

WorkCover WA

2016/17 recommended
premium rates

March 2016



Mr Greg Joyce
Board Chairperson
WorkCover WA
2 Bedbrook Place
Shenton Park WA 6008

22 March 2016

Dear Greg

Please find enclosed our report on 2016/17 recommended premium rates.

We recommend a 0.3% decrease in the average premium rate to 1.478% of wages.

Yours sincerely

A handwritten signature in black ink that reads 'Kathryn Cannon'.

Kathryn Cannon
Fellow of the Institute of Actuaries of Australia

A handwritten signature in black ink that reads 'Michael Playford'.

Michael Playford
Fellow of the Institute of Actuaries of Australia

Key findings

Context of our review

The purpose of this report is to present the recommended premium rates for the Western Australian workers compensation scheme for the 2016/17 financial year. The recommended premium rates are calculated in line with the following objectives:

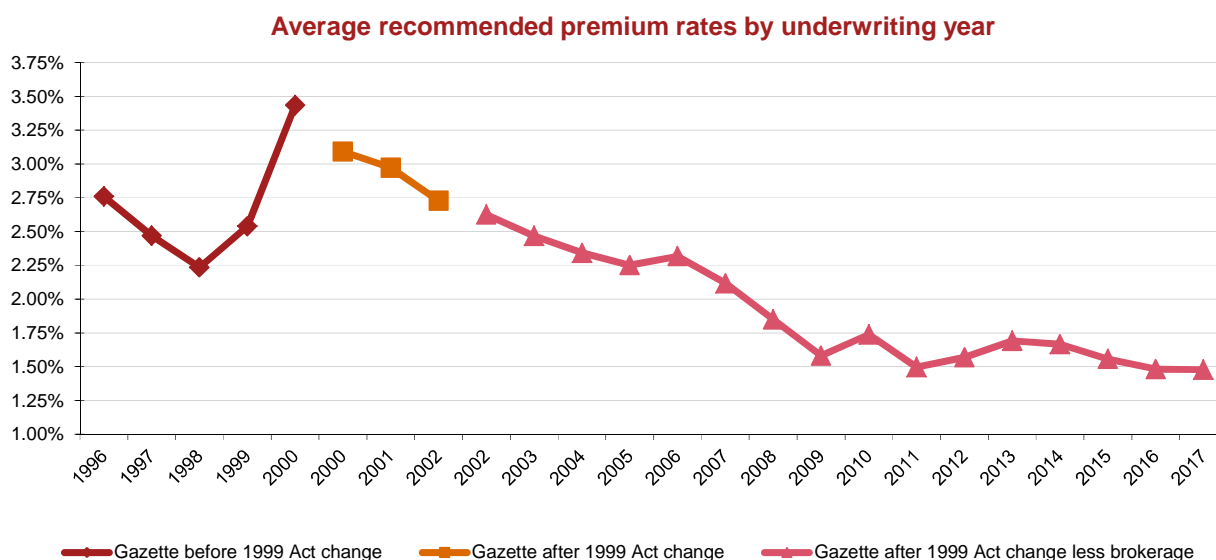
- calculate the total amount of premium income required to meet the cost of claims allowing for expenses, contingency margins and anticipated investment income
- recommend premium rates that are broadly equitable across different industry classes with no intentional cross subsidy of rates
- suggest an appropriate overall increase or decrease in relative premium rates
- use methods which give relative stability in the rate structure.

A further objective of WorkCover WA is to examine the adequacy of outstanding claims provisions in aggregate.

Our recommendation

We recommend a **0.3% decrease in the premium rate for 2016/17 to 1.478% of wages**, excluding allowance for brokerage, from the current rate of 1.483%.

The chart below shows the applicable rates from 1996 onwards:



The average premium rate is based on an unbiased estimate of the future incurred risk cost of claims from our projection model. The recommended premium rates for the 480 premium rating classes are detailed in

Appendix A. The change in individual class rates is based on the experience for the class, and will differ to the movement in the average premium rate.

Components of average premium rate

The average premium rate is derived by dividing the estimated incurred cost of claims, including expenses but excluding brokerage, by the developed returned earned wages.

The table below shows the key premium rating drivers for the WA scheme for the most recent three premium rating years. These are in appropriate values for that year, i.e. have not been brought into current values.

Key Driver	Premium rating year ending 30 June :				
	2017 (a)	2016 (b)	2015 (c)	% difference (a) / (b) -1 (b) / (c) -1	
Risk cost of claims \$M (d)	938.3	967.8	898.9	-3.1%	7.7%
Expense and margin factor (e)	1.3038	1.2953	1.3123	0.7%	-1.3%
Estimated incurred cost of claims \$M (f)	1,223.3	1,253.7	1,245.4	-2.4%	0.7%
Earned wages returned \$M (g)	82,750	84,555	80,054	-2.1%	5.6%
Average premium rate (h)	1.478%	1.483%	1.556%	-0.3%	-4.7%

- Notes :
- (a) from 2.1 of this report
 - (b) & (c) from Key Findings of our 26 March 2015 RPR report
 - (d) includes allowance for IBNR's and inflated and discounted values
 - (e) for grossing up the estimated risk cost of claims for expenses and margins, net of interest credit
 - (f) = (d) x (e)
 - (g) adjusted to include final wage adjustments and employment growth for the half year to 31 December 2015
 - (h) = (f) / (g) %

There is a 0.3% decrease in the average rate for the premium rating year ending 30 June 2017, driven by:

- **a 2.4% decrease in the incurred cost of claims.** The projected risk cost of claims is 3.1% lower than the prior year, but expenses and margins are 0.7% higher. The key drivers of the lower risk cost are:
 - lower claim numbers for 2014/15 and in the half year to 31 December 2015
 - decreases in the future rate of inflation and changes in discount rates
 - reduction in allowance for long duration claims
 - reduction in the act change allowance
 partially offset by
 - an increase in the average claim size, including superimposed inflation, above the rate of inflation.
- **a 2.1% decrease in projected earned returned wages,** which has an offsetting impact on the change in the average premium rate. This is driven by:
 - wage growth below wage inflation
 - lower rate of employment growth over the six months to 31 December 2015 compared to the six months to 31 December 2014.

Based on the experience discussed in the report we have made the following assumptions in deriving the recommended premium rates:

Target loss ratio

We have adopted a target loss ratio of 76.7% to calculate the premium rates gross of expenses and margins, including interest credit but excluding brokerage. This is lower than the target loss ratio of 77.2% used last year, due to an increase in expenses.

Total expense levels

The adopted expense margin is a three year average of insurers' expenses. The total adopted expense level of 13.7% (13.1%) of premium is made up of 12.2% (11.5%) management expenses and 1.5% (1.6%) for General Account levy. Figures in brackets are last year's.

Workers' Compensation Amendment Act 2011

The 2016/17 premium rate includes some allowance for the 2011 Amendment Act. The following allowances are included in the outstanding claims valuation for development year three onwards:

- 1.38% of total cost for the removal of age limits
- 1.40% of total cost for the extension of common law entitlements to employed contractors.

Both these Act changes became effective from 1 October 2011. The cost of these are included in the incurred risk cost of claims derived from the outstanding claims valuation, and hence there is no additional adjustment required for the 2016/17 premium rates.

Previously the allowance was included for all development years. No explicit allowance is required for development years zero to two as the adopted factors are based on post-Act change experience.

See section Appendix D4 for further details.

Superimposed inflation

We have allowed for a combined rate of future superimposed inflation (SII) of 4.0%. We have performed an analysis of the historic rate of superimposed inflation for each payment type, excluding the most recent two years for all payment types except our combined analysis of redemptions and 2nd schedule and common law payment groups.

In prior years we have adopted SII based on the analysis for the outstanding claims valuation. However, we have used a different rate this year as the high levels of SII are driven by a reduction in small claims and change in claim mix more than ongoing cost increases.

Claims experience for the half-year to 31 December 2015

The risk cost of claims for the 2016/17 premium rates includes an allowance for the claims experience for the half year to 31 December 2015. For the 2016 accident year the number of claims reported and claim payments were less than expected, and claim closure rates slower than expected.

This year we have removed the special allowance for the increasing trend in the percentage of claims with a duration of greater than 60 days as we believe it is adequately allowed for in the underlying valuation and SII.

Employment growth for the half-year to 31 December 2015

The 2016/17 premium rates calculation includes an allowance for employment growth in the half year to 31 December 2015 given we adjust for the number of claims in the half year. The number of full time employees increased by 0.1% in the six months to 31 December 2015, which is lower than the 2.7% increase in full time employees in the six months to 31 December 2014.

Wages to 31 December 2015

In calculating the premium rates we have used the developed earned wages for the 2014/15 accident year. Claim costs and wages are assumed to be subject to the same inflation rates which would cancel in the context of the average premium rate, and hence we do not inflate either to 2016/17.

The future inflation assumption for our outstanding claims review are based on the wage inflation assumptions produced by the WA treasury for the *2015/16 WA Government Mid-year Financial Projections Statement*. This indicates a future rate of wage growth of 3.0%, which is lower than 3.75% adopted for our previous review.

See Appendix D1 for further information.

Recommended premium rates by class

The movement in relative premium for an unchanged premium pool is within a 10% range of last year's rates for 81% of classes. This is higher than last year (74%).

After making two changes to the methodology for calculating the relativities, but for an unchanged premium pool, 64% of classes are within a 10% range of last year's rates.

We have adopted minimum and maximum rates of \$0.25 and \$12.00 per \$100 of wages respectively, when calculating the premium rates. These are the same minimum and maximum rates as last year.

Premium rates for 15 classes were capped at the minimum rate and all other premium rates reduced by 0.8% as a result of the premium respread. This is lower than the 1.5% reduction for the 2015/16 premium rates.

The Recommended Minimum Premiums per policy for the 2016/17 financial year are as follows:

Recommended Minimum Premium			
	Last year's Gazette	Indexed since last change	2016/17 recommended
Householder Policies	\$80.00	\$82.32	\$80.00
All Other Policies	\$240.00	\$242.34	\$240.00

Outstanding claim liabilities

The outstanding claim liabilities (inflated but not discounted) as at 30 June 2015 are estimated to be \$1,500 million, excluding the 2007 and earlier accident years. This is \$111 million (6.9%) lower than the aggregate outstanding claims estimates returned by applicable insurers of \$1,612 million. Last year we were 2.1% lower than insurers' estimates excluding the 2006 and earlier years.

We have separately analysed the historic SII rate by payment group for the outstanding claims liability. As discussed above, we have performed a separate analysis for the appropriate level of SII to include in the 2016/17 premium rates.

A detailed reconciliation of the build-up of inflated and discounted estimates over the year is shown in section 3.3. This shows a net release of reserves over 2014/15 of \$98.2 million (6.2%) on our projections. Insurers provide inflated estimates and these had a release of reserves of \$85.1 million (4.6%) on all accident years to 30 June 2014. On an inflated basis our estimates had a release of \$127.1 million (7.6%) compared to insurers. Our estimates showed a stronger release on an inflated basis across all accident years except 2010 and 2013. This difference is despite our estimates at 30 June 2014 being lower than insurers for the 2010 to 2014 accident years.

Uncertainty

The main sources of uncertainty in the projected premium rate for 2016/17 include:

- the reduction in the number of small claims in the scheme, and whether they will re-enter and associated change in claims mix
- future economic activity
- legal and settlement costs.

See section 7.3 for more details on these.

Form and quality of data used

The form of the data supplied for the 2014/15 year is similar to the data supplied last year. The 2016/17 recommended premium rates are established using the 2014/15 returns together with the quarterly returns to 31 December 2015.

The overall quality of the data this year was acceptable for our premium rate projections, once the data validation process was completed.

The data validation process was good this year with most of the responses to the initial or first revision queries clarifying that the data was correct.

We encourage insurers to continue to improve their data quality by comparing the current year's forms with the previous year's final version and provide explanations for any large differences.

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1 About this report

Key points of this section

- This report has been prepared as specified in tender document WCWAT1-12/13
 - No one other than WorkCover WA should rely on this report for any purpose
 - We have complied with actuarial and accounting standards.
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1.1 Context for our review

The purpose of this report is to recommend premium rates for the Western Australian workers compensation scheme over the 2016/17 financial year and to document the analysis undertaken to reach that recommendation. This report has been prepared for WorkCover WA in accordance with the actuarial services as specified in detail in tender document WCWAT1-12/13.

We have prepared the recommended premium rates report for the WA workers compensation scheme for a number of years. Our most recent report was *2015/16 recommended premium rates* dated 26 March 2015. We have been the primary provider of actuarial advice to WorkCover WA since October 1995.

The Board of WorkCover WA is ultimately responsible for the determination of recommended premium rates.

Insurers have the discretion to discount the recommended rate by any amount, or surcharge up to 75% of the applicable rate as detailed under section 152 of the Workers' Compensation and Injury Management Act 1981. An insurer may surcharge the recommended premium rate by more than 75% if the claims experience warrants it, subject to the approval of the WorkCover WA Board.

The analyses and recommended premium rates presented in this report are based on claim data to 30 June 2015 as supplied by applicable approved private insurers and the Insurance Commission of Western Australia (ICWA). Our recommendations also consider the quarterly data to 31 December 2015. The insurers supplying data are collectively known as premium rate returning entities. All self-insurers, other than RiskCover, are excluded from these analyses. See section 4 for a discussion on the data provided for this report.

We used a hierarchical credibility experience rating method to calculate the relative premium rates for each class, based on a weighted average over five accident years. This method relies on the claims experience of each class and the extent of this reliance increases with the size/exposure of the class.

The premium rating method has been adjusted for:

- our projection of the ultimate incurred cost of claims
- returned wages adjusted to projected ultimate level
- emerging claims and economic trends.

The method and assumptions are described in greater detail in sections 5 and 6 respectively.

We have continued to include allowance for the 2011 Amendment Act, however this is lower than prior years due to the increased experience base. See Appendix D for more information.

As specified in WCWAT1-12/13, we have examined the adequacy of insurers' outstanding claim provisions in total. See section 3.1.2 for more detail.

1.2 Objectives for our review

This report details our recommended premium rates to apply in the Western Australian workers compensation scheme in the 2016/17 financial year. The main objectives of this exercise are to:

- calculate the total amount of premium income required to meet the cost of claims plus expenses and margins with anticipated investment income
- recommend rates that are broadly equitable across different industry classes with no intentional cross subsidy of rates
- suggest an appropriate overall increase or decrease in relative premium rates
- use methods which give relative stability in the rate structure.

A further objective of WorkCover WA is to examine the adequacy of outstanding claims provisions in aggregate.

1.3 Disclaimer

Report and Advice

This report has been prepared for the sole use and benefit of WorkCover WA Board. It should not be used or relied upon by any other person for any purpose.

You agree to use this report only in connection with the purpose in respect of which this report is provided being to present the recommended premium rates for the Western Australian workers compensation scheme over the 2016/17 financial year. We therefore accept no liability or responsibility for any loss or damage arising from use of the report for any other use or purpose.

Judgements based on the contents of this report should be made only after studying the report and the appendices in their entirety, as conclusions reached by a review of an aspect or section in isolation may be misleading.

The advice contained in this report has been prepared on the instructions of WorkCover WA in accordance with the terms of reference in the tender document referred to in section 1.1 above and is based on the information and data provided to us.

The conclusions reached in this report are reliant on the completeness and accuracy of information compiled and provided by WorkCover WA and by insurers to WorkCover WA. Other than preliminary data checks, we have not conducted an independent review of this information. We do not accept any liability or responsibility for errors or omissions arising from the provision of inaccurate or incomplete information to us.

Third Parties

This report and the advice contained in it are confidential. You agree not to disclose the report and/or our advice to third parties by any means (including orally or in writing) without our prior written consent. We may, at our discretion, withhold or give our consent subject to conditions, including:

- the report is to be released in its entirety in response to a request, including all appendices
- we accept no liability or responsibility to any other person or entity other than WorkCover WA in relation to this report and
- no one other than WorkCover WA should rely on this report for any purpose.

1.4 Compliance with standards

1.4.1 Premium rates

Our advice to you constitutes a Professional Service as defined in the Code of Professional Conduct (the Code) issued by the Institute of Actuaries of Australia and our advice complies with the Code in this respect.

1.4.2 Outstanding claims liabilities

The approach for calculating the outstanding claims liabilities is consistent with that required by the Accounting Standards for private and State Government general insurers (AASB1023), and APRA's prudential standard GPS320 for liability valuations for general insurance. It also complies with the Institute of Actuaries of Australia's Professional Standard PS300 to the extent possible given the data available. We note in section 3.1.2 that we have not performed a full review of asbestos liabilities due to incomplete data from some insurers and this valuation is not necessary in the context of settling premium rates.

2 *Premium rates analysis*

Key points of this section

- The 1.478% average rate is obtained by dividing the \$1,223 million estimated target premium by developed wages of \$82,750 million
 - The average premium rate has decreased by 0.3% due to:
 - lower claim numbers for 2014/15 and in the half year to 31 December 2015
 - decreases in the future rate of inflation and changes in market discount rates
 - reduction in allowance for long duration claimspartially offset by
 - increase in the average claim size, including superimposed inflation, above the rate of inflation
 - wage growth below wage inflation
 - lower rate of employment growth over the six months to 31 December 2015 compared to the six months to 31 December 2014
 - increase in expenses.
 - For the 2015 accident year the estimated insurer profitability, based on insurers' actual rates, is 4%. This is lower than 7% for 2014 and the contingency margin included in those rates of 11%. Based on the recommended premium rates the equivalent profit levels are 17% and 20% respectively.
-

2.1 Overall premium rate variation

2.1.1 Incurred cost of claims in inflated and discounted values

The estimated number of claims incurred by the premium rate returning entities is:

Claims incurred	
2014/15 accident year (a)	30,554
2015/16 accident year (b)	29,654
2016/17 underwriting year (c)	29,654

- Notes:** (a) from our analysis of the 2014/15 data
 (b) = (a) x 2.9% decrease as indicated by the experience in the half year to 31 December 2015
 (c) assumed equal to the 2015/16 accident year

The adopted average claim size is:

Average claim size	Current values	Inflated and discounted (d)
2014/15 accident year (a)	29,489	29,552
2015/16 accident year (b)	30,662	30,728
2016/17 underwriting year (c)	31,573	31,640

- Notes:** (a) as per the adopted actuarial assessment model
 (b) = (a) x superimposed inflation from external analysis (4.0%)
 = (a) x 1.04
 (c) = (a) x superimposed inflation from external analysis (4.0%) ^ 1.75
 = (a) x 1.04 ^ 1.75
 (d) = current values including Act changes x inflation and discount factor
 The inflation and discount factor used is 1.0005 (1.0138 last year). This allows for projected future cashflow to be inflated and discounted using the financial assumptions stated in section 6.1

The rate of SII allowed for in the premium rating calculation is derived from an analysis separate to the outstanding claims valuation. This considers and excludes the two most recent years, where appropriate, as the high levels of SII are driven by a reduction in small claims and change in claim mix more than ongoing cost increases.

SII is applied to the midpoint of the claims incurred period. For the 2016/17 underwriting year this is 1.75 years after the 2014/15 accident year which is the mid-point to which the premium rates apply. These are notional forward average claim sizes as normal wage inflation is not included for consistency with total wages used to recalculate the average premium rate.

We have not included an explicit additional allowance for the ongoing costing impacts of the removal of age limits and extended common law entitlements to employed contractors legislative changes. The impact of these changes are already incorporated in the adopted 2014/15 average claim size.

Real rates of return continue to be negative (i.e. inflation is greater than discounting) which has an increasing impact on the premium rate.

The estimated risk premium is shown in the table below. The estimated risk premium is equivalent to the number of claims incurred multiplied by the average claim size.

Number of claims x average claim size = Risk premium (\$M)		
2014/15 accident year	30,554 x 29,552 =	902.9
2015/16 accident year	29,654 x 30,728 =	911.2
2016/17 underwriting year	29,654 x 31,640 =	938.3

This year we have removed the special allowance for the increasing trend in the percentage of claims with a duration of greater than 60 days as we believe it is adequately allowed for in the underlying valuation and SII.

2.1.2 Impact on overall premium levels

Gross premium is the risk premium with appropriate allowance for expenses (excluding brokerage), contingency margins and interest earned. The estimated gross premium for the premium rate returning entities is shown in the table below:

Risk premium x loading factor = Gross premium (\$M)		
2014/15 accident year	902.9 x 1.3038 =	1,177.2
2015/16 accident year	911.2 x 1.3038 =	1,188.0
2016/17 underwriting year	938.3 x 1.3038 =	1,223.3

The adopted loading factor of 1.3038 is higher than the 1.2953 adopted for our previous valuation due to higher expenses. The factor is defined as the inverse of the target loss ratio. More detail is presented in section 6.5.

The average premium rate is derived by dividing the gross premium by developed wages. 2016/17 estimated developed wages are calculated by increasing the 2014/15 returned wages multiplied by a wage development factor and an allowance for the employment growth in the half year to 31 December 2015.

This is calculated as follows:

Wages (\$ million)	
2014/15 returned wages (a)	80,805
Adjustment factor (b)	1.0226
2014/15 developed wages (c)	82,629
Employment growth (d)	1.0015
2014/15 wages (e)	82,750

- Notes:**
- (a) as supplied by insurers
 - (b) see Appendix C2
 - (c) = (a) x (b)
 - (d) = 1,359 / 1,357, from ABS Cat. 6202.0 Table 8 Labour Force for full time persons for Western Australia at 31 December 2015 and 30 June 2015 respectively
 - (e) = (c) x (d)

Using the information above, the average premium rate for 2016/17, with comparison to the prior two years, is as follows:

Key Driver	Premium rating year ending 30 June :				
	2017 (a)	2016 (b)	2015 (c)	% difference (a) / (b) -1 (b) / (c) -1	
Number of claims incurred (d)	29,654	32,219	34,490	-8.0%	-6.6%
Average claim size \$ (e)	31,640	29,701	26,061	6.5%	14.0%
Expense and margin factor (f)	1.3038	1.2953	1.3123	0.7%	-1.3%
Earned wages \$M (g)	82,750	84,555	80,054	-2.1%	5.6%
Estimated incurred cost of claims \$M (h)	1,223.3	1,253.7	1,245.4	-2.4%	0.7%
Average premium rate (i)	1.478%	1.483%	1.556%	-0.3%	-4.7%

Notes :

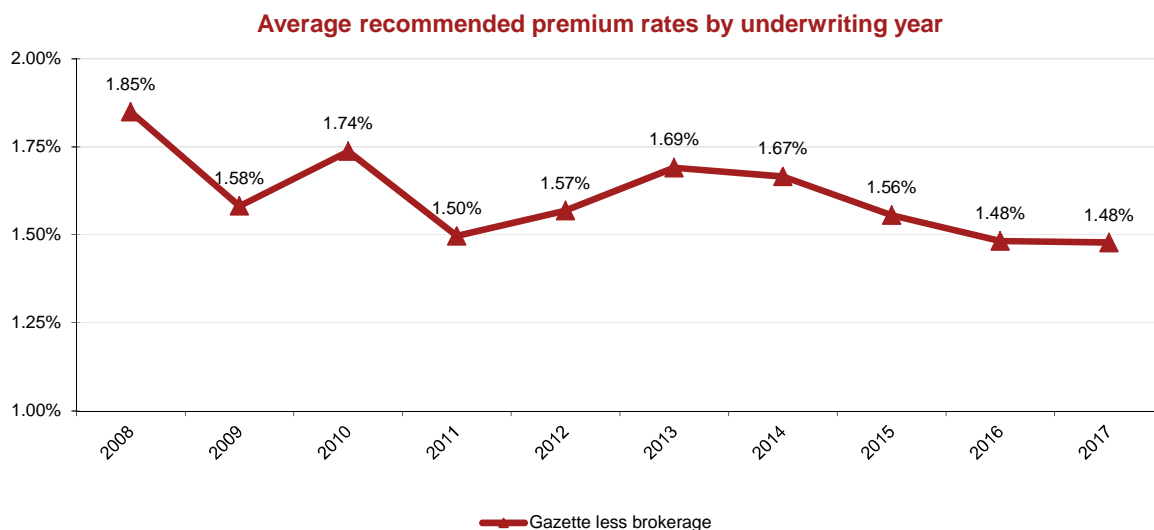
- (a) from 2.1 of this report
- (b) & (c) from 1.1 of our 26 March 2015 RPR report
- (d) includes allowance for IBNR
- (e) in inflated and discounted values
- (f) for grossing up the estimated risk cost of claims for expenses and margins, net of interest credit
- (g) adjusted to include final wage adjustments
- (h) = (d) x (e) x (1 + (f)), 2015 includes 440 x \$0.114M which is an allowance for an increase in long duration claims
2016 includes 90 x \$0.121M which is allowance for long duration claims. We have removed this allowance in 2017 as we considered it to be covered in the projection basis.
- (i) = (h) / (g) %

The above analyses and discussion suggest that the weighted average Gazette premium rate should decrease by 0.3%.

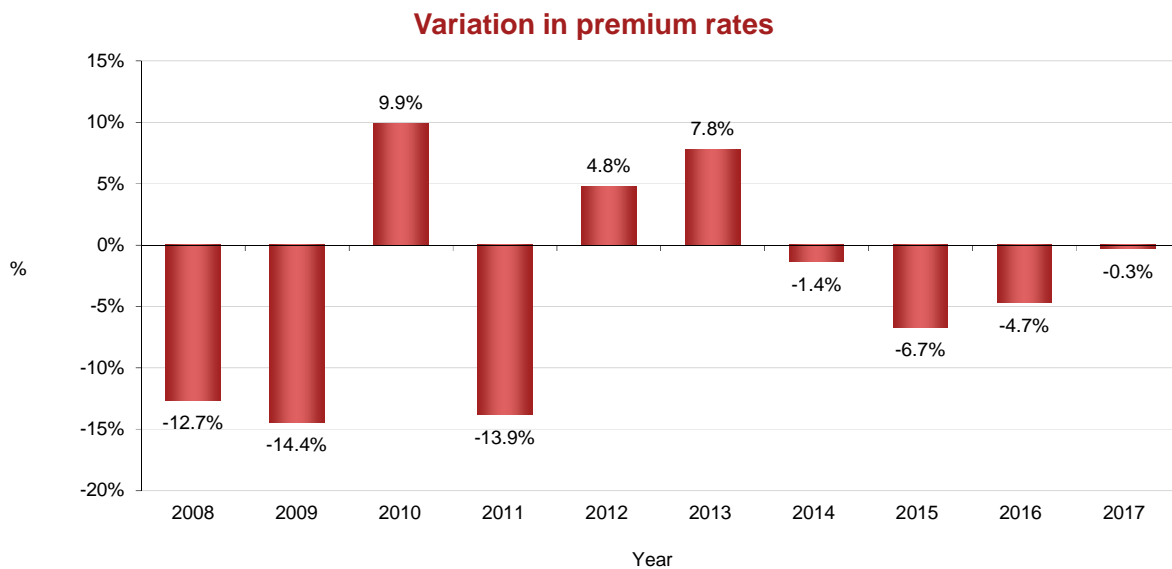
The premium rates do not include brokerage costs or an allowance for the 10% GST on premiums which is generally recoverable by employers.

2.1.3 Historical aggregate premium rates

The historical aggregate premium rates over the last ten years are as follows:



The chart below shows the variation in the average gazetted recommended premium rates over the last ten years:



Overall premium rates decreased by 30.2% over the period shown.

The key drivers of past changes in the premium rates were as follows:

Year	Increase / decrease	Main drivers
2008 – 2009	-12.7%, -14.4%	<ul style="list-style-type: none"> • Relatively stable claim numbers • Slight real decrease in claim costs • Wageroll increases far in excess of AWE growth, due to the buoyant state of the WA economy
2010	9.9%	<ul style="list-style-type: none"> • Allowance for the then expected impact of the global financial crisis. Real rates of return were reducing, future wage growth was expected to decline and average claim costs were increasing
2011	-13.9%	<ul style="list-style-type: none"> • Continued but unexpected increase in wages and market rates of interest • Partly offset by increasing claims costs
2012	4.8%	<ul style="list-style-type: none"> • Increase in the claims experience which exceeded the reduced growth in wages • Impact of the removal of age limits within legislation

Year	Increase / decrease	Main drivers
2013	7.8%	<ul style="list-style-type: none"> • Reducing real rates of return • Higher number of claims • Increase in the contingency margin • Extended common law entitlements to employed contractors legislative changes • Once off impact to allow for policies that had exposure to the legislation change but were written prior to an allowance being included in the recommended premium rates
2014	-1.4%	<ul style="list-style-type: none"> • Base decrease due to wages growth in excess of the wage inflation which exceeded increases in the claims experience • Removal of the catch up allowance for the Act change in the 2012/13 premium rates • Once-off increase due to changing from using written wages to earned wages
2015	-6.7%	<ul style="list-style-type: none"> • Wages growth in excess of wage inflation • Decrease in claim numbers <p>Offset by:</p> <ul style="list-style-type: none"> • An increase due to an additional allowance in the average claim size for the lengthening duration of claims
2016	-4.7%	<ul style="list-style-type: none"> • Lower claims number and lower rate of growth of claims with more than 60 days' time lost as a percentage of total claims • Wages growth in excess of wage inflation combined with higher rate of employment growth over the six months to December 2014 • Decrease in the contingency margin <p>Offset by:</p> <ul style="list-style-type: none"> • Increase in the average claim size including superimposed inflation above the rate of inflation.

The key drivers of the 0.3% decrease in premium rates for 2016/17 are:

- lower claim numbers for 2014/15 and in the half year to 31 December 2015
- decreases in the future rate of inflation and changes in market discount rates
- reduction in allowance for long duration claims

partially offset by

- increase in the average claim size including superimposed inflation above the rate of inflation
- wage growth below wage inflation. This is driven by the fact that wages increased by less than the employment growth in the half year to 31 December 2014 that was included in last year's premium rates
- lower rate of employment growth over the six months to 31 December 2015 compared to the six months to 31 December 2014.

The table below shows the detailed 2016/17 premium rate drivers:

Key drivers	
2016/17 average premium rate change	
<i>Internal factors - claims, wages and other</i>	
Change in superimposed inflation	-1.7%
Decrease in 2014/15 claim numbers	-5.2%
Decrease in December 15 half year claim numbers	-2.9%
Average claim size increase more than inflation	7.8%
Reduced additional allowance for long duration claims	-1.1%
Reduce act change allowance	-1.1%
Wages grew less than wage inflation	2.5%
Increase in expenses	0.8%
<i>Total internal factors - claims, wages and other</i>	-1.5%
<i>External economic factors</i>	
Change in market interest rates	-0.2%
Decrease in inflation rates	-1.1%
Lower employment growth in half year to December 2015	2.5%
<i>Total external economic factors</i>	1.2%
Total 2016/17 average premium rate change	-0.3%

The percentage increases are multiplicative rather than additive.

2.2 Premium rates by division

The recommended premium rates by division are:

Recommended Premium Rates at ANZSIC division level by underwriting year				
Division	2016/17	2015/16	2014/15	Difference (a)
A - Agriculture, Forestry and Fishing	4.38	4.13	4.28	5.9%
B - Mining	1.31	1.35	1.39	-3.1%
C - Manufacturing	2.27	2.30	2.46	-1.3%
D - Electricity, Gas and Water	0.56	0.50	0.52	13.4%
E - Construction	1.68	1.72	1.84	-1.9%
F - Wholesale Trade	1.33	1.35	1.43	-2.1%
G - Retail Trade	1.47	1.53	1.58	-3.6%
H - Accommodation, Cafes and Restaurants	2.15	2.13	2.27	0.9%
I - Transport and Storage	2.46	2.58	2.65	-4.5%
J - Communication Services	0.97	0.96	1.04	1.8%
K - Finance and Insurance	0.25	0.25	0.25	0.0%
L - Property and Business Services	0.52	0.57	0.61	-7.9%
M - Government Administration and Defence	0.72	0.66	0.71	8.8%
N - Education	1.14	1.15	1.21	-0.7%
O - Health and Community Services	1.99	1.95	2.07	1.8%
P - Cultural and Recreational Services	1.47	1.48	1.57	-0.6%
Q - Personal and Other Services	2.81	2.70	2.61	4.1%
Overall	1.48	1.48	1.56	-0.3%

Notes : (a) = (2016/17 rate) / (2015/16 rate) - 1 as a percentage

While the change in the 2016/17 aggregate premium rate is neutral, the change at a divisional level varies significantly. Of the 17 divisions only four divisions have a rate change within 1% of the aggregate rate change with six having a reduction greater than 1% and seven increasing.

The largest increase is for division D – Electricity, Gas and Water due to unfavourable claims experience.

The largest decrease is for division L – Property and Business Services due to favourable claims experience.

The overall aggregate premium rate is weighted by wages per division. Therefore, the 0.3% decrease in the overall premium rate is not a straight average of the percentage differences for each division, since the wages are not uniform by division.

2.3 Movement in relative premium rates

The three tables below show the movement in the recommended premium rates at three stages in the process:

- table 1: the impact on the class rates of using the data supplied for this year's premium rates **before** adjustment to the methodology or allowance for the 0.3% decrease in the aggregate premium rate
- table 2: the impact on the class rates of using the data supplied for this year's premium rates and adjusting the methodology but **before** allowance for the 0.3% decrease in the aggregate premium rate
- table 3: the overall impact on the class rates **after** making the adjustments above and allowing for the 0.3% decrease in the aggregate premium rate.

Impact on class rates from change in claims experience

The following table compares the premium rates derived from the experience rating method for an unchanged premium pool to the current 2015/16 Gazette rates:

Movement in Recommended Premium Rates due to change in claims experience				
Size of Movement	Number of Recommended Rates which :			Total
	Decrease	Increase	Unchanged	
no. ≤ 5%	131	107	15	253
5% < no. ≤ 10%	77	57	0	134
10% < no. ≤ 15%	21	31	0	52
15% < no. ≤ 20%	9	9	0	18
20% < no.	6	17	0	23
Total	244	221	15	480

81% of classes have a rate change (up or down) which is less than 10%. This is higher than the previous two years, which were 74% and 78%.

Impact on class rates from change in methodology

Compared to our previous analysis there have been two changes in the experience rating methodology:

- Earned returned wages and incurred costs are developed on an individual insurer basis, rather than applying aggregate development factors across the industry. Wages are developed based on the insurers past experience. Incurred costs are developed based on the development reported on the Form WC20, adjusted to ensure aggregate development aligns with our outstanding claims valuation. We have made this adjustment due to each insurer having a different case estimation practice and the mix of insurers by class is not uniform.
- Weighted average rates for each class are derived based on four years average experience, spread over a five year period. Previously a five year average spread over six years was adopted. We have reduced the averaging period to assist with the transition to premium rating classifications based on ANZSIC 2006.

The table below compares the premium rates derived allowing for the change in method but for an unchanged premium pool to the current 2015/16 Gazette rates:

Movement in Recommended Premium Rates due to change in methodology				
Size of Movement	Number of Recommended Rates which :			Total
	Decrease	Increase	Unchanged	
no. ≤ 5%	78	68	15	161
5% < no. ≤ 10%	85	62	0	147
10% < no. ≤ 15%	46	32	0	78
15% < no. ≤ 20%	23	25	0	48
20% < no.	22	24	0	46
Total	254	211	15	480

With the change in methodology, 64% of classes are within 10% of the 2015/16 Gazette rates.

Overall impact on class rates

Shown in the table below is the distribution of the percentage movement in recommended rates allowing for the change in methodology and an aggregate 0.3% decrease in rates.

Overall movement in Recommended Premium Rates					
Size of Movement	Number of Recommended Rates which :			Total	Total
	Decrease	Increase	Unchanged		
no. ≤ 5%	79	63	15	157	
5% < no. ≤ 10%	86	66	0	152	
10% < no. ≤ 15%	49	29	0	78	
15% < no. ≤ 20%	24	24	0	48	
20% < no.	23	22	0	45	
Total	261	204	15	480	

No (zero) class increased by more than 50% and the rates for zero (one) class decreased by more than 33%. Figures in brackets are last years.

2.4 Minimum premiums

Revised minimum premiums are calculated each year based on movements in the Perth CPI index, but changes are only made in \$5 multiples. The recommended minimum premiums are:

Recommended Minimum Premium			
	Last year's Gazette	Indexed since last change	2016/17 recommended
Householder Policies	\$80.00	\$82.32	\$80.00
All Other Policies	\$240.00	\$242.34	\$240.00

Indexing is cumulative irrespective of when recommended minimum premiums were last revised.

2.5 Financial performance of WA workers compensation

The tables below show the performance of the WA workers compensation system on an accident year and financial year basis. The purpose of these tables is to assess the adequacy of premium rates for prior years.

