



Statistics

Claims development in CTP motor vehicle insurance

15 June 2016

Claims development in CTP motor vehicle insurance

This feature describes emerging trends in CTP insurance. It also highlights how some of the key statistics proposed for publication in the proposed *General Insurance Claims Development Statistics* publication can be interpreted and used.

Findings

- The **estimated total cost of claims** in CTP insurance has increased over the past five **accident years** and exceeded increases in **premium revenue**. The extent of the increases in recent estimates of the total cost of claims may change over time as these estimates are replaced by actual claim amounts in the future.
- Over the past decade, actual claims costs have been lower than initial estimates, allowing provisions to be released from insurers' CTP **reserves**. However, outcomes such as a recent increase in CTP claims frequency observed by insurers in New South Wales have the potential to result in further deterioration in observed **claims experience**.
- In the past five years, CTP reserve releases from prior accident years have been a significant component of industry profit.

Understanding claims development statistics

Claims development statistics show how the estimated **ultimate cost of claims** changes over time.

The estimated ultimate cost of claims represents what insurers expect a group of claims to cost by the time they are finalised, based on both estimated and actual costs. Estimated ultimate cost has three components at any stage of development:

- **paid claims**: amounts already paid to claimants;
- **case estimates**: reserves set aside by insurers to cover open claims; and
- **IBNR/IBNER** ('Incurred but not reported' and 'Incurred but not enough reported'): reserves set aside to cover claim events that have already occurred but have not yet been reported to the insurer, and reserves set aside for any future changes in case estimates, respectively.

It can take many years for insurers to assess, process and pay claims. The **accident year** is the year in which an event giving rise to a claim occurred, regardless of when it was reported to the insurer. The number of years between a claim's accident year and the financial year the claim is reported are known as **development years**.

The **ultimate loss ratio** is the estimated ultimate cost of claims as a proportion of the premium earned during that accident year.

Analysis

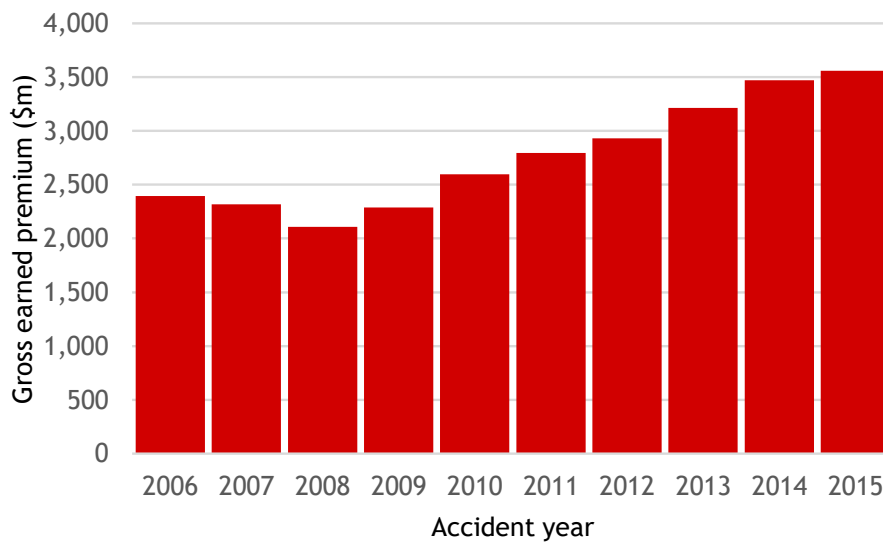
Premium revenue

Premium revenue for CTP insurance has risen in recent years, corresponding to increases in average premiums in New South Wales¹. From 2010 to 2015 premium revenue nationally rose by 37 per cent (figure 1), which exceeded the 12 per cent increase in the number of insured vehicles² over the same period.

¹ Source: MAA annual report 2014/15 (page 18), Motor Accident Authority of NSW.

² Motor vehicles on register in states that have private CTP schemes (as at December 2015): New South Wales, Queensland and the Australian Capital Territory. Source: Motor Vehicle Census, Australian Bureau of Statistics.

