by claim size bands.

For each claim size band we have compared the percentage of plaintiff legal costs as a proportion of the total settlement amount (i.e. total claims cost excluding defendant legal costs and investigation costs) in our valuation data (i.e. MAA claims data) against the percentage amounts suggested by the FMRC report. We have performed this analysis only on finalised claims from accident years 2000 to 2010 which are legally represented.

3.2.4 Claim size analysis

We have also analysed Scheme efficiency by claim size band. We have estimated this by analysing the actual payments experience on finalised claims from accident years 2000 to 2010 (i.e. excluding outstanding claims as at 31 December 2011). We have analysed this separately for legally and non-legally represented claims. All analysis was performed in current values to ensure the analysis was on a like with like basis.

We have assumed that the proportion of premium allocated to insurer and Scheme costs, and insurer profits, are the same for all claim size bands. In our experience insurer claim handling costs will be proportionately higher for smaller claims and therefore the results presented in this report will over estimate efficiency for smaller claims and under estimate it for larger claims.

3.2.5 Adjustments to collected premium, insurer & Scheme expenses and bulk billing data

As described in Taylor Fry's 30/6/11 Scheme profitability report, since 1 October 2006:

► The MAA and RMS Levy has been separately paid by policyholders in addition to premiums paid to insurers. Therefore it is not captured in the insurer premium returns and thus the Taylor Fry report

  ► Thus, we have increased the collected premium and the insurer and Scheme expenses amounts by the actual MAA levy amount for underwriting years 2007 to 2010

► Bulk billed ambulance and hospital costs have been paid directly by the MAA rather than insurers

  ► Thus, we have obtained the actual bulk billed amounts from the MAA for underwriting years 2007 to 2010 and added these into the Scheme efficiency calculations.

3.3 Analysis and assumptions – NSW

3.3.1 Claims cost valuation

3.3.1.1 Economic assumptions

As discussed earlier, historical claim payments were inflated to current values using NSW AWE as provided by the Australian Bureau of Statistics.

The following three key economic assumptions were used in the claim cost valuation:

► Wage inflation – we have assumed a future inflation rate of 4% for all payment types for all future periods

► Discount rate – we have assumed a single discount rate of 5.5% for all payments for all future periods.

The wage inflation and discount rate assumptions are consistent with long term forecasts as at June 2011. As the primary purpose of our claims valuation is to determine the payment mix, changing these assumptions will not materially affect the results because we have adopted the same assumptions for all payment types.

3.3.1.2 Non economic assumptions

The following are the key non economic assumptions in the claim cost valuation:

► Claim number assumptions

  ► Ultimate claims incurred i.e. claim frequency

  ► Claim finalisation rate

► Average claim size assumptions (i.e. PPCFOT assumptions) for each payment type including future superimposed inflation

Our assumptions for all components are based on recent claims experience.

Claim cost split results

The following figure summarises the payment type mix, by accident year, resulting from applying our non economic assumptions. It shows that the payment mix is stable across the last twelve accident years. These percentages are applied to the Taylor Fry estimate of Scheme claims cost.

Figure 15: Ultimate cost payment type mix by accident year
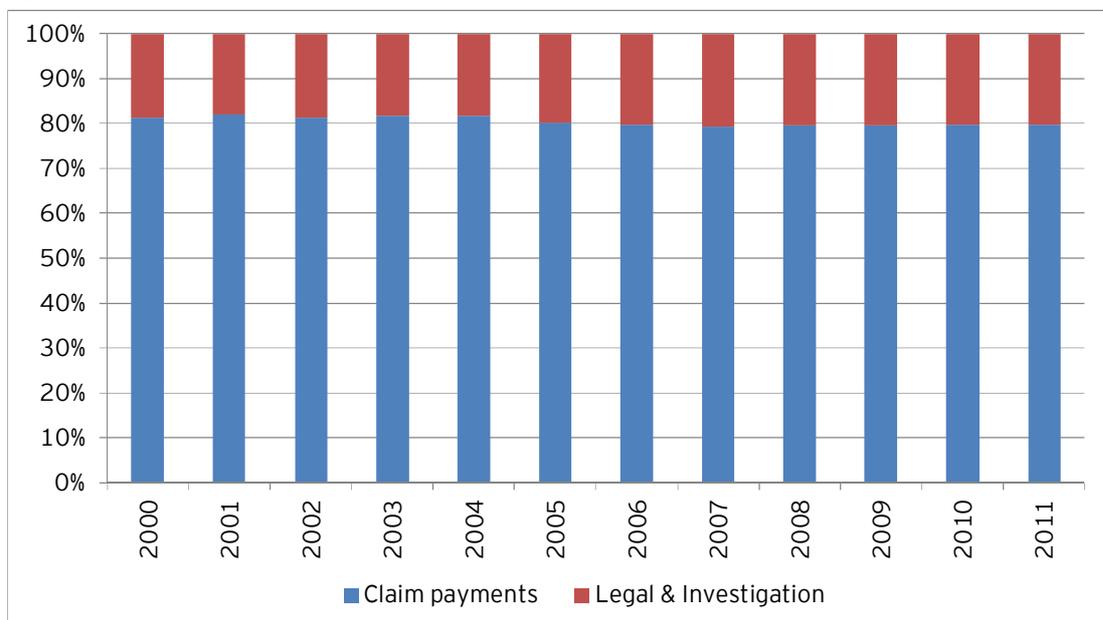
3.3.2 Contracted-out legal costs

The following table compares the results from the FMRC report against the actual claims experience captured in the MAA claims data for legally represented claims from accident years 2000 to 2010 which have been finalised.

Table 9: FMRC and MAA data legal cost results

Claim size band	Average claim size		Plaintiff legal costs % of settlements	
	FMRC*	MAA data*	FMRC	MAA data
<$50K	31,213	13,221	34.0%	18.0%
$50k - $100K	88,427	63,022	21.0%	15.7%
$100k - $200k	176,924	127,478	22.0%	13.2%
$200k to $500k	344,757	289,230	13.0%	9.7%
$500k to $700k	657,062	548,184	9.5%	8.2%
$700k to $1M			9.5%	8.0%
> $1M			9.5%	7.8%

Average claim size is in 31 December 2011 values

The above table shows:

► The legal cost percentage is higher for lower claim size bands. This is consistent in both the FMRC and MAA data

► Across all claim size bands, and especially for claims less than $200k, the FMRC legal cost percentages are higher than the MAA results

► The average claim size for all claim size bands in the MAA data is lower than the FMRC data. Combined with our first observation, that legal cost percentage is higher for lower claim size bands, this suggests that the total plaintiff legal cost percentage across all claims may be higher than the results suggested by the FMRC report.

By fitting a curve through the FMRC results (average claim size vs. plaintiff legal cost %) we have selected the following legal percentage increases to apply to our valuation results for plaintiff legal costs.

Table 10: Contracted-out legal cost percentage

Claim size band	Absolute increase %
<$50K	21.50%
$50k - $100K	12.00%
$100k - $200k	9.00%
$200k to $500k	6.00%
$500k to $700k	3.00%
$700k to $1M	2.00%
> $1M	2.00%

On average, the recoverable plaintiff legal costs account for 9% of total claims costs; applying the above estimated contracted-out legal costs to this increases their contribution by 5%, to 14%. Increasing the plaintiff legal cost component of claims cost reduces the share of other payment types.

3.3.2.1 Limitations of FMRC results

In our discussions with FMRC they have confirmed their belief that the results are representative of industry average plaintiff legal costs in 2008.

However, we note the following limitations of using the FMRC results:

► The analysis is only based on 56 claim files from 8 different law firms. This represents a very small sample compared to the more than 6,000 claims per accident year which are legally represented

- ► The analysis was performed on claims finalised during 2007/08 and therefore the results may not be directly applicable to current Scheme experience

- ► The claim files that were reviewed may represent a biased sample because:

  - ► They were nominated by the participating firms

 - ► All participating firms did so voluntarily.

We understand from discussion with the MAA, insurers and the legal profession that most claims with legal representation contract out of the legal cost regulation.

3.4   Results – NSW

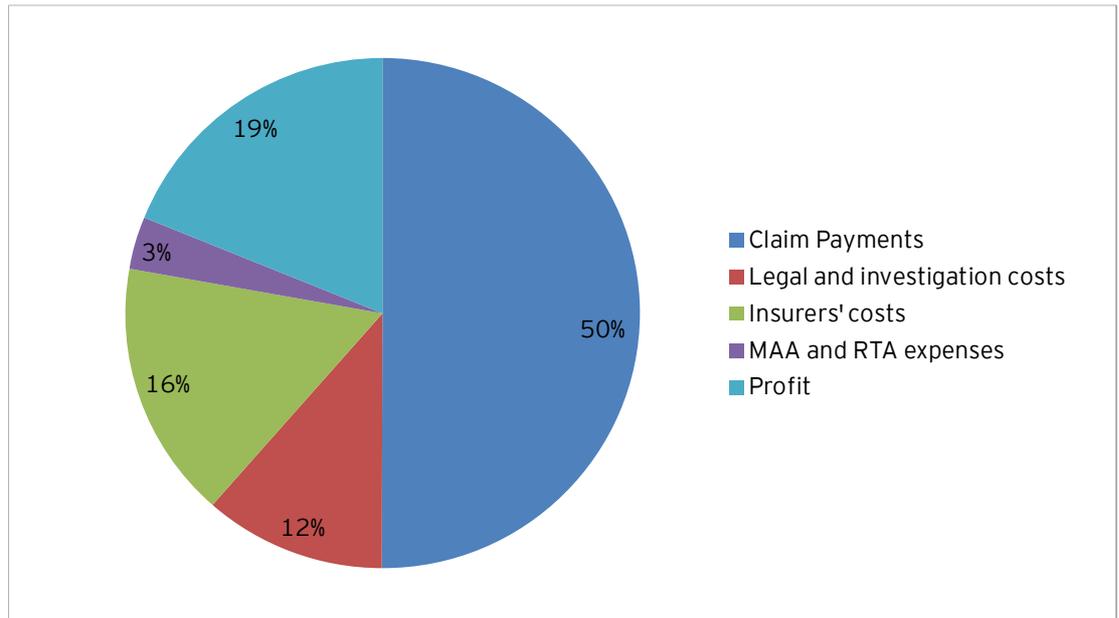### 3.4.1   Overall Scheme efficiency results

The following figure shows the split of premium for underwriting years ended 30 September 2000 to 30 September 2010 and the March 2012 rate filings. This result is before the adjustment for contracted-out legal costs.