2.5.1 Accident year performance table

Estimated Profit and Loss in the WA Workers' Compensation System (\$ million)								
	2009	2010	Accident Year ending 30 June			2014	2015	Estimated
			2011	2012	2013			2016
Gross earned premium (a)	788.1	806.3	867.8	953.5	1,101.3	1,141.5	1,151.5	1,179.7
Cumulative claim payments (b)	565.2	557.5	655.2	712.5	691.6	543.4	213.3	221.8
Outstanding estimate (c)	22.8	34.0	45.2	92.5	178.5	380.6	727.8	756.5
Net claims incurred (d)	588.0	591.6	700.4	805.0	870.1	924.0	941.1	978.2
Underwriting profit/loss (e)	200.1	214.7	167.3	148.5	231.2	217.4	210.4	201.5
Commission (f)	24.3	24.9	24.3	26.0	30.2	32.1	34.0	34.8
Other expenses (g)	114.5	119.9	126.3	126.2	137.9	155.0	173.6	177.8
Estimated investment income (h)	58.5	64.1	48.3	47.5	51.4	45.2	38.2	39.7
Estimated profit/loss - \$ (i)	119.9	134.0	65.1	43.8	114.5	75.5	41.0	28.5
- % of gross EP (i)	15%	17%	8%	5%	10%	7%	4%	2%
Loss ratio (j)	75%	73%	81%	84%	79%	81%	82%	83%
						552.785	593.778	622.302
						Total profit/loss % of EP (l)	10%	9%
8%								
GWP on Gazette Rates (m)	824.9	992.5	969.9	1,143.1	1,299.0	1,343.4	1,330.8	1,302.2
Est EP on Gazette Rates (n)	824.9	942.2	976.7	1,091.2	1,252.3	1,330.1	1,334.6	1,310.8
Difference in EP (o)	36.7	135.9	108.9	137.6	151.0	188.6	183.1	131.1
Estimated profit/loss on Gazette rates (p)	156.6	269.9	174.0	181.5	265.4	264.1	224.1	159.6
	19%	29%	18%	17%	21%	20%	17%	12%
						1,311.586	1,535.700	1,695.303
						Total profit/loss % of EP (r)	20%	20%
								19%
Number of active claims by accident year (s)	156	275	416	929	1,932	4,694	11,978	

Notes :

- (a), (b) from attachment G4 of this report, estimated for the 2016 accident year. Assumed a 10% discount on Gazette rates in 2016.
- (c) = PwC reserves from section 3.2.2 of this report. The 2016 accident year estimated as inflated average claim size x number incurred with 23% assumed paid in DY0 based on the proportion paid for DY0 in 2015. Excludes 5% claim management expense allowance and risk margins.
- (d) = (b) + (c)
- (e) = (a) - (d)
- (f) = brokerage from attachment D3 of report x (a)
- (g) = (total expense % from attachment H2.4 in this report x (a)) - (f)
- (h) = Assumed investment income based on discount factor calculated for each accident year
- (i) = (e) - (f) - (g) + (h), where the % in the row below is of (a). Estimated profit/loss is **after** allowance for superimposed inflation and the rate change in previous years. It is **before** allowance for (ie does not include) risk margins on outstanding claim reserves and the 8% contingency margin adopted in the RPR up to the 2009 accident year, 10% contingency margin adopted for 2010 to 2012 and 2016 and 11% contingency margin for 2013 to 2015 accident years
- (j) = (d) / (a) %
- (k) = sum of (i) in \$ million
- (l) = (k) / sum of (a) %
- (m) = gross written premium on the Gazette rates which applied for the year
- (n) = estimated earned premium on Gazette rates allowing for 30% of GWP to be unearned at each 30 June
- (o) = (n) - (a) ie Gazette earned premium minus insurer earned premium
- (p) = (o) + (i) ie estimated profit on Gazette rates, where % in row below is of (n)
- (q), (r) = defined as for (k) and (l) with reference to (p) and (n)
- (s) = the number of open claims from the consolidated Form WC20s supplied by returning entities.

In the table above note that the:

- results are indicative of actual past and expected future claim trends
- gross earned premium is different to last year's table as earned premium by accident year develops and becomes more certain as the actual experience of burning cost policies emerges
- outstanding claim provisions contain no allowance for claims management expenses, as these are included in 'other expenses', or the risk margin
- estimated profit/loss includes allowance for superimposed inflation, the rate change from previous years, expenses and commission/brokerage

- estimated investment income credit is a theoretical allowance based on the forward rates implied by the Commonwealth Government Bond yield curve applicable for each year
- estimated costs for the more recent years (2014 and 2015) comprise mainly uncertain future estimates. For example, of the total claims incurred for 2015 only 24% has actually been paid and 76% is the uncertain future estimate
- whole of 2016 is an uncertain future estimate. The gross earned premium is subject to external market forces. Claims costs are influenced by market forces, uncertain future claim events and economic, legislative and social conditions.

The key points to note from the experience shown in the above table are:

- The profit margin for the 2009 and 2010 accident years were at 15% and 17% respectively. The contingency margin included in the premium rates was 8% for the 2009 accident year and for 2010 the contingency margin was 10%. The profit margins achieved well exceeded these levels
- In 2011 and 2012 the profit margins were 8% and 5% respectively, which were lower than 2009 and 2010, and the 10% contingency margin allowed for in the premium rates. This was due to lower earned premium growth compared to incurred claims over these two years
- For the 2013 accident year the profit margin estimate improved to 10% as earned premium increased at a higher rate than incurred cost. However, this is below the 11% contingency margin allowed for
- For 2014 and 2015 accident years, the profit margin estimates are 7% and 4% respectively. These are below the contingency margin of 11% allowed for in the premium rates. These decreases are mainly due to the low growth in earned premium for these years
- For all accident years, had insurers not discounted the recommended premium rates the estimated profit margin would have been well in excess of the relevant contingency margin.

We estimated the entire 2016 accident year in the table above. We have considered the experience to December 2015 in our estimate of the incurred cost for 2016, however we did not have any wage information for that period. Assuming Gazette rates are discounted by 10%, we estimate a profit of 2%, which is significantly below the 10% contingency margin assumed in the 2015/16 premium rates. Without discounting Gazette rates, the estimated profit margin is 12%, which is slightly above the 10% contingency margin.

2.5.2 Financial year performance table

Estimated Profit and Loss in the WA Workers' Compensation System (\$ million)								
	Financial Year ending 30 June							Total
	2009	2010	2011	2012	2013	2014	2015	
Gross earned premium (a)	767.5	789.8	821.0	946.9	1,172.1	1,193.9	1,191.8	6,883.0
Claim payments (b)	548.4	597.2	602.1	674.6	741.9	830.7	868.3	4,863.1
Change in o/s estimate (c)	33.3	(9.1)	152.8	46.4	45.8	42.8	23.7	335.6
Net claims incurred (d)	581.7	588.1	754.9	721.0	787.7	873.4	892.0	5,198.8
Commission (e)	23.7	24.4	23.0	25.8	32.2	33.6	35.2	197.8
Other expenses (f)	111.5	117.5	119.5	125.3	146.7	162.1	179.6	962.2
Underwriting result (g)	50.7	59.9	(76.3)	74.7	205.5	124.8	85.0	524.2
Underwriting result % (h)	7%	8%	-9%	8%	18%	10%	7%	8%
Number of active claims (i)	20,876	19,869	21,508	23,081	22,835	22,228	21,080	

Notes : (a) = from Form WC30 returns for 2014/15 and prior years

(b) = from Form WC20 returns for 2014/15 and prior years

(c) = from Form WC20 returns for 2014/15 and prior years.

For the 2011 financial year one insurer has started to include the asbestos liabilities in its IBNR estimates, which is the main driver of the increase in the outstanding claims.

(d) = (b) + (c)

(e) = commission rate for each financial year x (a) estimated

(f) = (total expense % from attachment H2.4 in this report x (a)) - (e)

(g) = (a) - (d) - (e) - (f)

(h) = (g) / (a) %

(i) = the number of open claims from the consolidated Form WC20s supplied by returning entities.

The gross earned premium is provided directly by insurers.

The above table is different from the accident year table in many respects as it:

- does not include investment income (as this data is not returned by insurers)
- does not use the benefit of hindsight for reserving
- is based purely on data supplied by premium rates returning entities
- shows the financial year results aggregated across accident years.

The outstanding claim provisions reflect market knowledge and conditions at the end of each year.

The overall profit margin over the seven year period to 2015 on a financial year basis is 8% of gross earned premium, compared to 9% on an accident year basis. Part of the reason for the lower result on a financial year basis is the exclusion of investment income from the profit line.

Over 2009 to 2015 we estimate an aggregate investment return of \$438.4 million, which would have improved overall profit over the seven year period to 2015, on a financial year basis, to 14% of gross earned premium. This is estimated using the average funds available for investment and the one year forward Commonwealth Bond rate.

The negative profit margin in 2011 is not reflective of actual experience over the year. It is caused by one insurer starting to include their asbestos liabilities in the Form WC20 IBNR and development allowance. This caused a large increase in the outstanding estimates, which was not reflective of the actual experience, and a negative profit margin. Without the inclusion of these asbestos liabilities the profit margin would be positive but significantly below the 8% overall profit margin.

3 *Outstanding claims results*

Key points of this section

- Our outstanding claim estimates, excluding 'earlier years' (\$1,500 million) are 6.9% lower than insurers' estimates, excluding 'earlier years' (\$1,612 million) as at 30 June 2015 in inflated undiscounted values
 - For the most recent accident year, insurers' outstanding claim estimates (\$760 million) are 4.2% higher than our estimates (\$728 million)
 - The reconciliation of the outstanding claim reserves from 30 June 2014 to 30 June 2015 shows a 6.2% (\$98.2 million) release of reserves for 2014 and prior accident years on our inflated and discounted projections
 - Insurers provide inflated estimates and these had a release of reserves of \$85.1 million (4.6%) on all accident years to 30 June 2014. On an inflated basis our estimates had a release of \$127.1 million (7.6%). Our estimates on an inflated basis showed a stronger release across all accident years except 2010 and 2013 compared to insurers.
-

3.1 Outstanding claims liability

3.1.1 Central estimate

The projected gross outstanding claims cost for each payment type group *in current values* and including the 2011 Amendment Act is:

Estimates of outstanding claims at 30 June 2015 (\$M) (a) (b)								
Acc yr ending 30 June	Weekly Benefits, Miscellaneous And Fatals	Medical And Hospital Expenses	All Other Treatment	Vocational Rehabilitation	Redemptions & 2nd Schedule	Legals	Common Law	Total
2015	272.085	59.629	24.230	21.598	193.609	51.464	56.751	679.367
2014	95.163	15.775	8.165	6.089	132.228	37.302	55.564	350.287
2013	27.551	4.436	3.001	1.280	60.226	21.473	41.189	159.156
2012	8.711	1.864	1.527	0.368	32.320	12.800	23.362	80.952
2011	4.214	1.046	0.826	0.144	17.824	6.613	9.661	40.328
2010	3.397	0.880	0.638	0.108	13.104	4.879	7.556	30.563
2009	2.384	0.648	0.493	0.069	10.092	3.716	3.230	20.633
2008	1.834	0.511	0.430	0.054	8.560	3.100	2.725	17.214
2007	1.396	0.415	0.357	0.040	6.671	2.284	2.312	13.476
2006 & earlier	3.843	1.385	1.111	0.098	15.886	5.144	6.002	33.469
Total	420.578	86.589	40.779	29.850	490.522	148.775	208.352	1,425.445

To generate the net central estimates, the current value estimates are inflated and discounted, and a claims handling expense margin added. These are as follows:

Total of payment types Estimates at 30 June 2015 (\$M)					
Acc yr ending 30 June	30 June 2015 values (a)	Inflated values (b)	Infl/disc values (b)	Case estimates	Ratio (c)
2015	685.149	764.139	731.198	374.313	183%
2014	356.096	399.647	380.287	292.303	122%
2013	164.653	187.379	176.480	142.526	116%
2012	83.134	97.149	89.665	73.070	114%
2011	40.328	47.467	43.872	35.328	114%
2010	30.563	35.747	33.257	14.402	212%
2009	20.633	23.981	22.442	7.485	276%
2008	17.214	19.747	18.657	4.072	423%
2007	13.476	15.226	14.529	3.377	399%
2006 & earlier	33.469	37.012	35.800	27.458	122%
Total	1,444.714	1,627.495	1,546.188	974.333	148%

Notes: (a) from Appendix E4.4

(b) includes 5% claims expenses

(c) ratio of actuarial estimates in 30 June 2015 values to case estimates.

The inflated and discounted net central estimate at 30 June 2015 is \$1,546 million, which is \$30 million (1.9%) lower than the \$1,576 million estimated at 30 June 2014.

We have included an allowance for the 2011 Amendment Act for the 2013 to 2015 accident years and for nine months of the 2012 accident year, for development year three and later. No explicit allowance is required for development years zero to two as the adopted factors are based on post-Act change experience. See Appendix D5 for further details.

The detail in the development of the outstanding claims can be found in Appendix E.

3.1.2 Comparison with insurers

The follow table compares our assessment of the outstanding claim estimates for the last five years to insurers estimates in inflated values without discounting or claims handling expenses and excluding the 2007 and earlier accident years:

Infl/Undisc estimates excluding 'earlier years' (\$M)				
Year ending 30 June	Actuarial (a)	Aggregate insurers (b)	% Difference (c)	
2015	1,500.2	1,611.6	-6.9%	
2014	1,533.6	1,566.6	-2.1%	
2013	1,453.8	1,503.8	-3.3%	
2012	1,468.5	1,445.1	1.6%	
2011	1,380.4	1,367.5	0.9%	

Notes: (a) = item (b) from Appendix E4.5 in this year and previous year's report divided by 1.05 to remove claims expenses
 (b) = col(d) + col(e) from Form WC20 data supplied by insurers (see Appendix E1.6)
 (c) = (a) / (b) - 1

Our inflated estimates are \$111.4 million (6.9%) lower than the insurers' estimates. Last year our estimates were \$33.0 million (2.1%) lower than the insurers' estimates. This comparison excludes the 'earlier years' valuation category as some insurers do include asbestos claims while others do not and we do not have sufficient data to value them.

The table below shows an accident year comparison of our and the insurers' estimates as at 30 June 2015:

Comparison of claim estimates as at 30 June 2015					
Accident year ending 30 June	Inflated actuarial o/s claim estimates \$M (a)	Insurers o/s claim estimates \$M (b)	Difference \$M (c)	Difference % (d)	
2015	727.8	759.7	-32.0	-4.2%	
2014	380.6	411.3	-30.7	-7.5%	
2013	178.5	190.2	-11.7	-6.2%	
2012	92.5	112.0	-19.5	-17.4%	
2011	45.2	66.3	-21.1	-31.9%	
2010	34.0	36.7	-2.7	-7.2%	
2009	22.8	23.4	-0.6	-2.5%	
2008	18.8	11.9	6.9	58.5%	
earlier	49.8	169.8	-120.0	-70.7%	
Total	1,550.0	1,781.3	-231.3	-13.0%	
Total excluding earlier	1,500.2	1,611.6	-111.3	-6.9%	

Notes: (a) = item (b) from attachment E4.5 divided by 1.05 to remove claim expenses
 (b) = from consolidated Form WC20 columns (d) + (e)
 (c) = (a) - (b)
 (d) = {(a) / (b) - 1} x 100

Our estimates are less than insurers for all accident years except 2008. Part of this could be due to us adopting a lower inflation rate compared to insurers given the change in the economy between 30 June 2015 and the date of this report.

In total, our inflated estimates as at 30 June 2015 are lower than our estimates as at 30 June 2014. The decrease is due to fewer active claims and lower payments in the tail which causes our estimates for the 2013 and earlier accident years to be lower than the equivalent accident years at the same stage of development in our 30 June 2014 valuation (i.e. the outstanding amount for the 2013 and earlier accident years for the current valuation is lower than the 2012 and earlier accident years as at 30 June 2014). The decrease is partially offset by the 2014 and 2015 accident years having higher estimates than the equivalent accident years at the same stage of development.

In total insurers' inflated estimates as at 30 June 2015 are higher than their estimates as at 30 June 2014. Insurers' estimates for the 2014 and 2015 accident years are higher than the equivalent periods at the same stage of development in the 2014 valuation, while the estimates for the 2013 and earlier accident years are similar to the equivalent accident years at the same stage of development.

The 'earlier' years are a major source of difference due to insurers' reserves for asbestos related claims. Some but not all insurers include asbestos claims on their Form WC20.

Specialised data and methods are required to reserve IBNR dust-disease claims and our central estimate does not include a full asbestos claim valuation. After discussions with WorkCover WA a full asbestos valuation is not required as it should not affect the level of recommended premium rates, which depends on the more recent accident years.

3.2 Actual vs expected claims experience

The 2014/15 experience indicates that for:

- claims incurred up to 30 June 2014 claim payments and the claim closure rate were on par with expected. However, claim reports were slightly lower than expected
- claim reports and average case estimates for the 2014/15 accident year were lower than expected, but active claims and claim payments were higher than expected.

Over the six months to 31 December 2015 for 2014/15 and earlier accident years claim reports were lower than expected and the claim closure rate was slightly slower than expected. Claim payments over the period were slightly higher than expected. For the 2015/16 accident year, claim reports and claim payments were lower than expected, and claim closures were slower than expected.

See Appendix F for full details.

3.3 Reconciliation of provisions

The tables below show the build-up of inflated and discounted outstanding claim estimates, including claims handling expenses, over 2014/15, for claims incurred to 30 June 2014 for:

- our actuarial projections, and
- insurers outstanding claim estimates.

The reconciliation of our projections is on an inflated and discounted basis while the insurer's reconciliation is on an inflated and undiscounted basis.

Actuarial reconciliation

Reconciliation of actuarial estimates (\$ million)									
Accident year ending 30-June	2014	2013	2012	2011	2010	2009	2008	2007 & earlier	Total
A. Estimates at 30 June 2014 (a)	715.718	366.697	191.448	99.879	50.592	34.800	29.078	88.079	1,576.290
B. Gross payments 1 July 2014 to 30 June 2015	329.406	177.318	79.217	31.521	11.043	4.633	4.287	17.549	654.975
C. Expenses (b)	16.470	8.866	3.961	1.576	0.552	0.232	0.214	0.877	32.749
D. Assumed investment return (c)	10.860	5.475	2.998	1.666	0.895	0.647	0.536	1.576	24.655
E. = A-B-C+D	380.702	185.988	111.268	68.448	39.892	30.582	25.112	71.228	913.221
Updated estimates at 30 June 2015									
F. Revised estimates at 30 June 2015 (d)	380.287	176.480	89.665	43.872	33.257	22.442	18.657	50.329	814.989
G. = F-E	-0.415	-9.508	-21.603	-24.576	-6.635	-8.141	-6.455	-20.900	-98.232
Change 1 July 2014 to 30 June 2015									
H. Proportion of change attributable to changes in real rates of return assumed	-5.621	-2.903	-1.809	-0.928	-0.685	-0.454	-0.358	-0.725	-13.483
I. = G-H	5.206	-6.604	-19.795	-23.648	-5.950	-7.687	-6.096	-20.175	-84.749
Balance of change attributable to changes in underlying actuarial estimates									
J. Amount incurred and outstanding for 2014/15 accident year (d)									731.198
K. = F + J									1,546.188
Total outstanding liability at 30 June 2015									

- Notes :** (a) from Appendix E4.5 of our 26 March 2015 report
- (b) assumed to be 5% of claim payments in 2014/15
- (c) calculated using 2.0% pa being the one year forward rate from Appendix D1 of our 26 March 2015 report
- (d) from Appendix E4.5 of this report.

The table shows that:

- overall there was a release of reserves of \$98.2 million, which is 6.2% of the opening 30 June 2014 estimates. Changes to real rates of return lead to a \$13.5 million (0.9% of opening estimates) decrease in estimates, which means changes in underlying actuarial estimates caused a decrease of \$84.7 million, which is 5.4% of the opening estimates
- All accident years had a release of reserves. The 2014 accident year was due to fewer claim reports compared to expected, 2013 was due to higher than expected development over 2014/15, while all other years were due to lower than expected payments and a reduction in the adoptings in the tail.

Insurer reconciliation

Reconciliation of insurers' estimates (\$ million)									
Accident year ending 30-June	2014	2013	2012	2011	2010	2009	2008	2007 & earlier	Total
A. Inflated estimates at 30 June 2014 (a)	767.889	412.139	210.834	116.370	65.422	37.419	21.268	214.206	1,845.548
B. Gross payments 1 July 2014 to 30 June 2015	329.406	177.318	79.217	31.521	11.043	4.633	4.287	17.549	654.975
C. Expenses (b)	16.470	8.866	3.961	1.576	0.552	0.232	0.214	0.877	32.749
D. = A - B - C	422.012	225.955	127.656	83.273	53.827	32.554	16.766	195.779	1,157.824
Updated inflated estimates at 30 June 2015									
E. Revised inflated estimates at 30 June 2015 (c)	431.841	199.686	117.645	69.657	38.533	24.589	12.456	178.273	1,072.680
F. = E - D	9.828	-26.269	-10.011	-13.616	-15.294	-7.965	-4.310	-17.507	-85.144
Change 1 July 2014 to 30 June 2015									
G. Inflated amount incurred and outstanding for 2014/15 accident year (c)									797.728
H. = E + G									1,870.407
Total inflated outstanding liability at 30 June 2015									

- Notes :**
- (a) from columns (d) + (e) on insurers consolidated Form WC20 for 30 June 2014 (see our 26 March 2015 report Appendix E1.5 + E1.6) adjusted for 5% claim management expenses
 - (b) assumed to be 5% of claim payments in 2014/15
 - (c) from columns (d) + (e) on insurers consolidated Form WC20 for 30 June 2015 (as per Appendix E1.5 + E1.6) adjusted as per notes (a).

This table shows that:

- overall there was a release of inflated estimates of \$85.1 million, which is 4.6% of the opening estimates
- all accident years, except 2014, had releases.

On an inflated basis our estimates had a release of \$127.1 million (7.6%). Our estimates on an inflated basis showed a stronger release than the insurers across all accident years except 2010 and 2013. This difference is despite our estimates at 30 June 2014 being lower than insurers for the 2010 to 2014 accident years.

4 *Data used in the review*

Key points of this section

- The necessary data was supplied to us by insurers and by WorkCover WA
 - This is the third year for which all premium rate returning entities completed the Form WC12, which has individual policy data with associated claims data with both ANZSIC 1993 and ANZSIC 2006 premium rating classes included, to assist with the transition to premium rating classifications based on ANZSIC 2006
 - We encourage insurers to continue to improve their data quality by comparing the current year's forms with last year's final version and provide explanations for any large differences.
-

4.1 Insurer data

We were supplied the following electronic forms as at 30 June 2015:

- Form WC11 – policy and claims data by premium rating class
- Form WC12 – individual policy data with associated claims data with both ANZSIC 1993 and ANZSIC 2006 premium rating classes included
- Form WC20 – aggregate claims data for each accident year
- Form WC20A – common law claims data for claims prior to 14 November 2005
- Form WC20B – common law claims data for claims from 14 November 2005
- Form WC101 – annual payments by payment type
- Form WC30 - premium and expenses data
- Checklist – performs high level checks on forms.

The data is supplied to WorkCover WA by the premium rate returning entities. WorkCover WA reviews the data using the checklist sheet and then forwards it to us.

All premium rate returning entities completed the Form WC12 for the 2012/13 to 2014/15 underwriting years. For the majority of entities this was the third time they have completed the form, however for some entities this was the fourth submission. This form assists with the transition to premium rating classifications based on ANZSIC 2006.

WorkCover WA performed an exercise after receiving the Form WC11 and Form WC12 data to check there was consistency at a class level between the two forms at an insurer level. This uncovered a number of discrepancies which led to several insurers revising their Form WC11 and WC12 submissions.

Policy data refers to the number of policies, written premium and written wages and is presented on an underwriting year basis. We are also presented with the earned premium and earned wages on the Form WC11 which are on a financial/accident year basis and so match the claim data exposure period.

Claims data refers to claims reported, active claims (not on Form WC11 or WC12), payments, case estimates and development, and incurred but not reported (IBNR) estimates (Form WC20 only). Claims data is presented on a financial year basis, subdivided by accident year.

Premium rate returning entities also supply Form WC20, Form WC20A, Form WC20B and Form WC101 on a quarterly basis. We have used these quarterly forms for the analysis of the half year to 31 December 2015.

For further details on the insurer data see Appendix B1.

4.2 Other data

WorkCover WA also provided the following data:

- individual list of claims for each financial year and up to 31 December 2015 to assess any change in the frequency of claims for claimants over 60 years old
- claims with an incurred cost estimate over \$0.2 million, as at 30 June 2015 and 31 December 2015
- number of Schedule 2, Redemptions and section 92(f) settlements lodged and payments made per quarter from the WorkCover WA claims system
- summary of 92(f) payments in Form WC101 format
- lump sum payments split into lump sum settlements with and without election, Schedule 2 and legal payments
- number of claims reported each quarter split into duration of days lost of 0, 1 to 4, 5 to 19, 20 to 59, 60 to 119, 120 to 179 and greater than 180 days time lost.

Reviewing the asbestos claims for the overall scheme is out of scope for this report. However, if necessary a review may be considered as a separate project in the future.

Appendix B2 discusses the form of the data provided in greater detail.

4.3 Data quality

The overall quality of the data was acceptable for our premium rate projections, once the data validation process was completed.

In summary, of 20 (20) returns received :

- 11 (9) required no further action
- 7 (8) insurers had to clarify specific issues or do a first revision
- 2 (2) insurers had to further clarify issues or do a second revision
- 0 (1) insurers had to further clarify issues or do a third revision.

Last year's numbers are in brackets.

The data quality was consistent with previous years with most responses to the initial or first revision queries clarifying that the data was correct. Where a revision was required it was only for a small number of classes.

We encourage insurers to continue to improve their data quality by comparing the current year's forms with last year's final version and provide explanations for any large differences. This ensures insurers identify and review all differences before submission.

4.4 Data enhancements

Up until 2010 we understand insurers were allocating all 92(f) settlements as common law payments regardless of whether it had an election application. From 2011 we adjusted 92(f) settlements into redemptions or common law depending on whether the claim had an election application or not. This was based on data WorkCover WA provided to us.

However, we understand that worker legal representatives are now lodging an election application for significantly more 92(f) settlements, and there is no clear way to adjust payments to align similar settlements to match with past data. Therefore this year we did not adjust the payments provided.

For future RPR analyses we may consider changing how we group lump sum payments, to allow for the difference in how lump sums are paid, but still ensuring claims with similar profiles and average sizes are kept in one group. We will also review the groupings for all payments given the move to data collection based on the National Insurer Data Specification (NIDS) which has additional payment categories.

As discussed above, the new Form WC12 was provided for the third time this year. It will assist with the transition from ANZSIC 1993 to ANZSIC 2006. It provides a list of each policy with its associated claims data (in aggregate) and class under both ANZSIC 1993 and ANZSIC 2006. We are working with WorkCover WA to do some initial testing of the rates under ANZSIC 2006. The rates under ANZSIC 2006 will be Gazetted once both WorkCover WA and we are confident that they are reasonable.

More detailed extracts from the unit claim data will assist with the transition and are essential to obtain the full benefit of the more detailed payment type method now used for premium rates and the future sound financial management of the WA workers compensation system in the medium term.

4.5 General data considerations

Former insurers

Even though insurers may surrender their licences to renew or write new policies, they will generally have outstanding and IBNR claims to manage. These claims are a cost to the system and hence need to be reported.

There are guidelines in place for data provision during the claim run-off period and WorkCover WA have advised us that supervisory control of the claim run-off continues once the licence to write premiums is surrendered.

Mergers/takeovers

Where one insurer takes over another on the basis that it manages the claims on a 100% recovery basis, the cost of these managed claims still need to be returned since they are a cost to the system.

Administrative issues

WorkCover WA assists us with the efficient administration of the quarterly and annual statutory returns, by advising us of any changes to the licensing situation of insurers/self-insurers as they occur, e.g.:

- new insurer/self-insurer licences granted
- insurer/self-insurer licences surrendered
- purchase/merger of insurers.

Such advice includes full details of effective dates, etc., and any relevant background detail.

Self-Insurers

Self-insurers supply all the statutory returns submitted by insurers. Also self-insurers renew their licences annually.

RiskCover is the only self-insurer included in the calculation of the recommended premium rates, as requested by WorkCover WA.

LGIS - WorkCare has not been included in the calculation of the recommended premium rates since 2002/03. As a result, the recommended premium rate for ANZSIC code 81130 – Local Government Administration should be treated with caution as it does not reflect the current experience of the Local Government self-insurance scheme. We are aware that some insurers incorrectly use class 81130 for community groups and contractors. Furthermore, not all local governments participate in the Local Government self-insurance scheme.

The premium rates for other classes, where there is a dominant employer, could be similarly non-reflective if that employer is self-insured or changes between being insured and self-insured.

5 *Calculation methods*

Key points of this section

- We projected future cashflows separately for seven payment type groups as per last year
 - Appropriate payment per claims incurred, active and finalised methods are used for each payment type
 - A hierarchical credibility method is used to calculate recommended premium rates for the 480 premium classes, as per prior years
 - There are two changes to the methodology this year:
 - Earned returned wages and incurred costs are developed on an individual insurer basis, rather than applying aggregate development factors across the industry. Wages are developed based on the insurers past experience. Incurred costs are developed based on the development reported on the Form WC20, adjusted to ensure aggregate development aligns with our outstanding claims valuation
 - Weighted average rates for each class are derived based on four years average experience, spread over a five year period. Previously a five year average spread over six years was adopted.
-

5.1 *Projection methods*

We assessed the outstanding claims liability by projecting cashflows separately by payment type. The payment types are grouped as follows:

- weekly benefits, fatals and miscellaneous
- medical and hospital expenses
- all other treatment
- vocational rehabilitation
- redemptions and Schedule 2
- legal
- common law.

We grouped payment types which have similar payment patterns across development years.

The first four groupings were projected using the payments per active claim (PPAC) and payments per claim incurred (PPCI) methods. The redemptions and schedule 2 and legal groups were projected using the payments per claim finalised (PPCF) and PPCI methods. For the common law payment group a blend of the PPCF, PPCI and projected case estimates (PCE) methods was used.

For our analysis we shifted 92(f) settlement payments that had not elected to pursue common law damages from common law to redemptions for the 2011 to 2014 financial years. 92(f) settlement payments which related to claims where an election application was made remained in the common law payment type. We understand that over the most recent financial year worker legal representatives have lodged elections even where a claim may not pursue common law damages, and hence it is no longer applicable to transfer payments between the two groups.

Appendix C has a description of each of the projection methods.

The above methods calculate the projected liability in current values, including allowance for superimposed inflation.

The estimated liability for outstanding claims is then calculated as the present value of the future claim payments allowing for:

- a future increases prior to payment, due to claims inflation
- b discounting to take into account investment return attributable to the assets backing the provisions during the run-off period
- c expenses associated with administering claims during the run-off period.

This approach is consistent with that required by the Accounting Standards for private and State Government general insurers (AASB1023), and APRA's prudential standard GPS320 for liability valuations for general insurance. It also complies with the Institute of Actuaries of Australia's Professional Standard PS300 to the

extent possible given the data available. We note in section 3.1.2 that we have not performed a full review of asbestos liabilities due to limited data from some insurers and this valuation is not necessary in the context of setting premium rates.

The question of uncertainty in the actuarial estimates and the determination of provisions are discussed in sections 7.1 and 7.2.

5.2 *Relative premium rates methods*

Calculate weighted average rates

The raw premium rate is calculated on an accident year basis for 2003/04 to 2014/15 using the following formula:

$$\frac{\text{developed total estimate (claim payments + outstanding case estimates)}}{\text{developed returned earned wages}}$$

This is done by industry division, subdivision, group and class.

Both the total estimate and returned earned wages are developed on an individual insurer basis and then cumulated to attain the industry totals. Returned earned wages are developed by considering the extent to which individual insurers' returns have developed in the past. The total estimate is developed based on the insurers' expected development, provided on Form WC20, adjusted on an aggregate level to align with our total development expectations.

Prior to this year, the development factors used were uniform across insurers and industry classes and were derived from past experience. By adjusting the methodology the case estimation practices and wage processing delays of individual insurers is better reflected in classes which may be dominated by one insurer.

The weighted average rates (WARs) are calculated from the raw rates by applying the following weightings to each development year (weights for prior rating years are for information only):

Weightings	Development year							
	0	1	2	3	4	5	6	
30 June 2015	0.6	0.9	1.0	1.0	0.5	0.0	0.0	
30 June 2014	0.6	0.9	1.0	1.0	1.0	0.5	0.0	

The current accident year experience is given only 60% weighting because of the low level of development. This increases to 90% for development year 1. The rates are then standardised to give an overall weighting of 100% up to development year 3, reducing thereafter due to lower relevance of the older years. The weights sum to four full years. We have reduced the averaging period this year to assist with the transition to premium rating classifications based on ANZSIC 2006, as fewer accident years are available in the data to date.

Partial credibility rates

Partial Credibility Rates (PCRs) are calculated from the WARs using aggregate weighted wages as the exposure measure. PCRs are calculated by industry division, sub-division, group and class progressively, using a system of hierarchical credibility.

To obtain full credibility, the aggregated weighted wages need to be greater than \$1,305.4 million. This is based on \$1,631.7 million adjusted for the fact that we are only using four years rather than five years of data. The \$1,931.7 million is 6.9% higher than the \$1,526.1 million last year. This increase is due to a reduction in the claim frequency, coupled with an increase in the level of total wages.

Under this method the following obtained full credibility:

- 16 (16) of 17 divisions
- 36 (35) of 53 sub-divisions
- 53 (51) of 158 groups
- 58 (53) of 480 premium rating classes.

Figures in brackets are last years.

The table below shows the distribution of credibility level achieved by rating classes on their own claims experience:

Credibility Level	This year		Last year	
	No. of Classes	%	No. of Classes	%
$x \leq 25\%$	184	38.3%	185	38.5%
$25\% < x \leq 50\%$	140	29.2%	136	28.3%
$50\% < x \leq 75\%$	60	12.5%	65	13.5%
$75\% < x < 100\%$	38	7.9%	41	8.5%
100%	58	12.1%	53	11.0%
Total	480	100.0%	480	100.0%

Where a class, group or sub-division does not have full credibility the rate is built-up from group level, progressively through sub-division and division level, if necessary.

The wages for some classes were aggregated to calculate the credibility factor. This is done to promote homogeneity of experience where rating classes have claim experience vastly different from the other classes in the same group. See Appendix C for a detailed description of these classes.

Due to the use of earned wages, not written, we have not had to exclude any raw premium rates from the calculation of the weighted average rate, since there is no mismatch in the timing of the wage period and the claim period.

Capping large claims

Abnormally large claims are capped when calculating relative premium rates to moderate their influence on the rates at a class level.

Previously, we capped large claims for the 2000/01 accident year with an incurred cost estimate of \$3.0 million or greater. Although this accident year is no longer considered in our averages it is still used as the base, and for subsequent accident years the capping is indexed in line with wage inflation. For the 2014/15 accident year large claims were capped at an incurred cost estimate of \$6.2 million.

Large claims are also capped based on their size relative to the rating class to which they belong. We have been supplied with claims with an incurred cost greater than \$0.2 million, and using this we have been able to cap any claims with an incurred cost greater than the \$0.2 million, indexed in line with wage inflation, which are 12% or more of wages for that rating class. The \$0.2 million minimum cap indexed to the 2014/15 accident year is \$0.4 million.

Large claims are capped only for the purposes of calculating the relative premium rates. There are not capped for the calculation of the Scheme's outstanding claims liability. As such the cost above the cap is in effect respread over the whole scheme for valuation prior to this year.

For the 2011 to 2015 accident years, which have a greater than 0% weighting (see section 5.2), at class level six (five) claims are capped, while at group, sub-division and division level two (one) claims are capped. The numbers in brackets are last year figures.

The large claims capping method is discussed in further detail in Appendix C2.

Normalise partial credibility rates

The PCRs are normalised such that when they are applied to adjusted accident year returned wages for 2014/15 by class, the aggregate notional premiums are equal to the aggregate notional premiums, based on the same wage data, calculated using the 2015/16 Gazette rates.

The normalised PCRs (NPCRs) are subjected to absolute minimum and maximum rates of \$0.25 and \$12.00 per \$100 of wages. This is the same as last year

Having applied these limits, the NPCRs are normalised once again to the aggregate notional premiums at Gazette rates.

Weighted loss ratio

The weighted loss ratio in Appendix A, is calculated as follows:

$$\frac{\text{estimated risk cost of claims}}{\text{premium on last year's gazette rates}}$$

The weighted loss ratio is not directly used when calculating recommended premium rates. However one divided by the weighted loss ratio is equivalent to the combined loadings factor which is used (see section 6.5).

6 *Assumptions*

Key points of this section

- For this valuation there has been an increase in the real rate of return for all future years. This is due to a lower inflation rate. The real rate is estimated to be negative, i.e. wage inflation exceeds interest earned, for the first eight projection years
 - The rate of superimposed inflation applied in the outstanding claims valuation increased to 6.2% from 5.4%. This increase was driven by increases for all payment groups, except all other treatment and common law
 - The superimposed inflation used to estimate the 2016/17 incurred risk cost decreased from 5.6% to 4.0%. For this analysis we have excluded the experience over the two most recent accident years for all payment types except the combined common law, and redemptions and 2nd schedule analysis, as the high levels of SII are driven by a reduction in small claims and change in claim mix more than ongoing cost increases
 - The contingency margin adopted for the valuation is 10%, the same as the previous valuation
 - The combined loading factor for expenses and contingencies increased from 1.2953 to 1.3038.
-

6.1 Financial assumptions

Future inflation and interest rates

The financial assumptions of future inflation and market rates of interest are as follows:

Years ahead	Interest rate	Inflation rate	Real rate		
	29 Feb 2016	29 Feb 2016	29 Feb 2016	28 Feb 2015	31 Jan 2014
1	1.98%	3.00%	-1.02%	-1.75%	-2.12%
2	1.73%	3.00%	-1.27%	-2.09%	-1.61%
3	1.63%	3.00%	-1.37%	-2.08%	-0.99%
4	1.83%	3.00%	-1.17%	-1.74%	-0.51%
5	2.30%	3.00%	-0.70%	-1.25%	-0.19%
6	2.64%	3.00%	-0.36%	-0.90%	0.01%
7	2.77%	3.00%	-0.23%	-0.74%	0.18%
8	2.90%	3.00%	-0.10%	-0.65%	0.34%
9	3.02%	3.00%	0.02%	-0.56%	0.49%
10	3.14%	3.00%	0.14%	-0.47%	0.64%
11	3.26%	3.00%	0.26%	-0.47%	0.64%
12	3.37%	3.00%	0.37%	-0.47%	0.64%
13	3.48%	3.00%	0.48%	-0.47%	0.64%
14	3.59%	3.00%	0.59%	-0.47%	0.64%
15	3.70%	3.00%	0.70%	-0.47%	0.64%
16 & onwards	3.79%	3.00%	0.79%	-0.47%	0.64%

For this valuation there has been an increase in the real rate of return for all projection years. This is due to a lower inflation rate.