Figure 1: Gross earned premium by accident year

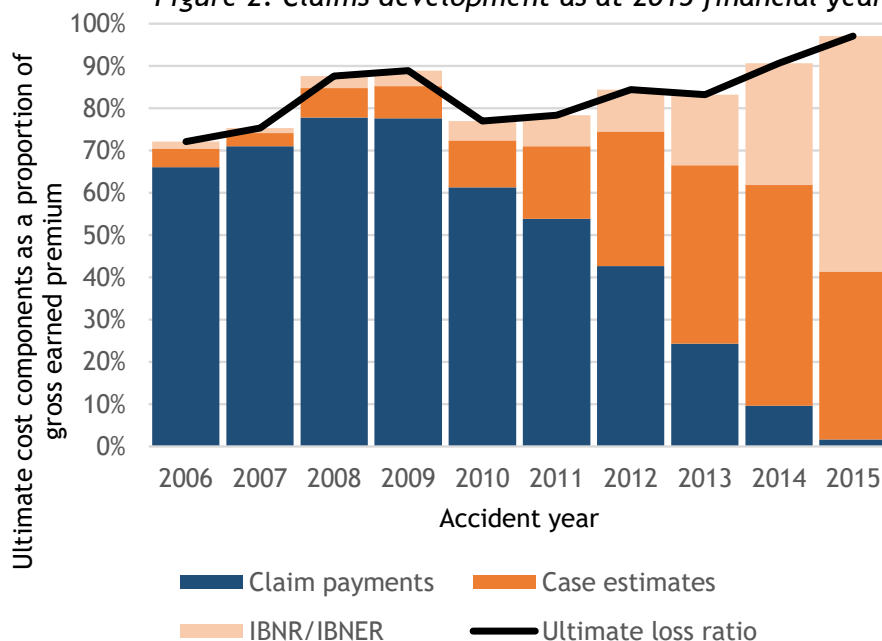


The increases in premium revenue partially offset lower investment returns received by insurers (on assets held to support CTP reserves) due to the historically low bond yields over the past five years³.

Ultimate cost of claims

The current estimates of ultimate cost of CTP claims over accident years since 2010 is increasing as a proportion of premium (figure 2)⁴. This is because the current estimates of ultimate cost increase by 73 per cent between the 2010 and 2015 accident years, which is a larger increase than the 37 per cent increase in premium revenue over the same period. For events occurring in 2010, the current estimate of ultimate cost is around 77 per cent of premium, while events occurring in 2015 are currently expected to have an ultimate cost of around 95 per cent of premium.

Figure 2: Claims development as at 2015 financial year end



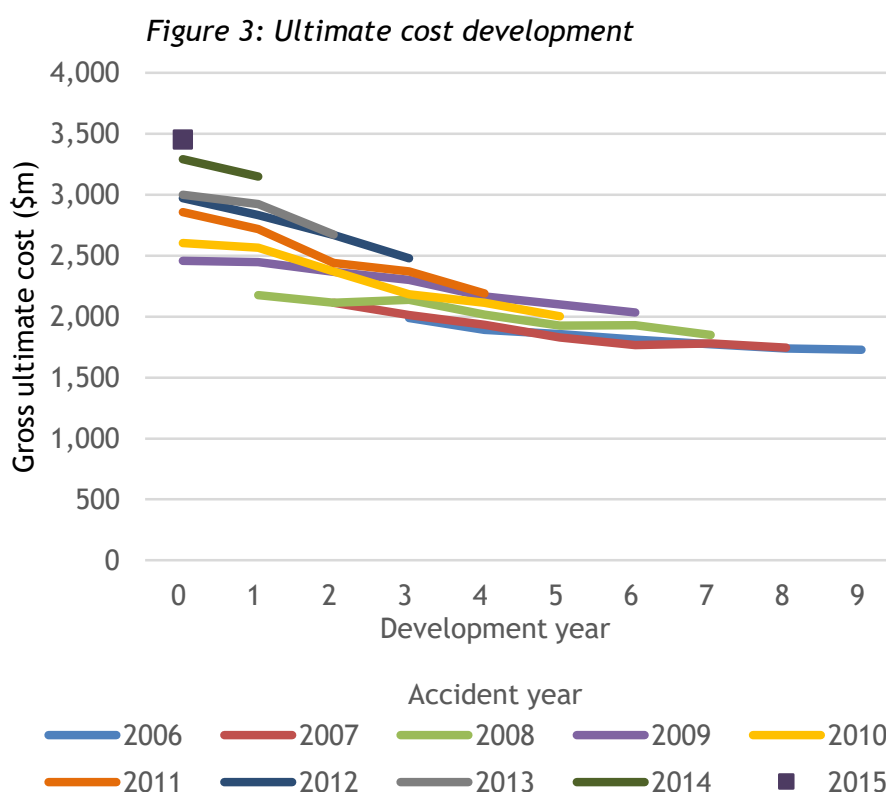
³ Source: MAA annual report 2014/15 (page 18), Motor Accident Authority of NSW.