Figure 16: Split of premium <u>before</u> adjustment for contracted-out legal costs
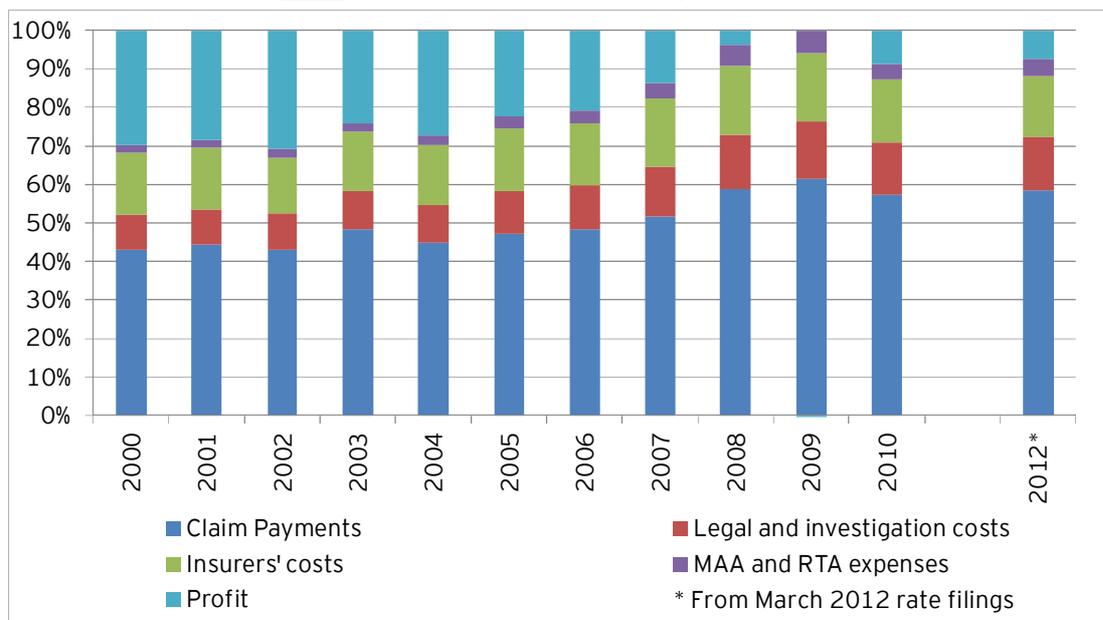
The dark blue bars in the above chart show the efficiency of the NSW Scheme. Scheme efficiency is less than 50% up to about 2006 and is between about 50% and 60% since 2007. The results show volatility by year, as illustrated in the MAA's Annual Report. Hindsight analysis has contributed to the unexpected high profits for underwriting years 2000 to 2006; these higher than expected profits have contributed to the low Scheme efficiency. Based on the March 2012 insurer premium rate filings the estimated Scheme efficiency is 58%, excluding the LTCS levy. The following chart shows that on average, across underwriting years 2000 to 2010, the Scheme has had an efficiency of 50%.

Figure 17: Efficiency for 2000 to 2010 <u>before</u> adjustment for contracted-out legal costs

- ■ Claim Payments
- ■ Legal and investigation costs
- ■ Insurers' costs
- ■ MAA and RTA expenses
- ■ Profit

The Scheme efficiency results vary by underwriting year and show volatility by year, as illustrated in the MAA's Annual Report. Due to this year to year volatility efficiency should be assessed on a long term basis (e.g. from 2000 to 2010).

It should be noted that there is uncertainty in the results for recent years because significant amounts are not yet paid and hence are based on actuarial estimates; the actual claim payments for these years may emerge either higher or lower than the actuarial estimates.

Based on the March 2012 insurer premium rate filings the estimated target Scheme efficiency is 58% excluding the LTCS scheme.

We note that the 2007 and prior years include all claim payments, including those that would be classified as LTCS costs in the current Scheme. If the 2007 and prior year results were adjusted to exclude LTCS related claim costs, then Scheme efficiency for these years would be lower than shown in the above figure.

The following figure shows the split of premium for underwriting years ended 30 September 2000 to 30 September 2010 and the March 2012 insurer rate filings *after adjusting for contracted-out legal costs*. The impact of contracted-out legal costs is to reallocate some of the premium components from claim payments (the dark blue bars) to legal and investigation costs (the red bars).

Figure 18: Split of premium <u>after</u> adjustment for contracted-out legal costs
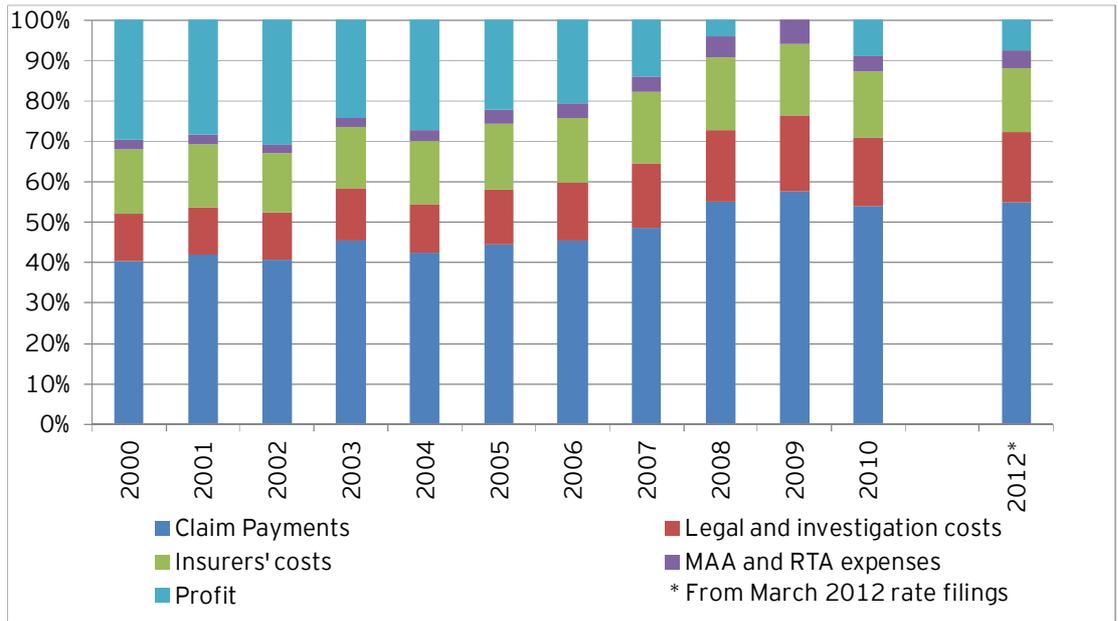
Adjusting for contracted-out legal costs reduces average Scheme efficiency between 2000 to 2010 from 50% to 47% (as shown in the figure below) and the efficiency for the March 2012 insurer rate filings from 58% to 55%, excluding the LTCS scheme.

Adjusting Scheme efficiency for estimated contracted-out legal costs provides details of the actual amount received by claimants after all expenses.

Figure 19: Efficiency for 2000 to 2010 <u>after</u> adjustment for contracted-out legal costs
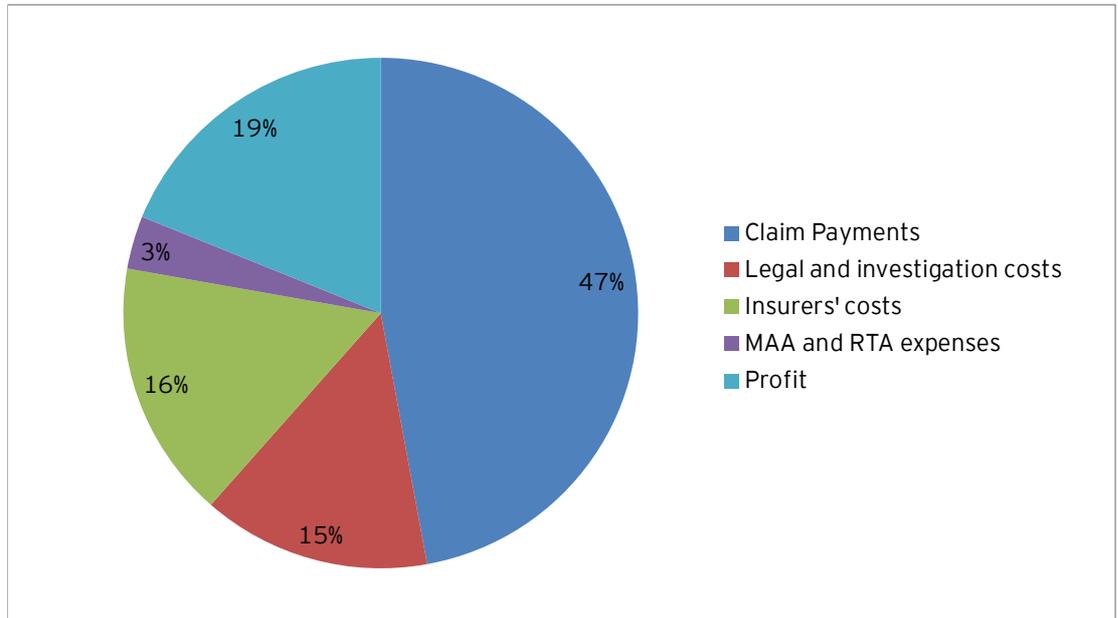
Based on our analysis discussed above we estimate contracted-out legal costs were approximately $55m p.a.in for accidents occurring in 2009 and 2010. This roughly equates to $9,500 per legally represented claim.

3.4.2   Efficiency results by claim size band

The following table shows the efficiency results by claim size band, before and after adjusting for contracted-out legal costs. Providing the split by size band illustrates the relative efficiency of small and large claims. These results are based on finalised claims from accident years 2000 to 2010.

Table 11: Scheme efficiency results by claim size band

Claim size band	Before adjustment for contracted-out legal costs	After adjustment for contracted-out legal costs
<$50K	44%	36%
$50k - $100K	44%	38%
$100k - $200k	46%	42%
> $200k	51%	49%
Total	50%	47%

The above table shows that adjusting for contracted-out legal costs reduces smaller claims efficiency the most. It shows that for claims less than $50k, only 36% of the CTP premium is returned to claimants after adjusting for contracted-out legal costs.

3.4.3   Efficiency results by legal representation

The following table shows the efficiency results by claim size band and legal representation, after adjusting for contracted-out legal costs. The legal representation split is provided to illustrate the percentage of premium returned to claimants between those claimants who did not use legal representation and those who did. These results are based on finalised claims from accident years 2000 to 2010.

Table 12: Scheme efficiency results by legal representation

Claim size band	Legal representation	No legal representation
<$50K	28%	55%
$50k - $100K	36%	58%
$100k - $200k	41%	59%
> $200k	49%	60%
Total	47%	57%

The above table shows that legally represented claims have lower efficiency than non-legally represented claims. It shows that for legally represented claims less than $50k, less than 28% of the CTP premium is returned to claimants; this compares to 55% for claims which aren't legally represented.

3.4.3.1   Other legal representation results

The following table shows that whilst only 59% of claims (including workers compensation recovery claims) are legally represented, they account for over 95% of the claims costs within the Scheme. Our analysis of Scheme experience from 2000 to 2009 shows that 67% of full claims finalised excluding workers compensation recovery claims are legally represented. In recent years the amount of legal representation is estimated to be over 75%.