The real rates for the first eight years into the future are negative. In our previous valuation all future real rates of return were negative.

The interest rate for one quarter of the first year ahead [$((1 + 1.98\%)^{0.25} - 1) = 0.5\%$] is included in the calculation of the average premium rate. This is because premiums are received on average three months earlier than the point to which claims are discounted.

To set the future inflation assumption for our outstanding claims review we consider the wage inflation assumptions produced by the WA Treasury for the *2015/16 WA Government Mid-year Financial Projections Statement*. This indicates a future rate of wage growth of 3.0%, which is lower than the 3.75% adopted for our previous review.

See Appendix D1 for further information.

Employment growth for the half-year to 31 December 2015

To determine the employment growth we have used the movement in the ABS Cat. 6202.0 Table 8 Labour Force for full time persons for Western Australia. The number of full time employees increased by 0.1% from 30 June 2015 to 31 December 2015, which is lower than the equivalent increase from 30 June 2014 to 31 December 2014 of 2.7%.

Past general inflation

To determine the minimum premium for householders and other policies we have used the movement in the ABS Cat. 6401.0 Table 1 CPI all groups index numbers for Perth. CPI is expected to increase by 1.7% over 2016/17, extrapolated from the increases over 2014/15 (1.8%) and 2015/16 (1.5%).

Past wage inflation

Payments and case estimates are inflated to current values based on the ABS Cat 6302.0 Average Weekly Earnings for Western Australia (persons full-time adult ordinary time earnings). These are detailed in Appendix D1.

6.2 Superimposed inflation

The superimposed inflation assumptions for each payment category are shown in the table below. As per last year we have used different superimposed inflation rates for the outstanding claims blend and 2016/17 premium rate calculation.

6.2.1 Outstanding claims

We have analysed the historic level of SII for each payment group, and weighted these by the outstanding claims amount to find an overall level. This is shown in the table below.

Superimposed Inflation - outstanding claims blend								
	Weekly Benefits, Miscellaneous And Fatals	Medical And Hospital Expenses	All Other Treatment	Vocational Rehabilitation	Redemptions & 2nd Schedule	Legals	Common Law	Total
30 June 15	5.3%	3.1%	1.8%	4.4%	8.1%	8.1%	4.4%	6.2%
30 June 14	4.7%	2.3%	2.8%	4.4%	6.4%	6.5%	5.4%	5.4%

See Appendix D2 for more details of our analysis.

Superimposed inflation for the outstanding claims is 6.2% overall, which is 0.8% higher than the 5.4% adopted last year. All payments groups have a higher or the same rate of superimposed inflation compared to that adopted for the 30 June 2014 valuation, except the all other treatment and common law payment firms.

There are significant increases for the redemptions and 2nd schedule, weekly benefits, miscellaneous and fatals, and legals. This is mainly driven by the decrease in the number of claims.

6.2.2 2016/17 premium rate calculation

Due to the reduction in small claims and change in claims mix leading to the high rate of SII in the most recent two accident years for all payment groups, we have performed a separate analysis of SII for the 2016/17 premium rate calculation. This analysis takes a similar form to the outstanding claims analysis, but excludes the more recent years. We also did a high level check by reviewing the increase in total incurred cost if the small claims were not removed from the system. Details of the analysis can be found in Appendix D3.

The overall SII for the premium rate calculation is a weighted average across the payment groups, weighted by the 2015 incurred cost in current values.

The table below shows the results of our analysis, and compares it to the adopted SII in the 2015/16 premium rate calculation:

Superimposed Inflation - 2016/17 incurred cost								
	Weekly Benefits, Miscellaneous And FataIs	Medical And Hospital Expenses	All Other Treatment	Vocational Rehabilitation	Redemptions & 2nd Schedule	Legals	Common Law	Total
30 June 15	4.3%	0.9%	4.1%	3.7%	4.1%	7.3%	4.1%	4.0%
30 June 14	5.4%	2.8%	3.4%	5.2%	7.2%	7.6%	7.1%	5.6%

The overall adopted SII rate for the 2016/17 premium rate calculation of 4.0% is 1.6% lower than the 5.6% adopted last year. All payments groups have a lower rate compared to that adopted for the 30 June 2014 valuation, except all other treatment.

For this analysis we combined the experience from the redemptions and 2nd schedule, and common law payment groups due to the uncertainty associated with 92(f) settlement payments.

6.3 Expenses

Total expenses

A three year average is calculated from the expenses provided by insurers on the WC30 form. For this valuation no allowance has been added for the increase in the General Account levy due to the 2011 Amendment Act allowing common law access to the uninsured claims, as it is now fully incorporated in the averaging period adopted. The expenses adopted are as follows:

	Expense Ratios			Adopted
	2014/15	2013/14	2012/13	3 yr ave
Commission / Brokerage	3.0%	2.8%	2.7%	2.8%
General Fund Levy	1.6%	1.5%	1.5%	1.5%
Management Expenses	13.5%	12.0%	11.0%	12.2%
Total	18.0%	16.4%	15.3%	16.6%
Total excluding brokerage	15.1%	13.6%	12.5%	13.7%

Note that brokerage, the supplementation fund levy (if applicable) and GST on the premium are not included in the recommended premium rates.

The total expenses, excluding brokerage, of 13.7% are 0.6% higher than the 13.1% adopted last year. This is due to an increase in management expenses, which may be driven by multiple factors; higher staffing costs, information technology upgrades, bad debts and lower earned premium amounts. In discussions with insurers we understand that the rate of bad debts across the industry is increasing, and the cost of this is captured in the management expenses. See section 7.3 for further discussion of this trend.

Claims handling expenses

Claims management expenses equal to 5% of the projected future claim payments have been allowed for in the outstanding claims liability. This is intended to be a market level reserving allowance for claim handling costs.

Goods and Services Tax

Our adopted projection bases use claim payments data which includes Goods and Services Tax (GST) net of Input Tax Credit (ITC) and Decreasing Adjustment Mechanism (DAM) and therefore appropriate GST net of ITC and/or DAM allowance is included in the results obtained. As mentioned above, the 10% GST on the workers compensation premium itself (which employers will generally be able to recover via an input tax credit) is not included in our analysis or the recommended premium rates.

6.4 Contingency margin

This year the contingency margin has remained the same as last year, at 10%. For the 2015/16 recommended premium rates report we did a special review where we recommended it decrease from 11% to 10%. See Appendix D for more details.

The contingency margin allows for insurers' cost of servicing the regulatory solvency capital required without the purchase of reinsurance.

6.5 Combined loadings and loss ratio

The loss ratio is calculated from the expenses and contingency margin above and includes interest earned on earlier receipt of premiums.

A combination of these loadings, excluding brokerage, is:

$$\begin{aligned} \text{Gross premium} &= \frac{\text{Risk Premium}}{(1 - \text{total expenses} - \text{contingency margin}) \times \text{interest earned factor}} \\ &= \frac{\text{Risk Premium}}{(1 - 0.137 - 0.10) \times 1.005} \end{aligned}$$

Gross premium = Risk premium x 1.3046 (combined loading factor)

This is equivalent to a loss ratio of:

Risk premium / Gross Premium = 76.7% excluding brokerage

The 1.3038 combined loading factor in the premium rates is calculated as the inverse of the loss ratio, rounded to four decimal places.

The loss ratio adopted last year was 77.2%. The decrease in the loss ratio adopted this year is mainly due to the increase in total expenses.

6.6 Premium rating caps

Minimum and maximum premium rating caps

As detailed in section 5.2, premium rates are subject to absolute minimum and maximum rates. The minimum and maximum rates are \$0.25 and \$12.00 per \$100 of wages which is the same as last year.

Premium rates for 15 rating classes were increased to the minimum rate and all other premium rates have reduced by 0.8% as a result of respreading the extra premium generated. This is a lower percentage of redistribution as last year all other premium rate classes decreased by 1.5%. No classes exceeded the \$12.00 maximum premium rate.

Large claims capping

As detailed in section 5.2, large claims are capped at \$3.0 million indexed by accident year. A cap is also applied for claims above 12% of wages if they exceed \$0.2 million indexed but not \$3.0 million. In both cases, indexation is from the 2001 financial year. This is the same method as last year.

For the 2011 to 2015 accident years, which have a greater than 0% weighting (see section 5.2), at class level six (five) claims are capped, while at group, sub-division and division level two (one) claims are capped. The capped large claims represent 0.4% (0.3%) of the 2016/17 premium pool. The numbers in brackets are last year figures.

6.7 WA legislative changes

For our valuation of the outstanding claims provision as at 30 June 2015 we have included allowances for the 2011 Amendment Act. We have reduced the number of development years for which the explicit allowance is applied. In this year's valuation no explicit allowance is required for development years zero to two as the adopted factors are based on post-Act change experience.

For more details on what the Act entailed see Appendix D5.

The allowance for the 2011 Amendment Act has increased the 30 June 2015 central estimate by 1.4%. This decreased from the 2.1% allowance last year, due to the reduced explicit allowance this year.

6.8 Board directives

The following WorkCover WA Board directives have also been issued:

- all self-insurers, with the exception of the ICWA-RiskCover, are to be excluded from the recommended premium rates (LGIS WorkCare was included in the rates until 2004)
- brokerage is to be excluded from the premium rates

- premium rates are to be specified gross of reinsurance. The contingency margin contains allowance for the insurer to hold the total amount of capital required to support the business without the purchase of reinsurance
- premium rates are calculated using earned wages, which provides more stable premium rates than the use of written wages
- the level for large claim capping
- the minimum and maximum premium rates
- three year average to calculate the expense loading.

7 *Uncertainty*

Key points of this section

- A 10.5% risk margin is sufficient to increase the level of reserving adequacy from 50% to 75%
 - Some of the current additional sources of uncertainty include:
 - the reduction in the number of small claims in the scheme, and whether they will re-enter and associated change in claims mix
 - future economic activity
 - legal and settlement costs.
-

7.1 Uncertainty in the estimates

Actuarial estimates are obtained after analysis of past claims experience. From these analyses, models of the claim payment process can be established and used to project future payments on claims outstanding at the valuation date.

The estimates of outstanding claims obtained in this manner are indeed estimates in the sense that there is a degree of uncertainty as to the difference which will ultimately arise between the estimates and the final result of the experience. This uncertainty arises from four sources:

- a because the nature of the claims process is not fully understood, it might be that none of the various models used is an entirely accurate representation of reality
- b because there are components of randomness in the claims process, it is not possible to estimate the parameters of that process with complete precision even if complete confidence were felt in the nature of the model
- c any erroneous data will similarly have introduced uncertainties into the estimates of those parameters
- d even if the parameters could be estimated with precision, it would not be possible to predict outstanding claims with the same precision because of the random component in future experience.

For some portfolios errors associated with b and d above can be quantified in a formal way (estimation and statistical errors). However a large part of the uncertainty is associated with model specification error (point 'a' above), and unfortunately it is not possible to quantify this component.

The investigation and application of different models to the data is intended to reduce the model specification error, although the extent to which this is achieved is unknown.

The initial estimates obtained from the calculations are "central" estimates in the sense that they incorporate no deliberate bias towards over or under estimation. By definition, the estimates are intended to have about an even chance of ultimately turning out to be sufficient.

7.2 Determination of provisions

7.2.1 Background

Because of the uncertainty described above, provisions which are somewhat greater than the actuarial "central" estimates are often adopted. A 50% probability of provisions being too low, is seen as involving a higher than desirable risk.

This is intended to provide security for stakeholders.

However, security is not the only reason to adopt provisions which are greater than the statistical central estimates. It may be to ensure as far as possible that provisions are not released until it is reasonably certain that they are not required. A 50% chance that the provisions will eventually not be required is generally not seen as sufficient.

Any decision to adopt provisions for outstanding claims which are greater than the central estimates, together with the extent of any margin, is in our view a decision which should properly be taken by the Boards of insurers. In making this decision they may take into account various matters (both objective and subjective) which influence their view of future experience.

It should be realised that, by definition, any margins over central estimates are intended to have a better than even chance of falling into future surplus, provided that future experience is consistent with that of the recent past. This should be considered in making management decisions.

7.2.2 Levels of sufficiency

The nature of insurance claims is such that the actual value of the liabilities is unknown because claims experience is subject to random fluctuations. The amount of the claim liability cannot be estimated with certainty. Also it is very difficult to determine the central estimate with a reasonable degree of precision. For this reason the inherent uncertainty in the central estimate must also be considered.

It is common practice for the actuary to provide a central estimate of the liabilities. Such an estimate should contain no deliberate or conscious over or under estimation.

The provision adopted in the accounts should usually be greater than the central estimate. The difference is referred to as a risk margin. As explained above, the risk margin allows for some part of the uncertainties in the claim process and also it ensures as far as possible that surplus is not released until it is reasonably certain that the surplus is real.

The adopted method was tested for its sensitivity to changes in the claim rates assumed and a measure of the variation in the results was obtained. This analysis indicated that the distribution of likely results was skewed to the right. This means that the variation upwards in the provision is expected to be greater than the variation downwards.

The dispersion of expected results is added to by :

- the variable nature of the claim experience
- very large common law claims can sometimes occur.

The variation analysed together with benchmarking against reports published by APRA and the Institute of Actuaries leads to the assumption of a 17% standard deviation of the distribution of results which allows for the skew distribution and systemic variation. The lognormal distribution was then assumed to apply when calculating the prudential margin required to increase the level of sufficiency above 50%.

The coefficient of variation calculated as described above is taken as 17%. This leads to the following prudential margins.

Level of sufficiency and risk margins				
Level of sufficiency	60%	70%	75%	80%
Risk margin	2.89%	7.71%	10.47%	13.63%

7.2.3 Sensitivity

The adopted method was tested for its sensitivity to changes in the assumptions about future interest and inflation rates, adopted reporting rates, and superimposed inflation, and a measure of the variation in the results was obtained. The results of this analysis are shown below:

Recommended Premium Rates Provision - Sensitivity Analysis		
Assumption varied	Variation	% Change in total provision
Future interest rates	1% increase	-2.14%
	1% decrease	2.30%
Future inflation rates	1% increase	2.26%
	1% decrease	-2.15%
Adopted claim reporting rates	DY0 rate decreased from 9.71% to 4.86%	-2.27%
Superimposed inflation	1% increase	2.19%
	1% decrease	-2.08%

The percentage change in the outstanding claim provision as at 30 June 2015 is shown in the table above. The inherent robustness of the various assumptions in the table above means that the variations shown are not necessarily cumulative. Hence care needs to be exercised in developing any best or worst case scenario.

For this valuation we also tested the impact on the 2016/17 recommended premium rate for changes in key assumptions. The results of this test are shown in the table below:

Recommended Premium Rates Provision - Sensitivity Analysis		
Assumption varied	Variation	% Change in premium rates
Future interest rates	1% increase	-1.89%
	1% decrease	2.15%
Future inflation rates	1% increase	1.47%
	1% decrease	-1.40%
Superimposed inflation for future accident years	1% increase	1.69%
	1% decrease	-1.68%
Superimposed inflation for both historical and future accident years	1% increase	3.13%
	1% decrease	-3.01%
Claims incurred (allowing for small claims)	4,000 more claims incurred with an average claim size of \$6,000 per claim	2.59%

7.3 Additional sources of uncertainty

7.3.1 Reduction in claim numbers and change in claims mix

The level of incurred claims over the 2016/17 premium rate year has a direct impact on the assumed incurred cost, if there is no change in the average claim size, and therefore the premium rate. Since the Global Financial Crisis (GFC) there has been a reducing trend in the number of incurred claims across accident years. In the most recent two accident years there have been significant decreases, with the number of small (time lost less than five days) claims reducing by more than longer duration claims, so the mix of claims is changing.

A significant source of uncertainty relates to whether these claims will re-enter the system; will never re-enter and similar claims will not be reported in future, or; further decreases in claim numbers will occur.

As shown in the sensitivity tests above, if 4,000 of these small claims re-entered the system in the 2016/17 premium rate year at an average cost of \$6,000 (based on past 1 to 4 days' time lost costs) the required increase in the premium rate would be 2.5%.

Other sources of uncertainty with regards to the changing claims mix are:

- the number of psychological claims and whether the trend in these is changing. Although these claims represent a small proportion of the total, they tend to have a higher average cost, and therefore an increase in the volume of these claims causes additional uncertainty for the incurred cost in the scheme

- whether the employer is requesting reimbursement for all payments types from the insurer or whether employers are choosing to pay part of the claims costs in house, particularly in situations where an employee has partially returned to work. If costs are currently being withheld from the scheme this creates additional uncertainty about the actual total cost. Also the total cost could increase in the future if these payments are reclaimed.

7.3.2 Economic activity

There is still considerable uncertainty associated with the future economic activity in WA, and the impact this will have, particularly on wages but also on claims costs. We understand that return to work rates are being affected as employers may not be allowing workers to return to work until they are 100% fit and alternative duties or employment at other companies is more difficult to find. Where companies get in financial difficulties there is also a potential increase in claims costs where there is no longer a job for an injured employee to return to work.

As a result of the current economic climate the levels of bad debts and premium refunds have increased. We understand that currently bad debts are accounted for in management expenses. Future increases in bad debts will increase the expense rate, and therefore premium rate, for the scheme.

There are a number of mining and construction projects which have moved or will move in the next couple of years from construction phase to production phase so the workforce requirements are changing. This could affect the claim frequency and incurred costs. Unemployment rates are also increasing which may also impact the scheme.

7.3.3 Legal costs and settlements

There has been significant SII for legal costs over recent years as well as an increase in the number of settlements within the scheme.

The actuarial valuation of workers compensation risks is subject to a high level of uncertainty, especially for the common law and settlement components. This is because the cost of common law and settlement claims by their nature are more difficult to predict since they are the larger claims, tend to have longer reporting and payment delays than the statutory benefit claims and a greater dispersion of claim size.

There is additional uncertainty due to the use of 92(f) settlements obscuring the volume of common law claims compared to redemptions, which historically have different average claims sizes.

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Appendix A Premium rates

What this appendix covers

- Relative premium rates, including the 0.3% decrease
 - The claims experience for premium class 81130 – Local Government Administration is based predominantly on historical data collected from private insurers and does not reflect the current experience of the Local Government self-insurance scheme
 - The 2016/17 premium rate for 97001 Private Households Employing Staff – Occasional Staff is the minimum premium per policy.
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Divn/Class Name	Weighted Loss Ratio Credibility		Relative Premium Rates				% Change in Relative Premium Rates		Margins
			Gazette 2014/15	Gazette 2015/16	Normalised 2016/17 Relative Prem Rates		(RES2016/17)/GAZ2015/16)	GAZ2014/15	TRUE / (RES2016/17)
A AGRICULTURE, FORESTRY AND FISHING									
1110 Plant Nurseries	72.7%	35.3%	3.90	3.74	3.69	3.65	-2.4%	-4.1%	-0.9%
1120 Cut Flower and Flower Seed Growing	78.9%	17.1%	2.94	2.85	3.01	2.99	5.0%	-3.1%	-0.9%
1130 Vegetable Growing	83.2%	38.5%	3.26	3.35	3.52	3.49	4.3%	2.8%	-0.9%
1140 Grape Growing	78.5%	30.3%	3.31	3.22	3.38	3.35	4.2%	-3.0%	-0.9%
1150 Apple and Pear Growing	84.0%	21.4%	2.93	3.03	3.20	3.17	4.7%	3.3%	-0.9%
1160 Stone Fruit Growing	70.3%	10.3%	3.57	3.36	3.26	3.23	-3.6%	-6.0%	-0.9%
1170 Kiwi Fruit Growing	0.0%	0.0%	3.36	3.31	3.45	3.42	3.3%	-1.3%	-0.9%
1190 Fruit Growing n.e.c.	80.0%	34.6%	2.89	2.90	3.00	2.98	2.8%	0.2%	-0.9%
1210 Grain Growing	90.3%	16.1%	4.30	4.02	5.05	5.00	24.5%	-6.5%	-0.9%
1220 Grain-Sheep and Grain-Beef Cattle Farming	90.2%	76.1%	4.40	4.06	5.16	5.12	26.1%	-7.8%	-0.9%
1230 Sheep-Beef Cattle Farming	84.3%	18.2%	4.62	4.24	5.07	5.03	18.6%	-8.3%	-0.9%
1240 Sheep Farming	82.2%	10.6%	5.73	5.16	6.12	6.07	17.7%	-10.0%	-0.9%
1250 Beef Cattle Farming	87.3%	26.8%	6.43	6.42	7.30	7.24	12.6%	-0.1%	-0.9%
1300 Dairy Cattle Farming	82.3%	22.6%	5.10	4.91	5.45	5.41	10.2%	-3.8%	-0.9%
1410 Poultry Farming (Meat)	78.0%	12.2%	4.23	3.93	4.29	4.25	8.1%	-6.9%	-0.9%
1420 Poultry Farming (Eggs)	82.1%	14.5%	4.89	4.70	5.22	5.18	10.3%	-4.0%	-0.9%
1510 Pig Farming	68.5%	17.5%	4.78	4.28	4.26	4.23	-1.3%	-10.5%	-0.9%
1520 Horse Farming	74.7%	15.4%	5.31	5.07	5.15	5.11	0.8%	-4.5%	-0.9%
1530 Deer Farming	71.4%	1.6%	4.90	4.71	4.55	4.51	-4.3%	-3.9%	-0.9%
1590 Livestock Farming n.e.c.	76.7%	6.8%	4.47	4.15	4.45	4.41	6.4%	-7.1%	-0.9%
1610 Sugar Cane Growing	73.1%	1.2%	4.32	3.82	4.11	4.07	6.4%	-11.5%	-0.9%
1620 Cotton Growing	0.0%	0.0%	4.40	3.89	4.16	4.12	6.0%	-11.6%	-0.9%
1690 Crop and Plant Growing n.e.c	64.7%	13.5%	4.49	3.72	3.78	3.75	0.9%	-17.3%	-0.9%
2110 Cotton Ginning	87.0%	0.8%	4.53	4.73	5.12	5.08	7.4%	4.3%	-0.9%
2120 Shearing Services	86.6%	40.5%	5.57	5.68	6.27	6.22	9.6%	1.9%	-0.9%
2130 Aerial Agriculture Services	80.5%	8.8%	4.75	4.88	4.97	4.93	0.9%	2.7%	-0.9%
2190 Services to Agriculture n.e.c	89.4%	46.7%	3.74	4.06	4.35	4.31	6.2%	8.4%	-0.9%
2200 Hunting and Trapping	83.2%	4.4%	4.21	4.27	4.55	4.51	5.7%	1.5%	-0.9%
3010 Forestry	76.9%	19.1%	4.25	3.98	4.25	4.21	5.8%	-6.3%	-0.9%
3020 Logging	69.7%	32.1%	4.78	4.54	4.33	4.29	-5.3%	-5.1%	-0.9%
3030 Services to Forestry	69.4%	37.7%	3.43	3.51	3.10	3.07	-12.5%	2.2%	-0.9%
4110 Rock Lobster Fishing	68.4%	22.7%	3.61	3.06	3.21	3.19	4.3%	-15.4%	-0.9%
4120 Prawn Fishing	67.3%	6.7%	3.67	3.28	3.21	3.18	-3.1%	-10.5%	-0.9%
4130 Finfish Trawling	64.0%	5.5%	4.80	4.52	3.99	3.96	-12.3%	-5.8%	-0.9%
4140 Squid Jigging	66.0%	1.3%	3.93	3.48	3.37	3.34	-4.0%	-11.4%	-0.9%
4150 Line Fishing	61.0%	9.8%	4.53	3.86	3.59	3.56	-7.9%	-14.6%	-0.9%
4190 Marine Fishing n.e.c.	62.4%	24.1%	3.82	3.39	3.10	3.07	-9.4%	-11.3%	-0.9%
4200 Aquaculture	63.5%	27.4%	4.41	4.02	3.64	3.61	-10.3%	-8.8%	-0.9%

Divn/Class Name	Weighted Loss Ratio Credibility		Relative Premium Rates				% Change in Relative Premium Rates		Margins	
			Gazette 2014/15	Gazette 2015/16	Normalised 2016/17 Relative Prem Rates		(RES2016/17)/GAZ2015/16)	GAZ2014/15	TRUE / (RES2016/17)	
B	MINING									
11010	Black Coal Mining	63.8%	55.7%	2.54	2.31	2.10	2.08	-9.8%	-8.9%	-0.9%
11020	Brown Coal Mining	65.4%	0.9%	2.34	2.15	1.99	1.97	-8.2%	-8.1%	-0.9%
12000	Oil and Gas Extraction - On Land	77.3%	100.0%	0.36	0.31	0.36	0.36	16.9%	-14.8%	-0.9%
12001	Oil and Gas Extraction - Offshore	43.1%	99.3%	1.26	0.86	0.71	0.70	-18.6%	-31.8%	-0.9%
13110	Iron Ore Mining	84.3%	100.0%	0.79	0.86	0.87	0.86	0.5%	8.2%	-0.9%
13120	Bauxite Mining	101.4%	4.4%	1.18	1.40	1.56	1.54	10.1%	18.7%	-0.9%
13130	Copper Ore Mining	42.3%	19.6%	1.99	1.58	1.09	1.08	-31.6%	-20.3%	-0.9%
13140	Gold Ore Mining	106.0%	100.0%	1.09	1.26	1.50	1.49	18.0%	15.8%	-0.9%
13141	Gold Mining Underground	46.8%	100.0%	4.03	3.10	2.45	2.43	-21.5%	-23.1%	-0.9%
13150	Mineral Sand Mining	62.4%	74.4%	1.05	0.92	0.85	0.85	-7.9%	-12.7%	-0.9%
13160	Nickel Ore Mining	80.3%	95.6%	1.64	1.68	1.71	1.70	0.9%	2.5%	-0.9%
13170	Silver-Lead-Zinc Ore Mining	94.6%	33.3%	1.45	1.55	1.79	1.77	14.6%	6.5%	-0.9%
13190	Metal Ore Mining n.e.c.	68.8%	58.0%	1.53	1.37	1.37	1.36	-1.0%	-10.5%	-0.9%
14110	Gravel and Sand Quarrying	67.6%	25.7%	2.24	1.88	1.97	1.95	3.9%	-16.2%	-0.9%
14190	Construction Material Mining n.e.c.	59.8%	36.6%	3.12	2.53	2.42	2.40	-5.1%	-18.8%	-0.9%
14200	Mining n.e.c.	99.7%	72.0%	0.88	0.76	1.14	1.13	47.9%	-13.2%	-0.9%
14201	Salt Harvesting	116.1%	54.8%	0.70	0.72	1.05	1.04	44.8%	3.3%	-0.9%
15110	Petroleum Exploration (Own Account)	48.3%	44.5%	1.11	0.91	0.70	0.69	-24.2%	-17.8%	-0.9%
15120	Petroleum Exploration Services	64.3%	57.5%	2.19	2.04	1.83	1.81	-11.1%	-6.7%	-0.9%
15130	Mineral Exploration (Own Account)	47.3%	100.0%	0.68	0.60	0.42	0.42	-30.4%	-12.4%	-0.9%
15140	Mineral Exploration Services	51.7%	64.9%	3.39	2.84	2.28	2.26	-20.4%	-16.3%	-0.9%
15200	Other Mining Services - On Land	78.1%	100.0%	1.80	1.77	1.83	1.81	2.1%	-1.3%	-0.9%
15201	Other Mining Services - Offshore	66.8%	100.0%	0.75	0.70	0.65	0.64	-8.2%	-6.2%	-0.9%
C	MANUFACTURING									
21110	Meat Processing	82.6%	71.0%	4.46	4.85	4.79	4.75	-2.0%	8.7%	-0.9%
21120	Poultry Processing	94.2%	32.0%	3.99	4.59	4.88	4.84	5.5%	15.0%	-0.9%
21130	Bacon, Ham and Smallgood Manufacturing	85.1%	32.3%	4.88	4.89	5.39	5.35	9.4%	0.3%	-0.9%
21210	Milk and Cream Processing	68.1%	35.8%	3.34	3.18	2.96	2.93	-7.9%	-4.8%	-0.9%
21220	Ice Cream Manufacturing	56.7%	10.7%	4.39	3.73	3.23	3.21	-14.0%	-15.0%	-0.9%
21290	Dairy Product Manufacturing n.e.c.	59.4%	32.0%	3.75	3.14	2.90	2.87	-8.4%	-16.4%	-0.9%
21300	Fruit and Vegetable Processing	73.3%	19.4%	3.02	2.88	2.88	2.85	-1.0%	-4.5%	-0.9%
21400	Oil and Fat Manufacturing	49.3%	20.3%	4.74	3.94	3.04	3.01	-23.7%	-16.7%	-0.9%
21510	Flour Mill Product Manufacturing	85.1%	16.2%	3.28	3.15	3.63	3.60	14.2%	-4.0%	-0.9%
21520	Cereal Food and Baking Mix Manufacturing	81.3%	24.4%	3.56	3.51	3.77	3.73	6.3%	-1.4%	-0.9%
21610	Bread Manufacturing	58.4%	38.3%	4.31	3.56	3.27	3.24	-9.0%	-17.3%	-0.9%
21620	Cake and Pastry Manufacturing	71.6%	22.4%	4.08	3.74	3.80	3.77	0.8%	-8.5%	-0.9%
21630	Biscuit Manufacturing	60.1%	5.0%	4.25	3.68	3.32	3.30	-10.5%	-13.5%	-0.9%
21710	Sugar Manufacturing	0.0%	0.0%	4.07	3.77	3.02	2.99	-20.6%	-7.3%	-0.9%
21720	Confectionery Manufacturing	56.4%	9.1%	4.15	3.62	3.05	3.02	-16.7%	-12.8%	-0.9%
21730	Seafood Processing	59.8%	32.5%	4.40	4.35	3.42	3.39	-22.0%	-1.1%	-0.9%
21740	Prepared Animal and Bird Feed Manufacturing	48.4%	23.6%	5.01	4.18	3.15	3.13	-25.3%	-16.6%	-0.9%
21790	Food Manufacturing n.e.c.	51.4%	39.8%	3.67	3.28	2.45	2.43	-25.8%	-10.7%	-0.9%

Divn/Class Name	Weighted Loss Ratio Credibility		Relative Premium Rates				% Change in Relative Premium Rates		Margins TRUE / Restricted
			Gazette 2014/15	Gazette 2015/16	Normalised 2016/17		(RES2016/17)/GAZ2015/16	GAZ2014/15	
					Relative Prem Rates TRUE	Relative Prem Rates Restricted			
21810 Soft Drink, Cordial and Syrup Manufacturing	62.2%	43.0%	1.74	1.57	1.40	1.39	-11.6%	-9.3%	-0.9%
21820 Beer Manufacturing	68.9%	32.7%	1.73	1.59	1.55	1.54	-3.6%	-7.9%	-0.9%
21821 Malt Manufacturing	66.6%	0.1%	1.98	1.84	1.72	1.70	-7.5%	-7.1%	-0.9%
21830 Wine Manufacturing	63.9%	51.0%	1.84	1.65	1.53	1.51	-8.2%	-10.3%	-0.9%
21840 Spirit Manufacturing	67.9%	4.5%	1.86	1.75	1.64	1.63	-7.0%	-6.0%	-0.9%
21900 Tobacco Product Manufacturing	118.2%	2.3%	3.30	4.19	5.06	5.02	19.8%	27.1%	-0.9%
22110 Wool Scouring	0.0%	0.0%	2.91	2.83	2.25	2.23	-21.4%	-2.7%	-0.9%
22120 Synthetic Fibre Textile Manufacturing	61.9%	1.1%	2.76	2.59	2.22	2.20	-15.1%	-6.0%	-0.9%
22130 Cotton Textile Manufacturing	0.0%	0.0%	2.75	2.60	2.25	2.23	-14.3%	-5.6%	-0.9%
22140 Wool Textile Manufacturing	62.4%	0.9%	2.74	2.58	2.22	2.21	-14.5%	-5.9%	-0.9%
22150 Textile Finishing	62.3%	2.1%	2.72	2.56	2.20	2.18	-14.8%	-5.8%	-0.9%
22210 Made-Up Textile Product Manufacturing	68.9%	41.0%	2.59	2.50	2.32	2.30	-8.1%	-3.4%	-0.9%
22220 Textile Floor Covering Manufacturing	65.7%	4.6%	2.65	2.40	2.26	2.24	-6.9%	-9.1%	-0.9%
22230 Rope, Cordage and Twine Manufacturing	68.0%	2.8%	2.57	2.43	2.27	2.25	-7.5%	-5.2%	-0.9%
22290 Textile Product Manufacturing n.e.c.	65.5%	11.2%	2.98	2.81	2.53	2.51	-10.8%	-5.4%	-0.9%
22310 Hosiery Manufacturing	66.1%	1.6%	2.55	2.32	2.19	2.18	-6.3%	-9.1%	-0.9%
22320 Cardigan and Pullover Manufacturing	62.9%	3.2%	2.63	2.33	2.15	2.13	-8.4%	-11.5%	-0.9%
22390 Knitting Mill Product Manufacturing n.e.c.	55.3%	0.6%	3.08	2.34	2.21	2.19	-6.4%	-23.8%	-0.9%
22410 Men's and Boys' Wear Manufacturing	67.1%	3.9%	2.48	2.25	2.16	2.14	-4.8%	-9.2%	-0.9%
22420 Women's and Girls' Wear Manufacturing	66.5%	8.0%	2.90	2.62	2.51	2.49	-4.9%	-9.9%	-0.9%
22430 Sleepwear, Underwear and Infant Clothing Manufacturing	68.4%	1.3%	2.49	2.29	2.22	2.20	-4.0%	-8.1%	-0.9%
22490 Clothing Manufacturing n.e.c.	70.8%	15.1%	2.26	2.09	2.08	2.07	-1.1%	-7.7%	-0.9%
22500 Footwear Manufacturing	63.8%	12.0%	2.26	2.11	1.87	1.86	-12.1%	-6.4%	-0.9%
22610 Leather Tanning and Fur Dressing	46.5%	5.9%	4.97	3.92	3.01	2.98	-23.9%	-21.2%	-0.9%
22620 Leather and Leather Substitute Product Manufacturing	56.8%	7.8%	3.34	2.85	2.47	2.44	-14.3%	-14.6%	-0.9%
23110 Log Sawmilling	66.4%	28.7%	3.65	2.81	3.15	3.12	11.0%	-22.9%	-0.9%
23120 Wood Chipping	67.7%	13.2%	4.58	4.21	4.03	3.99	-5.1%	-8.1%	-0.9%
23130 Timber Resawing and Dressing	73.3%	7.4%	3.81	3.38	3.63	3.60	6.4%	-11.3%	-0.9%
23210 Plywood and Veneer Manufacturing	75.6%	20.2%	3.61	3.49	3.55	3.52	0.7%	-3.3%	-0.9%
23220 Fabricated Wood Manufacturing	77.5%	12.9%	3.29	3.09	3.32	3.29	6.5%	-6.3%	-0.9%
23230 Wooden Structural Component Manufacturing	75.7%	57.2%	2.94	2.70	2.90	2.87	6.4%	-8.3%	-0.9%
23290 Wood Product Manufacturing n.e.c.	70.3%	23.2%	4.23	3.79	3.86	3.83	0.9%	-10.2%	-0.9%
23310 Pulp, Paper and Paperboard Manufacturing	55.8%	24.6%	3.49	2.84	2.53	2.51	-11.5%	-18.7%	-0.9%
23320 Solid Paperboard Container Manufacturing	61.4%	1.5%	3.37	2.82	2.69	2.67	-5.3%	-16.4%	-0.9%
23330 Corrugated Paperboard Container Manufacturing	62.4%	2.2%	3.37	2.83	2.74	2.71	-4.2%	-16.1%	-0.9%
23340 Paper Bag and Sack Manufacturing	62.1%	0.3%	3.38	2.84	2.73	2.70	-4.9%	-15.9%	-0.9%
23390 Paper Product Manufacturing n.e.c.	58.0%	8.2%	3.42	2.75	2.58	2.56	-7.1%	-19.5%	-0.9%
24110 Paper Stationery Manufacturing	92.7%	7.6%	1.06	1.06	1.28	1.27	19.7%	-0.2%	-0.9%
24120 Printing	99.4%	62.5%	1.15	1.14	1.48	1.47	29.4%	-1.0%	-0.9%
24130 Services to Printing	91.6%	17.6%	1.02	1.03	1.22	1.21	17.0%	0.9%	-0.9%
24210 Newspaper Printing or Publishing	55.4%	74.5%	0.88	0.78	0.63	0.63	-20.0%	-10.7%	-0.9%
24220 Other Periodical Publishing	86.7%	22.5%	0.63	0.64	0.72	0.71	10.1%	1.5%	-0.9%
24230 Book and Other Publishing	61.4%	19.2%	0.89	0.84	0.71	0.71	-15.8%	-6.1%	-0.9%
24300 Recorded Media Manufacturing and Publishing	78.9%	9.8%	0.77	0.74	0.79	0.78	5.7%	-3.8%	-0.9%
25100 Petroleum Refining	71.6%	15.3%	1.27	1.19	1.18	1.17	-1.6%	-6.2%	-0.9%
25200 Petroleum and Coal Product Manufacturing n.e.c.	66.4%	70.6%	0.44	0.44	0.38	0.37	-15.6%	1.4%	-0.9%