⁴ Claims cost in figure 2 is on an undiscounted basis

Estimates for the most recent accident years shown in figure 2 are the most uncertain. These have the potential to change (or '*develop*') more significantly than in earlier years for which more of the ultimate cost has been paid. This uncertainty is demonstrated by the high proportion of case estimates and IBNR/IBNER relative to claim payments in the more recent accident years in figure 2, and is demonstrative of CTP insurance being long-tailed in nature⁵.

Development of ultimate cost estimates

Since 2010 (and in earlier years), estimated ultimate claims costs (and thus ultimate loss ratios) have fallen from their initial estimates. See figure 3⁶ - initial estimates are displayed on the left for development year 0, while the falling estimated costs are evident by the lines sloping downwards to the right in later development years.



Falls in claims costs are normally a result of insurers allowing for the chance of the following adverse outcomes when originally estimating their cost of claims:

- low frequency but high cost claims amongst the IBNR;
- **superimposed inflation** of claims costs⁷; and
- changes to the legislative schemes governing CTP insurance.

In most years, such adverse outcomes do not happen, which allows insurers to revise their estimates downwards as claims for an accident year develop and there is more certainty in the estimated claims experience for that accident year. This has occurred in most of the past ten accident years for CTP, and is evident in other classes of business to some extent.

⁵ Long-tail classes of business are those classes in which claims typically take more than one year to finalise.

⁶ Ultimate cost figures in figure 3 are inflated and undiscounted.

⁷ Superimposed inflation represents increases in the cost of claims that are in excess of the standard rate of inflation in the economy.

However, downward revisions are not certain, and adverse events still have the potential to impact insurers' claims costs, particularly for more recent accident years. For example, the industry is currently witnessing an increase in CTP claims frequency which, if sustained, may lead to further deterioration in claims experience in addition to what is already evident in the 2014 and 2015 accident years shown in figure 3. These accident years have notably higher initial estimates compared to previous years; initial estimates of ultimate cost have increased by 33 per cent between 2010 and 2015. Concerns about the affordability and sustainability of CTP insurance has also led the NSW government to consider changes to CTP legislation⁸.

Reserve releases

A downward revision in the estimated claims cost by insurers (net of any estimated amount insurers expect to receive from reinsurers) is typically associated with a release of funds from insurers' CTP reserves. Over the past five years, the consistent falls in net estimated claims costs (as shown in figure 3) have been associated with reserve releases of around five per cent of the industry's total prior year CTP reserves (table 4)⁹, with reserve releases exceeding \$900 million in 2015 on an **undiscounted basis**. These releases have offset claims costs from other classes of business, and have had a significant impact on the overall financial performance of insurers over this period.

Table 4 shows industry reserve releases/strengthening, calculated from the change in the net outstanding cost of claims by financial and accident year (see appendix for details on this calculation). It shows that the reserves released in each financial year are always from multiple prior accident years. Note that these figures are on an undiscounted basis; in contrast, insurers will apply discount factors when determining reserve releases/strengthening.

Table 4: Reserve release/strengthening by financial year and accident year, CTP motor vehicle insurance¹⁰. Positive values are strengthening, negative values are releases.