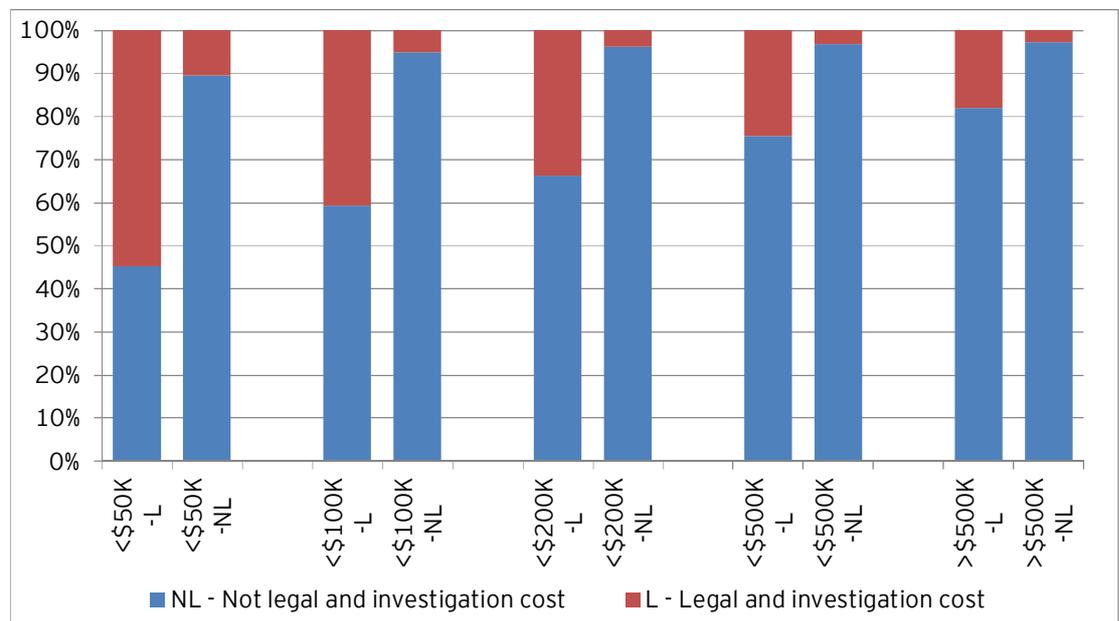Table 13: Mix of legally represented and non-legally represented claims

Claim size band	Claim number mix		Claim cost mix	
	Legally represented claims	Not Legally represented claims	Legally represented claims	Not Legally represented claims
<$50K	44%	56%	69%	31%
$50k - $100K	93%	7%	93%	7%
$100k - $200k	96%	4%	97%	3%
$200k to $500k	98%	2%	98%	2%
$500k to $700k	99%	1%	99%	1%
$700k to $1M	100%	0%	100%	0%
> $1M	100%	0%	100%	0%
Total	59%	41%	96%	4%

About 70% of all full claims (excluding ANFs) have an average size of less than $50,000, 10% between $50,000 and $100,000 and 8% between $100,000 and $200,000.

The above table is based on finalised claims for accident years from 2000 to 2010.

The following figure shows the proportion of claims cost allocated to legal and investigation and how this varies by claim size and whether the claim is legally represented. It shows that for legally represented claims less than $200k, between about 35% and 55% of claims cost is accounted for by legal and investigation costs. These results are based on finalised claims from accident years 2000 to 2010 and after the allowance for contracted-out legal costs.

Figure 20: Legal and investigation costs by claim size[11]

The following table show the mix between plaintiff and defendant legal costs, by claim size band and before and estimated after the effect of contracted-out legal costs. These results are based on finalised claims from accident years 2000 to 2010.

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[11] The L and NL columns in the figure represent legally represented claims and non legally represented claims

Table 14: Mix of plaintiff and defendant legal and investigation costs

	Before contracted-out legal costs		After contracted-out legal costs	
Claim size band	Plaintiff %	Defendant %	Plaintiff %	Defendant %
<$50K	59%	41%	129%	41%
$50k - $100K	60%	40%	106%	40%
$100k - $200k	60%	40%	101%	40%
> $200k	59%	41%	85%	41%

It shows that before the effect of contracted-out legal costs the mix between plaintiff and defendant legal costs is consistent across all claim size bands at approximately 60%/40% (plaintiff/defendant). Note that investigation costs are not available by insurer/plaintiff and we have allocated all investigation costs to insurers. In practice some of investigations costs will be incurred plaintiffs and hence the above table over estimates insurers legal and investigation costs.

Allowing for contracted-out legal costs significantly increases the amount of plaintiff legal costs. For claims less than $50k, the plaintiff legal cost proportion increases from 59% to 129%. For an example claim, this means that of the initial plaintiff legal cost was $59 then allowing for contracted-out legal costs increases the plaintiff legal costs to $129. The additional $70 is taken from the claimant's settlement amount. The cost of defendant legal's remains at $41 under both scenarios.

3.5   Efficiency of other schemes

3.5.1   Data and methodology

The following table shows the efficiency results for other schemes in Australia using the target premium for the latest year in which figures are available. The resulting efficiency could be considered as the current expected or target efficiency for each scheme. We adopted the same definition of scheme efficiency as for NSW which is described in section 3.1.1. The approach used to derive the claim payments received by claimant and premiums for all schemes except South Australian CTP was:

► The target premiums excluding GST assessed by the scheme actuary for each scheme for 2012/13. The target premiums were used so the efficiency calculation was on a fully funded basis. For schemes that fund road safety or infrastructure from CTP premiums or for schemes where stamp duty is applied, we have reduced premiums by these components. For some CTP schemes we took the average premium for motor cars which is an approximation of the average premium for all motor vehicles

► Claim payments received by claimants were derived from the risk premium less legal and investigation expenses. For some schemes we were not able to identify all the legal and investigation costs from the available data. In addition no adjustment was made for contracted-out legal costs.

For South Australia we took the assessed efficiency from the South Australian Government's CTP Insurance 2012 Green Paper. We understand the premium used in the efficiency calculation include costs in relation to road safety campaigns. Past road safety costs, as disclosed in the Motor Accident Commission 2010/11 annual report, do not appeared to be material. Therefore, no adjustments have been made for these costs in the assessed efficiency measure.

For the purpose of the comparison, the efficiency for the NSW Scheme of 58% was calculated using insurer's March 2012 rate filings and before allowance for contracted-out legal costs. This is different to the average efficiency of 50% observed in the NSW Scheme from 2000 to 2010 before allowance for contracted-out legal costs.

The source of information for each scheme is detailed below.

Table 15: Other Schemes sources of information

Scheme	Source
Victorian transport accident scheme	Breakdown of the breakeven premium rate for 2012/13 underwriting year from TAC including by payment type and for expenses
Queensland motor accidents scheme	▶ Collected Premium: Heads of CTP including levies for the Nominal Defendant and hospital; and emergency ▶ Payment type split: claim payments on finalised claims for accident period 1 July 2003 to 30 June 2004 in the MAIC 2010/11 Annual Report ▶ Risk premium: from MAIC
South Australian motor accidents scheme	SA's CTP Insurance Scheme 2012 Green Paper

Data was not available for other CTP schemes.

3.5.2 Results

The following table shows the efficiency results for other schemes in Australia in the latest year in which figures are available before adjustment for contracted-out legal costs. The resulting efficiency could be considered as the current expected or target efficiency for each scheme.

Caution needs to be exercised in interpreting the results of the efficiency comparison in the table below. There may be different views on how to undertake the comparison and it is difficult to undertake the comparison on a like-with-like basis due to a number of factors:

▶ The publicly underwritten schemes are able to smooth out premium rates they charge over time. For some schemes this can result in the premium rates being below the breakeven premium (i.e. the cost of claims and administrative costs) at times which increases the apparent efficiency while at other times premiums can be significantly above the breakeven premium rate which reduces the apparent efficiency. We have adjusted for this by ensuring the efficiency measure is calculated on a fully funded basis for each scheme

▶ The results do not allow for contracted-out legal costs. Consequently the figures should be compared to the NSW Scheme March 2012 insurer premium rate filings for which the estimated Scheme efficiency is 58% before allowance for contracted-out legal costs. The Victorian scheme has lower levels of legal involvement due to both the no-fault nature of the scheme and limited access to or use of common law by claimants. Consequently if contracted legal costs were taken into account, the efficiency in each scheme would reduce.

▶ We have mostly had to rely on publicly available information in the comparison and in some schemes the data we would have ideally liked has not been available. This has necessitated making some approximations to assess efficiency

▶ While the benefit structure is different for each scheme and is one reason for the difference in efficiency between schemes, CTP schemes in different states deal differently with catastrophic claims. For NSW the medical and care claims costs of catastrophic claims are generally separately funded through the Lifetime Care & Support Scheme while they are included in other CTP schemes. In practice this may mean the efficiency of other CTP schemes are possibly overstated compared to the NSW Scheme (excluding the LTCS scheme)

► Each state approaches premium setting differently and we have made adjustments to adjust for these differences so the assessment is on a like-with-like basis with NSW, for example:

  ► Some schemes use a higher discount rate than other states to assess the claims cost. For those states we have adjusted the discount rate to a consistent basis for all schemes

  ► Some states fund road safety from CTP premiums while others apply stamp duty to CTP premiums. We have excluded both these factors in assessment of efficiency unless stated otherwise (i.e. reduced premiums by these amounts)

► Actual historical efficiency has varied from expected in the table below, sometimes significantly. For example in past years, the scheme efficiency for Queensland CTP has been lower, as insurer's profits have exceeded the expected profit margins explicitly included in premiums - this arose from claims costs being lower than expected.

Table 16: Efficiency for other Accident Compensation Schemes in Australia

Scheme	Scheme description	Efficiency
Victorian transport accidents scheme	No-fault public monopoly with restricted access to common law	80%
Queensland motor accidents scheme	Fault based fully privatised	67%
South Australian motor accidents scheme	Fault based public monopoly	64%
NSW Scheme	Fault based fully privatised	**58%**

Note: There is no adjustment for contracted-out legal costs. The assessment is done on a net ITC/DAM basis, excluding stamp duty and GST. For the NSW Scheme, excludes the LTCS scheme since the efficiency measure has been defined against what the insurers manage for the Scheme.

The table above shows that the NSW Scheme is the least efficient of the schemes.

4. NSW scheme affordability

4.1 Introduction

Affordability is defined as green slip prices (including levies but excluding GST) divided by average weekly earnings (AWE) consistent with the definition presented in the MAA's annual report and that adopted by other schemes. The higher this ratio the less affordable is the premium.

We have assessed historical affordability of passenger vehicle premiums within the NSW Scheme from 2000 to 2012 and as at 1 February 2013. The comparison of the affordability of the NSW Scheme with other states uses premiums for passengers of each state as at 1 February 2013.

GST has been excluded from the comparison.

The results are based on data that has been sourced through jurisdiction agencies, and a range of publically available scheme reports. Adjustments have been made to enable comparisons on a consistent basis between states.

4.2 Data

The following data were used:

►   Historical policies and premiums written with the NSW CTP Scheme by financial quarter as provided by the MAA

►   Premium returns provided by the MAA

►   Vehicle registration data from NSW Roads and Maritime Services (RMS)

►   Average Weekly Earnings (AWE) for each Australian state and Territory from the Australian Bureau of Statistics (ABS).

4.3 Approach

4.3.1 NSW Scheme affordability from 2000 to 2012

We have estimated the average passenger vehicle premiums from 2000 to 2012 based on historical premium and policy data captured by the MAA from insurers and the number of registered vehicles as per the RMS. Historical NSW AWE has been sourced from the ABS.

The 1 February 2013 average passenger vehicle premium is based on insurer rate filings (as discussed below in section 4.3.2). The NSW AWE at 1 February 2013 has been estimated based on historical trends in AWE growth.

The average premiums for each year have been divided by their respective AWE values to calculate the affordability index.

4.3.2 Affordability by state and territory as at 1 February 2013

The NSW average passenger vehicle premium as at 1 February 2013 has been sourced from insurer rate filings submitted to the MAA. The passenger vehicle premiums for all other states and territories (except ACT and Queensland) were sourced from a summary compiled by the Motor Accident Insurance Commission (MAIC, the Queensland regulator). The ACT passenger vehicle was sourced from the ACT government Treasury website and the

Queensland passenger vehicle premium was sourced from the MAIC website. The Victorian premium was adjusted based on information provided by Transport Accident Commission.