Divn/Class Name	Weighted Loss Ratio Credibility		Relative Premium Rates						% Change in Relative Premium Rates		Margins
			Gazette 2014/15	Gazette 2015/16	Normalised 2016/17		(RES2016/17)/GAZ2015/16)	GAZ2014/15	TRUE / (RES2016/17)		
					Relative Prem Rates TRUE	Restricted					
25310 Fertiliser Manufacturing	59.3%	34.1%	2.17	2.18	1.67	1.66	-23.9%	0.5%	-0.9%		
25320 Industrial Gas Manufacturing	70.5%	26.9%	1.98	1.88	1.81	1.80	-4.6%	-4.7%	-0.9%		
25330 Synthetic Resin Manufacturing	71.2%	20.6%	2.52	2.54	2.34	2.32	-8.9%	0.7%	-0.9%		
25340 Organic Industrial Chemical Manufacturing n.e.c.	60.9%	21.6%	2.40	2.22	1.90	1.88	-15.2%	-7.5%	-0.9%		
25350 Inorganic Industrial Chemical Manufacturing n.e.c.	49.9%	48.2%	2.31	2.15	1.50	1.49	-30.9%	-6.9%	-0.9%		
25410 Explosive Manufacturing	90.9%	47.2%	1.44	1.53	1.69	1.68	10.1%	6.4%	-0.9%		
25420 Paint Manufacturing	68.7%	22.8%	1.41	1.34	1.26	1.25	-7.3%	-4.5%	-0.9%		
25430 Medicinal and Pharmaceutical Product Manufacturing	68.9%	37.0%	1.31	1.18	1.18	1.17	-1.2%	-10.1%	-0.9%		
25440 Pesticide Manufacturing	73.1%	19.2%	1.43	1.41	1.35	1.34	-4.9%	-0.9%	-0.9%		
25450 Soap and Other Detergent Manufacturing	65.6%	18.4%	1.54	1.41	1.31	1.30	-8.2%	-7.9%	-0.9%		
25460 Cosmetic and Toiletry Preparation Manufacturing	86.4%	5.5%	1.39	1.38	1.56	1.55	12.4%	-0.9%	-0.9%		
25470 Ink Manufacturing	78.3%	4.1%	1.38	1.36	1.40	1.39	2.3%	-1.4%	-0.9%		
25490 Chemical Product Manufacturing n.e.c.	87.6%	26.7%	1.48	1.44	1.69	1.67	16.4%	-3.0%	-0.9%		
25510 Rubber Tyre Manufacturing	91.9%	18.1%	1.81	2.03	2.16	2.14	5.8%	12.0%	-0.9%		
25590 Rubber Product Manufacturing n.e.c.	119.7%	21.9%	1.97	2.62	3.07	3.04	16.0%	33.0%	-0.9%		
25610 Plastic Blow Moulded Product Manufacturing	102.0%	19.9%	2.11	2.26	2.79	2.77	22.3%	7.5%	-0.9%		
25620 Plastic Extruded Product Manufacturing	100.6%	26.9%	2.27	2.06	2.97	2.95	43.2%	-9.5%	-0.9%		
25630 Plastic Bag and Film Manufacturing	82.7%	27.2%	2.02	1.96	2.17	2.15	9.8%	-2.9%	-0.9%		
25640 Plastic Product Rigid Fibre Reinforced Manufacturing	74.2%	44.3%	2.08	1.86	2.00	1.98	6.9%	-10.6%	-0.9%		
25650 Plastic Foam Product Manufacturing	86.8%	12.3%	1.99	2.07	2.25	2.23	7.4%	4.1%	-0.9%		
25660 Plastic Injection Moulded Product Manufacturing	81.7%	25.1%	2.19	2.04	2.33	2.31	13.3%	-7.1%	-0.9%		
26100 Glass and Glass Product Manufacturing	102.3%	23.5%	2.76	3.47	3.67	3.64	4.8%	25.7%	-0.9%		
26210 Clay Brick Manufacturing	69.0%	42.1%	2.13	2.06	1.91	1.89	-8.2%	-3.2%	-0.9%		
26220 Ceramic Product Manufacturing	66.6%	11.1%	2.15	1.98	1.86	1.84	-6.7%	-7.9%	-0.9%		
26230 Ceramic Tile and Pipe Manufacturing	52.8%	1.2%	3.00	2.51	2.06	2.04	-18.7%	-16.3%	-0.9%		
26290 Ceramic Product Manufacturing n.e.c.	59.7%	10.2%	2.79	2.28	2.17	2.15	-6.0%	-18.2%	-0.9%		
26310 Cement and Lime Manufacturing	81.3%	28.4%	2.35	2.26	2.49	2.46	8.9%	-3.9%	-0.9%		
26320 Plaster Product Manufacturing	60.5%	21.4%	2.55	2.21	2.01	1.99	-9.9%	-13.5%	-0.9%		
26330 Concrete Slurry Manufacturing	70.5%	36.4%	2.32	2.06	2.13	2.11	2.4%	-11.2%	-0.9%		
26340 Concrete Pipe and Box Culvert Manufacturing	66.0%	18.3%	2.43	2.17	2.09	2.07	-4.9%	-10.6%	-0.9%		
26350 Concrete Product Manufacturing n.e.c.	72.1%	46.0%	2.55	2.22	2.39	2.37	6.5%	-12.7%	-0.9%		
26400 Non-Metallic Mineral Product Manufacturing n.e.c.	74.4%	31.2%	3.23	2.87	3.12	3.10	7.9%	-11.2%	-0.9%		
26401 Fibreglass and Insulation Manufacturing	51.3%	2.1%	4.23	3.26	2.82	2.80	-14.1%	-23.0%	-0.9%		
26402 Stone Products Manufacturing	70.7%	16.3%	3.28	2.81	3.02	2.99	6.5%	-14.5%	-0.9%		
27110 Basic Iron and Steel Manufacturing	75.2%	27.4%	3.69	3.42	3.61	3.58	4.6%	-7.4%	-0.9%		
27120 Iron and Steel Casting and Forging	62.2%	29.9%	3.07	2.66	2.48	2.46	-7.7%	-13.2%	-0.9%		
27130 Steel Pipe and Tube Manufacturing	71.7%	27.8%	2.80	2.56	2.61	2.59	1.1%	-8.6%	-0.9%		
27210 Alumina Production	82.7%	12.8%	1.74	1.74	1.87	1.85	6.6%	0.0%	-0.9%		
27220 Aluminium Smelting	88.5%	13.1%	1.57	1.64	1.81	1.80	9.7%	4.0%	-0.9%		
27230 Copper, Silver, Lead and Zinc Smelting, Refining	93.2%	4.6%	1.97	1.88	2.39	2.37	25.7%	-4.5%	-0.9%		
27290 Basic Non-Ferrous Metal Manufacturing n.e.c.	100.8%	43.8%	1.41	1.57	1.85	1.83	17.2%	10.9%	-0.9%		
27310 Aluminium Rolling, Drawing, Extruding	61.2%	5.5%	3.18	2.71	2.53	2.51	-7.5%	-14.8%	-0.9%		
27320 Non-Ferrous Metal Rolling, Drawing, Extruding n.e.c.	65.1%	3.8%	3.01	2.63	2.55	2.53	-3.9%	-12.6%	-0.9%		
27330 Non-Ferrous Metal Casting	61.4%	5.2%	3.48	2.93	2.78	2.75	-6.0%	-15.8%	-0.9%		
27410 Structural Steel Fabricating	68.1%	79.6%	4.30	4.13	3.81	3.77	-8.6%	-4.0%	-0.9%		
27420 Architectural Aluminium Product Manufacturing	72.3%	59.3%	2.84	2.79	2.67	2.65	-5.2%	-1.7%	-0.9%		

Divn/Class Name	Weighted Loss Ratio Credibility		Relative Premium Rates						% Change in Relative Premium Rates		Margins
			Gazette 2014/15	Gazette 2015/16	Normalised 2016/17		(RES2016/17)/GAZ2015/16)		TRUE / GAZ2016/17)		
					Relative Prem Rates TRUE	Relative Prem Rates Restricted	GAZ2015/16	GAZ2014/15			
27490 Structural Metal Product Manufacturing n.e.c.	76.1%	31.1%	3.68	3.69	3.64	3.61	-2.2%	0.2%	-0.9%		
27510 Metal Container Manufacturing	67.6%	9.2%	3.18	2.81	2.80	2.77	-1.4%	-11.6%	-0.9%		
27590 Sheet Metal Product Manufacturing n.e.c.	59.9%	74.4%	2.41	2.21	1.88	1.86	-16.0%	-8.1%	-0.9%		
27610 Hand Tool and General Hardware Manufacturing	71.9%	9.7%	2.62	2.40	2.45	2.43	1.0%	-8.3%	-0.9%		
27620 Spring and Wire Product Manufacturing	83.7%	25.5%	2.57	2.40	2.80	2.78	15.7%	-6.8%	-0.9%		
27630 Nut, Bolt, Screw and Rivet Manufacturing	95.7%	13.6%	2.53	2.74	3.14	3.12	13.8%	8.5%	-0.9%		
27640 Metal Coating and Finishing	71.8%	51.5%	3.38	3.28	3.16	3.13	-4.5%	-3.1%	-0.9%		
27650 Non-Ferrous Pipe Fitting Manufacturing	75.6%	2.9%	2.62	2.46	2.58	2.56	3.8%	-6.1%	-0.9%		
27690 Fabricated Metal Product Manufacturing n.e.c.	73.4%	100.0%	2.25	2.04	2.14	2.12	4.0%	-9.1%	-0.9%		
27691 Boiler Making and Installation	79.3%	46.2%	3.42	3.21	3.52	3.49	8.6%	-5.9%	-0.9%		
28110 Motor Vehicle Manufacturing	67.3%	19.2%	3.25	2.85	2.84	2.82	-1.0%	-12.5%	-0.9%		
28120 Motor Vehicle Body Manufacturing	75.4%	49.7%	3.52	3.29	3.45	3.42	3.7%	-6.3%	-0.9%		
28130 Automotive Electrical and Instrument Manufacturing	74.4%	9.1%	2.78	2.59	2.69	2.67	3.0%	-7.0%	-0.9%		
28190 Automotive Component Manufacturing n.e.c.	81.3%	28.7%	2.74	2.59	2.90	2.88	10.8%	-5.4%	-0.9%		
28210 Shipbuilding	85.6%	53.1%	1.84	1.71	2.05	2.03	18.5%	-6.9%	-0.9%		
28220 Boatbuilding	81.5%	33.3%	3.04	2.77	3.22	3.19	15.2%	-8.9%	-0.9%		
28230 Railway Equipment Manufacturing	78.8%	36.6%	2.30	1.98	2.36	2.34	17.8%	-13.8%	-0.9%		
28240 Aircraft Manufacturing	49.2%	46.6%	2.02	1.59	1.29	1.28	-19.6%	-21.2%	-0.9%		
28290 Transport Equipment Manufacturing n.e.c.	83.4%	15.7%	2.09	1.92	2.26	2.24	16.6%	-7.8%	-0.9%		
28310 Photographic and Optical Good Manufacturing	74.1%	12.2%	1.34	1.25	1.29	1.28	2.5%	-6.8%	-0.9%		
28320 Medical and Surgical Equipment Manufacturing	72.5%	25.1%	1.42	1.24	1.33	1.32	6.3%	-12.1%	-0.9%		
28390 Professional and Scientific Equipment Manufacturing n.e.c.	74.0%	34.3%	1.18	1.13	1.14	1.13	0.3%	-4.9%	-0.9%		
28410 Computer and Business Machine Manufacturing	69.5%	13.6%	1.37	1.21	1.23	1.22	1.5%	-11.7%	-0.9%		
28420 Telecommunication, Broadcasting and Transceiving Equipment Manufacturing	77.7%	27.5%	1.26	1.15	1.27	1.26	9.7%	-8.8%	-0.9%		
28490 Electronic Equipment Manufacturing n.e.c.	88.7%	48.9%	0.82	0.85	0.94	0.94	9.6%	4.4%	-0.9%		
28510 Household Appliance Manufacturing	70.3%	24.5%	1.94	1.84	1.77	1.76	-4.3%	-5.3%	-0.9%		
28520 Electric Cable and Wire Manufacturing	81.5%	8.1%	1.76	1.75	1.86	1.84	5.5%	-0.4%	-0.9%		
28530 Battery Manufacturing	75.1%	4.9%	1.84	1.76	1.79	1.78	1.1%	-4.2%	-0.9%		
28540 Electric Light and Sign Manufacturing	94.7%	23.3%	1.79	1.88	2.20	2.19	16.5%	4.8%	-0.9%		
28590 Electrical and Equipment Manufacturing n.e.c.	74.1%	50.1%	1.81	1.75	1.74	1.73	-1.5%	-3.1%	-0.9%		
28610 Agricultural Machinery Manufacturing	64.8%	29.9%	2.57	2.36	2.16	2.14	-9.2%	-8.1%	-0.9%		
28620 Mining and Construction Machinery Manufacturing	82.6%	100.0%	1.89	1.81	2.03	2.02	11.5%	-4.6%	-0.9%		
28630 Food Processing Machinery Manufacturing	82.7%	12.6%	1.91	1.81	2.05	2.04	12.2%	-5.1%	-0.9%		
28640 Machine Tool and Part Manufacturing	71.3%	28.9%	2.18	1.93	2.02	2.00	3.7%	-11.4%	-0.9%		
28650 Lifting and Material Handling Equipment Manufacturing	83.9%	59.7%	2.26	2.17	2.46	2.44	12.6%	-4.0%	-0.9%		
28660 Pump and Compressor Manufacturing	86.1%	26.2%	2.26	2.32	2.53	2.51	8.1%	2.6%	-0.9%		
28670 Commercial Space Heating and Cooling Equipment Manufacturing	71.0%	33.5%	1.89	1.78	1.74	1.73	-2.6%	-6.0%	-0.9%		
28690 Industrial Machinery and Equipment Manufacturing n.e.c.	67.1%	100.0%	1.88	1.72	1.64	1.63	-5.3%	-8.7%	-0.9%		
29110 Prefabricated Metal Building Manufacturing	58.2%	32.0%	3.40	2.68	2.57	2.55	-5.0%	-21.1%	-0.9%		
29190 Prefabricated Building Manufacturing n.e.c.	70.3%	40.8%	2.70	2.37	2.47	2.45	3.3%	-12.3%	-0.9%		
29210 Wooden Furniture and Upholstered Seat Manufacturing	71.6%	42.0%	3.55	3.53	3.30	3.28	-7.2%	-0.5%	-0.9%		
29220 Sheet Metal Furniture Manufacturing	71.0%	3.4%	3.29	3.15	3.03	3.01	-4.5%	-4.1%	-0.9%		
29230 Mattress Manufacturing (Except Rubber)	70.8%	16.8%	3.50	3.26	3.22	3.20	-1.9%	-6.9%	-0.9%		

Divn/Class Name	Weighted Loss Ratio Credibility		Relative Premium Rates				% Change in Relative Premium Rates		Margins TRUE / (RES2016/17)
			Gazette 2014/15	Gazette 2015/16	Normalised 2016/17 Relative Prem Rates		(RES2016/17)/GAZ2015/16)	GAZ2014/15	
					TRUE	Restricted			
29290 Furniture Manufacturing n.e.c.	70.3%	42.4%	3.42	3.21	3.13	3.10	-3.5%	-6.1%	-0.9%
29410 Jewellery and Silverware Manufacturing	57.9%	7.4%	3.12	2.65	2.35	2.33	-12.1%	-15.1%	-0.9%
29420 Toy and Sporting Good Manufacturing	56.8%	12.7%	3.48	2.90	2.57	2.54	-12.4%	-16.5%	-0.9%
29490 Manufacturing n.e.c.	52.3%	34.9%	3.54	2.90	2.41	2.39	-17.7%	-18.0%	-0.9%
D	ELECTRICITY, GAS AND WATER								
36100 Electricity Supply	70.9%	100.0%	0.50	0.42	0.46	0.45	7.9%	-15.3%	-0.9%
36200 Gas Supply	78.7%	42.9%	0.45	0.49	0.46	0.46	-6.2%	8.1%	-0.9%
37010 Water Supply	133.7%	100.0%	0.36	0.45	0.63	0.62	37.0%	25.7%	-0.9%
37020 Sewerage and Drainage Services	71.4%	30.4%	1.69	1.52	1.57	1.56	2.4%	-10.2%	-0.9%
E	CONSTRUCTION								
41110 House Construction	72.6%	100.0%	1.11	1.01	1.04	1.03	2.1%	-8.3%	-0.9%
41120 Residential Building Construction n.e.c.	72.0%	100.0%	0.76	0.76	0.71	0.71	-6.9%	-0.3%	-0.9%
41130 Non-Residential Building Construction	57.5%	100.0%	2.02	1.75	1.51	1.50	-14.5%	-13.3%	-0.9%
41210 Road and Bridge Construction	94.9%	100.0%	1.69	1.81	2.09	2.07	14.5%	6.8%	-0.9%
41220 Non-Building Construction n.e.c.	74.6%	100.0%	1.36	1.32	1.32	1.31	-0.3%	-3.6%	-0.9%
42100 Site Preparation Services	80.1%	100.0%	2.23	2.13	2.32	2.30	8.0%	-4.5%	-0.9%
42210 Concreting Services	63.4%	77.9%	4.09	3.60	3.37	3.34	-7.2%	-12.0%	-0.9%
42220 Bricklaying Services	52.9%	34.0%	4.53	4.10	3.11	3.09	-24.7%	-9.4%	-0.9%
42230 Roofing Services	61.5%	40.3%	5.32	4.85	4.26	4.22	-12.9%	-9.0%	-0.9%
42240 Structural Steel Erection Services	43.4%	100.0%	2.55	2.05	1.44	1.43	-30.3%	-19.8%	-0.9%
42310 Plumbing Services	67.2%	94.9%	3.26	2.84	2.85	2.83	-0.4%	-13.0%	-0.9%
42320 Electrical Services	86.1%	100.0%	1.05	0.95	1.17	1.16	21.8%	-8.9%	-0.9%
42330 Air Conditioning and Heating Services	69.7%	79.0%	1.96	1.72	1.77	1.76	2.0%	-12.0%	-0.9%
42340 Fire and Security System Services	85.4%	66.6%	1.49	1.47	1.65	1.64	11.3%	-1.1%	-0.9%
42410 Plastering and Ceiling Services	79.3%	59.3%	4.88	4.96	5.03	4.99	0.7%	1.6%	-0.9%
42420 Carpentry Services	59.6%	63.1%	5.28	4.39	4.09	4.05	-7.8%	-16.8%	-0.9%
42430 Tiling and Carpeting Services	71.1%	35.7%	3.84	3.71	3.55	3.52	-5.2%	-3.4%	-0.9%
42440 Painting and Decorating Services	57.0%	63.2%	4.18	3.70	3.10	3.07	-17.0%	-11.5%	-0.9%
42450 Glazing Services	64.0%	40.0%	4.77	4.27	3.97	3.94	-7.8%	-10.5%	-0.9%
42510 Landscaping Services	72.5%	65.5%	2.79	2.61	2.63	2.61	0.1%	-6.6%	-0.9%
42590 Construction Services n.e.c.	61.1%	100.0%	2.70	2.48	2.14	2.12	-14.4%	-8.0%	-0.9%

Divn/Class Name	Weighted Loss Ratio Credibility		Gazette 2014/15	Gazette 2015/16	Relative Premium Rates		% Change in Relative Premium Rates		Margins TRUE / (RES2016/17)	
					Normalised 2016/17 Relative Prem Rates		(RES2016/17)/GAZ2015/16)	GAZ2014/15		
					TRUE	Restricted				
F	WHOLESALE TRADE									
45110	Wool Wholesaling	62.0%	20.4%	2.25	2.07	1.81	1.80	-13.0%	-8.2%	-0.9%
45120	Cereal Grain Wholesaling	56.4%	12.3%	2.29	1.75	1.68	1.67	-4.6%	-23.8%	-0.9%
45190	Farm Produce and Supplies Wholesaling n.e.c.	64.3%	56.1%	1.82	1.56	1.52	1.51	-3.5%	-14.1%	-0.9%
45191	Livestock Wholesaling	63.4%	16.4%	1.93	1.67	1.59	1.57	-5.9%	-13.1%	-0.9%
45210	Petroleum Product Wholesaling	76.6%	47.7%	2.02	2.08	2.01	1.99	-4.1%	2.9%	-0.9%
45220	Metal and Mineral Wholesaling	75.8%	47.3%	3.06	3.08	3.02	2.99	-3.0%	0.8%	-0.9%
45230	Chemical Wholesaling	70.9%	41.1%	1.85	1.76	1.71	1.69	-3.6%	-5.2%	-0.9%
45310	Timber Wholesaling	66.8%	23.3%	1.63	1.57	1.42	1.41	-10.2%	-4.2%	-0.9%
45390	Building Supplies Wholesaling n.e.c.	69.1%	100.0%	1.72	1.67	1.54	1.53	-8.2%	-3.0%	-0.9%
46110	Farm and Construction Machinery Wholesaling	57.5%	67.0%	2.49	2.02	1.87	1.85	-8.4%	-19.0%	-0.9%
46120	Professional Equipment Wholesaling	63.2%	62.0%	0.66	0.59	0.54	0.54	-8.7%	-10.8%	-0.9%
46130	Computer Wholesaling	71.5%	37.2%	0.75	0.66	0.69	0.69	4.6%	-11.9%	-0.9%
46140	Business Machine Wholesaling n.e.c.	72.7%	38.4%	0.82	0.77	0.77	0.77	-0.1%	-6.2%	-0.9%
46150	Electrical and Electronic Equipment Wholesaling n.e.c.	62.4%	100.0%	0.63	0.53	0.51	0.51	-4.8%	-15.4%	-0.9%
46190	Machinery and Equipment Wholesaling n.e.c.	70.8%	100.0%	1.12	1.04	1.03	1.02	-1.6%	-7.3%	-0.9%
46210	Car Wholesaling	72.4%	17.4%	1.09	1.11	1.03	1.02	-8.4%	1.9%	-0.9%
46220	Commercial Vehicle Wholesaling	62.6%	34.3%	1.38	1.23	1.12	1.11	-9.2%	-11.2%	-0.9%
46230	Motor Vehicle New Part Dealing	80.5%	69.4%	1.25	1.36	1.31	1.30	-4.6%	8.7%	-0.9%
46240	Motor Vehicle Dismantling and Used Part Dealing	68.6%	17.6%	1.51	1.43	1.35	1.34	-6.1%	-5.8%	-0.9%
47110	Meat Wholesaling	66.9%	25.2%	3.11	2.96	2.70	2.68	-9.5%	-4.8%	-0.9%
47120	Poultry and Smallgood Wholesaling	72.6%	12.2%	2.51	2.18	2.37	2.35	7.9%	-13.3%	-0.9%
47130	Dairy Produce Wholesaling	93.7%	17.6%	1.88	2.05	2.29	2.27	10.8%	9.0%	-0.9%
47140	Fish Wholesaling	94.7%	38.3%	2.02	2.31	2.48	2.46	6.5%	14.6%	-0.9%
47150	Fruit and Vegetable Wholesaling	93.6%	53.3%	1.75	1.89	2.13	2.11	11.7%	8.0%	-0.9%
47160	Confectionery and Soft Drink Wholesaling	76.0%	27.5%	1.96	1.93	1.94	1.93	-0.4%	-1.6%	-0.9%
47170	Liquor Wholesaling	87.8%	38.3%	1.42	1.46	1.62	1.61	10.6%	2.3%	-0.9%
47180	Tobacco Product Wholesaling	79.4%	15.1%	1.79	1.76	1.85	1.83	4.1%	-1.7%	-0.9%
47190	Grocery Wholesaling n.e.c.	69.6%	61.8%	2.16	1.97	1.95	1.94	-1.5%	-9.0%	-0.9%
47210	Textile Product Wholesaling	90.8%	22.5%	1.47	1.38	1.74	1.72	25.0%	-6.3%	-0.9%
47220	Clothing Wholesaling	89.5%	38.9%	1.22	1.23	1.42	1.41	15.0%	0.3%	-0.9%
47230	Footwear Wholesaling	88.5%	10.3%	1.27	1.27	1.47	1.45	14.1%	0.0%	-0.9%
47310	Household Appliance Wholesaling	102.4%	23.1%	1.65	1.79	2.19	2.17	21.5%	8.6%	-0.9%
47320	Furniture Wholesaling	93.2%	23.3%	2.22	2.18	2.69	2.66	22.2%	-1.7%	-0.9%
47330	Floor Covering Wholesaling	111.4%	21.5%	1.85	1.92	2.67	2.65	38.1%	3.9%	-0.9%
47390	Household Good Wholesaling n.e.c.	118.2%	34.6%	2.19	2.68	3.36	3.34	24.6%	22.2%	-0.9%
47910	Photographic Equipment Wholesaling	119.9%	5.4%	1.24	1.38	1.94	1.92	38.9%	11.3%	-0.9%
47920	Jewellery and Watch Wholesaling	95.9%	11.3%	1.33	1.51	1.66	1.64	8.6%	13.9%	-0.9%
47930	Toy and Sporting Good Wholesaling	72.5%	18.6%	1.31	1.35	1.24	1.23	-9.1%	2.7%	-0.9%
47940	Book and Magazine Wholesaling	73.9%	10.8%	1.35	1.32	1.30	1.29	-2.7%	-2.2%	-0.9%
47950	Paper Product Wholesaling	77.8%	41.4%	1.44	1.51	1.45	1.44	-4.7%	5.2%	-0.9%
47960	Pharmaceutical and Toiletory Wholesaling	80.9%	55.4%	1.07	1.03	1.12	1.11	7.6%	-3.1%	-0.9%
47990	Wholesaling n.e.c.	83.2%	35.3%	1.54	1.63	1.66	1.65	1.3%	5.9%	-0.9%

Divn/Class Name	Weighted		Relative Premium Rates				% Change in Relative		Margins
	Loss Ratio	Credibility	Gazette 2014/15	Gazette 2015/16	Normalised 2016/17 Relative Prem Rates		(RES2016/17)	(GAZ2015/16)	TRUE / (RES2016/17)
G	RETAIL TRADE								
51100 Supermarket and Grocery Stores	73.0%	96.8%	2.43	2.31	2.31	2.29	-0.7%	-5.2%	-0.9%
51210 Fresh Meat and Poultry Retailing	66.2%	38.9%	2.56	2.39	2.20	2.18	-8.4%	-6.9%	-0.9%
51211 Fish Retailing	61.0%	14.0%	1.84	1.74	1.46	1.45	-16.7%	-5.6%	-0.9%
51220 Fruit and Vegetable Retailing	64.5%	39.3%	1.99	1.84	1.67	1.66	-10.0%	-7.7%	-0.9%
51230 Liquor Retailing	61.6%	34.0%	1.75	1.67	1.40	1.39	-16.7%	-4.7%	-0.9%
51240 Bread and Cake Retailing	56.5%	52.3%	2.13	1.69	1.56	1.55	-8.4%	-20.5%	-0.9%
51250 Takeaway Food Retailing	65.4%	100.0%	1.31	1.13	1.11	1.10	-2.4%	-13.6%	-0.9%
51260 Milk Vending	67.2%	17.2%	2.13	1.92	1.86	1.84	-3.8%	-10.0%	-0.9%
51290 Specialised Food Retailing n.e.c.	79.4%	35.5%	1.75	1.70	1.80	1.79	5.1%	-2.6%	-0.9%
52100 Department Stores	62.8%	35.5%	2.12	1.80	1.73	1.71	-5.0%	-14.8%	-0.9%
52210 Clothing Retailing	86.1%	85.8%	1.19	1.32	1.33	1.32	0.0%	11.0%	-0.9%
52220 Footwear Retailing	79.3%	35.1%	1.18	1.20	1.21	1.20	0.5%	1.7%	-0.9%
52230 Fabrics and Other Soft Good Retailing	90.9%	31.9%	1.50	1.71	1.77	1.76	2.7%	14.1%	-0.9%
52310 Furniture Retailing	80.6%	59.9%	2.14	2.24	2.25	2.23	-0.3%	4.2%	-0.9%
52320 Floor Covering Retailing	70.6%	38.6%	1.59	1.42	1.46	1.45	2.2%	-11.0%	-0.9%
52330 Domestic Hardware and Houseware Retailing	62.9%	67.5%	1.94	1.76	1.59	1.57	-10.4%	-9.5%	-0.9%
52340 Domestic Appliance Retailing	82.1%	81.4%	1.12	1.19	1.20	1.19	-0.4%	6.3%	-0.9%
52350 Recorded Music Retailing	73.1%	28.2%	1.21	1.15	1.15	1.14	-1.0%	-4.8%	-0.9%
52410 Sport and Camping Equipment Retailing	67.3%	45.6%	1.18	1.08	1.03	1.03	-4.7%	-8.9%	-0.9%
52420 Toy and Game Retailing	73.7%	22.2%	0.88	0.84	0.84	0.84	0.1%	-5.1%	-0.9%
52430 Newspaper, Book and Stationery Retailing	83.2%	50.7%	0.85	0.94	0.92	0.91	-3.4%	10.9%	-0.9%
52440 Photographic Equipment Retailing	80.2%	15.0%	0.91	0.93	0.95	0.94	1.1%	2.3%	-0.9%
52450 Marine Equipment Retailing	70.4%	29.2%	1.34	1.19	1.23	1.22	2.4%	-11.4%	-0.9%
52510 Pharmaceutical, Cosmetic and Toiletry Retailing	94.1%	91.1%	0.66	0.70	0.80	0.80	14.8%	5.6%	-0.9%
52520 Antique and Used Good Retailing	87.8%	21.8%	1.32	1.45	1.51	1.50	3.5%	9.4%	-0.9%
52530 Garden Supplies Retailing	71.1%	29.5%	1.71	1.60	1.58	1.56	-2.0%	-6.6%	-0.9%
52540 Flower Retailing	79.4%	18.8%	1.31	1.49	1.35	1.34	-10.2%	13.9%	-0.9%
52550 Watch and Jewellery Retailing	73.4%	49.4%	0.95	0.88	0.90	0.89	1.9%	-7.2%	-0.9%
52590 Retailing n.e.c.	73.1%	69.3%	1.33	1.25	1.26	1.25	-0.3%	-5.6%	-0.9%
52610 Household Equipment Repair Services (Electrical)	89.8%	27.6%	1.58	1.72	1.85	1.83	6.8%	8.3%	-0.9%
52690 Household Equipment Repair Services n.e.c.	70.5%	23.6%	1.38	1.40	1.26	1.25	-10.5%	1.5%	-0.9%
53110 Car Retailing	78.8%	100.0%	0.99	0.95	1.01	1.00	5.2%	-3.4%	-0.9%
53120 Motor Cycle Dealing	66.3%	28.9%	1.16	1.05	1.00	0.99	-5.9%	-9.2%	-0.9%
53130 Trailer and Caravan Dealing	80.5%	25.5%	1.10	1.07	1.15	1.14	6.6%	-2.6%	-0.9%
53210 Automotive Fuel Retailing	70.1%	55.2%	2.26	2.27	2.06	2.04	-9.9%	0.3%	-0.9%
53220 Automotive Electrical Services	72.3%	39.8%	1.81	1.74	1.70	1.69	-3.3%	-3.7%	-0.9%
53230 Smash Repairing	78.2%	69.7%	1.90	1.89	1.93	1.91	1.2%	-0.4%	-0.9%
53240 Tyre Retailing	68.6%	47.0%	2.46	2.45	2.20	2.18	-11.2%	-0.5%	-0.9%
53290 Automotive Repair and Services n.e.c.	67.1%	100.0%	2.49	2.36	2.17	2.15	-8.8%	-5.2%	-0.9%

Divn/Class Name	Weighted Loss Ratio Credibility		Relative Premium Rates				% Change in Relative Premium Rates		Margins TRUE / (RES2016/17)
			Gazette 2014/15	Gazette 2015/16	Normalised 2016/17 Relative Prem Rates TRUE Restricted		(RES2016/17)/GAZ2015/16)	GAZ2014/15	
H ACCOMMODATION, CAFES AND RESTAURANTS									
57100 Accommodation	69.1%	100.0%	2.43	2.25	2.18	2.17	-3.9%	-7.4%	-0.9%
57200 Pubs, Taverns and Bars	55.8%	100.0%	1.77	1.43	1.28	1.27	-10.7%	-19.5%	-0.9%
57300 Cafes and Restaurants	81.0%	100.0%	2.46	2.39	2.59	2.57	7.5%	-3.0%	-0.9%
57400 Clubs (Hospitality)	68.9%	36.6%	1.55	1.35	1.39	1.37	1.8%	-12.8%	-0.9%
I TRANSPORT AND STORAGE									
61100 Road Freight Transport	74.4%	100.0%	4.72	4.59	4.57	4.53	-1.3%	-2.8%	-0.9%
61210 Long Distance Bus Transport	59.1%	20.0%	2.81	2.65	2.16	2.14	-19.3%	-5.5%	-0.9%
61220 Short Distance Bus Transport (Including Tramway)	65.9%	84.1%	2.01	1.94	1.72	1.71	-11.7%	-3.8%	-0.9%
61230 Taxi and Other Road Passenger Transport	70.3%	15.5%	2.18	2.11	1.99	1.97	-6.7%	-2.8%	-0.9%
62000 Rail Transport	74.3%	100.0%	2.20	2.14	2.12	2.10	-1.7%	-2.5%	-0.9%
63010 International Sea Transport	59.5%	8.4%	2.75	2.76	2.13	2.11	-23.7%	0.4%	-0.9%
63020 Coastal Water Transport	55.5%	48.6%	2.89	2.41	2.08	2.06	-14.5%	-16.4%	-0.9%
63030 Inland Water Transport	56.0%	13.7%	2.54	2.17	1.85	1.83	-15.7%	-14.4%	-0.9%
64010 Scheduled International Air Transport	81.0%	16.8%	1.53	1.49	1.61	1.60	7.2%	-2.6%	-0.9%
64020 Scheduled Domestic Air Transport	77.7%	84.1%	2.17	2.02	2.19	2.17	7.6%	-6.9%	-0.9%
64030 Non-Scheduled Air and Space Transport	76.0%	65.0%	1.31	1.23	1.29	1.28	4.4%	-6.2%	-0.9%
65010 Pipeline Transport	81.1%	31.2%	0.87	0.94	0.92	0.91	-3.0%	7.8%	-0.9%
65090 Transport n.e.c.	85.7%	38.3%	1.19	1.37	1.33	1.32	-4.1%	15.2%	-0.9%
66110 Parking Services	119.8%	18.4%	1.95	2.12	3.04	3.01	41.9%	8.8%	-0.9%
66190 Services to Road Transport n.e.c.	107.2%	17.2%	1.91	1.97	2.66	2.64	34.3%	2.9%	-0.9%
66210 Stevedoring	70.4%	61.7%	3.50	3.35	3.20	3.17	-5.5%	-4.0%	-0.9%
66220 Water Transport Terminals	74.8%	25.3%	2.79	2.68	2.71	2.69	0.3%	-3.9%	-0.9%
66230 Port Operators	65.2%	63.3%	1.92	1.83	1.63	1.61	-12.1%	-4.4%	-0.9%
66290 Services to Water Transport n.e.c.	62.9%	75.8%	2.24	2.06	1.83	1.82	-12.0%	-7.9%	-0.9%
66291 Salvage Service, Marine	63.2%	8.4%	2.51	2.25	2.06	2.04	-9.2%	-10.3%	-0.9%
66300 Services to Air Transport	80.2%	68.7%	1.29	1.49	1.34	1.33	-11.1%	16.2%	-0.9%
66410 Travel Agency Services	80.3%	74.7%	0.47	0.52	0.49	0.48	-7.0%	11.3%	-0.9%
66420 Road Freight Forwarding	69.1%	29.0%	1.81	1.89	1.63	1.61	-14.8%	4.5%	-0.9%
66430 Freight Forwarding (Except Road)	70.4%	44.4%	1.15	1.24	1.06	1.05	-15.6%	7.5%	-0.9%
66440 Customs Agency Services	69.7%	25.9%	0.95	0.98	0.86	0.85	-13.0%	3.2%	-0.9%
66490 Services to Transport n.e.c.	84.0%	46.5%	1.48	1.62	1.61	1.60	-1.4%	9.7%	-0.9%
67010 Grain Storage	68.4%	64.2%	1.46	1.42	1.29	1.28	-9.9%	-2.2%	-0.9%
67090 Storage n.e.c.	54.3%	92.0%	1.28	1.08	0.91	0.90	-16.8%	-15.9%	-0.9%
J COMMUNICATION SERVICES									
71110 Postal Services	71.7%	34.1%	1.67	1.47	1.56	1.55	5.6%	-12.5%	-0.9%
71120 Courier Services	60.4%	39.6%	2.53	2.11	1.99	1.97	-6.5%	-16.7%	-0.9%
71200 Telecommunication Services	108.7%	78.6%	0.36	0.42	0.51	0.50	18.6%	18.1%	-0.9%