Financial year	Prior financial year total reserves (\$m)	Total reserve release/strengthening (\$m)	Proportion of total reserves released/strengthened	Reserve release/strengthening by accident year (\$m)			
				Previous accident year	2 accident years prior	3-5 accident years prior	6-10 accident years prior
2010	8,867	-166	-1.9%	32	-34	-271	107
2011	9,368	-299	-3.2%	-165	-162	-138	166
2012	10,254	-592	-5.8%	-109	-151	-200	-132
2013	10,519	-443	-4.2%	28	-144	-216	-111
2014	10,325	-452	-4.4%	-76	-157	-161	-59
2015	11,001	-928	-8.4%	-117	-223	-431	-156

⁸ <http://www.sira.nsw.gov.au/about-us/have-your-say/Options-for-reforming-Green-Slip-insurance>

⁹ The movements in table 4 are shown after the effect of reinsurance is applied (i.e. on a net basis). Figures 1 to 3 were gross of reinsurance.

¹⁰ Prior financial year total reserves are the sum of net IBNR/IBNER and net case estimates. Reserve releases/strengthening arising from accident years greater than 10 years prior are immaterial and have been excluded.

Proposed publication of *General Insurance Claims Development Statistics* and next steps

APRA proposes to publish new annual statistics on claims development which would feature statistics similar to this paper for each of class of business. These summary statistics and graphs would be presented at a high level in a statistical publication in PDF format. More traditional claims development triangles, such as that shown in table 5 in the appendix to this feature, will be included in an Excel report and database.

For more details on the proposed statistics and for draft publications please refer to APRA's consultation package¹¹. APRA welcomes feedback on the usefulness of publishing this data on a regular basis. In particular, APRA welcomes feedback on whether claims development charts in the form of figure 3 are more usefully presented in terms of ultimate cost or ultimate loss ratio.

¹¹ <http://www.apra.gov.au/GI/Publications/Pages/publication-of-GI-statistics-2016.aspx>

Appendix - Calculation of reserve releases/strengthening from net ultimate cost

APRA proposes to include tables of reserve releases/strengthening in the proposed *General Insurance Claims Development Statistics* PDF publication. These tables are summaries of full claims development triangles that APRA proposes to publish in a report and database version of these statistics.

Table 5, below, is an example of such a claims development triangle.

Table 5: Net ultimate cost of claims by accident year and development year, CTP motor vehicle insurance (\$m).

Accident year	Development year										
	0	1	2	3	4	5	6	7	8	9	10
2005					1,679	1,572	1,579	1,555	1,525	1,514	1,538
2006				1,808	1,727	1,698	1,663	1,645	1,622	1,590	
2007			1,923	1,840	1,761	1,679	1,646	1,655	1,634		
2008		2,016	1,983	1,953	1,862	1,816	1,813	1,744			
2009	2,272	2,304	2,142	2,115	2,045	2,000	1,942				
2010	2,481	2,316	2,165	2,065	2,005	1,909					
2011	2,589	2,480	2,336	2,280	2,116						
2012	2,697	2,725	2,568	2,397							
2013	2,876	2,801	2,577								
2014	2,856	2,739									
2015	2,972										

Each diagonal in table 5 represents one financial year of data: the bottom-left diagonal represents the latest estimates of net ultimate cost as of the 2015 financial year, the diagonal above it represents the estimates as at the 2014 financial year, and so on.

The calculated reserve releases/strengthening shown in table 4 are calculated by taking the difference between figures in adjacent diagonals of table 5. For example, the \$117 million reserve release for accident year 2015 that relates to the previous accident year is the difference in net ultimate cost between accident year 2014 development year 1 (\$2,739 million) and 2014 development year 0 (\$2,856 million). Similarly, the \$223 million reserve release for accident year 2015 that relates to two accident years prior is the difference in net ultimate cost between accident year 2013 development year 1 (\$2,577 million) and 2013 development year 0 (\$2,801 million). Calculations are performed for all accident years and summarised to produce the reserve release/ strengthening figures in table 4.



Telephone
1300 55 88 49

Email
info@apra.gov.au

Website
www.apra.gov.au

Mail
GPO Box 9836
In all capital cities
(except Hobart and Darwin)