The AWE for each state and territory at 1 February 2013 has been estimated based on historical trends in AWE growth.
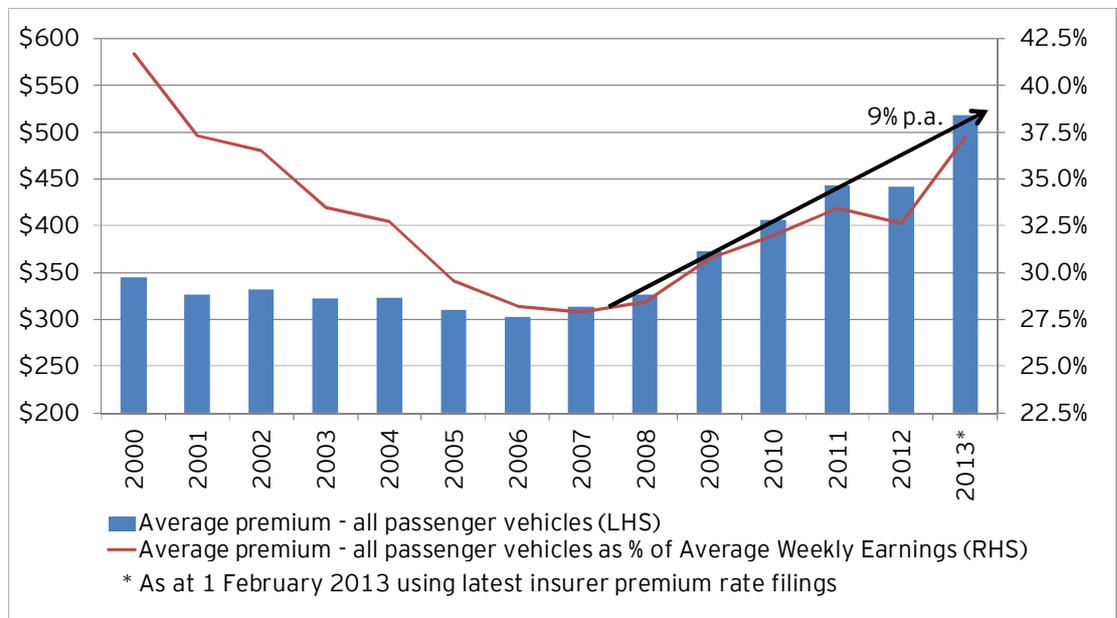
The average premiums for each state and territory have been divided by their respective AWE values to calculate the affordability index.

4.4 Results

4.4.1 Premium affordability in NSW

The figure below shows the historical affordability of green slips in NSW for all passenger vehicles and as at 1 February 2013. The affordability for each year from 2000 to 2012 is taken as the premiums paid in the quarter ending each 30 June.

Figure 21: Green slip affordability for all passenger vehicles

Average premium - all passenger vehicles (LHS)
Average premium - all passenger vehicles as % of Average Weekly Earnings (RHS)
* As at 1 February 2013 using latest insurer premium rate filings

Whilst premiums were relatively stable between 2000 and 2007, the affordability measure significantly improved. Since 2007, when measured against AWE, the price of an NSW green slip has increased from around 28% of AWE in 2007 and 2008 to around 37% of AWE in February 2013. The trend increase in the average green slip prices from 2007 to 2013 is 9% p.a. which is about three times the increase in price inflation over that period.

The green slip prices shown in the above figure consist of both the insurer premium and levies; this reflects the total amount paid by policyholders excluding GST. On this basis green slip premiums increased between June 2008 and 1 February 2013 by about 60%; this translates to a 30% increase after adjusting for wage inflation. Excluding levies which represented just the insurer component of green slip prices, prices have increased between the middle of the year to June 2008 and 1 February 2013 by about 70%; this translates to a 40% increase after adjusting for wage inflation.

4.4.2 Green slip affordability by state

The table below shows the affordability of green slips for all passenger vehicles by state at 1 February 2013. The same definition of affordability was adopted for the state comparison as for NSW above.

Table 17: CTP premium for all passenger vehicles by stated at 1 February 2013

State	Premium (incl. levies, excl. GST) $	Affordability %
NSW	518	37
SA	470	37
ACT	526	32
NT	456	31
VIC	362	27
TAS	319	26
QLD	299	22
WA	247	16

Green slips in NSW are least affordable compared to the other jurisdictions in Australia, marginally less affordable than South Australia. However, South Australia has announced reforms to their scheme which is expected to reduce premiums by around $110 from 1 July 2013 and by a further $50 from July 2014. South Australia's reduction in premiums of $110 from 1 July 2013 will reduce their affordability to around 30% which will make NSW's affordability significantly worse than all other states.

The relative ranking of the affordability of each state's premium varies over time. This variation can arise from the different frequency of changes in premium rates in each state. For example most states only change premiums annually whereas in NSW they change more frequently which may impact the relative ranking of NSW's affordability relative to other states.

The results above are based on data that has been sourced through jurisdiction agencies, and a range of publically available scheme reports. Adjustments have been made to align the comparisons on a consistent basis between states.

5. NSW Scheme experience

5.1 Introduction

The NSW Scheme experience analysis in this section is based on results of our scheme outstanding claims report and other additional analysis that we have performed. This section covers:

► Claim numbers, propensity to claim and claims frequency trends

► Average claims size trends

► Trends in Scheme claims cost per policy excluding the impact of interest rates

► Impact of interest rates and wage inflation on insurer premiums

► Trends in care and medical payments excluding public hospital

► Cash flow comparison with the Victorian scheme.

5.2 Claim numbers and propensity to claim trends

5.2.1 Data and methodology

As the NSW Scheme Actuary, we have assessed the NSW Scheme's outstanding claims liabilities as at 30 June 2012.

We have performed the valuation using unit record claims data as at 30 June 2012 provided by the MAA (i.e. MAA Personal Injury Register).

For claims which are not Accident Notification Forms (ANFs) and workers compensation recoveries, we have analysed the claims based on the maximum injury severity level recorded for the claimant. The table below shows the injury severity level classifications. Specialised insurer staff classify each claimant's injury severity based on the Abbreviated Injury Scale set by the Association for the Advancement of Automotive Medicine.

Table 18: Injury severity levels classification

Injury severity level code	Description
1	Minor
2	Moderate
3	Serious
4	Severe
5	Critical
6	Maximum
9	Unknown

Throughout this report, we use "serious severity" to refer to claims for serious severity, severe severity, critical severity and maximum severity injuries Abbreviated Injury Scale. Also we will use "minor severity" to refer to claims for minor severity and unknown severity injuries.

The number of claims for each accident quarter has been estimated using chain ladder models.

The following sections show our ultimate estimated number of claims (which includes claims incurred to 30 June 2012 but not yet reported) by accident year, since 2000 separately, for minor severity non legally presented, minor severity legally presented, moderate severity and serious severity. We have not shown the results separately for ANFs and workers compensation recovery claims.

Since around 80% of claims for moderate severity injuries and around 90% of claims for serious severity injuries are legally represented, we have not split moderate and serious claims into legally and non-legally represented categories. These proportions have been reasonably stable, unlike the level of legal representation for minor claims.

5.2.2   Claim number trend results

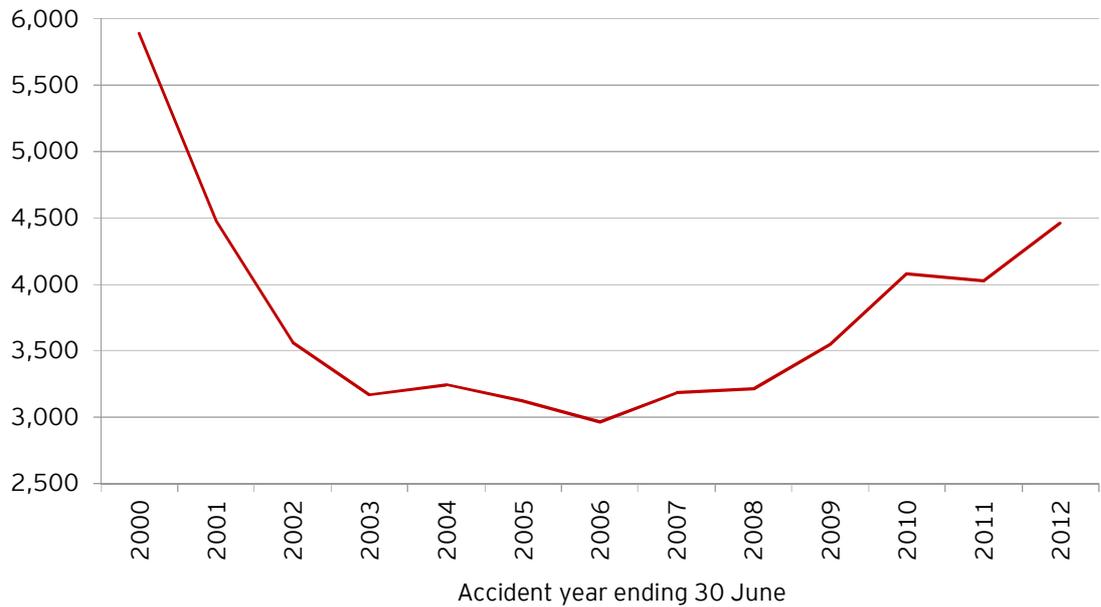### 5.2.2.1 Minor severity injuries non legally represented

Figure 22: Ultimate number of claims for minor severity injuries non legally represented
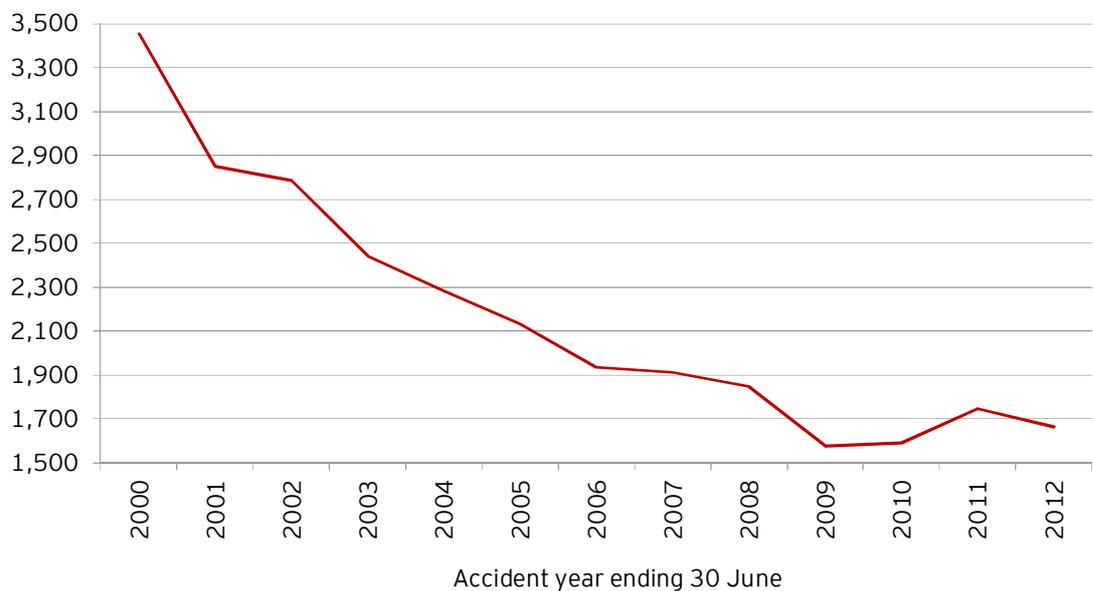
Accident year ending 30 June

The number of claims for minor severity injuries that do not involve legal representation has decreased substantially since 2000 particularly from 2000 to 2006 and has been reasonably stable since 2009.