Divn/Class Name	Weighted Loss Ratio Credibility		Relative Premium Rates Normalised 2016/17				% Change in Relative Premium Rates		Margins	
			Gazette 2014/15	Gazette 2015/16	Relative Prem Rates TRUE Restricted		(RES2016/17)/(GAZ2015/16)	GAZ2015/16 GAZ2014/15	TRUE / (RES2016/17)	
K	FINANCE AND INSURANCE									
73100	Central Bank	0.0%	0.0%	0.27	0.31	0.29	0.28	-9.4%	17.3%	-0.9%
73210	Banks	74.5%	73.8%	0.40	0.48	0.39	0.39	-19.3%	18.9%	-0.9%
73220	Building Societies	85.4%	5.9%	0.29	0.37	0.32	0.32	-14.2%	28.3%	-0.9%
73230	Credit Unions	84.9%	30.1%	0.25	0.32	0.27	0.27	-16.2%	30.6%	-0.9%
73240	Money Market Dealers	79.8%	4.0%	0.32	0.39	0.33	0.33	-17.0%	23.9%	-0.9%
73290	Deposit Taking Financiers n.e.c.	80.8%	10.8%	0.29	0.36	0.30	0.30	-16.2%	24.2%	-0.9%
73300	Other Financiers	71.9%	32.7%	0.29	0.29	0.27	0.27	-7.6%	0.3%	-0.9%
73400	Financial Asset Investors	47.8%	48.1%	0.25	0.25	0.16	0.25	0.0%	0.0%	37.8%
74110	Life Insurance	78.9%	18.5%	0.28	0.29	0.29	0.29	-1.3%	3.1%	-0.9%
74120	Superannuation Funds	65.8%	30.4%	0.25	0.25	0.21	0.25	0.0%	0.0%	14.4%
74210	Health Insurance	86.5%	43.9%	0.44	0.45	0.49	0.49	7.1%	4.1%	-0.9%
74220	General Insurance	96.3%	75.9%	0.40	0.45	0.50	0.49	10.4%	12.4%	-0.9%
75110	Financial Asset Broking Services	15.2%	67.5%	0.25	0.25	0.05	0.25	0.0%	0.0%	80.2%
75190	Services to Finance and Investment n.e.c.	38.3%	94.1%	0.25	0.25	0.12	0.25	0.0%	0.0%	50.2%
75200	Services to Insurance	50.9%	76.6%	0.34	0.33	0.23	0.25	-23.2%	-5.5%	8.7%
L	PROPERTY AND BUSINESS SERVICES									
77110	Residential Property Operators	74.2%	75.1%	0.89	0.89	0.85	0.85	-4.6%	0.3%	-0.9%
77120	Commercial Property Operators and Developers	62.0%	72.8%	0.73	0.69	0.59	0.58	-15.8%	-5.2%	-0.9%
77200	Real Estate Agents	88.2%	100.0%	0.27	0.28	0.31	0.31	12.4%	1.2%	-0.9%
77300	Non-Financial Asset Investors	65.8%	10.9%	0.84	0.78	0.72	0.71	-8.6%	-7.3%	-0.9%
77410	Motor Vehicle Hiring	60.1%	46.0%	2.07	1.79	1.62	1.61	-10.2%	-13.8%	-0.9%
77420	Other Transport Equipment Leasing	60.1%	16.9%	2.18	1.91	1.70	1.69	-11.6%	-12.3%	-0.9%
77430	Plant Hiring or Leasing	60.8%	100.0%	2.23	1.99	1.77	1.75	-11.9%	-11.0%	-0.9%
78100	Scientific Research	83.5%	58.1%	0.29	0.27	0.32	0.32	16.9%	-8.0%	-0.9%
78210	Architectural Services	35.2%	96.6%	0.25	0.25	0.11	0.25	0.0%	0.0%	54.2%
78220	Surveying Services	82.2%	98.5%	0.45	0.44	0.48	0.48	8.6%	-2.4%	-0.9%
78230	Consulting Engineering Services	70.3%	100.0%	0.25	0.25	0.23	0.25	0.0%	0.0%	8.6%
78290	Technical Services n.e.c.	78.1%	100.0%	0.72	0.74	0.73	0.72	-1.7%	2.3%	-0.9%
78310	Data Processing Services	40.9%	31.7%	0.25	0.25	0.13	0.25	0.0%	0.0%	46.8%
78320	Information Storage and Retrieval Services	56.1%	25.3%	0.26	0.25	0.19	0.25	0.0%	-3.1%	24.8%
78330	Computer Maintenance Services	38.4%	50.8%	0.25	0.25	0.12	0.25	0.0%	0.0%	50.1%
78340	Computer Consultancy Services	30.7%	100.0%	0.25	0.25	0.10	0.25	0.0%	0.0%	60.1%
78410	Legal Services	55.2%	100.0%	0.31	0.25	0.23	0.25	0.2%	-20.7%	9.8%
78420	Accounting Services	29.3%	100.0%	0.25	0.25	0.10	0.25	0.0%	0.0%	61.9%
78510	Advertising Services	56.9%	59.2%	0.45	0.40	0.34	0.33	-17.6%	-11.0%	-0.9%
78520	Commercial Art and Display Services	85.7%	42.2%	0.77	0.82	0.85	0.85	2.5%	7.7%	-0.9%
78530	Market Research Services	89.9%	30.9%	0.49	0.53	0.57	0.57	7.0%	8.2%	-0.9%
78540	Business Administrative Services	90.0%	100.0%	0.45	0.51	0.53	0.52	1.8%	13.9%	-0.9%
78550	Business Management Services	64.6%	100.0%	0.45	0.42	0.38	0.37	-10.8%	-6.6%	-0.9%
78610	Employment Placement Services	67.6%	100.0%	3.75	3.68	3.29	3.27	-11.2%	-1.9%	-0.9%
78620	Contract Staff Services - Predominantly Clerical Staff	40.7%	100.0%	1.30	0.99	0.69	0.68	-31.1%	-23.8%	-0.9%
78621	Contract Staff Services - n.e.c. (rate as per Industry)									

Divn/Class Name	Weighted Loss Ratio Credibility		Relative Premium Rates				% Change in Relative Premium Rates		Margins	
			Gazette 2014/15	Gazette 2015/16	Normalised 2016/17		(RES2016/17)/GAZ2015/16)	GAZ2014/15 (RES2016/17)	TRUE / (RES2016/17)	
					Relative Prem Rates TRUE	Restricted				
78630 Secretarial Services	47.7%	100.0%	0.38	0.25	0.20	0.25	0.0%	-34.0%	20.1%	
78640 Security and Investigative Services (Except Police)	55.6%	87.6%	3.14	2.71	2.56	2.53	-6.4%	-13.9%	-0.9%	
78650 Pest Control Services	66.2%	33.8%	3.70	3.22	3.00	2.97	-7.7%	-12.9%	-0.9%	
78660 Cleaning Services	52.7%	89.1%	2.94	2.58	2.24	2.22	-14.0%	-12.2%	-0.9%	
78670 Contract Packing Services n.e.c.	52.0%	9.2%	3.33	2.86	2.26	2.24	-21.6%	-14.0%	-0.9%	
78690 Business Services n.e.c.	59.9%	70.8%	1.71	1.54	1.40	1.38	-10.1%	-10.2%	-0.9%	
M GOVERNMENT ADMINISTRATION AND DEFENCE										
81110 Central Government Administration	73.8%	5.4%	0.69	0.65	0.72	0.72	9.7%	-5.5%	-0.9%	
81120 State Government Administration	71.7%	100.0%	0.73	0.68	0.76	0.75	9.7%	-6.0%	-0.9%	
81130 Local Government Administration (only applicable to entities not participating)	95.6%	29.6%	0.84	0.77	0.92	0.91	18.3%	-8.2%	-0.9%	
81200 Justice	57.1%	83.0%	0.54	0.43	0.41	0.40	-5.5%	-20.6%	-0.9%	
81300 Foreign Government Representation	104.0%	47.1%	0.68	0.76	0.89	0.88	15.7%	11.2%	-0.9%	
82000 Defence	72.3%	2.8%	0.70	0.65	0.72	0.71	9.7%	-7.0%	-0.9%	
N EDUCATION										
84100 Preschool Education	68.7%	11.7%	1.00	0.94	0.94	0.93	-0.2%	-6.3%	-0.9%	
84210 Primary Education	76.5%	91.9%	0.60	0.52	0.63	0.63	19.3%	-12.3%	-0.9%	
84220 Secondary Education	72.4%	97.6%	0.73	0.68	0.79	0.79	14.8%	-6.8%	-0.9%	
84230 Combined Primary and Secondary Education	70.3%	100.0%	1.70	1.61	1.61	1.60	-0.7%	-5.2%	-0.9%	
84240 Special School Education	93.5%	22.0%	1.89	1.81	1.87	1.86	2.3%	-3.9%	-0.9%	
84310 Higher Education	56.1%	100.0%	0.32	0.27	0.26	0.26	-6.8%	-15.3%	-0.9%	
84320 Technical and Further Education	83.3%	100.0%	0.89	0.89	1.02	1.01	13.3%	0.1%	-0.9%	
84400 Other Education	78.6%	82.9%	0.98	0.94	1.01	1.00	6.8%	-4.4%	-0.9%	
O HEALTH AND COMMUNITY SERVICES										
86110 Hospitals (Except Psychiatric Hospitals)	74.8%	100.0%	2.00	1.85	1.99	1.97	6.4%	-7.5%	-0.9%	
86120 Psychiatric Hospitals	88.5%	89.2%	2.39	2.62	2.81	2.79	6.4%	9.5%	-0.9%	
86130 Nursing Homes	63.2%	100.0%	3.53	3.27	3.11	3.09	-5.8%	-7.1%	-0.9%	
86210 General Practice Medical Services	75.6%	95.1%	0.77	0.70	0.64	0.63	-9.2%	-9.7%	-0.9%	
86220 Specialist Medical Services	67.0%	100.0%	0.40	0.40	0.38	0.38	-5.5%	-1.4%	-0.9%	
86230 Dental Services	77.9%	89.1%	0.45	0.44	0.45	0.45	2.9%	-3.4%	-0.9%	
86310 Pathology Services	80.4%	100.0%	0.68	0.71	0.78	0.78	9.0%	5.1%	-0.9%	
86320 Optometry and Optical Dispensing	87.9%	100.0%	0.35	0.36	0.44	0.43	19.1%	4.6%	-0.9%	
86330 Ambulance Services	76.1%	60.4%	2.39	2.36	2.53	2.51	6.2%	-1.3%	-0.9%	
86340 Community Health Centres	84.9%	75.1%	1.54	1.58	1.65	1.63	3.7%	2.0%	-0.9%	
86350 Physiotherapy Services	68.9%	100.0%	0.25	0.25	0.22	0.25	0.0%	0.0%	10.4%	
86360 Chiropractic Services	112.0%	100.0%	0.25	0.25	0.36	0.36	43.7%	0.5%	-0.9%	
86390 Health Services n.e.c.	117.8%	78.0%	0.83	0.98	1.19	1.18	20.7%	17.7%	-0.9%	
86400 Veterinary Services	77.0%	52.3%	1.51	1.45	1.42	1.41	-2.8%	-3.8%	-0.9%	
87100 Child Care Services	66.0%	88.9%	2.04	1.93	1.83	1.81	-6.2%	-5.3%	-0.9%	
87210 Accommodation for the Aged	51.9%	78.2%	4.23	3.58	3.10	3.07	-14.2%	-15.5%	-0.9%	
87220 Residential Care Services n.e.c.	81.6%	100.0%	3.27	3.26	3.51	3.48	6.8%	-0.2%	-0.9%	
87290 Non-Residential Care Services n.e.c.	69.2%	100.0%	2.69	2.49	2.65	2.63	5.5%	-7.3%	-0.9%	

Divn/Class Name	Weighted Loss Ratio Credibility		Relative Premium Rates				% Change in Relative Premium Rates		Margins TRUE / (RES2016/17)	
			Gazette 2014/15	Gazette 2015/16	Normalised 2016/17 Relative Prem Rates		(RES2016/17)/GAZ2015/16)	GAZ2014/15		
P	CULTURAL AND RECREATIONAL SERVICES									
91110	Film and Video Production	56.9%	25.3%	0.72	0.60	0.51	0.51	-15.9%	-16.6%	-0.9%
91120	Film and Video Distribution	72.3%	11.1%	0.58	0.54	0.52	0.51	-6.0%	-6.7%	-0.9%
91130	Motion Picture Exhibition	80.0%	25.7%	0.60	0.58	0.55	0.54	-6.8%	-2.4%	-0.9%
91210	Radio Services	77.6%	34.5%	0.29	0.30	0.32	0.32	5.0%	3.6%	-0.9%
91220	Television Services	86.4%	36.7%	0.39	0.36	0.45	0.44	22.6%	-7.3%	-0.9%
92100	Libraries	68.1%	20.9%	1.34	1.32	1.24	1.23	-6.9%	-1.6%	-0.9%
92200	Museums	60.3%	28.2%	1.51	1.41	1.35	1.34	-4.6%	-6.7%	-0.9%
92310	Zoological and Botanic Gardens	69.6%	22.1%	1.86	2.00	1.93	1.91	-4.4%	7.3%	-0.9%
92390	Recreational Parks and Gardens	75.9%	23.5%	1.86	1.85	1.93	1.91	3.1%	-0.6%	-0.9%
92410	Music and Theatre Productions	71.7%	30.8%	1.57	1.64	1.65	1.64	-0.2%	4.4%	-0.9%
92420	Creative Arts	75.3%	9.0%	2.44	2.28	2.14	2.12	-7.3%	-6.3%	-0.9%
92510	Sound Recording Studios	68.0%	4.8%	1.36	1.32	1.33	1.31	-0.3%	-2.8%	-0.9%
92520	Performing Arts Venues	68.3%	24.6%	1.39	1.32	1.33	1.32	0.0%	-5.4%	-0.9%
92590	Services to the Arts n.e.c.	68.4%	36.3%	1.31	1.29	1.34	1.33	2.8%	-1.7%	-0.9%
93110	Horse and Dog Racing	95.0%	63.1%	4.11	3.98	4.46	4.42	11.2%	-3.2%	-0.9%
93120	Sports Grounds and Facilities n.e.c.	67.2%	64.2%	1.63	1.51	1.50	1.49	-1.3%	-7.3%	-0.9%
93121	Speedway Operation	77.0%	0.6%	2.06	1.94	2.00	1.98	1.8%	-5.8%	-0.9%
93190	Sports and Services to Sports n.e.c.	65.7%	65.9%	1.64	1.45	1.37	1.36	-6.7%	-11.2%	-0.9%
93210	Lotteries	60.2%	24.6%	1.32	1.39	1.28	1.27	-8.9%	5.2%	-0.9%
93220	Casinos	60.0%	80.8%	1.72	1.52	1.49	1.48	-2.4%	-11.9%	-0.9%
93290	Gambling Services n.e.c.	61.0%	21.0%	1.45	1.32	1.23	1.22	-8.0%	-8.8%	-0.9%
93300	Other Recreation Services	78.5%	29.3%	1.66	1.53	1.66	1.64	7.2%	-7.9%	-0.9%
Q	PERSONAL AND OTHER SERVICES									
95110	Video Hire Outlets	63.2%	20.2%	2.04	1.90	1.63	1.61	-15.0%	-6.9%	-0.9%
95190	Personal and Household Goods Hiring n.e.c.	52.4%	22.4%	2.21	1.87	1.67	1.66	-11.4%	-15.4%	-0.9%
95210	Laundries and Dry-Cleaners (Excluding Industrial Laundries)	48.8%	46.0%	2.74	2.68	1.93	1.92	-28.4%	-2.2%	-0.9%
95211	Industrial Laundries	53.6%	10.7%	3.06	3.34	2.58	2.56	-23.4%	9.1%	-0.9%
95220	Photographic Film Processing	70.2%	6.9%	2.11	2.21	2.01	2.00	-9.8%	4.8%	-0.9%
95230	Photographic Studios	66.1%	17.6%	1.92	2.01	1.78	1.76	-12.5%	4.6%	-0.9%
95240	Funeral Directors, Crematoria and Cemeteries	65.0%	31.0%	2.76	2.63	2.47	2.45	-6.8%	-4.8%	-0.9%
95250	Gardening Services	70.4%	41.1%	3.85	3.92	3.52	3.49	-10.8%	1.7%	-0.9%
95260	Hairdressing and Beauty Salons	75.3%	76.6%	1.11	1.19	1.07	1.06	-11.1%	7.5%	-0.9%
95290	Personal Services n.e.c.	60.9%	20.6%	2.09	2.11	1.83	1.81	-14.1%	1.1%	-0.9%
96100	Religious Organisations	110.9%	60.8%	1.05	1.14	1.36	1.35	18.5%	8.0%	-0.9%
96210	Business and Professional Associations	71.9%	55.7%	0.51	0.51	0.56	0.55	8.2%	0.6%	-0.9%
96220	Labour Associations	118.6%	38.7%	0.68	0.78	1.03	1.03	31.1%	15.5%	-0.9%
96290	Interest Groups n.e.c.	84.5%	92.9%	0.96	1.01	1.04	1.03	2.2%	5.7%	-0.9%
96310	Police Services	80.9%	1.3%	4.40	4.57	5.04	5.00	9.4%	3.8%	-0.9%
96320	Corrective Centres	82.7%	100.0%	5.66	5.84	6.46	6.40	9.6%	3.1%	-0.9%
96330	Fire Brigade Services	81.6%	68.9%	4.05	4.10	4.81	4.77	16.2%	1.4%	-0.9%
96340	Waste Disposal Services	78.8%	72.1%	3.09	3.40	3.52	3.49	2.7%	10.0%	-0.9%
97000	Private Households Employing Staff - Permanent Staff	67.0%	28.0%	1.86	1.89	2.06	2.05	8.1%	1.6%	-0.9%
97001	Private Households Employing Staff - Occasional Staff (for 2014/15 to 2016/17 restricted these are dollar premiums (see Recommended Minimum Premium - Householders' Policies) while for 2016/17 true these are rates)			80.00	80.00	1.16	80.00			

Appendix B Detailed data description

What this appendix covers

- Describes the form of each of the data items received from insurers and WorkCover WA
 - Describes the data checking processes and quality of data received.
-

B 1 Data supplied by insurers

Data is supplied to WorkCover WA by the premium rating returning entities. The term premium rating returning entities refer to all approved private insurers, former insurers currently in run-off and ICWA. ICWA supplies data for RiskCover, the Government Insurance Fund (Funded and Unfunded) and for its pre - 1987 private sector risks.

After initial validation, WorkCover WA forwarded the data to us.

LGIS - WorkCare has not been included in the calculation of the recommended premium rates since 2002/03. As a result, the recommended premium rate for ANZSIC code 81130 – Local Government Administration should be treated with caution as it does not reflect the current experience of the Local Government self-insurance scheme.

The following forms from the premium rating returning entities are supplied electronically as at 30 June 2015:

Form WC11

This form is the source of claim data by rating class and it contains the following data for each applicable industry class:

- number of policies
- gross written premium including any adjustments
- cumulative wage declarations including initial declarations and subsequent adjustments separately for each reporting year
- earned premium
- earned wages, including any adjustments to initial wage declarations
- cumulative number of claim reports
- cumulative claim payments
- case estimates outstanding on active claims.

The form remained the same length as last year with the data subdivided by accident year for the eleven most recent accident years and a twelfth category being 'all earlier years'. Only case estimates outstanding are provided for the 'all earlier years' row.

Due to the renewal process adopted by RiskCover, initial declared wages remain unchanged until pool closure. This can take three to four years. So there will be a permanent lag in wage adjustments, leading to:

- lower aggregate wages
- higher premium rates, and
- a discontinuity in rates when the first adjustments are processed but resulting in a more accurate rating.

The gross written premium for the most recent accident years is affected by burner policies. As the number of burner policies increases the discount levels against gazetted rates tend to be over-stated until the burners are finalised and the ultimate premium is collected. While we cannot accurately review the discount levels at class level we received the earned but not raised premium by underwriting year on the WC30 so they can be reviewed in total.

Form WC12

This is the third year that all Premium Rating Returning Entities completed Form WC12. The form contains similar information to the WC11 but it contains a list of each policy with its associated claims data (in aggregate) and class under both ANZSIC 1993 and ANZSIC 2006. The form contains the following pieces of data for each policy:

- ANZSIC 1993 code and equivalent ANZSIC 2006 code where the policy will fall
- reporting year
- gross written premium including any adjustments
- written wages, including any adjustments to initial wage declarations
- earned premium
- earned wages, including any adjustments to initial wage declarations
- cumulative number of claim reports
- cumulative claim payments
- case estimates outstanding on active claims.

All premium rating returning entities which issued policies in the 2014/15 underwriting year have completed the Form WC12. We also received data for prior years for all premium rating returning entities which issued policies in 2013/14 and 2012/13, some of which previously provided historic data as well.

Form WC20

This form contains the following information:

- number of claim reports in the year
- amount of claim payments in the year
- number of active claims at year end
- case estimates of active claims at year end
- IBNR and development estimates at year end
- prudential margin used in the financial accounts
- corresponding level of sufficiency adopted in the financial accounts

- prudential margin at a 75% level of sufficiency (as supplied to APRA).

As for the Form WC11 data, the first five items are subdivided by accident year for the 11 most recent accident years and a twelfth category being 'all earlier years'.

The data provided in this form is similar to that collected by APRA.

Form WC20A

This form is similar to the WC20, however only contains common law data for claims incurred prior to 14 November 2005. The form contains the following information:

- number of cumulative claims with any activity since 1 July 2001
- amount of common law claim payments in the year
- number of active claims at year end
- case estimates of active claims at year end.

As for the other forms, the items are subdivided by accident year for the 11 most recent accident years and a twelfth category being 'all earlier years'.

Each accident year's data is also split (except where noted) into:

- level of disability between 16% to 30%
- level of disability greater than 30%
- 93D writs
- section 92(f)
- raised by insurer (not for payments).

The raised by insurer item is a necessary subjective element though once payments are made it is assumed that the claim has been transferred to its correct category.

Form WC20B

This form is similar to the form WC20A, however it is for common law claims incurred from 14 November 2005. It contains the same category of claims data however these are split as follows:

- level of impairment between 15% and 25%
- level of impairment greater than 25%
- section 92(f)
- raised by insurer.

Form WC101

Form WC101 contains total claim payments subdivided by type of payment. The categories for payments are:

- weekly benefits
- redemptions
- Schedule 2 payments
- fatalities
- medical practitioners and specialists
- hospital expenses
- all other treatment
- vocational rehabilitation
- miscellaneous (e.g. transport, maintenance)
- legal expenses
- common law and other acts.

As for the other forms, the payments are subdivided by accident year for the 11 most recent accident years and a twelfth category being 'all earlier years'.

Form WC30

Form WC30 contains the following information:

- premium information
 - gross written premium for the year to 30 June 2015
 - unearned premium as at 30 June 2014
 - unearned premium as at 30 June 2015
 - earned premium for the year to 30 June 2015
 - earned but not yet raised premium for burner policies split into the last five financial years.
- expenses for the year to 30 June 2015
 - commission and brokerage
 - General Account levy
 - Supplementary fund levy
 - other statutory charges
 - management expenses.

Premium rating returning entities also supply Form WC20, Form WC20A, Form WC20B and WC101 on a quarterly basis. The quarterly WC20 only includes the first four items. These forms for the half year to 31 December 2015 are also used in the premium rating calculations.

B 2 Other data provided

WorkCover WA also provided the following data as at 31 December 2015.

Individual list of all 2004/05 to 2015/16 claims

We were provided with a list of each claim with an accident date from 1 July 2004 to 31 December 2015. This data contained:

- claim number
- occurrence date
- finalisation date
- reopened date
- date of birth
- insurer type
- total payments and split into by payment type
- total estimate.

We used this data to assess any change in the frequency of claims for claimants over age 65. While the average claim size will continue to be monitored, it may take a number of years before any increase can be ascertained.

Large claims

A file of large claims (>\$0.2 million) incurred by the premium rating returning entities. Data fields provided include:

- claim number
- accident year, date insurer received claim and finalisation date (if applicable)
- total estimate, paid and outstanding
- premium rating class.

The large claim file is provided as at 30 June 2015 and used to apply the large claim cap when calculating premium rates.

92(f) settlement payments by payment type

This details the payment type which 92(f) settlement payments are recorded within and whether they have lodged an election application.

The data is provided in a similar format to the WC101 with the payments split into the last eleven accident years and a twelfth category for earlier years. It only includes the following payment types:

- common law and other Acts
- redemptions
- specific injury (schedule 2).

Payments are split into those made with an election application and those without. Historically we have redistributed the 92(f) payments, however this year we did not as we understand that workers legal representatives are now lodging an election application for significantly more 92(f) settlements, and there is no clear way to adjust payments to align similar settlements.

Lump sum payment type by accident quarter

This gives the number and amount of lump sum payments and associated legal payments by accident quarter for the following lump sum types:

- 92(f) settlements where an election application was received
- 92(f) settlements where no election application was received
- redemptions
- schedule 2
- combined schedule 2 and redemptions payments made on a claim
- unknown settlement payment type
- multiple settlements
- three different common law categories:
 - >15%, <=25% whole person impairment (WPI)
 - >25% WPI
 - WPI unknown.

We were able to look at the lump sum payments at a high level and as we get more data we are better able to review the development in the number and average size of payments.

Lump sum payment type by reported quarter

We have also been provided with the schedule 2, redemptions and 92(f) number of claims and payments by quarter reported from September 2008 for insurers only.

This data enabled us to review the trends in settlement lodgement and payment.

Lump sum payments

We have received a new lump sum report that provides the lump sum payments over the financial year, separated by accident year and split into lump sums without election, lump sum with election, Schedule 2. It also has the total number of settlements and legal payments.

Number of claims reported each quarter split by duration

This year we have been provided with the number of claims reported by quarter split into number of lost time days of 0, 1 to 4, 5 to 19, 20 to 59, 60 to 119, 120 to 179 and greater than 180 days' time lost.

While for the more recent quarters the days lost is only an estimate, this data helps us understand the changes in the duration and which durations are experiencing a reduction in the number of claims.

Asbestos-related claim data

Reviewing the asbestos claims for the overall scheme is out of scope for this report. However, if necessary a review may be considered as a separate project in the future.

B 3 Data quality

The overall quality of the data this year was acceptable for our premium rate projections, once the data validation process was completed.

The initial data is screened by WorkCover WA using a set of validation tests complementary to the insurer checklist. We then subject the data to more comprehensive and detailed checking.

Each insurer form is checked to ensure that they are:

- reasonable and internally consistent
- consistent across the forms, i.e.:
 - claims paid: WC11 = WC20 = WC101
 - case estimates: WC11 = WC20
 - reported claims : WC11 = WC20.

A range of ratios were also calculated for each insurer, being:

- notional loss ratio
- outstanding claim ratio
- expense ratios.

We review these ratios over the past three financial years to check for any major changes and errors in the data.

In summary, of 20 (20) returns received:

- 11 (9) required no further action
- 7 (8) insurers had to clarify specific issues or do a first revision
- 2 (2) insurers had to further clarify issues or do a second revision
- 0 (1) insurers had to further clarify issues or do a third revision.

The numbers in brackets are last year's.

The data quality was consistent with last year, with most of the responses to the initial or first revision queries clarifying that the data was correct. Where a revision was required it was only for a small number of classes.

We encourage insurers to continue to improve their data quality by comparing the current year's forms with last year's final version and provide explanations for any large differences. This ensures insurers identify and review all differences before submission.

Appendix C Detailed methods description

What this appendix covers

- Provides a detailed description of the methods used for projecting the outstanding claims liabilities and premium rates
 - There are two changes to the methodology this year:
 - Earned returned wages and incurred costs are developed on an individual insurer basis, rather than applying aggregate development factors across the industry. Wages are developed based on the individual insurers' past experience. Incurred costs are developed based on the development reported on the Form WC20, adjusted to ensure aggregate development aligns with our outstanding claims valuation
 - Weighted average rates for each class are derived based on four years average experience, spread over a five year period. Previously a five year average spread over six years was adopted.
-

C 1 Projection methods

As discussed in section 5.2 a range of projection methods were used to calculate the outstanding claims liability. They are detailed below:

Payments per claim finalised method

All payments were brought to current values and divided by the numbers of claims finalised in their respective accident years and years of payment. Averages of payments per claim finalised were formed from these figures. These averages were then combined with a projection of future numbers of claims finalised to produce projected future payments.

The PPCF model was used, along with other methods, to project the cashflows for the following payment categories:

- redemptions and Schedule 2
- legal
- common law.

Payments per active claim method

As described for the payments per claim finalised method, but with a denominator of numbers of claims active at the beginning of the period.

The PPAC model was used, along with other methods, to project the cashflows for the following payment categories:

- weekly benefits, miscellaneous and fatals
- medical and hospital expenses
- all other treatment
- vocational rehabilitation.

Payments per claim incurred method

All claim payments were brought to current values and divided by the numbers of claims incurred in their respective accident years. A pattern of past payments per claim incurred was derived in respect of each accident year. These payment patterns were then extended into future years and used to project future payments.

The PPCI method was used in a blend with other methods to project payments for all payment groups for more recent accident years. The PPCI method was used as a benchmark for all groupings for older accident years.

Projected case estimates method

Details of case estimates established at the end of each accounting period, subdivided by accident period were brought to current values and compared with payments made in the subsequent accounting period and the

case estimates established at the end of the period (also in current values). Using this, an average pattern of the extent to which past case estimates had proven to be too high or too low in relation to the claim payments subsequently made was established. This pattern is used to project the future development of the case estimates held at 30 June 2015, and to project the future claim payments corresponding to these estimates.

This method was used as a comparison method for the common law payment group.

C 2 Premium rates methods

C2.1 Relative rates

Calculate weighted average rates

The raw premium rate is calculated on an accident year basis for 2002/03 to 2014/15 using the following formula:

$$\frac{\text{developed total estimate (claim payments + outstanding case estimates)}}{\text{developed returned earned wages}}$$

This is done by industry division, subdivision, group and class.

Both the total estimate and returned earned wages are developed on an individual insurer basis and then cumulated to attain the industry totals. Returned earned wages are developed by considering the extent to which individual insurers' returns have developed in the past. The total estimate is developed based on the insurers' expected development, provided on Form WC20, adjusted on an aggregate level to align with our total development expectations.

Prior to this year, the development factors used were uniform across insurers and industry classes and were derived from past experience. By adjusting the case estimation practices and wage processing delays of individual insurers is better reflected in classes which may be dominated by one insurer.

The relevant adjustment factors are shown in the tables below. Note that the rates for 30 June 2015 for wages are the equivalent aggregate rate after applying the development at an individual insurer level.

Development Year	Adjustment Factors for Total Case Estimates				
	30 June 2015	30 June 2014	30 June 2013	30 June 2012	30 June 2011
0	1.601	1.524	1.531	1.704	1.592
1	1.106	1.118	1.115	1.188	1.233
2	1.043	1.063	1.036	1.092	1.102
3	1.025	1.044	1.042	1.059	1.090
4	1.014	1.034	1.057	1.068	1.075
5	1.034	1.042	1.058	1.057	1.059
6	1.027	1.041	1.047	1.048	1.047
7	1.027	1.038	1.044	1.041	1.031

Development Year	Adjustment Factors for Earned Wages				
	30 June 2015	30 June 2014	30 June 2013	30 June 2012	30 June 2011
0	1.023	1.041	1.058	1.045	
1	1.006	1.011	1.016	1.009	
2	1.002	1.003	1.006	1.003	
3	1.002	1.001	1.003	1.003	
4	1.000	1.001	1.002	1.002	
5	1.000	1.000	1.001	1.001	
6	1.000	1.000	1.000	1.000	
7	1.000	1.000	1.000	1.000	

Development Year	Adjustment Factors for Written Wages				
	30 June 2015	30 June 2014	30 June 2013	30 June 2012	30 June 2011
0	1.055	1.064	1.077	1.067	1.068
1	1.013	1.015	1.019	1.015	1.016
2	1.004	1.004	1.006	1.004	1.005
3	1.003	1.002	1.003	1.001	1.001
4	1.000	1.000	1.001	1.000	1.000
5	1.000	1.000	1.000	1.001	1.001
6	1.000	1.000	1.000	1.001	1.001
7	1.000	1.000	1.000	1.000	1.000

We only received earned wages data from 30 June 2011 so have only been able to assess the development factor from 30 June 2012 onwards. As earned wages already include part of the wage adjustments from the prior underwriting year, the development factors are generally lower than written wages.

Development Year	Adjustment Factors for Gross written premiums				
	30 June 2015	30 June 2014	30 June 2013	30 June 2012	30 June 2011
0	1.136	1.192	1.205	1.061	1.127
1	1.075	1.108	1.105	0.991	1.043
2	1.044	1.070	1.069	0.989	1.017
3	1.011	1.031	1.045	0.990	1.008
4	1.003	1.005	1.005	0.997	0.999
5	1.002	1.002	1.001	0.998	0.999
6	1.001	1.001	1.000	1.000	0.999
7	1.001	1.001	1.000	1.000	0.998

In 2013 we removed the earned but not yet raised premium before reviewing the development, as the earned premium is on a different basis to the written premium. This is the cause of the higher adjustment factors for the most recent three years.

The table below shows the development of the earned premiums, including the earned but not yet raised (EBNYR) premium.

Development Year	Adjustment Factors for Earned premiums (including EBNYR)				
	30 June 2015	30 June 2014	30 June 2013	30 June 2012	30 June 2011
0	1.014	1.031	1.046	-	-
1	0.977	0.982	0.983	-	-
2	0.985	0.987	0.988	-	-
3	0.982	0.984	0.986	-	-
4	1.003	0.998	0.996	-	-
5	1.006	1.002	1.001	-	-
6	1.000	1.001	1.001	-	-
7	1.000	1.000	1.001	-	-

The WARs are calculated from the raw rates by applying the following credibility weightings to each financial year:

Weightings	Development year							
	0	1	2	3	4	5	6	
30 June 2015	0.6	0.9	1.0	1.0	0.5	0.0	0.0	
30 June 2014	0.6	0.9	1.0	1.0	1.0	0.5	0.0	

The current accident year and development year 1 experience are given a weighting of less than 1 because of the low level of development to date. The weights sum to four full years. We have reduced the averaging period this year to assist with the transition to premium rating classifications based on ANZSIC 2006, as fewer accident years are available in the data to date.

Partial credibility rates

PCRs are calculated from the WARs using aggregate weighted wages as the exposure measure. PCRs are calculated by industry division, sub-division, group and class progressively, using a system of hierarchical credibility.

The application of credibility theory to experience rating was developed as follows:

Calculation of self-rating point

Estimated average wages (a)	79,644
Estimated claim frequency (b)	3.6%
n	720
σ/m	0.175
Number of claims for full credibility (c)	742
Number of employees for full credibility (d)	20,488
Indexed wages for full credibility (e)	1,631,746,181

- Notes:** (a) = estimated average full time adult ordinary time earnings over 2014/15
= (1677.88 + 1695.31) / 2 x 52.18 (ABS Cat 6302.0) / 3 year inflation factor (=1.105) to adjust to the same base as weighted average wages
- (b) from Appendix I being an average of claims experience over the 2010 to 2013 accident years
- (c) = $n \times (1 + (\sigma/m)^2)$
- (d) = (c) / (b)
- (e) = (d) / (a)

To obtain full credibility, the aggregated weighted wages need to be greater than \$1,305 million. This is based on \$1,632 million above adjusted for the fact that we are only using four years rather than five years of data. The \$1,932 million is 6.9% higher than the \$1,526 million last year. This increase is due to a reduction in the claim frequency, coupled with an increase in the level of total wages.

The formula for the partial credibility factor Z is:

$$Z = \sqrt{n_i / n_f}$$

where: n_i = returned wages for the industry class
 n_f = returned wages for full credibility, where returned wages are substituted as a surrogate measure for number of claims.

The partial credibility rate is then calculated as:

$$\text{PCR} = Z \times \text{WAR} + (1 - Z) \times \text{DWAR}$$

Where: WAR = weighted average rate per class

DWAR = weighted average rate per division, sub-division, group

For full credibility, we get Z = 1 and the formula reduces to:

$$\text{PCR} = \text{WAR}$$

i.e.: PCR = full credibility premium rate.

Under this method the following obtained full credibility:

- 16 (16) of 17 divisions
- 36 (35) of 53 sub-divisions
- 53 (51) of 158 groups
- 58 (53) of 480 premium rating classes.

Figures in brackets are last years.

The table below shows the distribution of credibility level achieved by rating classes on their own claims experience:

Credibility Level	This year		Last year	
	No. of Classes	%	No. of Classes	%
$x \leq 25\%$	184	38.3%	185	38.5%
$25\% < x \leq 50\%$	140	29.2%	136	28.3%
$50\% < x \leq 75\%$	60	12.5%	65	13.5%
$75\% < x < 100\%$	38	7.9%	41	8.5%
100%	58	12.1%	53	11.0%
Total	480	100.0%	480	100.0%

Where a class, group, sub-division or division does not have full credibility the rate is built-up from group level, progressively through sub-division and division level, if necessary. In this way a finer distinction is made to better approach homogeneity in the full credibility grouping of the premium rating classes. Classes with credibility close to unity will be largely unaffected, while those with low credibility levels should experience greater equity and appropriateness in their rates.

Wages across the following classes were aggregated to calculate the credibility factor Z for the relevant class:

Group	Rating Classes	Z based on aggregate wages
A	78610 - Employment Placement Services	1.00
	78620 - Contract Staff Serviced mainly clerical	1.00
	78630 - Secretarial Services	1.00
B	86310 - Pathology Services	1.00
	86320 - Optometry and Optical Dispensing	1.00
	86350 - Physiotherapy Services	1.00
	86360 - Chiropractic Services	1.00
C	47140 - Fish wholesaling	0.38
	47170 - Liquor wholesaling	0.38
D	81200 - Justice	0.83
	81300 - Foreign government representation	0.47
E	93110 - Horse and dog racing	0.63

This is done to promote homogeneity of experience. The above rating classes have claim experience vastly different from the other classes in the same group:

- group A has Security and Pest Control in the ANZSIC group
- group B has Ambulance Services.

The following groups are for setting credibility factors only:

- group C the wages of the two codes are joined
- group D is joined with half of class 78620
- group E is joined with half of class 93120.

Due to the use of earned wages, not written, we have not had to exclude any raw premium rates from the calculation of the weighted average rate, since there is no mismatch in the timing of the wage period and the claim period.

Capping large claims

We have been provided with all claims with an incurred cost greater than \$0.2 million. Although no longer considered in our analysis, large claims for the 2000/01 accident year are capped at an incurred cost estimate of \$3.0 million or 12% of wages for claims between \$0.2 million and \$3.0 million. For subsequent accident years the capping is indexed in line with wage inflation.

The table below shows the capping applied to each accident year with greater than 0% weighting in the premium rates.