5.2.2.2 Minor severity injuries legally represented

Figure 23: Ultimate number of claims for minor severity injuries legally represented
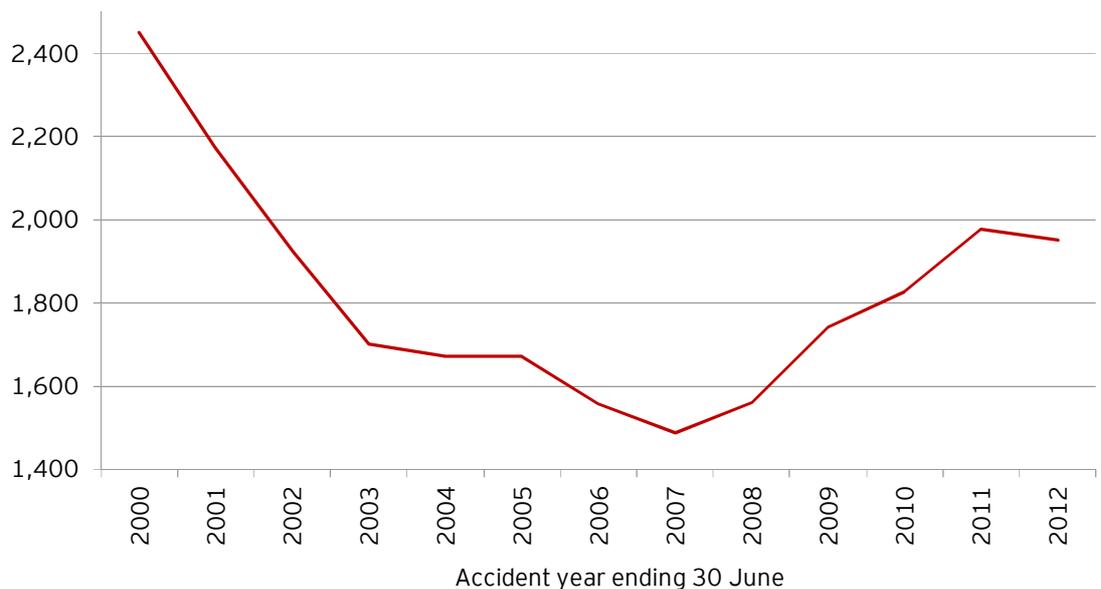

The number of claims for minor severity injuries that involve legal representation almost halved from 2000 to 2003. From 2003 to 2008, the number of claims was relatively stable. Since 2008, despite casualty numbers only increasing by 6%, the number of legally represented minor claims has increased by about 40% in contrast to claims for serious severity injuries and minor severity injuries without legal representation which have shown fallen.

In 2012 the number of claims for minor severity injuries <u>with</u> legal representation is about 2.6 times the number of for minor severity injuries <u>without</u> legal representation whereas before 2009 the ratio was only about 1.7.
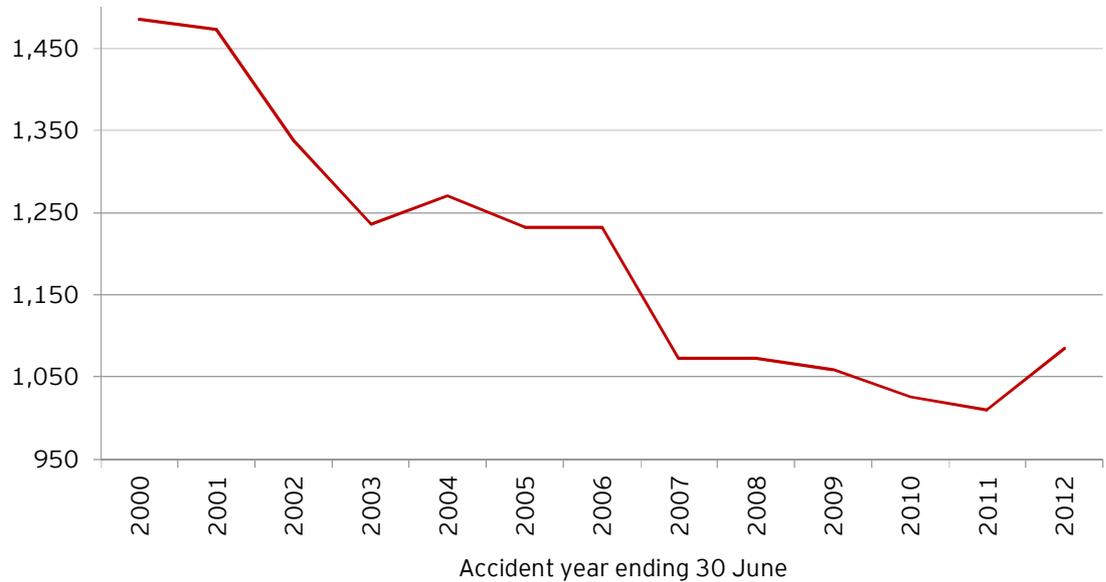
5.2.2.3 Moderate severity injuries

Figure 24: Ultimate number of claims for moderate severity injuries

The number of claims for moderate severity injuries reduced by 40% from 2000 to 2007. Since 2007 the number of claims has increased by about 30% despite casualty numbers over increasing by a small amount.
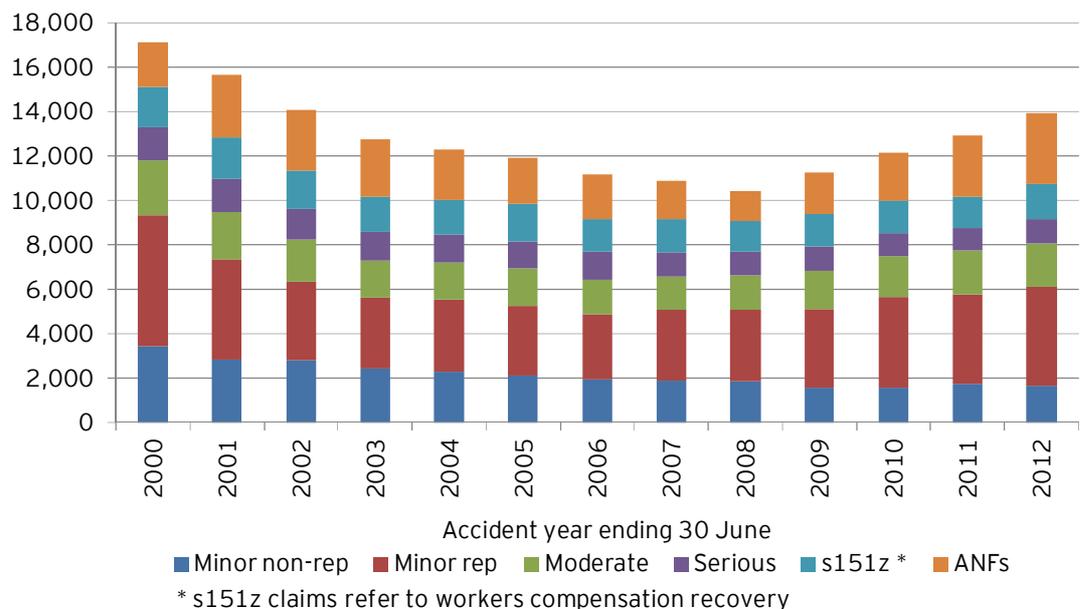
5.2.2.4 Serious severity injuries

Figure 25: Ultimate number of claims for serious severity injuries

Accident year ending 30 June

The number of claims for serious severity injuries has reduced by about 30% since 2000 reflecting falling casualty numbers but with some volatility.

5.2.2.5 Ultimate number of full claims and ANFs

Figure 26: Ultimate number of full claims and ANFs

Accident year ending 30 June

■ Minor non-rep ■ Minor rep ■ Moderate ■ Serious ■ s151z * ■ ANFs

* s151z claims refer to workers compensation recovery

The number of claims consistently reduced until accident year 2007. As can be seen from the above figure, full claim numbers have been growing since 2008, this increase has been mainly from minor severity injuries with legal representation and moderate severity injuries

which are mostly legally represented. The number of minor non-legally represented claims has fallen since 2008.

The number of ANFs has increased since 2008. The ANF benefit was increased from $500 to $5,000 in 2009 for not at-fault claims and at-fault ANFs were introduced in 2010. These two changes have contributed to increasing ANFs.

Of the total number of claims in 2012 of 9,162 excluding workers compensation recovery claims, 6,126 claims or 67% were minor severity claims.

From the above figure our estimate of full claim numbers (excluding ANFs) since 2008 has increased by 19% from 9,047 to 10,750 in 2012 which is 13% above the increase in road casualties of 6% during the same period.
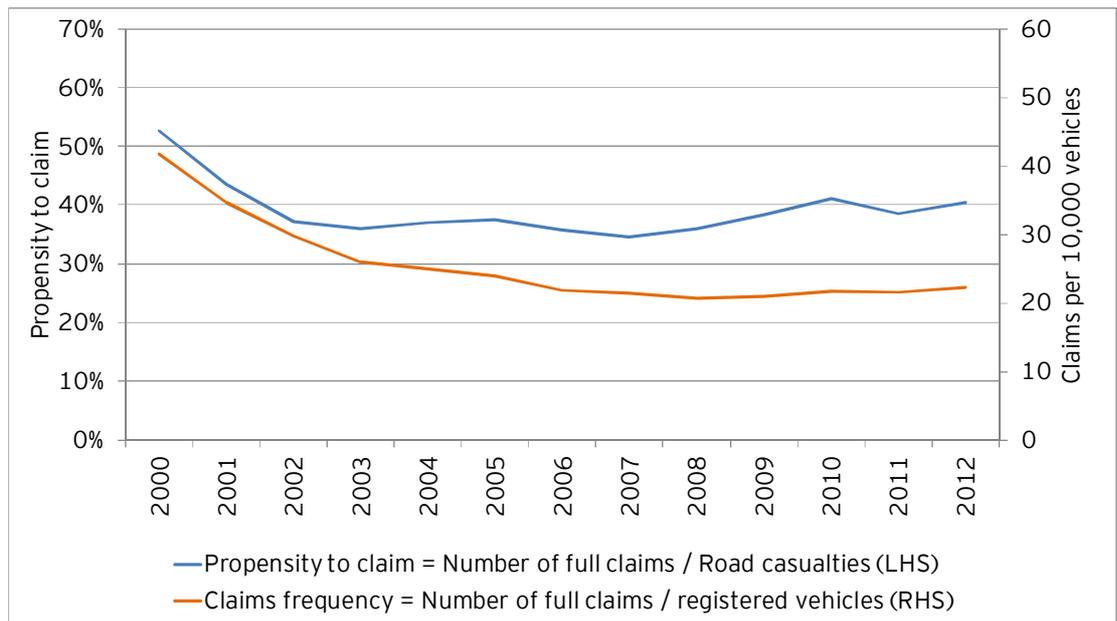
5.2.3   Propensity to claim and claim frequency results

Propensity to claim is defined as the ultimate number of claims divided by the number of road casualties. Claim frequency is defined as the ultimate number of claims divided by the number of vehicles.

5.2.3.1   Full claims

The figure below shows the propensity to claim and the claim frequency per 10,000 vehicles since 2000 for full claims (i.e. including workers compensation recovery claims but excluding ANFs).

Figure 27: Propensity to claim and claim frequency for full claims
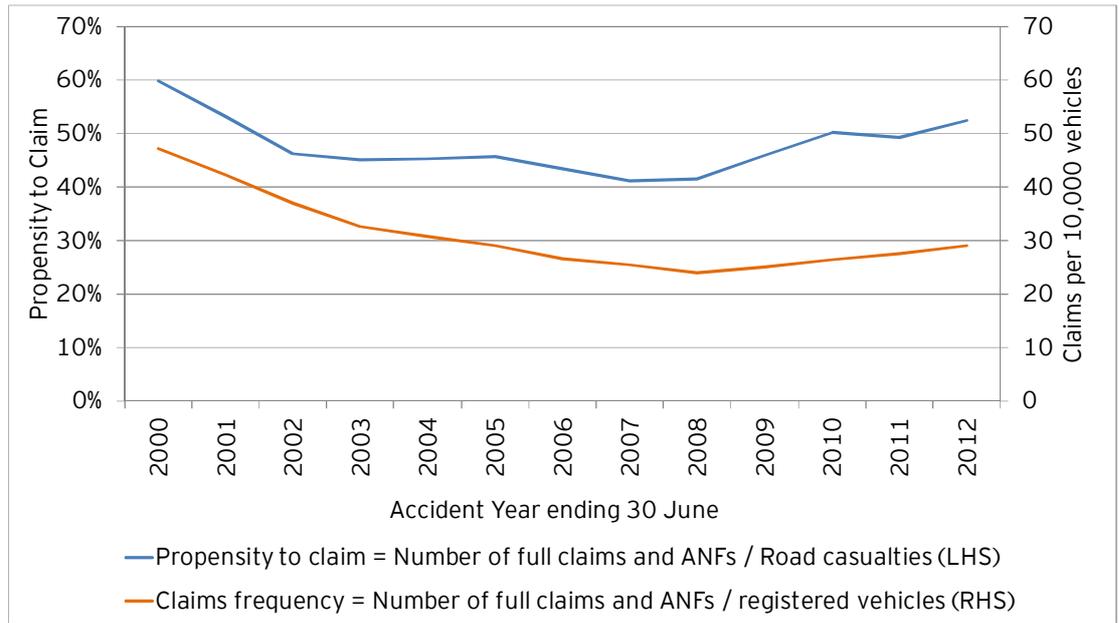

Both propensity to claim and claim frequency reduced until 2007. Propensity to claim has since increased by an average of 3% p.a. and full claim frequency has increased by an average of 2% p.a. since 2008 (or by a cumulative 8%). However propensity to claim has been relatively stable since 2010.

5.2.3.2   Full claims and ANFs

The figure below shows the propensity to claim and the claim frequency per 10,000 vehicles since 2000 for full claims and ANFs.

Figure 28: Propensity to claim and claim frequency for full claims and ANFs

Propensity to claim = Number of full claims and ANFs / Road casualties (LHS)

Claims frequency = Number of full claims and ANFs / registered vehicles (RHS)

Similar to the previous figure propensity to claim and claim frequency reduced until 2007.

Since then the propensity to claim has increased by an average of 6% p.a. and the claim frequency for full claims and ANFs has increased by an average of 5% p.a. since 2008 with the propensity to claim in 2012 being 52%.

The data for the above figures is shown in the table below.

Table 19: Claim numbers and propensity to claim

Accident year ended 30 June	Number of CTP policies (m)	Number of full claims	Number of ANFs	Number of full claims and ANFs	Number of claims per 10,000 vehicles	Road casualties	Propensity to claim
2000	3.6	15,088	2,012	17,100	47	28,656	60%
2001	3.7	12,832	2,814	15,646	42	29,469	53%
2002	3.8	11,317	2,737	14,054	37	30,469	46%
2003	3.9	10,151	2,593	12,744	33	28,244	45%
2004	4.0	10,044	2,268	12,312	31	27,178	45%
2005	4.1	9,828	2,124	11,952	29	26,239	46%
2006	4.2	9,176	1,965	11,142	27	25,669	43%
2007	4.3	9,178	1,722	10,900	25	26,509	41%
2008	4.4	9,047	1,394	10,442	24	25,151	42%
2009	4.5	9,393	1,842	11,235	25	24,535	46%
2010	4.6	9,967	2,183	12,150	26	24,202	50%
2011	4.7	10,138	2,812	12,950	27	26,290	49%
2012	4.8	10,750	3,187	13,937	29	26,623	52%

5.3 Scheme claims cost

5.3.1 Data and methodology

We have assessed the total claims cost for each accident quarter using a mix of standard actuarial models (payments per claim finalised models and projected case estimates model).

The following sections show the average claim size by accident year, since 2000, for each injury severity level. So that they are on a like with like basis over time, the claim sizes have been adjusted for average wage inflation (AWE)[12] and for superimposed inflation [13] as follows:

► The average claim sizes are inflation adjusted using AWE at 30 June 2012 values, and are gross of input tax credits and decreasing adjustment mechanism. They reflect past and future claim payments, with future claim payment payments based on our valuation assumptions

► Claim sizes also incorporate actual past superimposed inflation, and future assumed superimposed inflation but exclude future wage inflation.

Over 95% of the Scheme claims costs consist of minor severity legally represented, moderate and serious claims. The trends in average claims size for each of these categories are set out below.

The minor severity legally represented claims and to a lesser extent the moderate severity claims have exhibited strong superimposed inflation over the history of the existing scheme.

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[12] All historical payments have been inflated from time of payment to 30 June 2012 using the average weekly earnings index for New South Wales.
[13] Superimposed inflation is the increase in average claim costs over and above economic inflation.

Note that the claim severity classifications mentioned in this section refer to the severity level for which the claims were coded when the payments were made. Over time the severity level of claims may change and for many claims the final severity level of claims at finalisation will be different to the level at original notification.

The results set out below, particularly for minor injury severity injuries, will to some extent have been influenced by:

► The delays in first assigning a severity level to a claim due to the change in the Abbreviated Injury Scale in 2008

► The changes in the Scheme in recent years including:

    ► The increase to the maximum compensation for not at-fault-ANFs in 2008 to $5,000

    ► The introduction in 2010 of compensation for at-fault ANFs to a maximum of $5,000.

5.3.2 Results

5.3.2.1 Minor non legally represented severity injuries

Figure 29: Average claim size for non legally represented minor severity injuries
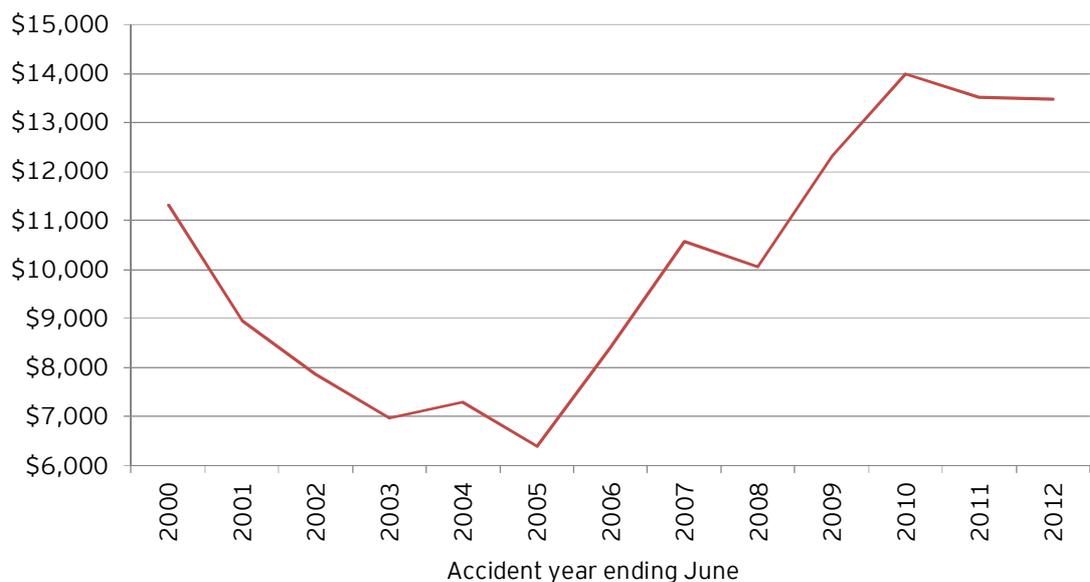
The average claim size for minor severity injuries that do not involve legal representation increased substantially from 2005 to 2010 and has stabilised since 2010.

5.3.2.2 Minor legally represented severity injuries

Figure 30: Average claim size (in 30 June 2012 values) for legally represented minor severity injuries

There were significant increases in the average claim size for minor severity injuries that involve legal representation from 2001 to 2008 but it has been relatively flat from 2008 to 2012. The average claims size has nearly doubled in real terms from 2001 to 2012 or about 6%p.a. above wage inflation or about 10%p.a. including wage inflation

Figure 29 and Figure 30 show that for recent accident years, the average claim size for minor severity injuries <u>with</u> legal representation is about nine times the average claim size for minor severity injuries <u>without</u> legal representation. Consequently the increased number of minor severity injuries <u>with</u> legal representation relative to those <u>without</u> legal representation since 2008 has resulted in a significant increase in the cost of claims for the Scheme.
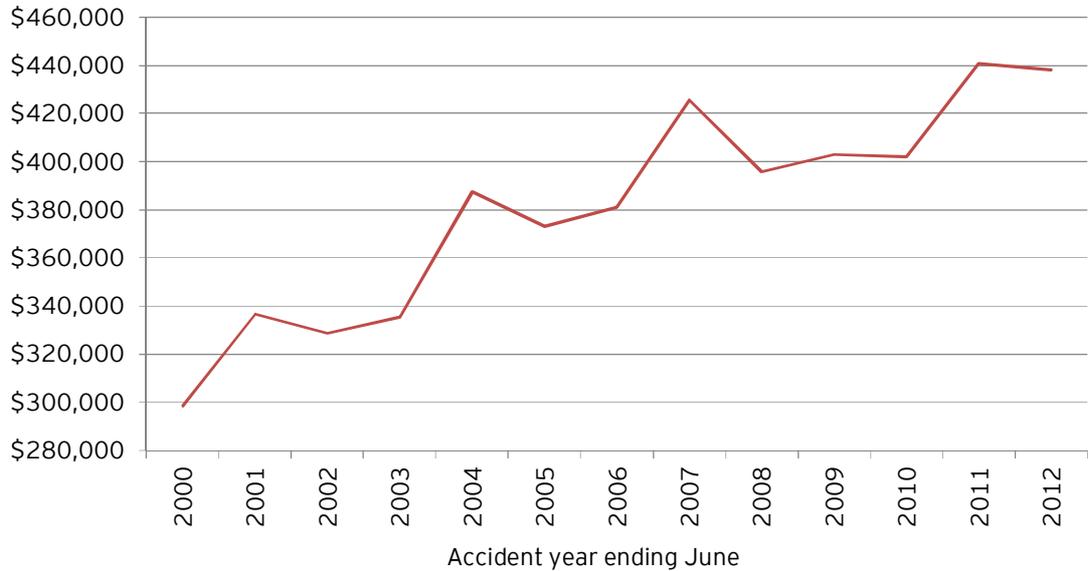
5.3.2.3 Moderate severity injuries

Figure 31: Average claim size (in 30 June 2012 values) for moderate severity injuries

The average claim size for moderate severity injuries has increased from about $120,000 to $210,000, an increase of nearly 80% since 2000 or about 5%p.a. above wage inflation of about 9%p.a. including wage inflation. However, the rate of increase for moderate severity injuries has reduced since 2009.

5.3.2.4 Serious severity injuries

Figure 32: Average claim size (in 30 June 2012 values) for serious severity injuries


The change in average claim size for serious severity injuries is volatile but there is a clear increasing trend. The long term increase is moderate being an average increase of about 3%p.a. above wage inflation or about 7% including wage inflation.