Accident year	Minimum (\$M)	Maximum (\$M)
2011	0.364	5.466
2012	0.376	5.644
2013	0.402	6.025
2014	0.404	6.064
2015	0.416	6.234

For the current valuation large claim capping has been performed at an individual insurer level, using the total aggregate wages across all insurers. In prior valuations the development of the total estimate was done using an aggregate industry for each accident year. At an insurer level capping is done by:

- deducting the total estimate for each large claim from 'claim payments and outstanding case estimates' for the rating class it belongs to
- apply the development factor to the reduced total
- add back the capped amount for the large claim and
- divide by returned wages.

This implies that:

- no further development is added to insurer's estimates of these claims
- they are capped when calculating the WARs to limit the influence of abnormally large items on relative rates at class level
- the cost above the cap is in effect respread over the whole scheme.

For the 2011 to 2015 accident years (those with a greater than 0% weight to calculate the WAR) there are six (five) claims capped at class level, but only two (one) claim capped at group, sub-division and divisional level. Figure in brackets are last year's equivalent figures.

Caps on large claims amount to 0.4% of the total premium pool for 2016/17.

Normalise partial credibility rate

The PCRs are normalised such that when they are applied to adjusted accident year returned wages for 2014/15 by class, the aggregate notional premiums are equal to the aggregate notional premiums, based on the same wage data, calculated using the 2015/16 Gazette rates.

The normalised PCRs (NPCRs) are subjected to absolute minimum and maximum rates of \$0.25 and \$12.00 per \$100 of wages. This is the same as last year.

Having applied these limits, the NPCRs are normalised once again to the aggregate notional premiums at Gazette rates.

All premium rates, other than those where a minimum or maximum premium rate cap is applied, have reduced by 0.8% as a result of the premium respread.

Weighted loss ratio

The weighted loss ratio in Appendix A, is calculated as follows:

$$\begin{aligned}
 &= (\text{full credibility weighted average premium rate} \times \text{normalisation factor} \times \text{weighted aggregate wages}) / \\
 &(\text{previous years gazette rate} \times \text{weighted aggregate wages}) \\
 &= (\text{full credibility weighted average premium rate} \times \text{normalisation factor}) / (\text{previous years gazette rate}) \\
 &= \text{normalised risk premium rate} / \text{previous years gazette rate} \\
 &= \text{estimated risk cost of claims} / \text{premium on last year's gazette rates.}
 \end{aligned}$$

The weighted loss ratio is a benchmark statistic and isn't used as part of the Gazette rate calculation.

Appendix D Assumptions

What this appendix covers

- Describes the economic assumptions in further detail as well as the source of these assumptions
 - For this valuation we have performed separate analyses for the rate of superimposed inflation for the outstanding claims valuation and the incurred risk cost for the 2016/17 average premium rate. The analysis for premium rating purposes excludes the experience for the two most recent years for all payment groups, except our combined analysis for redemptions and 2nd schedule, and common law, as the high levels of SII are driven by a reduction in small claims and change in claim mix more than ongoing cost increases
 - The contingency margin adopted has remained constant from last year's review, following an increase in the 2015/16 premium rates
 - Provides a detailed description of the 2011 Amendment Act.
-

D 1 Financial assumptions

Future inflation and interest rates

Years ahead	Interest rate	Inflation rate	Real rate		
	29 Feb 2016	29 Feb 2016	29 Feb 2016	28 Feb 2015	31 Jan 2014
1	1.98%	3.00%	-1.02%	-1.75%	-2.12%
2	1.73%	3.00%	-1.27%	-2.09%	-1.61%
3	1.63%	3.00%	-1.37%	-2.08%	-0.99%
4	1.83%	3.00%	-1.17%	-1.74%	-0.51%
5	2.30%	3.00%	-0.70%	-1.25%	-0.19%
6	2.64%	3.00%	-0.36%	-0.90%	0.01%
7	2.77%	3.00%	-0.23%	-0.74%	0.18%
8	2.90%	3.00%	-0.10%	-0.65%	0.34%
9	3.02%	3.00%	0.02%	-0.56%	0.49%
10	3.14%	3.00%	0.14%	-0.47%	0.64%
11	3.26%	3.00%	0.26%	-0.47%	0.64%
12	3.37%	3.00%	0.37%	-0.47%	0.64%
13	3.48%	3.00%	0.48%	-0.47%	0.64%
14	3.59%	3.00%	0.59%	-0.47%	0.64%
15	3.70%	3.00%	0.70%	-0.47%	0.64%
16 & onwards	3.79%	3.00%	0.79%	-0.47%	0.64%

For this valuation there has been an increase in the real rate of return for all projection years. This is due to a lower inflation rate.

The real rates for the first eight years into the future are negative. In our previous valuation all future real rates of return were negative.

The interest rate for one quarter of the first year ahead $[(1 + 1.98\%)^{0.25} - 1] = 0.5\%$ is included in the calculation of the average premium rate. This is because premiums are received on average three months earlier than the point to which claims are discounted.

Forward interest rates are those estimated to be anticipated over future years by the Commonwealth bond market as it stood at 29 February 2016.

The interest rate for the 2016 financial year is set using the actual one month forwards rates from July 2015 to February 2016, along with the monthly forward rates for March 2016 to June 2016 which are obtained by fitting a curve to the 29 February 2016 Commonwealth Government Bond yield curve. Future one year forward rates of interest are derived from the same yield curve, and are independent of the cash flows of a particular portfolio of risks. A cubic spline with four knots is used to do the curve fit.

The central estimate of the outstanding claims liability is calculated as its "market value" i.e. the value it might attract in a hypothetical open market, in insurance claim liability portfolios. This is done by discounting the projected future cash flows at the market related future rates of interest calculated as described above. In this way the discounted value of the projected liability cash flows equals the market value of matched hypothetical portfolio of Commonwealth Government Securities.

The interest rates assumed are therefore consistent with a market value approach to asset valuation and with the requirements in section 1.4. The application of this approach is theoretically correct for both reserving and premium rating.

The inflation and interest rates are chosen to be consistent with those currently used in our actuarial assessments for long tail classes.

The **wage inflation** assumptions have decreased to 3.00%, compared with 3.75% last year. We have relied on the WPI forecasts provided in the *2015/16 WA Government Mid-year Financial Projections Statement* produced by the WA Treasury Department, adjusted by 0.50% to reflect the more recent average difference between the increase in AWE and the WPI. We have used the equivalent uniform rate (2.81% rounded to 3.00%) which is calculated weighted by the payment pattern.

Financial year ending 30 June	Forecasts of Future Wage Inflation		
	WA Treasury WPI (a)	Assumed AWE from WA Treasury (b)	PwC assumed (c)
2016	2.00%	2.50%	3.00%
2018	2.50%	3.00%	3.00%
2019	2.75%	3.25%	3.00%
2020		3.25%	3.00%
2021		3.25%	3.00%
and later			
Equivalent Uniform annual rate		2.81%	3.00%

- Notes:** (a) from 2015/16 WA Government Mid-year Financial Projections Statement produced by the WA Treasury Department
 (b) = (a) + 0.5%, to allow for the historic difference between the increase in AWE and the WPI
 (c) as assumed by PwC for long tail classes, based on the WA Treasury Department forecasts.

Past wage inflation

Past wage inflation for bringing past payments and case estimates into current values is taken from ABS Cat 6302.0 Average Weekly Earnings for Western Australia (persons full-time adult ordinary time earnings), as shown below:

Year to 30-Jun	Mid Quarter AWE	End Quarter AWE	% Change p.a.	Claims escalation factors	
				For payments	For case estimates
2001	809.80	815.83	0.00%	2.108	2.078
2002	840.50	844.74	3.54%	2.034	2.007
2003	886.40	891.28	5.51%	1.958	1.902
2004	921.10	929.85	4.33%	1.865	1.823
2005	994.30	1,000.20	7.57%	1.755	1.695
2006	1,028.40	1,041.26	4.11%	1.664	1.628
2007	1,118.60	1,128.13	8.34%	1.558	1.503
2008	1,202.90	1,214.14	7.62%	1.450	1.397
2009	1,287.00	1,299.78	7.05%	1.349	1.304
2010	1,364.10	1,375.77	5.85%	1.264	1.232
2011	1,474.10	1,486.40	8.04%	1.187	1.141
2012	1,516.80	1,534.92	3.26%	1.119	1.105
2013	1,644.80	1,638.56	6.75%	1.059	1.035
2014	1,641.20	1,649.12	0.64%	1.040	1.028
2015	1,691.20	1,695.56	2.82%	1.012	1.000

Past general inflation

To determine the minimum premium for householders and other policies we have used the movement in the Perth CPI Index as shown below:

Financial Year	CPI Perth Index	Rate
2012/13	102.2	2.3%
2013/14	105.3	3.0%
2014/15	107.2	1.8%
2015/16 (a)	108.8	1.5%
2016/17 (b)	110.6	1.7%

Note: (a) from ABS Cat. 6401.0 Table 1 CPI All Groups Index Numbers for Perth as at 31 December 2015, extrapolated to 30 June 2016

(b) An average of the increase in 2014/15 and 2015/16

The 2014/15 and 2015/16 index has changed since last year as both were estimated.

Employment growth

We have included an allowance for the employment growth in the half year to December 2015 to match the exposure base for the increase in claim numbers.

To determine the employment growth we have used the movement in the ABS Cat. 6202.0 Table 8 Labour Force for full time persons for Western Australia.

	Jun 15	Dec 15	Increase
Number of full time employees in WA	1356.6	1358.6	0.1%

The number of full time employees increased by 0.1% in the half year to 31 December 2015. This is lower than the 2.7% growth in employees in the half year to 31 December 2014.

Wages to 31 December 2015

In calculating the premium rates we use the developed earned wages for the 2014/15 accident year. We assume claim costs and wages are subject to the same inflation and would cancel in the context of the average premium rate, and hence we do not inflate either to 2016/17.

D 2 Superimposed inflation

A realistic level of superimposed inflation is allowed for in the outstanding claim reserves and premium rating. We have analysed SII separately for each payment type, and performed separate analyses for the outstanding claims and premium rating.

D2.1 Outstanding claims

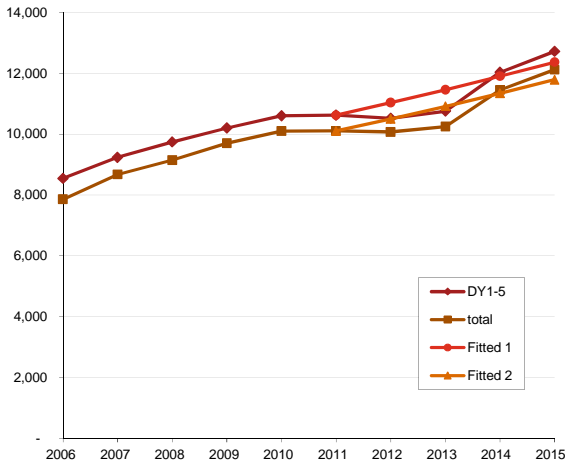
The recent trends in real growth, i.e. superimposed inflation, are shown in the charts below.

The adopted periods over which superimposed inflation has been analysed for each method are:

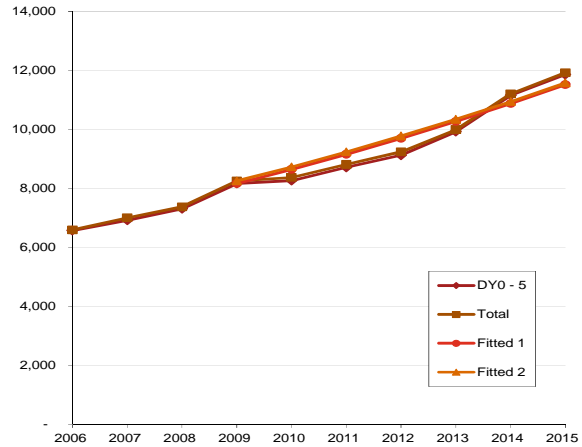
Number of years analysed to calculate superimposed inflation								
	Weekly Benefits, Miscellaneous And Fatafs	Medical And Hospital Expenses	All Other Treatment	Vocational Rehabilitation	Redemptions & 2nd Schedule	Legals	Common Law	
PPAC/PPCF	5	5	4	6	5	6	5	
PPCI	7	6	4	6	5	4	5	

Weekly benefits, miscellaneous and fatafs

PPAC

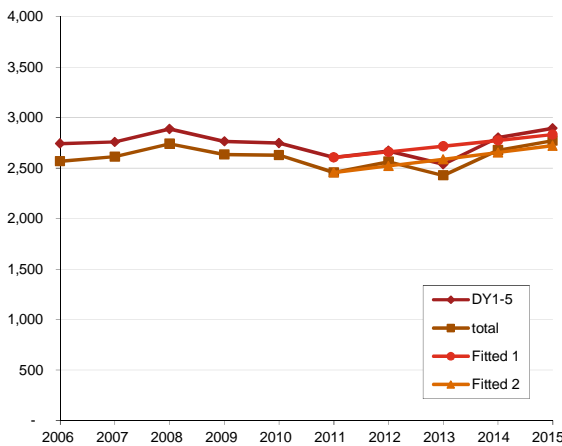


PPCI

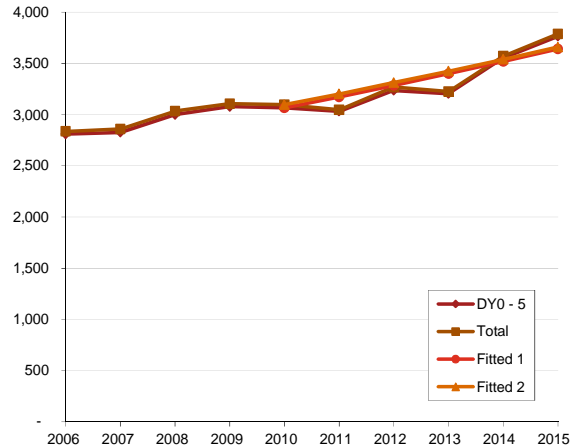


Medical and hospital

PPAC

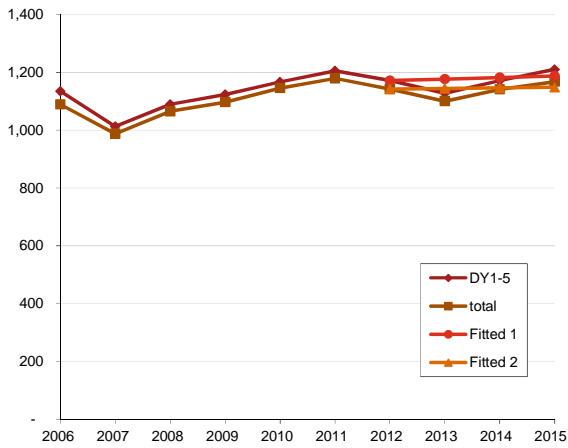


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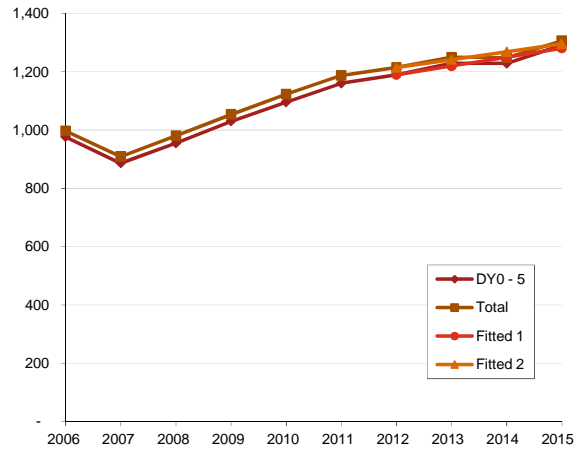


All other treatment

PPAC

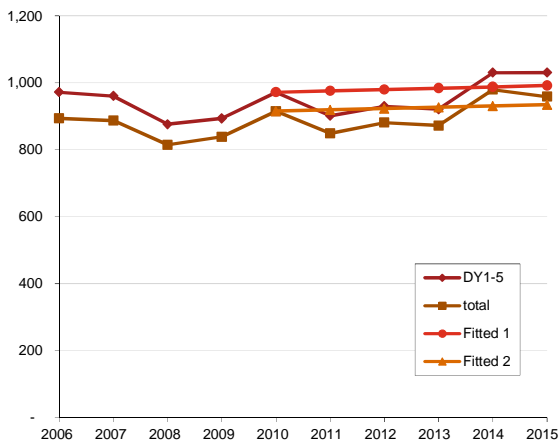


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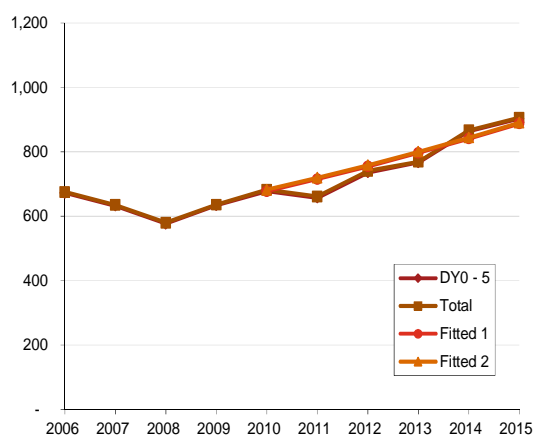


Vocational rehabilitation

PPAC

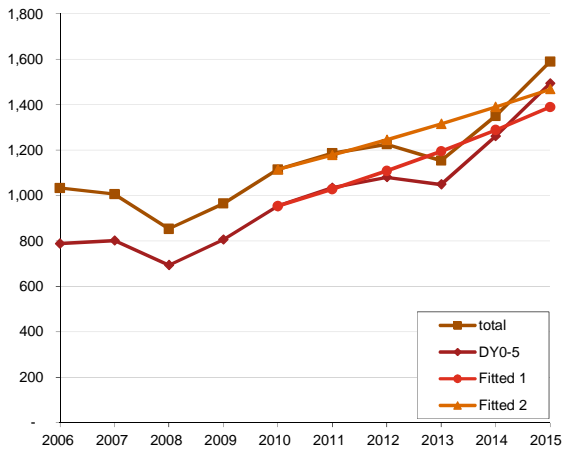


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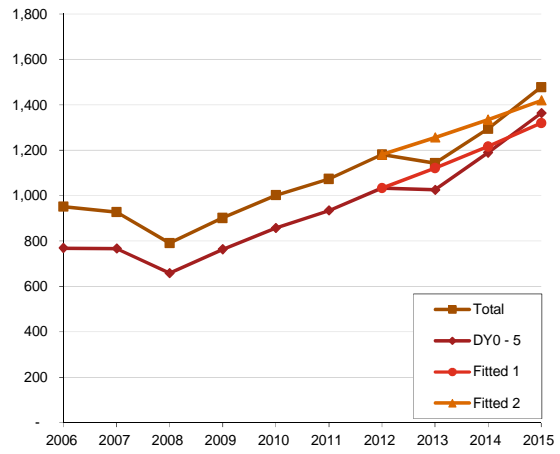


Legal

PPCF

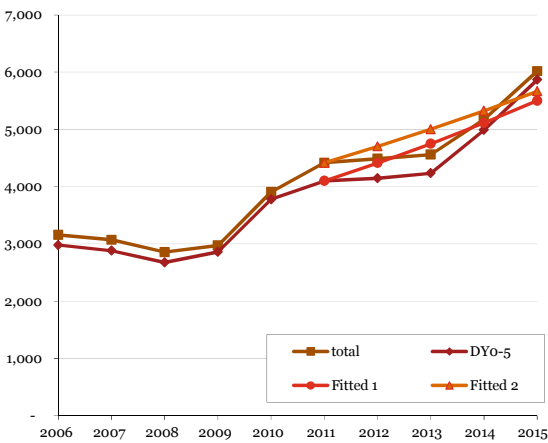


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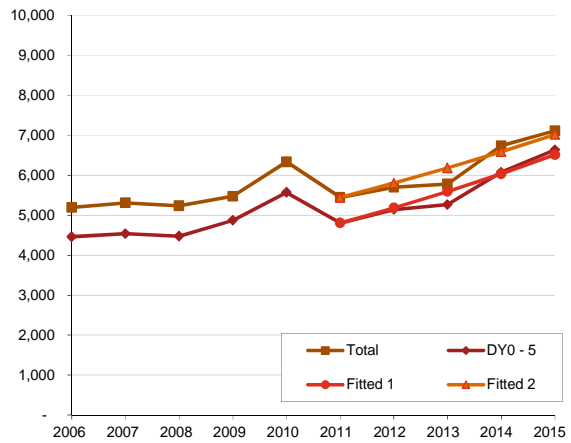


Redemptions and schedule 2

PPCF

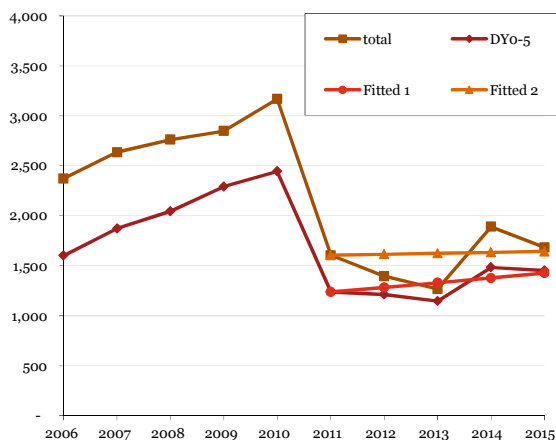


PPCI

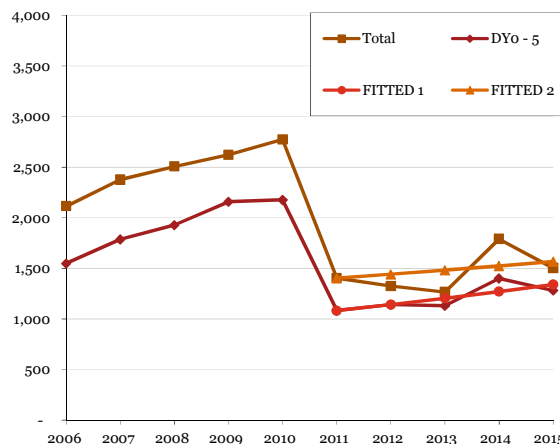


Common law

PPCF



PPCI



This analysis of trends leads to the following assumed rates of superimposed inflation shown:

Superimposed Inflation									
	Weekly Benefits, Miscellaneous And FataIs	Medical And Hospital Expenses	All Other Treatment	Vocational Rehabilitation	Redemptions & 2nd Schedule	Legals	Common Law	Total	
30 June 15									
PPAC / PPCF	3.9%	2.1%	0.4%	0.4%	7.6%	7.8%	3.6%	5.3%	
PPCI	5.9%	3.5%	2.5%	5.6%	8.6%	8.5%	5.5%	6.8%	
Outstanding claims blend	5.3%	3.1%	1.8%	4.4%	8.1%	8.1%	4.4%	6.2%	
30 June 14									
Outstanding claims blend	4.7%	2.3%	2.8%	4.4%	6.4%	6.5%	5.4%	5.4%	

Superimposed inflation for the outstanding claims is 6.2% overall, which is 0.8% higher than the 5.4% adopted last year. All payments groups have a higher or the same rate of superimposed inflation compared to that adopted for the 30 June 2014 valuation, except the all other treatment and common law payment groups.

D2.2 2016/17 premium rating

Due to the reduction in small claims and change in claims mix leading to the high rate of SII in the most recent two accident years for all payment groups, we have performed a separate analysis of SII for the 2016/17 premium rate calculation. This analysis takes a similar form to the outstanding claims analysis, but excludes the two most recent years. We also did a high level check by reviewing the increase in total incurred cost if the small claims were not removed from the system.

The table below shows the results of our analysis, and compares it to the adopted SII in the 2015/16 premium rate calculation:

Superimposed Inflation - 2016/17 incurred cost									
	Weekly Benefits, Miscellaneous And FataIs	Medical And Hospital Expenses	All Other Treatment	Vocational Rehabilitation	Redemptions & 2nd Schedule	Legals	Common Law	Total	
30 June 15	4.3%	0.9%	4.1%	3.7%	4.1%	7.3%	4.1%	4.0%	
30 June 14	5.4%	2.8%	3.4%	5.2%	7.2%	7.6%	7.1%	5.6%	

The overall adopted SII for the 2016/17 premium rate calculation of 4.0% is 1.6% lower than the 5.6% adopted last year. All payments groups have a lower rate compared to that adopted for the 30 June 2014 valuation, except all other treatment.

For this analysis we combined the experience from the redemptions and 2nd schedule, and common law payment groups due to the uncertainty associated with 92(f) settlement payments.

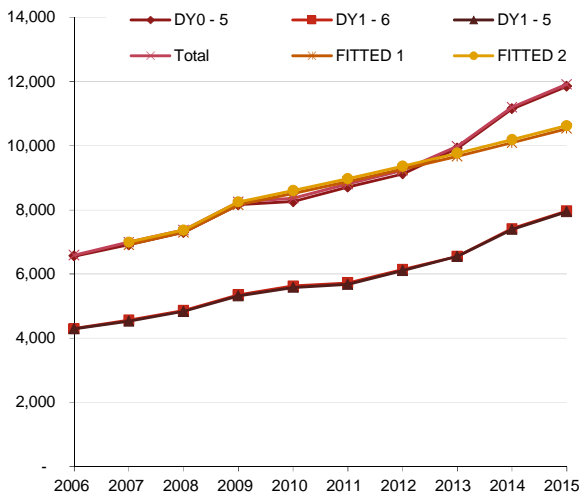
The adopted periods for analysis are shown in the table below:

Superimposed Inflation - years used in trend analysis								
	Weekly Benefits, Miscellaneous And Fatafs	Medical And Hospital Expenses	All Other Treatment	Vocational Rehabilitation	Redemptions & 2nd Schedule	Legals	Common Law	
Year start	2008	2008	2009	2009	2008	2010	2008	
Year end	2013	2013	2013	2013	2015	2013	2015	

The adopted results are shown in the tables below:

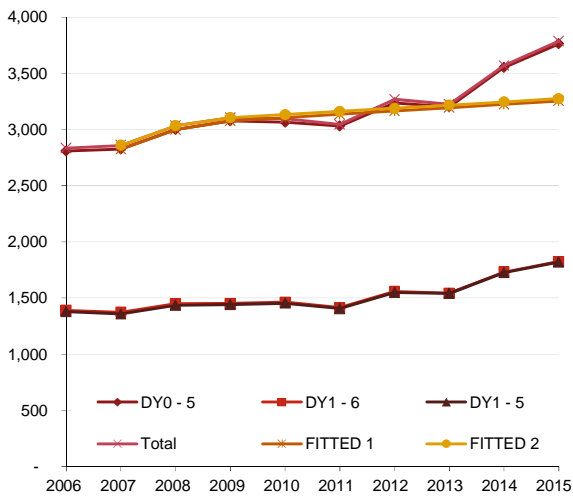
Weekly benefits, miscellaneous and fatafs

PPCI



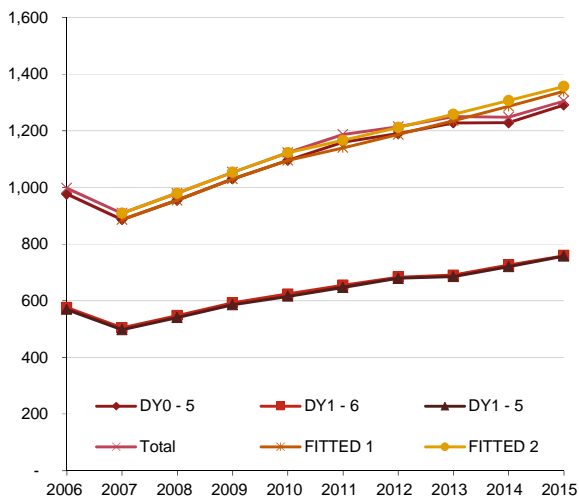
Medical and hospital

PPCI



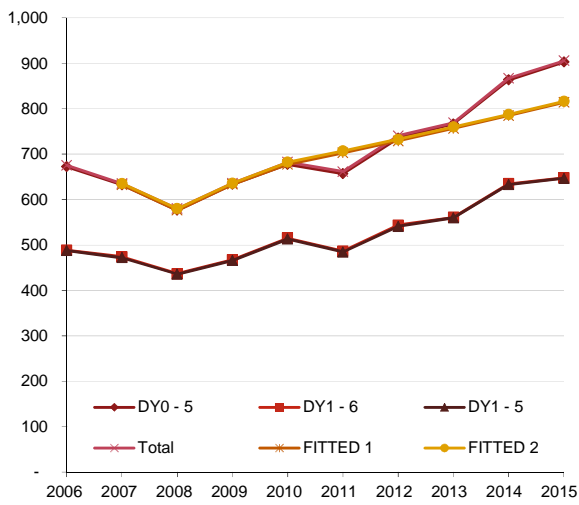
All other treatment

PPCI



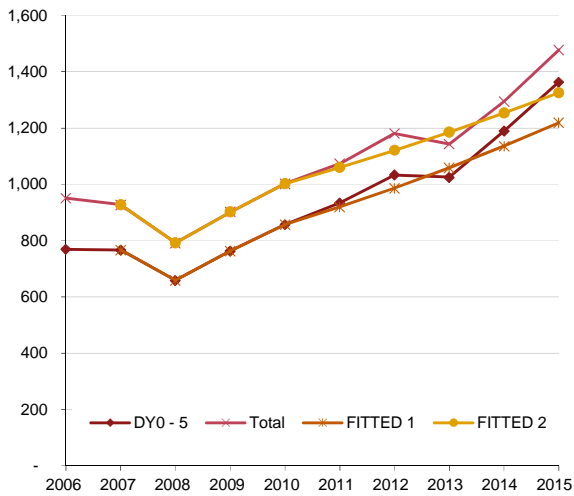
Vocational rehabilitation

PPCI



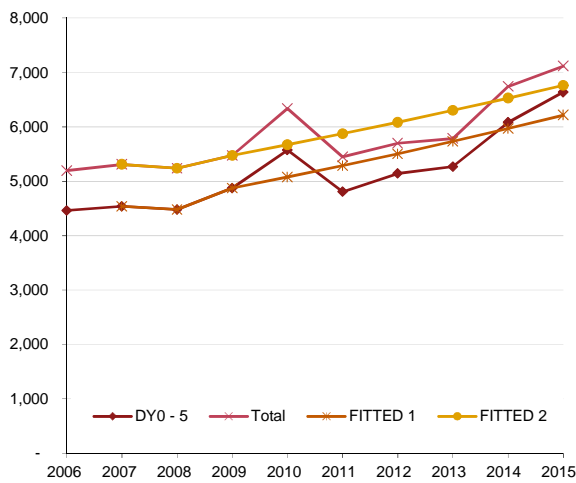
Legal

PPCI



Redemptions and 2nd schedule and common law combined

PPCI



We also performed a high level benchmark to check the growth in the total incurred cost if the small claims were still being reported. We have assumed that the claims that have been removed have a duration of one to four days and an average cost of \$6,000 in current values. The \$6,000 is from WorkCover WA’s statistical report.

Accident year	Number of claims (a)	Incurred cost (current values) (b)	Adjusted incurred cost (current values) (c)
2008	38,436	724.1	724.1
2009	36,196	721.4	732.2
2010	33,484	681.5	708.6
2011	34,899	767.4	786.0
2012	36,197	839.7	850.5
2013	34,825	877.1	896.2
2014	32,869	906.1	936.9
2015	30,554	895.2	939.9

Notes: (a), (b) from Appendix E
 (c) = (b) + (38,000 - (a)) x 6,000. This adjusts for the 'missing' small claims

The growth from 2009 to 2015 is 4.2% pa while the growth from 2012 (when claims peaked after the GFC) to 2015 is slightly lower at 3.4% pa. Therefore the 4% pa from the above analysis is reasonable.

D 3 Management and other expenses

Overall expenses

The overall level of expenses is analysed below:

Expenses	Year ending 30 June (\$000s)				
	2015	2014	2013	2012	2011
Development Year					
Commission/Brokerage	35,060	35,038	34,346	26,310	24,186
Statutory Charges	19,231	19,511	19,107	17,597	17,336
Management Expenses	160,501	143,735	129,138	108,501	103,535
Total expenses	214,791	198,284	182,591	152,407	145,057
Earned Premium	1,191,752	1,193,947	1,172,065	946,889	821,029
Claim Payments	868,311	830,666	741,903	674,573	602,108
Commission and Statutory Charges as % of Earned Premium	4.6%	4.6%	4.6%	4.6%	5.1%
75% of Management Expenses as % of claim payments	13.9%	13.0%	13.1%	12.1%	12.9%

The commission/statutory charge ratio decreased from 5.1% in 2011 to 4.6% in 2012 and subsequent years. However, while the claims related expense rate decreased from 12.9% in 2011 to 12.1% in 2012, it increased to be 13.1% and 13.0% in 2013 and 2014 respectively, and it has increased further in 2015, to 13.9%.

Part of the driver of the increase in 2015 is related to bad debts, which we understand are being recorded in management expenses by insurers.

The target overall level of claims related expenses is 9%. Against this benchmark the claim related expense rate appears high for all years in the table.

Claims management expenses equal to 5% of the projected future claim payments have been allowed for. This is lower than the 9% benchmark because certain costs are excluded from future expense provisioning, for example:

- the initial cost of recording claims (except IBNRs)
- the cost of finalising claims in the same year they are reported
- unusual and non-recurrent items of expenditure.

The claims management expenses allowance is consistent with the allowance made in other similar assessments but is much lower than the expense levels of 12.0% to 14.0% over 2011 to 2015.

Expense analysis

The expenses are analysed from the Form WC30. The results obtained are summarised below:

	Expense Ratios					Adopted
	2014/15	2013/14	2012/13	2011/12	2010/11	3 yr ave
Commission / Brokerage	3.0%	2.8%	2.7%	2.7%	2.8%	2.8%
General Fund Levy	1.6%	1.5%	1.5%	1.8%	1.9%	1.5%
Management Expenses	13.5%	12.0%	11.0%	11.5%	12.6%	12.2%
Total	18.0%	16.4%	15.3%	16.0%	17.3%	16.6%
Total excluding brokerage	15.1%	13.6%	12.5%	13.2%	14.5%	13.7%

The expense ratios are used directly in deriving the loss ratio used to quantify the gross incurred cost of WA workers compensation claims.

The adopted expense rate of 13.7% is 0.6% higher than the 13.1% adopted in the previous valuation. This increase is mainly driven by the increase in management expenses, but there are also increases in the commission / brokerage and General Fund levy.

While insurers supply statutory charge information separated into General Account, Supplementation Fund and 'other', only General Account contributions have been used for statutory charges in this analysis.

Expenses by insurer for 2014/15 were as follows:

Insurer	Brokerage % (a)	General Account Charges % (b)	Management Expenses % (c)	Total Expenses (d)	Supp Fund Charges % (e)
1	0.0%	1.3%	23.0%	24.4%	0.0%
2	3.1%	1.8%	18.3%	23.2%	0.0%
3	0.0%	2.1%	20.5%	22.6%	0.0%
4	3.3%	1.7%	16.8%	21.8%	0.0%
5	3.8%	1.8%	15.1%	20.7%	0.0%
6	4.0%	1.6%	14.7%	20.3%	0.0%
7	3.7%	1.4%	10.3%	15.4%	0.0%
8	3.5%	2.1%	9.1%	14.7%	0.0%
9	0.0%	1.4%	9.2%	10.6%	0.0%
10	0.0%	0.0%	0.0%	0.0%	0.0%
Total	3.0%	1.6%	13.5%	18.0%	0.0%

- Notes :**
- (a) = Commission and brokerage / Gross written premium
 - (b) = General account charges / Gross written premium
 - (c) = Management expenses / Earned premium
 - (d) = (a) + (b) + (c)
 - (e) = Supplementation fund charges / Gross written premium

If brokerage is spread over only those insurers paying brokerage, the percentage increases from 3.0% to 3.7%.

The adopted expenses for the 2016/17 recommended premium rates are a three year average of the expenses for the 2012/13 to 2014/15 financial years.

D 4 Contingency margin

In March 2015 we reviewed the contingency margin adopted in the recommended premium rates based on data from the 2015/16 recommended premium rates. We have not updated the review at this valuation.

The key findings were as follows:

- The recommended contingency margin is 10% gross of reinsurance, which is a reduction from the 11% adopted in the 2014/15 premium rates. This decrease was primarily due to the payment tail shortening so that capital does not need to be held as long, the reduction in the risk free rates and the asset risk charge being a lower percentage of total assets. These reductions are partially offset by increasing the adopted return on equity (ROE) in excess of risk free rates
- If a separate allowance for the cost of reinsurance was included in the recommended premium rates, the recommended contingency margin net of reinsurance is 8% (a reduction from 9%)
- The adopted 11.9% ROE is lower than the 15% ROE most insurers surveyed required however it is more realistic in light of the current economic situation
- The method used to calculate the contingency margin is similar to our review in April 2012, except we have adjusted the calculation of the asset risk to align with APRA's current standards

For further details, see our *Review of the Contingency Margin for the 2015/16 Recommended Premium Rates* report dated 26 March 2015.

The overall total management expense and contingency loadings in the recommended premium rates is 23.7% excluding brokerage. This equates to 26.6% including brokerage.

D 5 WA Legislative changes

There have been no legislative changes since our previous recommended premium rates report, dated 26 March 2015. We have made an explicit allowance for the 2011 Amendment Act within the outstanding claims valuation. We have reduced the number of development years for which the explicit allowance is applied. In this year's valuation no explicit allowance is required for development years zero to two as the adopted factors are based on post-Act change experience.

Including an allowance in the outstanding claims will flow into the premium rate change, and hence no explicit extra allowance is needed. The details of the Act change are given below.

On 17 August 2011, the Executive Council of the Western Australian State Parliament agreed to proclaim the Workers' Compensation and Injury Management Amendment Bill 2011 (the 2011 Amendment Act) in two stages.

Stage one commenced on 1 October 2011 with the following changes:

- remove age-based limits on workers compensation entitlements where previously for claimants under 64 their weekly benefits ceased at 65, while for claimants over the age of 64 they were only entitled to a year of weekly benefits

- extend the workers compensation safety net to enable workers of uninsured employers to receive common law entitlements; under certain circumstances. The amendments also make it mandatory for all employers to have insurance covering both statutory and common law liabilities
- extension of common law entitlements to employed contractors which will transfer claims from public liability to workers compensation.

Stage two commenced on 1 December 2011 to restructure the dispute resolution system. We have not done a cost impact on the premium rates for this stage as this change is not expected to result in a financial impact on the scheme.

The initial estimate of the impact of the removal of age-based limits is detailed in the *Removal of age limits costing* report dated 12 September 2011. Following discussions with insurers for this report, we are not aware of any significant impacts of this legislation being witnessed to date. However, there may have been an implicit allowance for these changes in settlements that have been made since it was introduced.

The initial estimate of the impact of the extension of common law entitlements to employed contractors is detailed in the *Extended Worker Costing* letter dated 4 April 2012.

The original legislation passed on 1 October 2011 allows for a broader definition of contractors than we costed in the extension of common law entitlements to employed contractors costing. The amendment to reduce the scope of the common law insurance requirement for a deemed worker as per our costing was passed by parliament at the end of June 2012 and the laws came into effect from 1 August 2012. The changes are retrospective and were backdated to 1 October 2011.

We have allowed for the following adjustments in the outstanding claims liability valuation on nine months of the 2012 accident year and twelve months of the 2013 to 2015 accident years, for development years three plus:

- 1.38% for the removal of age limits
- 1.40% for increase due to the extension of common law entitlement to employed contractors.

The allowance for the 2011 Amendment Act has increased the 30 June 2015 central estimate by 1.4%. This is lower than the 2.1% increase last year due to the reduced explicit allowance this year.

This year we have not made an explicit allowance in the expense margin for the increase in the General Account levy as it is fully incorporated into the historical experience.

D 6 GST

No explicit allowance has been made for GST net of ITC and/or DAM as our adopted bases rely on data which includes GST net of ITC and/or DAM. The 10% GST on the workers compensation premium itself (which employers will generally be able to recover via an input tax credit) is not included in our analysis or the recommended premium rates.

Appendix E Outstanding claim valuation

What this appendix covers

- Details the data used for the outstanding claims valuation
 - Provides a reconciliation of the actual data for 2014/15 compared with expected from the 2013/14 valuation
 - Provides the adopted projections for each payment type and overall results.
-

E 1 Claims experience and analysis

E1.1 Numbers of claims reported

Development Year	0	1	2	3	4	5	6	7	8	9	10	Total
Year ending 30-Jun												
2005	35,527	3,415	96	38	40	16	12	13	17	7	162	39,343
2006	33,959	3,445	100	35	31	22	13	15	11	20	110	37,761
2007	34,020	3,173	76	48	23	23	24	13	20	12	162	37,594
2008	34,370	3,326	107	27	17	21	22	14	18	11	181	38,114
2009	32,455	3,385	110	35	15	14	11	15	22	20	180	36,262
2010	29,771	3,048	108	42	33	18	14	13	8	20	211	33,286
2011	31,134	3,080	123	51	35	21	24	13	14	13	202	34,710
2012	32,342	3,070	101	49	27	27	25	20	19	15	253	35,948
2013	31,221	3,136	139	54	39	34	27	25	29	14	298	35,016
2014	29,464	2,910	138	54	36	37	21	29	50	29	412	33,180
2015	27,296	2,752	139	63	42	32	26	19	24	25	393	30,811

Note: From summary of Form WC20 up to 30 June 2015.

E1.2 Cumulative claims reported

Development Year	0	1	2	3	4	5	6	7	8	9	10	Total
Year ending 30-Jun												
2005	35,527	38,087	37,728	37,851	42,678	49,255	54,295	58,435	59,812	60,078	61,625	535,371
2006	33,959	38,972	38,187	37,763	37,882	42,700	49,268	54,310	58,446	59,832	60,188	511,507
2007	34,020	37,132	39,048	38,235	37,786	37,905	42,724	49,281	54,330	58,458	59,994	488,913
2008	34,370	37,346	37,239	39,075	38,252	37,807	37,927	42,738	49,299	54,341	58,639	467,033
2009	32,455	37,755	37,456	37,274	39,090	38,266	37,818	37,942	42,760	49,319	54,521	444,656
2010	29,771	35,503	37,863	37,498	37,307	39,108	38,280	37,831	37,950	42,780	49,530	423,421
2011	31,134	32,851	35,626	37,914	37,533	37,328	39,132	38,293	37,845	37,963	42,982	408,601
2012	32,342	34,204	32,952	35,675	37,941	37,560	37,353	39,152	38,312	37,860	38,216	401,567
2013	31,221	35,478	34,343	33,006	35,714	37,975	37,587	37,378	39,181	38,326	38,158	398,367
2014	29,464	34,131	35,616	34,397	33,042	35,751	37,996	37,616	37,428	39,210	38,738	393,389
2015	27,296	32,216	34,270	35,679	34,439	33,074	35,777	38,015	37,640	37,453	39,603	385,462

Note: Cumulative claim reports from table above.

E1.3 Active claims

Development Year	0	1	2	3	4	5	6	7	8	9	10	Total
Year ending 30-Jun												
2005	12,831	3,711	1,662	931	595	438	306	261	161	95	656	21,647
2006	12,121	3,556	1,649	897	589	391	266	198	174	101	559	20,501
2007	12,357	3,488	1,645	914	530	358	243	184	128	117	564	20,528
2008	13,054	3,903	1,655	882	503	330	229	153	123	90	506	21,428
2009	12,006	4,237	1,803	887	533	349	207	146	116	88	504	20,876
2010	11,427	3,936	1,819	849	491	348	223	143	93	86	454	19,869
2011	12,852	4,178	1,766	905	472	307	224	149	106	68	481	21,508
2012	13,930	4,566	1,845	911	508	296	201	148	114	84	478	23,081
2013	13,514	4,754	1,955	892	472	301	192	134	97	74	450	22,835
2014	12,880	4,724	2,013	888	484	256	183	139	94	78	489	22,228
2015	11,978	4,694	1,932	929	416	275	156	114	82	57	447	21,080

Note: From summary of Form WC20 up to 30 June 2015.

E1.4 Claim payments

Development		0	1	2	3	4	5	6	7	8	9	10	Total
Year													
Year ending													
30-Jun													
2005	95,801,953	123,855,698	65,959,175	30,886,087	24,353,158	14,245,386	7,717,582	9,406,641	2,508,982	1,185,048	11,939,198	387,858,908	
2006	102,042,198	134,607,808	73,951,974	36,117,136	18,610,691	14,031,158	10,148,085	5,220,449	5,726,129	2,323,565	9,524,831	412,304,026	
2007	111,017,091	139,369,021	77,220,262	42,361,610	23,511,783	13,919,508	11,997,245	5,864,659	2,938,387	2,953,865	11,147,609	442,301,041	
2008	126,054,702	160,220,642	74,923,840	47,740,176	27,043,001	12,361,925	8,231,599	5,419,449	4,260,664	2,147,152	14,063,074	482,466,222	
2009	143,555,790	185,711,132	101,877,772	45,210,686	27,776,634	14,350,428	6,434,624	3,939,895	3,100,072	3,059,309	13,413,033	548,429,377	
2010	138,597,873	208,012,346	126,367,038	48,940,057	24,273,483	13,819,724	10,141,965	3,612,400	2,940,537	2,469,304	17,983,065	597,157,790	
2011	164,819,511	202,747,974	116,359,585	57,193,614	19,696,112	9,936,619	9,405,620	5,461,111	3,392,682	2,014,867	11,079,898	602,107,596	
2012	184,309,822	249,133,602	120,714,321	58,877,453	23,672,921	7,603,686	5,951,178	5,260,115	5,643,152	1,568,302	11,838,460	674,573,012	
2013	201,047,130	285,131,272	139,176,680	55,908,765	24,740,417	8,915,627	5,353,272	5,055,186	3,173,743	2,812,156	10,588,374	741,902,621	
2014	214,027,018	313,277,619	163,844,214	70,558,371	28,500,881	9,003,699	5,528,497	9,193,689	2,312,347	1,929,764	12,489,409	830,665,507	
2015	213,336,078	329,406,252	177,318,051	79,217,050	31,521,291	11,042,884	4,632,652	4,287,447	1,969,552	2,145,350	13,434,523	868,311,130	

Note: From summary of Form WC101 up to 30 June 2015.

E1.5 Case estimates outstanding

Development		0	1	2	3	4	5	6	7	8	9	10	Total
Year													
Year ending													
30-Jun													
2005	211,762,685	150,115,387	80,134,847	43,285,010	39,728,576	23,931,389	16,372,485	14,877,051	8,215,231	3,878,647	25,799,189	618,100,497	
2006	193,735,863	138,499,546	86,876,868	52,458,537	31,617,607	26,001,260	14,625,521	9,578,485	8,498,901	6,222,698	22,107,166	590,222,452	
2007	225,367,855	133,353,304	85,250,103	60,228,971	28,481,280	18,586,197	13,402,549	9,678,242	7,181,759	5,271,234	28,058,801	614,860,293	
2008	238,962,370	147,401,185	81,241,928	51,268,129	32,831,356	15,140,920	11,744,053	9,447,975	5,672,347	4,639,560	23,783,763	622,133,586	
2009	268,406,108	193,660,258	96,313,764	50,852,625	31,248,445	22,442,305	10,615,772	8,146,280	6,836,445	3,390,059	27,597,816	719,509,878	
2010	264,590,462	189,786,713	102,801,853	50,484,783	29,480,656	21,666,074	18,999,554	7,055,667	6,599,682	4,557,769	21,267,877	717,291,091	
2011	328,892,632	202,748,043	108,569,634	51,721,457	26,200,848	18,149,900	13,744,043	12,764,373	3,683,912	4,403,011	24,159,515	795,037,368	
2012	335,338,002	225,239,088	112,782,605	56,012,429	24,090,967	17,503,510	13,864,120	10,156,068	8,091,378	3,156,525	24,999,941	831,234,632	
2013	379,712,259	270,088,121	140,722,336	59,498,665	23,740,354	13,992,136	12,038,829	7,678,817	5,680,261	4,430,304	24,220,987	941,803,070	
2014	399,200,332	276,707,555	146,973,954	74,121,099	32,687,912	11,541,151	7,758,280	5,378,923	4,718,487	4,524,588	25,167,406	988,779,688	
2015	374,313,463	292,302,623	142,525,830	73,069,636	35,327,743	14,401,635	7,484,776	4,071,626	3,377,046	2,357,617	25,100,727	974,332,722	

Note: From summary of Form WC20 up to 30 June 2015.

E1.6 Insurer's development and IBNR estimates

Development		0	1	2	3	4	5	6	7	8	9	10	Total
Year													
Year ending													
30-Jun													
2005	227,846,022	126,050,853	87,644,340	60,249,985	33,823,353	20,983,155	16,138,483	9,960,936	8,666,780	3,520,097	148,122,821	743,006,825	
2006	273,594,424	136,857,390	76,884,606	48,965,254	27,321,320	18,656,141	14,658,836	7,983,998	7,124,953	5,154,126	118,796,248	735,997,296	
2007	276,314,039	152,536,336	74,268,387	48,097,393	27,760,779	17,567,118	10,230,578	9,079,036	4,605,382	4,890,621	115,507,085	740,856,754	
2008	297,900,429	178,159,788	104,077,559	59,082,397	37,561,532	22,921,274	12,778,744	7,641,511	5,170,282	3,359,979	94,940,651	823,594,145	
2009	263,556,549	157,669,587	106,591,473	63,564,952	35,883,302	22,554,241	9,474,503	7,751,136	4,855,063	2,589,633	85,026,123	759,516,561	
2010	251,178,093	137,974,100	98,568,002	68,707,998	42,573,131	22,781,390	13,222,213	8,268,176	5,871,069	3,323,690	100,172,713	752,640,576	
2011	237,142,338	123,119,423	79,138,585	62,460,613	41,797,822	28,230,600	18,490,358	14,343,842	9,999,067	6,391,349	206,530,907	827,644,904	
2012	276,297,911	129,484,933	80,424,819	64,726,694	49,270,465	21,879,119	16,182,431	11,869,848	7,673,171	5,533,561	174,538,162	837,881,112	
2013	306,317,713	99,797,755	60,047,109	47,739,966	38,902,839	21,420,486	12,637,217	9,499,508	7,317,466	5,083,033	164,339,903	773,102,995	
2014	332,122,549	115,805,924	53,820,400	36,707,863	29,618,910	24,095,523	12,497,010	7,568,618	5,624,748	4,432,681	146,590,600	768,884,826	
2015	385,427,025	118,974,066	47,651,749	38,972,974	31,011,986	22,296,676	15,933,345	7,791,524	5,536,768	4,008,116	129,403,302	807,007,529	

Note: From summary of Form WC20 up to 30 June 2015.

E 2 Actual and projected claims experience during 2014/15

E2.1 Numbers of claims reported

Accident year ended 30 June	Number of claims reported during 2014/15		Ratio of actual to projected number reported %
	Actual	Projected (a)	
2014	2,752	2,881	96%
2013	139	126	110%
2012	63	54	116%
2011	42	33	128%
2010	32	29	110%
2009	26	23	112%
2008	19	25	77%
2007	24	32	75%
2006	25	19	133%
2005 and earlier	393	331	119%
Total	3,515	3,552	99%

Note: (a) From our 26 March 2015 actuarial report.

E2.2 Proportions of claims finalised

Accident year ended 30 June	Proportion of claims finalised (a) during 2014/15		
	Actual	Projected (b)	Actual / expected (c)
2014	70%	72%	98%
2013	60%	58%	104%
2012	55%	53%	104%
2011	55%	48%	115%
2010	47%	45%	104%
2009	45%	41%	109%
2008	44%	39%	111%
2007	50%	42%	117%
2006	52%	37%	141%
2005 and earlier	53%	37%	144%
Total	64.6%	64.4%	100%

Notes: (a) Defined as:

Number of claims finalised during year

Number outstanding at beginning of year + number reported during year

(b) according to PPCF model in Appendix E3.1 of our 26 March 2015 report

(c) = (a) / (b) %

E2.3 Claim payments

Accident year ended 30 June	Amount of claim payments during 2014/15		Actual / expected (c)
	Combined total Actual	Projected (a)	
2014	329,406,252	318,360,130	103%
2013	177,318,051	171,429,748	103%
2012	79,217,050	81,234,576	98%
2011	31,521,291	35,861,485	88%
2010	11,042,884	12,126,563	91%
2009	4,632,652	6,189,941	75%
2008	4,287,447	5,171,661	83%
2007	1,969,552	3,727,048	53%
2006	2,145,350	2,268,996	95%
2005 and earlier	13,434,523	17,967,310	75%
Total	654,975,052	654,337,458	100%

Notes: (a) From data supplied by RPR returning entities.

(b) Sum of payments expected in the 2014/15 year.

(c) = (a) / (b) x 100.

E 3 Analysis and projection models

E3.1 All payment types

Claim notification pattern

Accident year ending 30 June	Chain ladder ratio (a) for development year:									
	1	2	3	4	5	6	7	8	9	10
2005	1.098	1.003	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.003
2006	1.097	1.003	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.002
2007	1.093	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.003
2008	1.098	1.003	1.001	1.000	1.001	1.001	1.000	1.000	1.000	1.003
2009	1.098	1.003	1.001	1.000	1.000	1.000	1.000	1.001	1.000	1.003
2010	1.094	1.003	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.004
2011	1.103	1.003	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.005
2012	1.099	1.003	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.007
2013	1.097	1.004	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.008
2014	1.093	1.004	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.011
2015	1.093	1.004	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.010
Adopted (b)	1.097	1.004	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.010

Notes: (a) Using cumulative claim report numbers from data

(b) Calculated using a five year weighted average in development year (DY) 1 and three year weighted average for all other DYs.

Numbers of claims incurred

Accident year ending 30 June	Number of claims		Incurred (c)
	Reported to 30-Jun-15 (a)	IBNR at 30-Jun-15 (b)	
2005	39,603	0	39,603
2006	37,453	358	37,811
2007	37,640	382	38,022
2008	38,015	421	38,436
2009	35,777	419	36,196
2010	33,074	410	33,484
2011	34,439	460	34,899
2012	35,679	518	36,197
2013	34,270	555	34,825
2014	32,216	653	32,869
2015	27,296	3,258	30,554

- Notes:**
- (a) from number reported in Appendix E1.1
 - (b) from pattern in chain ladder ratio table above
 - (c) sum of the two previous columns.

Claim finalised per handled rate

Accident year ending 30 June	Finalisation rate (a) for development year:										
	0	1	2	3	4	5	6	7	8	9	10
2005	0.639	0.776	0.546	0.451	0.415	0.334	0.349	0.362	0.318	0.362	0.259
2006	0.643	0.782	0.567	0.471	0.388	0.366	0.410	0.383	0.360	0.442	0.351
2007	0.637	0.772	0.547	0.461	0.424	0.415	0.414	0.341	0.413	0.371	0.314
2008	0.620	0.751	0.540	0.472	0.460	0.401	0.397	0.405	0.391	0.353	0.413
2009	0.630	0.742	0.551	0.475	0.406	0.325	0.393	0.402	0.337	0.385	0.351
2010	0.616	0.739	0.581	0.540	0.466	0.368	0.386	0.350	0.396	0.368	0.435
2011	0.587	0.712	0.565	0.516	0.466	0.400	0.398	0.369	0.325	0.358	0.352
2012	0.569	0.713	0.569	0.498	0.455	0.407	0.395	0.393	0.321	0.306	0.404
2013	0.567	0.721	0.584	0.530	0.503	0.445	0.406	0.407	0.452	0.422	0.477
2014	0.563	0.712	0.589	0.558	0.478	0.497	0.432	0.371	0.489	0.381	0.478
2015	0.561	0.700	0.603	0.553	0.553	0.467	0.447	0.436	0.497	0.521	0.534
Adopted (b)	0.564	0.711	0.592	0.547	0.511	0.469	0.427	0.404	0.479	0.440	0.497

- Notes:**
- (a) Defined as: Number of claims finalised / number of claims handled
 - (b) Calculated using a three year weighted average for all development years.

E3.2 Weekly benefits, miscellaneous and fatals

Claim payments

Claim Payments - Weekly Benefits, Miscellaneous And Fatals													
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total	
2005	48,083,875	56,081,615	21,894,232	8,182,679	3,112,044	1,778,775	423,320	231,215	285,579	139,621	823,215	141,036,169	
2006	51,581,143	62,606,029	24,361,927	9,050,424	3,700,626	1,572,534	246,195	(144,643)	80,200	162,704	521,054	153,738,193	
2007	58,075,637	69,419,751	25,865,077	10,457,592	3,534,557	2,221,903	912,575	616,375	211,710	125,080	741,945	172,182,202	
2008	65,381,415	84,520,970	26,487,542	10,787,019	4,235,800	1,127,636	697,031	343,264	177,445	218,917	823,140	194,800,180	
2009	76,219,993	98,829,492	36,660,562	9,974,165	3,880,265	1,855,452	836,776	394,122	179,899	213,409	1,249,215	230,293,349	
2010	70,801,011	104,619,433	42,041,466	11,096,900	3,410,390	2,151,463	1,180,996	641,045	314,489	514,258	853,014	237,624,463	
2011	89,037,177	105,421,543	42,119,405	13,724,154	3,258,676	1,236,874	1,568,278	13,201	550,101	241,504	968,373	258,139,287	
2012	97,282,039	127,009,233	44,501,291	13,644,278	3,571,714	873,682	1,036,234	677,633	457,282	407,279	1,328,093	290,788,758	
2013	110,860,310	151,224,175	52,212,410	13,480,646	3,534,418	526,412	40,232	670,159	350,086	206,290	1,091,659	334,196,797	
2014	118,969,303	164,914,540	61,609,254	17,798,224	4,639,095	884,889	874,412	(1,122,649)	438,760	726,721	802,881	370,535,430	
2015	117,988,354	175,317,258	65,453,442	18,752,490	2,912,343	1,418,815	814,861	792,925	(200,954)	28,572	918,869	384,196,974	

Note: From summary of Form WC101 up to 30 June 2015.

Average real payment per active claim

Weekly Benefits, Miscellaneous And Fatals PPAC (a) for development year:											
Accident year ending 30 June	1	2	3	4	5	6	7	8	9	10	
2005	7,492	10,783	8,663	5,591	4,863	1,622	1,025	2,289	1,726	1,999	
2006	8,119	10,924	9,062	6,614	4,398	935	(787)	511	1,682	1,155	
2007	8,925	11,335	9,883	6,141	5,879	3,637	3,611	1,666	1,120	1,752	
2008	9,919	11,013	9,510	6,721	3,086	2,824	2,049	1,399	2,480	1,753	
2009	10,213	12,671	8,130	5,935	4,976	3,421	2,322	1,586	2,340	2,827	
2010	11,013	12,540	7,778	4,859	5,101	4,277	3,914	2,722	5,603	1,821	
2011	10,950	12,702	8,955	4,556	2,990	5,349	70	4,566	3,082	2,129	
2012	11,061	11,921	8,647	4,417	2,072	3,778	3,386	3,435	4,300	2,708	
2013	11,496	12,109	7,737	4,108	1,097	144	3,531	2,505	1,916	2,057	
2014	12,686	13,472	9,464	5,407	1,949	3,020	(6,079)	3,404	7,788	1,593	
2015	13,772	14,019	9,425	3,318	2,966	3,221	4,384	(1,463)	308	1,640	
Adopted (b)	14,000	13,745	9,445	4,097	2,208	3,181	3,734	3,470	3,463	2,026	

Notes: (a) In 30 June 2015 values

(b) Calculated with reference to the experience in the six months to December 2015 for DY1, using a two year weighted average for DYs 2 and 3, and a five year weighted average in DYs 4 to 10, excluding outliers where appropriate.

Average real payment per claim incurred

Weekly Benefits, Miscellaneous And Fatals PPAC (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2005	2,131	2,541	1,007	376	127	63	14	7	8	4	23	6,302
2006	2,270	2,631	1,047	395	161	61	8	-4	2	5	14	6,589
2007	2,380	2,861	1,018	421	144	91	33	19	6	3	19	6,996
2008	2,467	3,224	1,016	395	159	43	26	12	5	6	20	7,372
2009	2,841	3,469	1,301	356	132	65	30	14	6	6	31	8,248
2010	2,672	3,653	1,382	369	114	69	39	21	10	15	22	8,366
2011	3,028	3,737	1,381	424	102	39	47	0	17	8	27	8,810
2012	3,008	4,073	1,487	422	104	26	31	19	13	12	39	9,234
2013	3,371	4,424	1,584	426	103	15	1	19	9	6	30	9,989
2014	3,763	4,923	1,769	530	144	25	24	-31	12	19	22	11,200
2015	3,907	5,397	1,902	524	84	43	23	21	-5	1	23	11,919
Adopted (b)	4,058	5,700	2,000	527	99	29	25	20	13	9	28	12,508

Notes: (a) In 30 June 2015 values

(b) Calculated using a two year weighted average for DY0 and DY3, experience in the six months to December 2015 for DYs 1 and 2, and a five year average in DY4 to 10, adjusted for outliers where necessary. Superimposed inflation has been included for DY0. A decay factor of 70% has been assumed after DY9. The aggregate for DY10 onwards is shown.

Estimates from models

Weekly Benefits, Miscellaneous And Fatals					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2015 (\$M) (a)			Weightings	
	PPAC	PPCI	Adopted	PPAC	PPCI
2015	259.290	273.507	272.085	10%	90%
2014	94.549	95.778	95.163	50%	50%
2013	27.354	28.141	27.551	75%	25%
2012	8.711	9.079	8.711	100%	0%
2011	4.214	4.921	4.214	100%	0%
2010	3.397	3.510	3.397	100%	0%
2009	2.384	2.696	2.384	100%	0%
2008	1.834	1.971	1.834	100%	0%
2007	1.396	1.364	1.396	100%	0%
2006 & earlier	3.843	1.641	3.843	100%	0%
Total	406.971	422.609	420.578		

Notes: (a) From models described above, in 30 June 2015 values and includes superimposed inflation, excluding 2011 Amendment Act.

E3.3 Medical and hospital expenses

Claim payments

Claim Payments - Medical And Hospital Expenses												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2005	29,989,367	20,110,061	5,806,352	2,054,519	1,165,906	567,585	172,076	341,230	38,537	60,281	415,185	60,721,099
2006	32,512,517	21,618,991	6,552,786	2,970,146	1,187,453	197,708	298,304	76,788	159,956	50,919	277,574	65,903,143
2007	35,827,575	22,596,982	6,244,908	2,538,973	1,361,835	568,324	455,973	120,224	84,082	78,873	324,669	70,202,419
2008	41,508,384	26,682,903	6,472,628	2,846,728	1,209,214	494,041	364,321	166,050	24,809	80,961	455,366	80,305,406
2009	43,926,951	29,375,438	7,937,711	2,342,451	901,927	420,451	242,720	245,179	89,584	49,589	247,769	85,779,770
2010	42,705,785	30,185,812	8,538,122	2,143,134	797,654	665,389	294,700	65,379	127,088	160,591	435,051	86,118,706
2011	47,825,275	29,616,633	7,686,710	2,363,410	690,790	293,791	279,876	(239,728)	87,428	(21,572)	373,413	88,956,027
2012	54,578,923	37,121,594	8,007,027	2,317,923	480,482	194,897	311,374	149,312	130,912	57,385	470,411	103,820,239
2013	54,714,699	40,339,896	9,132,292	2,022,672	503,880	157,831	89,321	130,555	71,060	37,441	424,044	107,623,693
2014	57,829,926	42,999,953	11,164,188	2,562,427	1,229,825	234,801	211,656	(138,409)	118,177	45,308	369,315	116,627,167
2015	58,756,479	45,387,838	11,623,122	2,556,778	288,598	187,211	188,753	296,657	(22,466)	(17,170)	411,843	119,657,643

Note: From summary of Form WC101 up to 30 June 2015.

Average real payment per active claim

Medical And Hospital Expenses PPAC (a) for development year:										
Accident year ending 30 June	1	2	3	4	5	6	7	8	9	10
2005	2,687	2,860	2,175	2,095	1,552	659	1,512	309	745	1,008
2006	2,804	2,938	2,974	2,122	553	1,133	418	1,020	526	615
2007	2,905	2,737	2,399	2,366	1,504	1,817	704	662	706	767
2008	3,132	2,691	2,510	1,919	1,352	1,476	991	196	917	970
2009	3,036	2,743	1,909	1,379	1,128	992	1,444	790	544	561
2010	3,177	2,547	1,502	1,136	1,578	1,067	399	1,100	1,750	929
2011	3,076	2,318	1,542	966	710	955	(1,276)	726	(275)	821
2012	3,233	2,145	1,469	594	462	1,135	746	983	606	959
2013	3,067	2,118	1,161	586	329	320	688	508	348	799
2014	3,308	2,441	1,363	1,433	517	731	(749)	917	486	733
2015	3,565	2,489	1,285	329	391	746	1,640	(164)	(185)	735
Adopted (b)	3,600	2,465	1,323	779	481	787	996	781	300	756

Notes: (a) In 30 June 2015 values

(b) Calculated with reference to the experience in the six months to December 2015 in DY1, using a two year weighted average for in DYs 2 and 3, and a five year average for DYs 3 to 9 a three year average for DY10, adjusting for outliers where necessary.

Average real payment per claim incurred

Medical And Hospital Expenses PPCI (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2005	1,329	911	267	94	48	20	6	10	1	2	12	2,700
2006	1,431	908	281	130	52	8	10	2	5	1	8	2,836
2007	1,468	931	246	102	56	23	17	4	2	2	8	2,860
2008	1,566	1,018	248	104	45	19	14	6	1	2	11	3,034
2009	1,637	1,031	282	84	31	15	9	9	3	1	6	3,106
2010	1,612	1,054	281	71	27	21	10	2	4	5	11	3,097
2011	1,627	1,050	252	73	22	9	8	(7)	3	(1)	10	3,046
2012	1,688	1,190	268	72	14	6	9	4	4	2	14	3,270
2013	1,664	1,180	277	64	15	4	2	4	2	1	12	3,225
2014	1,829	1,284	321	76	38	7	6	(4)	3	1	10	3,571
2015	1,946	1,397	338	71	8	6	5	8	(1)	(0)	11	3,789
Adopted (b)	1,951	1,450	329	74	19	6	6	6	3	1	11	3,855

Notes: (a) In 30 June 2015 values

(b) Calculated using a two year weighted average for DYs 0, 2 and 3, the experience in the six months to December 2015 in DY1, a five year weighted average for DYs 4 to 6, and a three year average in DYs 7 to 10, adjusting for outliers where necessary. Superimposed inflation has been included for DY0. A decay factor of 85% has been assumed after DY9. The aggregate for DY10 onwards is shown.

Estimates from models

Medical And Hospital Expenses					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2015 (\$M) (a)			Weightings	
	PPAC	PPCI	Adopted	PPAC	PPCI
2015	58.555	59.748	59.629	10%	90%
2014	16.298	15.253	15.775	50%	50%
2013	4.464	4.351	4.436	75%	25%
2012	1.904	1.742	1.864	75%	25%
2011	1.046	0.967	1.046	100%	0%
2010	0.880	0.687	0.880	100%	0%
2009	0.648	0.496	0.648	100%	0%
2008	0.511	0.291	0.511	100%	0%
2007	0.415	0.183	0.415	100%	0%
2006 & earlier	1.385	0.289	1.385	100%	0%
Total	86.107	84.008	86.589		

Note: (a) From models described above, in 30 June 2015 values and includes superimposed inflation, excluding 2011 Amendment Act.

E3.4 All other treatment

Claim payments

Claim Payments - All Other Treatment												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2005	9,267,404	8,929,369	2,716,574	1,221,275	638,131	350,653	177,667	144,525	50,346	55,338	359,497	23,910,779
2006	9,251,525	8,737,637	2,663,140	1,171,430	555,943	323,798	190,244	59,984	92,235	57,470	308,479	23,411,884
2007	9,481,198	8,040,641	2,411,374	983,226	455,057	332,439	180,699	101,304	104,812	80,830	295,404	22,466,984
2008	10,981,956	9,740,554	2,620,402	1,058,176	556,084	244,541	184,194	82,396	118,808	97,493	369,674	26,054,278
2009	11,933,373	11,439,735	3,137,743	1,260,616	540,691	272,647	192,925	155,267	63,723	46,082	301,671	29,344,473
2010	12,705,697	12,119,627	3,776,605	1,151,690	577,939	348,345	247,943	101,090	85,753	160,316	344,650	31,619,655
2011	15,085,328	12,808,733	3,936,692	1,266,407	497,728	297,659	249,136	119,124	80,631	58,073	422,247	34,821,759
2012	16,513,088	14,744,067	4,305,806	1,402,201	495,330	161,330	147,177	128,780	98,276	48,568	416,399	38,461,022
2013	17,844,317	16,677,741	4,308,466	1,458,096	527,888	201,465	157,053	137,089	82,841	66,716	353,592	41,815,265
2014	16,063,730	17,049,620	4,989,633	1,362,083	662,268	252,549	205,788	43,340	74,352	58,509	350,074	41,111,947
2015	16,121,727	17,452,916	5,273,625	1,551,440	523,850	297,878	65,564	91,760	96,388	(6,602)	293,666	41,762,213

Note: From summary of Form WC101 up to 30 June 2015.

Average real payment per active claim

All Other Treatment PPAC (a) for development year:										
Accident year ending 30 June	1	2	3	4	5	6	7	8	9	10
2005	1,193	1,338	1,293	1,146	959	681	641	404	684	873
2006	1,133	1,194	1,173	994	906	723	326	588	594	684
2007	1,034	1,057	929	791	880	720	593	825	724	697
2008	1,143	1,090	933	882	669	746	492	936	1,105	787
2009	1,182	1,084	1,028	827	731	789	915	562	505	683
2010	1,276	1,126	807	823	826	898	617	742	1,747	736
2011	1,330	1,187	826	696	720	850	634	669	741	928
2012	1,284	1,153	889	613	383	537	643	738	513	849
2013	1,268	999	837	614	420	562	722	593	620	666
2014	1,312	1,091	724	772	556	711	235	577	627	695
2015	1,371	1,129	780	597	623	259	507	702	(71)	524
Adopted (b)	1,341	1,110	752	661	531	524	556	657	621	626

Notes: (a) In 30 June 2015 values

(b) Calculated using a two year weighted average in DYs 1 to 3, a three year average for DYs 4 to 6 and DY10, and a five year average for DYs 7 to 9, adjusting for outliers where necessary.

Average real payment per claim incurred

All Other Treatment PPCI (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2005	411	405	125	56	26	12	6	4	1	2	10	1,058
2006	407	367	114	51	24	13	6	2	3	2	9	997
2007	389	331	95	40	19	14	7	3	3	2	8	909
2008	414	372	101	39	21	9	7	3	3	3	9	980
2009	445	401	111	45	18	9	7	5	2	1	7	1,053
2010	480	423	124	38	19	11	8	3	3	5	9	1,123
2011	513	454	129	39	16	9	7	4	3	2	12	1,187
2012	511	473	144	43	14	5	4	4	3	1	12	1,214
2013	543	488	131	46	15	6	4	4	2	2	10	1,250
2014	508	509	143	41	21	7	6	1	2	2	9	1,248
2015	534	537	153	43	15	9	2	2	3	(0)	8	1,306
Adopted (b)	533	536	152	43	18	7	4	3	2	1	9	1,308

Notes: (a) In 30 June 2015 values

(b) Calculated using a two year weighted average for DYs 0 to 3, a 3 year weighted average for DYs 4 to 6 and DY10, and a five year average for DYs 7 to 9, adjusted for superimposed inflation for DY0 to 4. A decay factor of 85% has been assumed after DY9. The aggregate for DY10 onwards is shown.

Estimates from models

All Other Treatment					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2015 (\$M) (a)			Weightings	
	PPAC	PPCI	Adopted	PPAC	PPCI
2015	23.514	24.310	24.230	10%	90%
2014	8.204	8.127	8.165	50%	50%
2013	2.941	3.178	3.001	75%	25%
2012	1.527	1.685	1.527	100%	0%
2011	0.826	0.977	0.826	100%	0%
2010	0.638	0.677	0.638	100%	0%
2009	0.493	0.572	0.493	100%	0%
2008	0.430	0.481	0.430	100%	0%
2007	0.357	0.373	0.357	100%	0%
2006 & earlier	1.111	0.592	1.111	100%	0%
Total	40.042	40.972	40.779		

Note: (a) From models described above, in 30 June 2015 values and includes superimposed inflation, excluding 2011 Amendment Act.

E3.5 Vocational rehabilitation

Claim payments

Claim Payments - Vocational Rehabilitation												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2005	4,062,097	8,140,400	2,372,540	533,515	143,679	19,026	(6,955)	12,374	10,925	16,157	11,485	15,315,244
2006	4,196,422	8,070,486	2,541,176	689,625	161,065	60,887	23,084	22,735	18,947	18,651	20,208	15,823,287
2007	3,914,802	8,013,450	2,638,295	637,696	250,952	52,661	44,920	1,572	8,716	(8,688)	34,834	15,589,208
2008	3,744,023	8,136,219	2,334,276	689,734	206,744	74,110	27,729	35,300	(4,108)	786	33,856	15,278,669
2009	4,494,678	9,158,883	3,217,830	639,236	194,184	34,619	34,647	10,694	19,957	(2,239)	9,867	17,812,355
2010	4,349,712	10,257,520	3,777,580	673,000	189,710	74,520	46,016	27,251	34,302	16,641	24,159	19,470,410
2011	5,074,812	9,535,387	3,449,331	818,620	129,988	133,075	51,542	(14)	15,232	31,936	41,495	19,281,403
2012	6,294,773	11,947,410	3,780,282	803,618	185,788	41,737	93,330	16,169	24,561	9,693	25,727	23,223,088
2013	6,803,163	13,817,396	4,166,606	740,178	156,489	44,475	27,553	13,165	18,916	19,345	10,231	25,817,516
2014	7,288,099	15,313,679	4,831,858	1,001,668	262,233	(16,967)	55,106	13,961	14,828	12,915	26,861	28,804,241
2015	7,729,652	15,567,826	4,730,743	901,413	121,172	62,462	29,032	38,743	6,466	(99)	34,227	29,221,636

Note: From summary of Form WC101 up to 30 June 2015.

Average real payment per active claim

Vocational Rehabilitation PPAC (a) for development year:										
Accident year ending 30 June	1	2	3	4	5	6	7	8	9	10
2005	1,087	1,168	565	258	52	(27)	55	88	200	28
2006	1,047	1,139	690	288	170	88	124	121	193	45
2007	1,030	1,156	603	436	139	179	9	69	(78)	82
2008	955	971	608	328	203	112	211	(32)	9	72
2009	946	1,112	521	297	93	142	63	176	(25)	22
2010	1,080	1,127	472	270	177	167	166	297	181	52
2011	990	1,040	534	182	322	176	(0)	126	408	91
2012	1,040	1,013	509	230	99	340	81	184	102	52
2013	1,050	966	425	182	93	99	69	135	180	19
2014	1,178	1,057	533	306	(37)	190	76	115	138	53
2015	1,223	1,013	453	138	131	115	214	47	(1)	61
Adopted (b)	1,223	1,039	471	208	107	136	117	123	164	55

Notes: (a) In 30 June 2015 values

(b) Calculated using the 2015 experience in DY1, a two year weighted average for DY2, a three year average for DYs 3, 4, 6 and 7, a four year average for DY5, and a five year average for DYs 8 to 10, adjusted for outliers where necessary.