5.3.2.5 Claims cost per policy

The graph below shows the fully inflated cost per policy for all the claims in the NSW Scheme by accident year since 2000. The cost per policy is the number of claims multiplied by the average claims size and then divided by the number of insured motor vehicles in NSW. So the comparison between years is on a like with like basis, the claims cost includes past claim payments and future claim payments including future wage inflation and superimposed inflation.

Figure 33: Cost per policy for all claims and ANFs
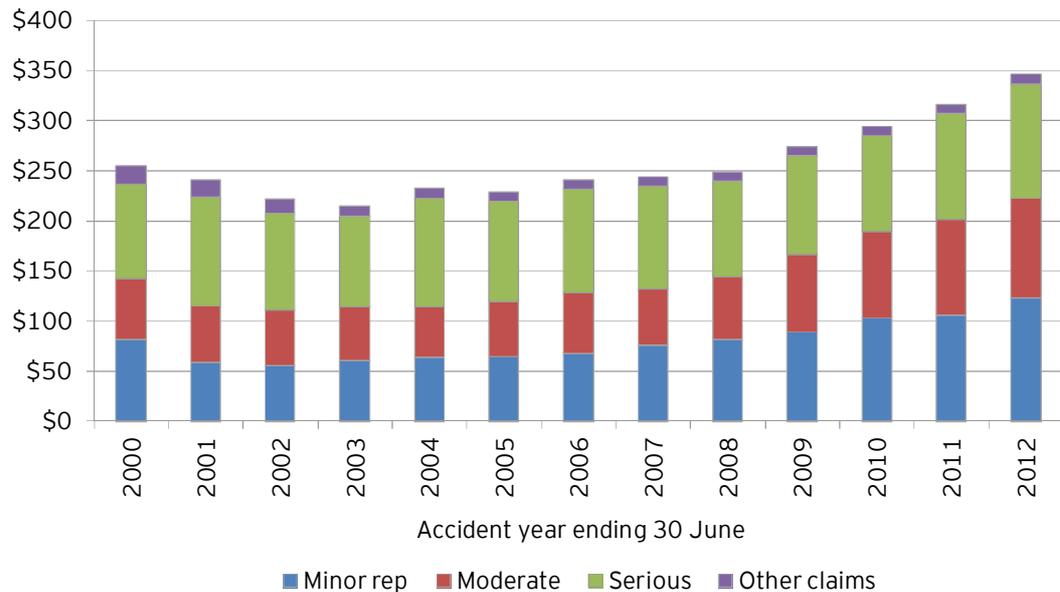
Gross of ITC and DAM

Cost per policy for all claims was relatively stable but showed some volatility until 2008. The stability in cost per policy means that there were real reductions in the cost per policy until 2008. Cost per policy has increased since 2008 by an average of 9% per annum. The main drivers of the increase since 2008 are greater claim numbers for minor severity injuries <u>with</u> legal representation and for moderate severity injuries.

The cost per policy for minor severity injuries <u>with</u> legal representation has increased by $42 or 51% since 2008 and for moderate severity injuries has increased by $37 or 59% in CPP since 2008. The increases for minor and moderate severity injuries are significantly above normal wage inflation increasing about 11%p.a. and 12%p.a. respectively or 7%p.a. and 8%p.a. above wage inflation. The cost per policy for serious severity injuries has been relatively stable.

The above figure also shows that workers compensation recovery claims, non legally represented minor claims and ANFs represent less than 5% of the cost of claims.

It should be noted that there is uncertainty in the results for recent years because significant amounts are not yet paid and hence are based on actuarial estimates; actual claim payments may emerge at levels higher or lower than the actuarial estimates.

5.4 Impact of interest rates and wage inflation on insurer premiums

The purpose of insurer premiums is to collect the money needed to pay for future claims. Since the premium is collected upfront, there is a pool of funds that insurers invest to earn a return; the resulting investment income is used to help pay claims. Interest rates affect the investment return on this pool of funds and therefore the premiums insurers need to charge. For instance, when interest rates are low, insurers earn less from investing the pool of funds to pay claims which places upward pressure on the amount insurers need to collect upfront as premiums.

The interest rates which insurers use when determining their premiums have reduced from around 6.3% p.a. in 2008 to around 2.8% p.a. from the recent premium rate filings of

insurers that apply from 1 February 2013. This rate is the weighted average of Commonwealth Bond Rates by term to payment. The fall in interest rates since 2008 has partially contributed to the premium increases observed during this period. Wage inflation expectations have also reduced since 2008 which partially offsets the reduction in interest rates.

The overall impact of the reduction in interest rates and wage inflation is an increase of about $55 to the premium (including levies but excluding GST). That is, had the interest rates and wage inflation remained unchanged since 2008, the premium including levies but excluding GST) would have been lower by about $55.

5.5 Care and medical payments

We have analysed the trends in claim payments by type of payment (i.e. economic loss, non economic loss, medical, care and legal and investigation costs). The proportion of total claims payments for each type of payment, as a percentage of total payments, has been reasonably stable since 2000 except for care which has grown substantially and non economic loss has reduced.

5.5.1 Definitions

Care and medical and related costs are defined as the following:

► Care payments relate to attendant care and personal care costs. This includes past, future and gratuitous care costs

► Medical and related costs relate to all non care medical costs (e.g. private hospitals, allied health and rehabilitation). The figures below exclude public hospital costs.

5.5.2 Data and methodology

Our analysis of the trend in care payments is based on actual payments data (in current values) for the NSW Scheme. Our results are based on MAA claims data sourced from the MAA Personal Injury Register (PIR) as at December 2011. The payments data has been inflated to current values (i.e. 31 December 2011) based on the NSW average weekly earnings (AWE) index.

5.5.3 Results

5.5.3.1 Proportion of care payments

The following figure shows the proportion, as a percentage of total claim payments, for care and medical and related payments since 2000. So that there is a complete picture of all payments on claims the figure:

► Only considers claim payments on all finalised claims reported since 1989 that were paid in each of the years ended 31 December 2000 to 2010

► The claim payments have been allocated to the year that the claim is finalised rather than the year the payment is made.

Figure 34: Split of claims costs between care and medical costs as a proportion of total claim payments
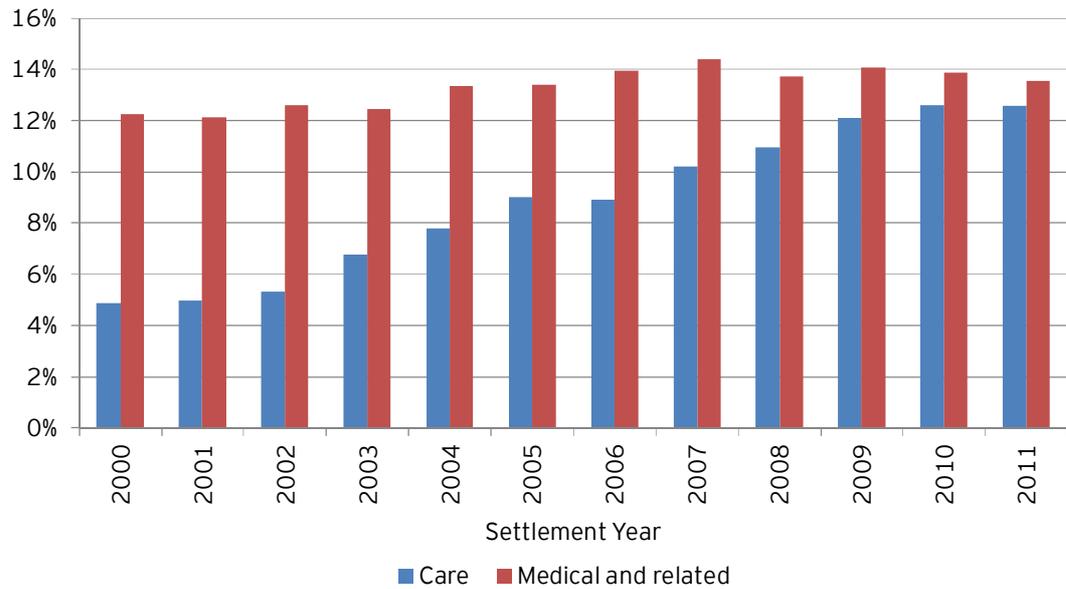
The above figure shows that the care proportion of total payments has increased from 5% in settlement year 2000 to 13% in settlement year 2011 (an average growth rate of 9% p.a.in the care proportion). In comparison the medical and related costs proportion of total payments has remained relatively stable between 12% and 14% during the same years.

5.5.3.2 Proportion of medical and legal payments

The following table shows the proportion of total claim payments for care, medical and related and legal and investigation payments since 2000 excluding contracted-out legal costs. The results are on the same basis as the previous figure.

Table 20: Ratio of legal to medical costs

Settlement year	Care	Medical and related	Legal and Investigation	Ratio of Legal to Medical
2000	5%	12%	21%	1.70
2001	5%	12%	22%	1.79
2002	5%	13%	22%	1.71
2003	7%	12%	23%	1.83
2004	8%	13%	21%	1.57
2005	9%	13%	19%	1.44
2006	9%	14%	20%	1.40
2007	10%	14%	20%	1.36
2008	11%	14%	19%	1.42
2009	12%	14%	19%	1.38
2010	13%	14%	20%	1.46
2011	13%	14%	19%	1.42
Average 2000 - 2008	8%	13%	21%	1.57
Average 2000 - 2010	9%	13%	21%	1.54

The above table shows that during this time period legal and investigation payments are consistently a higher proportion than medical and related payments which excludes care costs; on average they have been over 50% higher. Legal payments alone have been over 30% higher than medical and related payments, and in any one year they have been at least 19% higher than medical and related payments. The figures for legal costs would be significantly higher if contracted-out legal costs were included.

5.5.3.3 Superimposed inflation for care and medical

The following two figures show the observed superimposed inflation rates (by looking at the growth in average finalised claim size) for care and medical at development years 1, 2, 3, 4 and 5 (i.e. the delay from date of accident/injury to date of payment). Our results have been adjusted for historical changes in the rate at which claims are finalised (i.e. we have used a specific actuarial model called an operational time model). Therefore all the values along each line of the figures are directly comparable to each other. The analysis covers claims across all accident years (i.e. before and after MACA 1999).

The figures indicate the average payment per claim in each calendar payment year for the selected development years (i.e. the lines). The year on year increase in the average payment amount allows us to estimate the annual rate of superimposed inflation; the results shown in the graph indicate the annualised average superimposed inflation rates observed over the last ten settlement years.

Figure 35: Care superimposed inflation – growth in average settlement amount for each development year
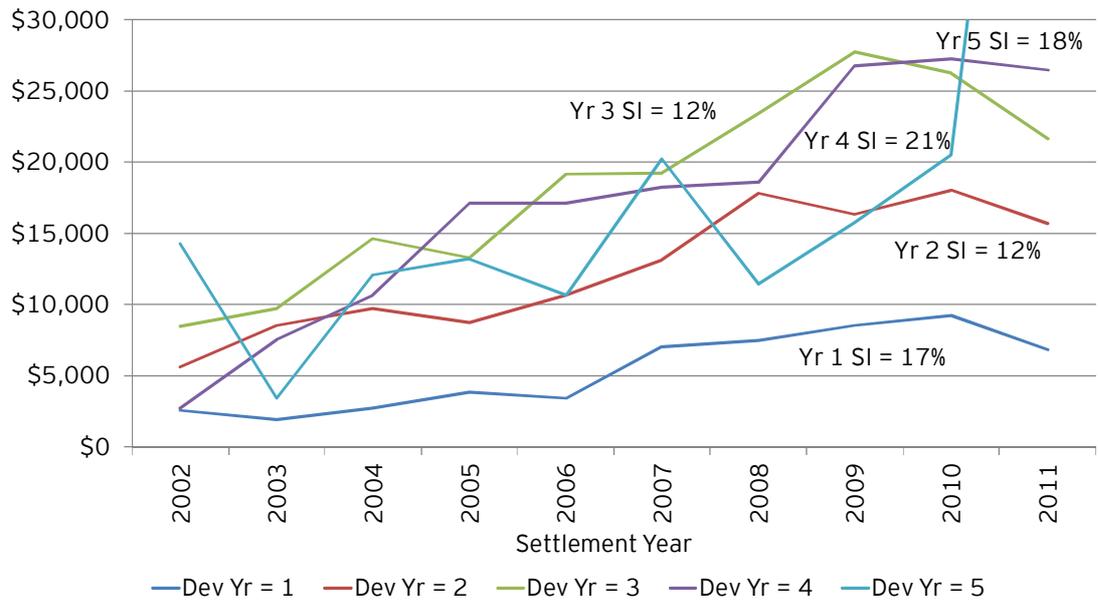

Figure 36: Medical and related superimposed inflation – growth in average settlement amount for each development year
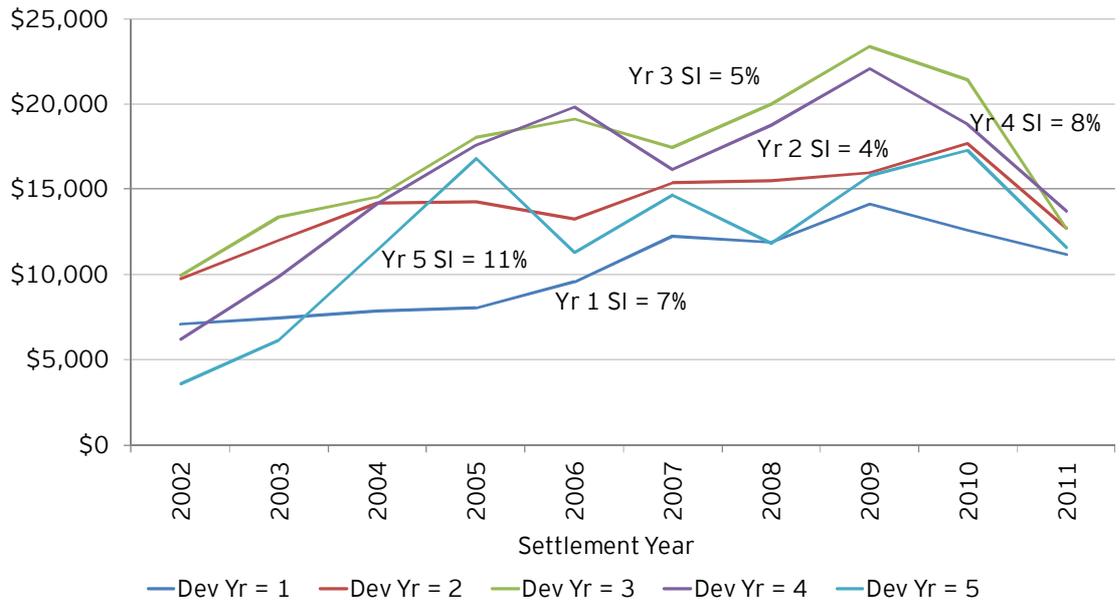

Figure 35 shows that average care costs have increased significantly between 2002 and 2011; the annual average superimposed inflation has been greater than 12%.

Figure 36 shows the growth in average claim costs for medical and related payments. Compared to care costs, their growth in average costs has been significantly lower; their annual average superimposed inflation has been between 4% and 11%.

5.6   Cash flow comparison

The benefit design of a scheme has a significant impact of the speed at which claims receive benefit payments.

As an illustration, the following figure compares the estimated cash flow profile between the NSW Scheme and the Victorian transport accident scheme which have different benefit designs. In addition Victoria and NSW have similar populations and urban/regional population distributions.

5.6.1 Data and methodology

As discussed earlier, the Victorian Transport accident scheme is primarily a no fault scheme that provides defined benefits with some allowance for common law benefits. In contrast the NSW Scheme is primarily a fault based scheme which provides common law benefits.

Our comparison of the cashflow profiles between these two schemes is based on the ultimate cashflow profiles (on an uninflated and undiscounted basis) for the most recent accident year (for which data is available being accident year 2011 for NSW and accident year 2012/13 for the Victorian scheme. The ultimate cashflow profile includes both actual payments to date and the actuarial estimate of outstanding claim payments.

Specifically, we have used the following data sources:

► NSW Scheme results are based on MAA claims data sourced from the MAA Personal Injury Register (PIR) as at 31 December 2011. Based on this data we have undertaken an actuarial valuation of the outstanding claims cost as at 31 December 2011. We have also included an allowance for bulk billed hospital and ambulance services which are not captured in the MAA claims data but claimants are entitled to receive

► The Victorian scheme results are based on Victorian scheme claims data that is submitted to the Institute for Safety, Compensation and Recovery Research (ISCRR) as at 31 October 2011 and the payment profile for underwriting year 2012/13 provided by the Transport Accident Commission.

The payments data has been inflated to current values based on state based AWE indices.

5.6.2 Results

The following graph compares the cash flow profile between the two schemes.

Figure 37: Percentage of ultimate claims costs paid out by year post-injury (excluding LTCS claims)
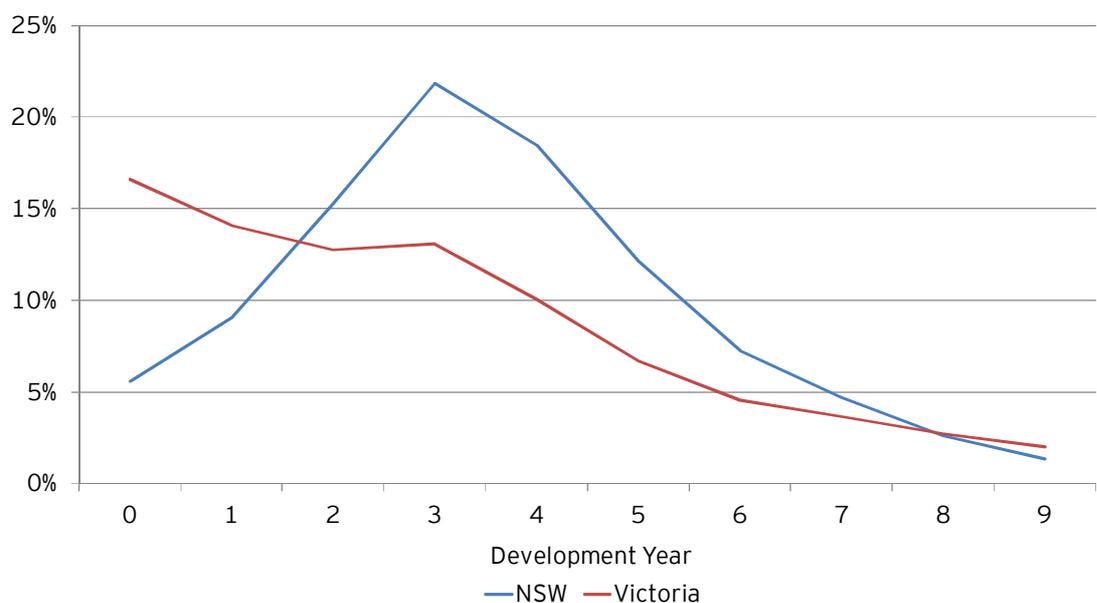
The above graph shows that the Victorian scheme pays significantly more within the first two years (approximately 30% of all claims payments are in development years 0 and 1) than the NSW Scheme (approximately 15% of all claim payments are in development years 0 to 1). The NSW Scheme pays the majority of benefits between 3 to 5 years after the accident (approximately 52% of claim payments are in development years 3 to 5).

6.   Uncertainty

There are several sources of uncertainty within this report.

6.1   Actuarial estimates

There is significant uncertainty associated with actuarial estimates. Estimates of future claims experience (claims numbers and payments) are always inherently uncertain because they depend on the outcome of future events which cannot be forecast precisely. Examples of claims experience that are particularly challenging to forecast include changes to social, economic and legal environments. This uncertainty is increased for the more recent accident periods, especially the 2012 accident year, which are more heavily reliant on the actuarial projections. Therefore, actual claims experience may emerge at levels higher or lower than the actuarial estimates.

6.2   Scheme efficiency estimates

The uncertainty identified for the estimated NSW Scheme efficiency results is:

▶ The claim payments component relies on actuarial estimates of future payments, particularly for recent underwriting years. Estimates of future claim payments are always inherently uncertain because they depend on the outcome of future events which cannot be forecast precisely, such as quantum of claims costs, expectations of claimants and their legal representatives, amounts of court awards, etc. Therefore, actual claims payments may emerge at levels higher or lower than the actuarial estimates.

▶ We have placed reliance on the FMRC report to estimate the impact of contracted-out legal costs. The results are based on claims experience from 2007/08 and on a small sample of claims and from legal firms that volunteered (other declined); these two factors may mean that the results are not fully representative of current Scheme experience.

▶ We have placed reliance on Taylor Fry's 30/6/11 Scheme profitability report. As it has been one year since the effective date of that report the results contained within it will have changed particularly for recent underwriting years. However, we do not believe any change in the results will have a material impact on the results of the Scheme efficiency measure for the 2000 to 2010 underwriting periods considered as a whole.

▶ We have not made any adjustment in our analysis for the commencement of the LTCS scheme in 2006 or the changes in the dispute resolution mechanism in 2008. If we had made an adjustment for the LTCS scheme claims for claims up to 2007 (i.e. excluded these claims) then the resulting Scheme efficiency would have reduced from the results shown in this report.

As noted in section 3.5, there are significant caveats in relation to our assessment of the efficiency of other schemes and consequently there is significant uncertainty in relation to the results.

7. Reliances and limitations

In undertaking this review, reliance has been placed upon the data provided to us by the MAA, Taylor Fry, FMRC, public reports from other schemes and information from Victorian Transport Accident Commission and Motor Accident Insurance Commission (MAIC) . With regards to the MAA data we are specifically relying on the accuracy by which insurers have provided their data and classified appropriate payment types and injury severity coding and that this allocation has been accurate over time. We note that because claim payments are made as a lump sum to claimants the amounts that insurers allocate to a particular payment type doesn't necessarily reflect the eventual use of the money. For example, claimants may use more or less than the allocated amount of medical payments for medical services as per their needs. We have not verified the information provided to us from other state schemes including publicly available information.

We note that some results in this report will not directly reconcile against results in MAA Annual Reports as they have been produced on a different basis.

We have also made judgements and estimates where the information provided here was not part of the analysis conducted as part of the review. In general, reliance was placed on but not limited to the information provided. Except where indicated, the information has been used without independent verification. However, it was reviewed where possible for reasonableness and consistency.

We have performed the work assigned and have prepared this document in conformity with its intended utilisation by persons technically familiar with the areas addressed and for the stated purposes only. Judgements based on the data, methods and assumptions contained in the report document should be made only after studying the report in its entirety, as conclusions reached by a review of a section or sections on an isolated basis may be incorrect. Ernst & Young staff are available to explain or amplify any matter presented herein.

We have described certain limitations of our analysis throughout the Report.

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