Average real payment per claim incurred

Vocational Rehabilitation PPCI (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2005	180	369	109	25	6	1	(0)	0	0	0	0	690
2006	185	339	109	30	7	2	1	1	1	1	1	675
2007	160	330	104	26	10	2	2	0	0	(0)	1	635
2008	141	310	90	25	8	3	1	1	(0)	0	1	580
2009	168	321	114	23	7	1	1	0	1	(0)	0	636
2010	164	358	124	22	6	2	2	1	1	0	1	682
2011	173	338	113	25	4	4	2	(0)	0	1	1	661
2012	195	383	126	25	5	1	3	0	1	0	1	741
2013	207	404	126	23	5	1	1	0	1	1	0	769
2014	231	457	139	30	8	(0)	1	0	0	0	1	867
2015	256	479	137	25	4	2	1	1	0	(0)	1	906
Adopted (b)	256	505	138	26	5	1	1	1	0	0	1	935

Notes: (a) In 30 June 2015 values

(b) Calculated using a two year weighted average for DYs 0 and 2, the experience in the six months to December 2015 in DY1, and a three year average for DY3 onwards, adjusted for superimposed inflation for DY0. A decay factor of 80% has been assumed after DY9. The aggregate for DY10 onwards is shown.

Estimates from models

Vocational Rehabilitation					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2015 (\$M) (a)			Weightings	
	PPAC	PPCI	Adopted	PPAC	PPCI
2015	20.251	21.748	21.598	10%	90%
2014	6.170	6.008	6.089	50%	50%
2013	1.257	1.349	1.280	75%	25%
2012	0.355	0.406	0.368	75%	25%
2011	0.144	0.189	0.144	100%	0%
2010	0.108	0.144	0.108	100%	0%
2009	0.069	0.111	0.069	100%	0%
2008	0.054	0.090	0.054	100%	0%
2007	0.040	0.071	0.040	100%	0%
2006 & earlier	0.098	0.102	0.098	100%	0%
Total	28.547	30.219	29.850		

Note: (a) From models described above, in 30 June 2015 values and includes superimposed inflation, excluding 2011 Amendment Act.

E3.6 Legals

Claim payments

Claim Payments - Legals												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2005	1,390,682	5,248,746	4,157,143	2,811,208	2,848,244	2,386,405	1,792,813	1,780,095	816,678	237,834	1,295,033	24,764,880
2006	1,232,284	5,650,854	4,915,630	2,845,792	1,944,664	1,480,194	1,635,943	1,069,900	1,476,129	457,434	1,449,420	24,158,244
2007	1,261,127	4,910,232	5,270,547	3,526,134	2,559,756	1,448,540	1,537,980	1,067,332	440,252	680,970	1,554,528	24,257,398
2008	1,082,171	4,456,297	4,376,848	3,637,637	2,364,364	1,532,368	895,673	781,930	721,289	347,574	1,708,315	21,904,466
2009	1,349,503	5,719,283	5,994,756	4,066,129	2,726,026	1,772,895	883,874	677,197	644,146	647,841	1,850,388	26,332,039
2010	1,653,485	6,914,626	7,807,881	4,517,708	2,510,292	1,960,397	1,573,766	588,856	320,824	489,012	1,927,957	30,264,804
2011	2,349,986	7,704,879	8,023,211	6,237,484	2,559,762	1,451,352	1,508,104	935,727	605,710	301,292	1,359,158	33,036,666
2012	2,464,261	9,539,824	9,537,566	6,216,325	3,584,731	1,222,610	1,139,341	1,091,011	685,797	363,977	1,798,941	37,644,385
2013	2,656,505	10,509,430	10,085,385	6,055,448	3,428,527	1,427,941	889,542	832,459	636,253	672,537	1,232,890	38,426,917
2014	3,424,819	12,354,153	11,351,386	7,555,453	3,624,187	1,700,981	946,370	431,785	398,517	210,041	1,906,816	43,904,509
2015	3,215,115	14,377,385	13,593,478	8,253,259	4,673,880	1,769,381	890,134	662,866	553,229	488,997	1,736,309	50,214,034

Note: From summary of Form WC101 up to 30 June 2015.

Average real payment per claim finalised

Legals PPCF (a) for development year:											
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10
2005	108	717	3,652	6,450	11,847	19,040	19,188	21,112	19,113	7,731	9,926
2006	94	739	3,783	5,919	8,676	10,899	14,715	14,475	25,065	9,515	7,986
2007	91	648	4,134	7,018	10,228	8,887	13,934	17,508	7,623	15,380	9,390
2008	74	549	3,272	6,678	8,011	10,056	8,602	10,904	13,241	10,287	6,959
2009	89	632	3,659	6,831	10,102	14,235	8,898	9,322	14,728	15,889	9,177
2010	114	786	3,906	5,732	7,395	12,205	14,206	9,665	6,647	12,360	6,981
2011	153	885	4,153	7,672	7,375	8,403	12,095	12,766	14,097	9,411	6,181
2012	150	940	4,386	7,696	9,463	6,741	9,734	12,720	14,214	11,010	6,214
2013	159	904	3,884	6,368	7,595	6,274	7,191	9,582	8,422	13,189	3,184
2014	215	1,098	4,099	7,007	8,486	6,989	7,078	5,474	4,603	4,549	4,435
2015	212	1,330	4,692	7,280	9,200	7,428	7,148	7,621	6,910	7,980	3,424
Adopted (b)	214	1,340	5,000	7,145	8,869	7,141	7,137	7,638	8,804	8,691	3,682

Notes: (a) In 30 June 2015 values

(b) Calculated using a two year weighted average in DYs 0, 3 and 4, the experience in the six months to December 2015 in DYs 1 and 2, a five year average in DYs 5 and 8, and a three year weighted average for DYs 6, 7, 9 and 10.

Average real payment per claim incurred

Legals PPCI (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2005	62	238	191	129	116	85	58	53	24	7	37	999
2006	54	237	211	124	85	57	55	33	42	13	40	951
2007	52	202	207	142	105	59	56	34	13	18	40	927
2008	41	170	168	133	89	58	34	26	21	9	42	792
2009	50	201	213	145	93	62	31	24	20	18	46	902
2010	62	241	257	150	84	63	51	20	11	14	49	1,002
2011	80	273	263	193	80	46	45	29	19	9	38	1,074
2012	76	306	319	192	104	36	34	31	20	11	53	1,181
2013	81	307	306	192	100	39	25	23	17	18	34	1,143
2014	108	369	326	225	113	49	26	12	11	6	51	1,295
2015	106	443	395	231	136	53	25	17	15	13	44	1,478
Adopted (b)	107	445	395	228	124	47	25	18	14	12	43	1,459

Notes: (a) In 30 June 2015 values

(b) Calculated using a two year weighted average in DYs 0, 3 and 4, the experience in the six months to December 2015 in DYs 1 and 2, and a three year weighted average for DYs 5 to 10. A decay factor of 80% has been assumed after DY9. The aggregate for DY10 onwards is shown.

Estimates from models

Legals					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2015 (\$M) (a)			Weightings	
	PPCF	PPCI	Adopted	PPCF	PPCI
2015	50.965	51.630	51.464	25%	75%
2014	37.449	37.155	37.302	50%	50%
2013	20.937	23.079	21.473	75%	25%
2012	12.337	14.191	12.800	75%	25%
2011	6.613	8.449	6.613	100%	0%
2010	4.879	5.964	4.879	100%	0%
2009	3.716	5.071	3.716	100%	0%
2008	3.100	4.317	3.100	100%	0%
2007	2.284	3.416	2.284	100%	0%
2006 & earlier	5.144	4.905	5.144	100%	0%
Total	147.424	158.178	148.775		

Note: (a) From models described above, in 30 June 2015 values and includes superimposed inflation, excluding 2011 Amendment Act.

E3.7 Redemptions and second schedule

Claim payments

Claim Payments - Redemptions & 2nd Schedule												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2005	2,933,529	21,331,379	20,152,266	9,766,775	5,208,574	2,908,819	1,662,276	1,705,151	692,348	445,817	1,952,180	68,759,114
2006	3,209,735	22,318,994	23,114,888	11,897,000	4,899,114	2,791,727	1,780,382	895,948	604,096	614,976	1,668,741	73,795,602
2007	2,328,399	21,232,884	23,255,473	11,803,372	5,755,358	3,784,787	2,098,768	1,118,928	710,629	284,266	1,654,207	74,027,071
2008	2,730,463	22,785,699	22,030,783	10,978,252	5,357,635	3,422,253	1,396,022	1,267,840	908,022	405,145	1,976,776	73,258,890
2009	4,422,019	24,593,374	28,162,196	12,159,905	4,979,814	2,395,297	1,982,626	478,102	321,815	281,978	1,333,164	81,110,290
2010	3,874,902	32,247,174	37,784,299	16,787,102	7,121,137	2,667,220	1,922,568	892,426	452,708	397,358	1,888,395	106,035,290
2011	5,367,834	35,377,830	39,629,826	20,197,580	8,156,400	3,495,731	3,207,381	2,555,618	674,330	519,162	3,943,541	123,125,233
2012	6,962,911	45,398,145	41,317,561	19,616,919	7,834,165	3,798,619	2,584,104	1,805,162	4,062,117	486,400	3,924,639	137,790,742
2013	8,151,136	50,035,074	46,731,923	20,181,029	8,360,551	4,484,253	2,765,639	2,020,111	1,346,587	1,547,611	6,144,966	151,768,881
2014	9,978,867	57,026,122	57,288,468	22,484,611	7,736,486	3,729,303	2,234,825	520,731	1,162,712	879,505	5,212,975	168,254,604
2015	9,494,751	60,578,184	65,700,839	29,244,437	10,440,170	4,849,982	1,997,309	2,098,496	1,586,590	1,077,330	2,963,709	190,031,798

Note: From summary of Form WC101 up to 30 June 2015, including the 92(f) settlements without election for the 2011 to 2014 financial years.

Average real claim payment per claim finalised

Redemptions & 2nd Schedule PPCF (a) for development year:											
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10
2005	227	2,915	17,704	22,409	21,664	23,208	17,791	20,223	16,203	14,491	14,963
2006	245	2,920	17,791	24,747	21,856	20,556	16,014	12,121	10,258	12,792	9,195
2007	167	2,803	18,239	23,492	22,997	23,221	19,015	18,355	12,305	6,420	9,992
2008	186	2,805	16,469	20,153	18,154	22,457	13,408	17,679	16,669	11,991	8,053
2009	292	2,719	17,190	20,427	18,455	19,233	19,959	6,581	7,358	6,916	6,612
2010	267	3,666	18,904	21,301	20,978	16,605	17,355	14,647	9,379	10,044	6,838
2011	349	4,065	20,514	24,843	23,498	20,240	25,723	34,867	15,694	16,216	17,934
2012	423	4,474	18,999	24,288	20,680	20,944	22,078	21,046	84,194	14,713	13,557
2013	487	4,303	17,995	21,222	18,522	19,704	22,356	23,252	17,825	30,349	15,871
2014	626	5,067	20,686	20,851	18,114	15,324	16,714	6,602	13,430	19,048	12,124
2015	627	5,604	22,680	25,797	20,551	20,361	16,038	24,127	19,818	17,581	5,845
Adopted (b)	626	5,733	23,348	23,379	20,206	19,189	19,010	19,010	19,010	19,010	11,404

Notes: (a) In 30 June 2015 values

(b) Calculated using a two year weighted average for DYs 0 to 2 and including superimposed inflation for DYs 1 and 2, a five year average for DYs 3 to 5, and a four year average for DYs 6 to 10, including a four year tail average for DYs 6 to 9.

Average real payment per claim incurred

Redemptions & 2nd Schedule PPCI (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2005	130	967	927	449	213	103	54	51	20	13	56	2,981
2006	141	938	993	519	213	108	60	27	17	17	46	3,080
2007	95	875	915	475	235	154	76	35	20	8	43	2,932
2008	103	869	845	402	201	130	53	43	27	11	49	2,732
2009	165	863	999	434	170	83	70	17	10	8	33	2,852
2010	146	1,126	1,242	558	238	85	63	30	15	12	48	3,563
2011	183	1,254	1,300	624	255	110	96	78	21	16	109	4,045
2012	215	1,456	1,381	607	228	112	76	51	117	14	115	4,373
2013	248	1,464	1,418	638	245	124	77	57	36	42	171	4,518
2014	316	1,702	1,645	670	240	107	60	14	32	23	140	4,950
2015	314	1,865	1,909	817	303	147	56	55	42	29	76	5,612
Adopted (b)	315	1,934	1,927	745	272	126	65	56	37	31	128	5,635

Notes: (a) In 30 June 2015 values

(b) Calculated using a two year weighted average for DYs 0 to 5, and a three year weighted average for all other development years, excluding outliers where necessary and including superimposed inflation for DYs 1 and 2. A decay factor of 80% has been assumed after DY9. The aggregate for DY10 onwards is shown.

Estimates from models

Redemptions and 2nd Schedule					
Acc yr ending 30-Jun	Estimates of outstanding claims at 30 June 2015 (\$M) (a)			Weightings	
	PPCF	PPCI	Adopted	PPCF	PPCI
2015	190.886	194.516	193.609	25%	75%
2014	132.736	131.719	132.228	50%	50%
2013	58.923	64.138	60.226	75%	25%
2012	31.254	35.519	32.320	75%	25%
2011	17.824	22.428	17.824	100%	0%
2010	13.104	15.767	13.104	100%	0%
2009	10.092	13.455	10.092	100%	0%
2008	8.560	11.097	8.560	100%	0%
2007	6.671	8.770	6.671	100%	0%
2006 & earlier	15.886	12.590	15.886	100%	0%
Total	485.937	510.000	490.522		

Note: (a) From models described above, in 30 June 2015 values and includes superimposed inflation, excluding 2011 Amendment Act.

E3.8 Common law

Claim payments

Claim Payments - Common Law												
Yr to 30 June	DY0	DY1	DY2	DY3	DY4	DY5	DY6	DY7	DY8	DY9	DY10 onwards	Total
2005	75,000	4,014,129	8,860,068	6,316,116	11,236,580	6,234,123	3,496,385	5,192,050	614,569	230,000	7,082,603	53,351,622
2006	58,573	5,604,817	9,802,427	7,492,719	6,161,826	7,604,309	5,973,934	3,239,737	3,294,565	961,411	5,279,356	55,473,673
2007	128,353	5,155,080	11,534,587	12,414,616	9,594,269	5,510,854	6,766,332	2,838,923	1,378,187	1,712,534	6,542,023	63,575,758
2008	626,289	3,898,001	10,601,360	17,742,629	13,113,160	5,466,975	4,666,628	2,742,670	2,314,399	996,274	8,695,949	70,864,333
2009	1,209,272	6,594,928	16,766,975	14,768,183	14,553,727	7,599,068	2,261,057	1,979,335	1,780,948	1,822,650	8,420,959	77,757,101
2010	2,507,281	11,668,155	22,641,085	12,570,523	9,666,361	5,952,390	4,875,975	1,296,352	1,605,373	731,127	12,509,840	86,024,461
2011	79,100	2,282,970	11,514,410	12,585,957	4,402,769	3,028,137	2,541,302	2,077,184	1,379,250	884,472	3,971,670	44,747,220
2012	213,826	3,373,329	9,264,789	14,876,187	7,520,713	1,310,811	639,618	1,392,047	184,207	195,000	3,874,250	42,844,778
2013	17,000	2,527,560	12,539,597	11,970,695	8,228,664	2,073,250	1,383,931	1,251,647	668,000	262,215	1,330,992	42,253,552
2014	472,274	3,619,552	12,609,425	17,793,905	10,346,786	2,218,144	1,000,340	9,444,930	105,000	(3,234)	3,820,487	61,427,609
2015	30,000	724,845	10,942,802	17,957,232	12,561,277	2,457,155	647,000	306,000	(49,700)	574,321	7,075,900	53,226,832

Note: From summary of Form WC101 up to 30 June 2015, only including the 92(f) settlements with election for the 2011 to 2014 financial years.

Average real payment per claim finalised

Common Law PPCF (a) for development year:											
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10
2005	6	549	7,784	14,492	46,737	49,739	37,421	61,577	14,383	7,476	54,287
2006	4	733	7,545	15,585	27,490	55,991	53,735	43,830	55,942	19,998	29,090
2007	9	680	9,046	24,708	38,337	33,811	61,304	46,569	23,863	38,677	39,515
2008	43	480	7,925	32,571	44,433	35,875	44,819	38,245	42,486	29,486	35,425
2009	80	729	10,234	24,809	53,935	61,017	22,762	27,245	40,719	44,703	41,763
2010	173	1,326	11,328	15,950	28,476	37,057	44,016	21,277	33,260	18,480	45,300
2011	5	262	5,960	15,481	12,684	17,533	20,381	28,339	32,100	27,627	18,062
2012	13	332	4,260	18,418	19,852	7,227	5,465	16,229	3,818	5,899	13,383
2013	1	217	4,829	12,588	18,230	9,110	11,187	14,407	8,842	5,142	3,438
2014	30	322	4,553	16,501	24,226	9,114	7,481	119,740	1,213	(70)	8,885
2015	2	67	3,777	15,840	24,726	10,316	5,195	3,518	(621)	9,372	13,956
Adopted (b)	11	199	4,376	15,733	22,409	9,507	7,980	15,588	9,163	9,163	9,163

Notes: (a) In 30 June 2015 values

(b) Calculated using a three year weighted average in DYs 0, 2, and 4 to 6, a 2 year average in DY1, a five year average in DYs 3 and 7, and a four year tail factor in DYs 8 to 10, adjusting for outliers where necessary.

Average real payment per claim incurred – based on total incurred

Common Law PPCI (a) for development year:												
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10	Total
2005	3	182	408	290	459	221	113	155	18	7	202	2,057
2006	3	236	421	327	268	294	201	99	93	27	146	2,114
2007	5	212	454	499	392	225	245	89	39	46	170	2,377
2008	24	149	407	650	491	208	177	93	68	27	215	2,506
2009	45	231	595	527	496	265	80	70	56	50	208	2,622
2010	95	407	744	418	323	190	159	43	53	21	319	2,773
2011	3	81	378	389	137	95	76	64	43	27	110	1,402
2012	7	108	310	460	219	39	19	39	5	6	113	1,325
2013	1	74	380	379	241	57	39	35	18	7	37	1,267
2014	15	108	362	530	321	64	27	258	3	(0)	103	1,791
2015	1	22	318	502	364	74	18	8	(1)	15	181	1,503
Adopted (b)	8	66	340	516	343	69	23	37	9	9	109	1,529

Notes: (a) In 30 June 2015 values

(b) Calculated using a two year weighted average in DYs 0 to 6, a five year weighted average for DYs 7 and 10, and a four year average for DYs 8 and 9, adjusted for outliers where necessary. A decay factor of 93% has been assumed after DY9. The aggregate for DY10 onwards is shown.

Case estimate development factors

Common Law CED (a) for development year:											
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10
2003		1.711	1.328	1.728	1.573	1.307	1.403	1.291	1.399	1.175	1.926
2004		1.757	1.237	1.383	1.463	0.936	1.354	0.803	0.721	1.013	1.179
2005		1.689	1.289	1.001	0.854	1.207	1.154	0.867	0.723	0.556	1.480
2006		1.508	1.073	1.106	1.378	1.183	1.052	0.712	0.924	1.059	1.170
2007		2.712	1.617	1.534	1.084	1.338	0.794	1.041	1.529	1.038	1.495
2008		1.507	1.126	0.986	0.875	0.837	1.212	1.228	1.075	0.538	1.231
2009		3.373	2.020	1.465	1.835	0.904	1.607	0.960	0.938	1.242	1.794
2010		2.442	1.710	1.215	1.652	1.620	2.483	0.944	1.611	0.957	1.386
2011		1.948	1.477	1.020	0.759	0.887	1.024	0.692	0.977	0.818	1.346
2012		2.695	1.652	1.134	0.888	0.939	0.981	1.165	0.743	2.161	1.273
2013		2.432	1.452	0.983	0.742	1.148	1.111	0.617	0.596	0.501	0.978
2014		3.328	1.681	1.276	1.193	0.910	0.603	1.770	1.289	0.991	1.173
2015		2.217	1.194	0.871	0.756	0.313	0.458	0.680	(24,453.935)	0.344	1.383
Adopted (a)		2.587	1.445	1.039	0.870	0.979	0.900	0.912	0.742	0.723	1.202

Notes: (a) Calculated using a three year weighted average in DYs 1 to 4, and a four year weighted average in DYs 5 to 10, excluding outliers where necessary.

Payment factors

Common Law payment factors (a) for development year:											
Accident year ending 30 June	0	1	2	3	4	5	6	7	8	9	10
2003		0.351	0.293	0.975	0.555	0.426	0.457	0.467	0.674	0.391	0.656
2004		0.266	0.301	0.327	0.389	0.306	0.248	0.126	0.077	0.219	0.442
2005		0.198	0.388	0.382	0.339	0.447	0.326	0.396	0.115	0.099	0.587
2006		0.301	0.307	0.345	0.571	0.423	0.535	0.346	0.505	0.281	0.422
2007		0.520	0.482	0.475	0.545	0.592	0.463	0.461	0.378	0.586	0.510
2008		0.279	0.454	0.607	0.442	0.536	0.626	0.527	0.604	0.221	0.579
2009		0.710	0.907	0.876	1.223	0.550	0.687	0.422	0.455	0.939	0.698
2010		0.800	0.858	0.573	0.910	0.766	0.931	0.401	0.597	0.362	0.849
2011		0.180	0.452	0.525	0.293	0.361	0.360	0.240	0.738	0.305	0.409
2012		0.235	0.388	0.536	0.599	0.177	0.137	0.280	0.044	0.411	0.346
2013		0.161	0.337	0.376	0.470	0.539	0.232	0.300	0.143	0.086	0.112
2014		0.309	0.346	0.421	0.525	0.456	0.419	1.770	0.078	(0.002)	0.325
2015		0.042	0.301	0.360	0.338	0.182	0.285	0.680	(24,453.935)	0.344	0.569
Adopted (a)		0.223	0.329	0.385	0.420	0.306	0.285	0.336	0.121	0.119	0.336

Notes: (a) Calculated using a three year weighted average for all development years, adjusted for outliers where necessary.

Estimates from models

Common Law							
Acc yr ending 30 June	Estimates of outstanding claims at 30 June 2015 (\$M) (a)				Weightings		
	PPCI - total incurred claims			Adopted	PPCF	PPCI	PCE
	PPCF		PCE				
2015	52.684	58.107	42.125	56.751	25%	75%	0%
2014	53.997	57.131	51.137	55.564	50%	50%	0%
2013	39.640	45.836	30.123	41.189	75%	25%	0%
2012	22.154	26.985	21.074	23.362	75%	25%	0%
2011	9.661	13.004	13.868	9.661	100%	0%	0%
2010	7.556	9.585	1.538	7.556	100%	0%	0%
2009	6.461	9.022	0.367	3.230	50%	0%	0%
2008	5.450	7.711	0.000	2.725	50%	0%	0%
2007	4.623	6.905	0.000	2.312	50%	0%	0%
2006 & earlier	12.004	12.078	22.505	6.002	50%	0%	0%
Total	214.230	246.364	182.736	208.352			

Note: (a) From models described above, in 30 June 2015 values and includes superimposed inflation, excluding 2011 Amendment Act.

*E 4 Adopted estimates of outstanding claims**E4.1 Estimates from models excluding the 2011 Amendment Act*

Estimates of outstanding claims at 30 June 2015 (\$M) (a) (b)									
Acc yr ending 30-June	Weekly Benefits, Miscellaneous And Fatais		Medical And Hospital Expenses	All Other Treatment	Vocational Rehabilitation	Redemptions & 2nd Schedule	Legals	Common Law	Total
	2015	272.085	59.629	24.230	21.598	193.609	51.464	56.751	
2014	95.163	15.775	8.165	6.089	132.228	37.302	55.564	350.287	
2013	27.551	4.436	3.001	1.280	60.226	21.473	41.189	159.156	
2012	8.711	1.864	1.527	0.368	32.320	12.800	23.362	80.952	
2011	4.214	1.046	0.826	0.144	17.824	6.613	9.661	40.328	
2010	3.397	0.880	0.638	0.108	13.104	4.879	7.556	30.563	
2009	2.384	0.648	0.493	0.069	10.092	3.716	3.230	20.633	
2008	1.834	0.511	0.430	0.054	8.560	3.100	2.725	17.214	
2007	1.396	0.415	0.357	0.040	6.671	2.284	2.312	13.476	
2006 & earlier	3.843	1.385	1.111	0.098	15.886	5.144	6.002	33.469	
Total	420.578	86.589	40.779	29.850	490.522	148.775	208.352	1,425.445	

Notes: (a) From models described in Appendix E3

(b) In 30 June 2015 values and includes superimposed inflation but excludes allowances for the 2011 Amendment Act.

E4.2 Estimates from models including the 2011 Amendment Act

Estimates of outstanding claims at 30 June 2015 (\$M) (a) (b)									
Acc yr ending 30-June	Weekly Benefits, Miscellaneous And Fatafs	Medical And Hospital Expenses	All Other Treatment	Vocational Rehabilitation	Redemptions & 2nd Schedule	Legals	Common Law	Total	
2015	272.704	59.664	24.230	21.598	195.043	51.464	60.445	685.149	
2014	95.801	15.813	8.165	6.089	133.649	37.302	59.277	356.096	
2013	28.168	4.474	3.001	1.280	61.550	21.473	44.708	164.653	
2012	8.857	1.875	1.527	0.368	32.851	12.800	24.855	83.134	
2011	4.214	1.046	0.826	0.144	17.824	6.613	9.661	40.328	
2010	3.397	0.880	0.638	0.108	13.104	4.879	7.556	30.563	
2009	2.384	0.648	0.493	0.069	10.092	3.716	3.230	20.633	
2008	1.834	0.511	0.430	0.054	8.560	3.100	2.725	17.214	
2007	1.396	0.415	0.357	0.040	6.671	2.284	2.312	13.476	
2006 & earlier	3.843	1.385	1.111	0.098	15.886	5.144	6.002	33.469	
Total	422.597	86.711	40.779	29.850	495.231	148.775	220.770	1,444.714	

Notes: (a) From models described in Appendix E3

(b) In 30 June 2015 values and includes superimposed inflation and allowances for the 2011 Amendment Act.

E4.3 Average claim sizes

Average claim size at 30 June 2015 (\$) (a)									
Acc yr ending 30-June	Weekly Benefits, Miscellaneous And Fatafs	Medical And Hospital Expenses	All Other Treatment	Vocational Rehabilitation	Redemptions & 2nd Schedule	Legals	Common Law	Total	
2015	12,832	3,898	1,327	963	6,698	1,791	1,979	29,489	
2014	12,074	3,707	1,294	895	6,246	1,686	1,841	27,743	
2013	11,004	3,413	1,291	838	5,626	1,461	1,710	25,344	
2012	9,970	3,312	1,227	773	5,049	1,294	1,631	23,257	
2011	9,421	3,209	1,196	720	4,540	1,242	1,662	21,990	
2010	8,611	3,063	1,172	665	4,198	1,158	1,485	20,353	
2009	8,514	3,059	1,078	670	3,883	1,024	1,702	19,931	
2008	7,952	2,996	1,018	623	3,522	958	1,770	18,841	
2007	7,403	2,875	948	615	3,197	812	1,699	17,548	

Note: (a) In 30 June 2015 values, from results in Appendix E4.1, includes superimposed inflation and allowances for the 2011 Amendment Act.

E4.4 Relationship to case estimates

Ratio of outstandings to case estimates at 30 June 2015									
Acc yr ending 30-June	Weekly Benefits, Miscellaneous And Fatafs	Medical And Hospital Expenses	All Other Treatment	Vocational Rehabilitation	Redemptions & 2nd Schedule	Legals	Common Law	Total	
2015	73%	16%	6%	6%	52%	14%	16%	183%	
2014	33%	5%	3%	2%	46%	13%	20%	122%	
2013	20%	3%	2%	1%	43%	15%	31%	116%	
2012	12%	3%	2%	1%	45%	18%	34%	114%	
2011	12%	3%	2%	0%	50%	19%	27%	114%	
2010	24%	6%	4%	1%	91%	34%	52%	212%	
2009	32%	9%	7%	1%	135%	50%	43%	276%	
2008	45%	13%	11%	1%	210%	76%	67%	423%	
2007	41%	12%	11%	1%	198%	68%	68%	399%	
2006 & earlier	14%	5%	4%	0%	58%	19%	22%	122%	

E4.5 Adopted estimates in 30 June 2015 values

Acc yr ending 30-June	Estimate of outstanding claims (a)	Estimate of outstanding claims (a)(b)	Average claim size (a) (b)	Ratio to Case Estimates
	\$M	\$M	\$	
2015	679.367	685.149	29,489	183%
2014	350.287	356.096	27,743	122%
2013	159.156	164.653	25,344	116%
2012	80.952	83.134	23,257	114%
2011	40.328	40.328	21,990	114%
2010	30.563	30.563	20,353	212%
2009	20.633	20.633	19,931	276%
2008	17.214	17.214	18,841	423%
2007	13.476	13.476	17,548	399%
2006 & earlier	33.469	33.469		122%
Total	1,425.445	1,444.714		148%

Note: (a) In 30 June 2015 values, includes superimposed inflation.

(b) Includes allowances for the 2011 Amendment Act.

E4.6 Gross of reinsurance estimates with allowance for AWE inflation, discounting and claims expenses

Total of payment types					
Estimates at 30 June 2015 (\$M)					
Acc yr ending 30 June	30 June 2015 values (a)	Inflated values (b)	Infl/disc values (b)	Case estimates	Ratio (c)
2015	685.149	764.139	731.198	374.313	183%
2014	356.096	399.647	380.287	292.303	122%
2013	164.653	187.379	176.480	142.526	116%
2012	83.134	97.149	89.665	73.070	114%
2011	40.328	47.467	43.872	35.328	114%
2010	30.563	35.747	33.257	14.402	212%
2009	20.633	23.981	22.442	7.485	276%
2008	17.214	19.747	18.657	4.072	423%
2007	13.476	15.226	14.529	3.377	399%
2006 & earlier	33.469	37.012	35.800	27.458	122%
Total	1,444.714	1,627.495	1,546.188	974.333	148%

Notes: (a) From Appendix E4.5 including the 2011 Amendment Act allowances

(b) Includes 5% claims expenses

(c) Ratio of actuarial estimates in 30 June 2015 values to case estimates.

Appendix F Claims experience

What this appendix covers

- Provides commentary on the claims experience for 2014/15
 - Reviews the claims experience for the half year to 31 December 2015
 - Analyses the trend in the proportion of payments attributable to each payment type.
-

F 1 Claims experience during 2014/15

F1.1 Aggregate trends

Total actual claim payments during 2014/15 were \$868.3 million, which is \$37.6 million (4.5%) higher than the \$830.7 million for 2013/14 year. The equivalent increase from 2012/13 to 2013/14 was \$88.8 million (12.0%).

All payments types, except *common law*, had increases in payments. The increases were as follows:

- \$21.8 million (12.9%) for redemptions and 2nd schedule
- \$13.7 million (3.7%) for weekly benefits, miscellaneous and fatals
- \$6.3 million (14.4%) for legals
- \$3.0 million (2.6%) for medical and hospital
- \$0.7 million (1.6%) for all other treatment
- \$0.4 million (1.4%) for vocational rehabilitation.

The *common law* payment group had a decrease in payments of \$8.2 million (13.4%) over 2014/15 compared to 2013/14.

The lower common law payments in 2014/15 were partially due to one very large claim which was settled in 2013/14 causing that year to be unusually high.

Total case estimates outstanding decreased by \$14.4 million (1.5%) to \$974.3 million from \$988.8 million as at 30 June 2014. From 30 June 2013 to 30 June 2014 case estimates increased by \$47.0 million (5.0%).

Claims reported over 2014/15 decreased by 2,369 (7.1%) to 30,811 from 33,180 over 2013/14, compared to a 5.2% decrease last year.

Active claim numbers decreased by 1,148 (5.2%) to 21,080 at 30 June 2015 from 22,228 at 30 June 2014, following a 2.7% decrease last year.

The claim statistics indicate a neutral claims experience in 2014/15 compared to last year, with higher payments offset by reductions in the number of claims reported, active claims and case estimates.

F1.2 Claims incurred in 2014/15

There were 27,296 claims reported to 30 June 2015 for the 2014/15 accident year and the projected number of incurred claims is 30,554. This is 7.0% lower than the 32,869 projected incurred for the 2013/14 accident year.

The expected number of open claims for the 2014/15 accident year at 30 June 2015 is $27,296 \times (1 - 0.5665) = 11,832$ compared to actual of 11,978 i.e. actual is 1.2% higher.

The 30 June 2014 projection basis expected $6,529 \times (1.0375^{0.5} \times 1.054) = \$7,007$ to be paid on each of the 2014/15 accident year claims in the year of claiming. The actual amount paid per claim was \$7,064 i.e. 0.8% more in real values.

The average case estimate per active claim in real values at the end of development year zero decreased by 1.9% to \$31,250 at 30 June 2015 from \$31,867 at 30 June 2014. This compares to a 9.6% increase between 30 June 2013 and 30 June 2014.

The 2014/15 accident year shows a favourable claims experience relative to 2013/14 with significantly lower than expected claims reported and slightly lower average case estimates, offset by slightly higher than expected active claims and payments.

F1.3 Claims incurred in prior years (up to 30 June 2014)

The main aspects of claim experience over 2014/15 compared to the projections in our 26 March 2015 report, as follows:

- a lower (1%) number of claims reported (see Appendix E2.1)
- b claims finalisation is in line with expected (see Appendix E2.2)
- c claim payments are in line compared with projected (see Appendix E2.3).

The experience for claim reports was better than expected, while claim payments and claim finalisation were on par with projected.

The 2014 accident year had 4% fewer claims reported than expected, however claim reports were higher (worse) than expected (greater than 10%) for all accident years prior to 2013, except for 2007 and 2008 which was 25% and 23% lower than expected respectively. The overall result was only slightly lower (better) than expected due to the majority of reports over 2014/15 being for the 2014 accident year.

Claim finalisation was favourable for all accident years, except the 2014 accident year (2% slower than expected). Most accident years were within 10% of the expected finalisation rate, except 2011 (15% faster), 2008 (11% faster), 2007 (17% faster), 2006 (41% faster) and 2005 & earlier (44% faster).

Claim payments for the 2013 and 2014 accident years were both 3% higher than expected. However, this experience was offset by lower than expected payments for the 2012 and prior accident years. Payments were significantly (>10%) lower than expected for the 2005 & earlier, 2007 to 2009 and 2011 accident years.

F1.4 The 2014/15 experience

The 2014/15 experience indicates that for the:

- claims incurred up to 30 June 2014:
 - claim reports were lower than expected
 - payments and claim closure were on par with expected
- 2014/15 accident year:
 - claim reports and average case estimates are lower than expected
 - active claims and claim payments are slightly higher than expected.

This experience is mixed by accident year.

F 2 Claims experience in the six months to 31 December 2015

F2.1 Claim reports

In total across all accident years, claim reports for the six months are slightly below expected from models derived on experience to 30 June 2015.

The experience is mixed by accident year, with the 2016, 2015, 2013 and 2011 years all lower than expected and other years higher than expected. Due to the majority of claim reports being in relation to the most recent two accident years, the lower than expected experience for these two years causes the overall experience to be below expected.

Accident year	Expected for 2015/16 (a)	Proportion to 31 Dec 15 (b)	Six months to 31 Dec 15		
			Expected (c)	Actual (d)	Actual/Expected % (e)
2016	27,296	46.5%	12,706	12,332	97%
2015	2,651	91.8%	2,433	2,290	94%
2014	129	63.0%	81	88	108%
2013	57	59.6%	34	30	88%
2012	40	52.1%	21	23	109%
2011	33	58.3%	19	17	88%
2010 & earlier	460	51.2%	235	261	111%
Total	30,666		15,531	15,041	97%

- Notes :
- (a) = from the adopted 30 Jun 15 actuarial projection patterns, assuming 2016 equals 2015
 - (b) = from examination of the 2012/13, 2013/14 and 2014/15 quarterly Form WC20.
 - (c) = (a) x (b)
 - (d) = from Form WC20 to 31 Dec 15
 - (e) = (d) / (c) %

F2.2 Claims finalised

Claims finalisation is 3% slower than expected in aggregate, caused by slower than expected finalisation for the 2015 and 2016 accident years. Claims finalised for the 2014 and prior accident years were all higher than expected, significantly so for the 2010 and earlier accident years.

Accident year	Expected	Proportion	Six months to 31 Dec 15		
	for 2015/16 (a)	to 31 Dec 15 (b)	Expected (c)	Actual (d)	Actual/Expected % (e)
2016	15,391	31.5%	4,856	4,444	92%
2015	10,408	74.7%	7,779	7,354	95%
2014	2,855	63.5%	1,813	1,880	104%
2013	1,089	63.3%	689	735	107%
2012	496	60.6%	300	347	116%
2011	211	63.1%	133	149	112%
2010 & earlier	680	51.1%	347	497	143%
Total	31,129		15,917	15,406	97%

Notes :

- (a) = from the adopted 30 Jun 15 actuarial projection patterns
- (b) = from examination of the 2012/13, 2013/14 and 2014/15 quarterly Form WC20.
- (c) = (a) x (b)
- (d) = from Form WC20 to 31 Dec 15
- (e) = (d) / (c) %

F2.3 Claim payments

Total actual claim payments are in line with expected for the December 2015 half year. Payments were higher than expected for the 2011, 2014 and 2015 accident years, but all other years were lower than expected.

Accident year	Expected	Proportion	Six months to 31 Dec 15		
	for 2015/16 \$M (a)	to 31 Dec 15 (b)	Expected \$M (c)	Actual \$M (d)	Actual/Expected % (e)
2016	235.682	24.7%	58.209	54.847	94%
2015	338.521	56.6%	191.547	193.241	101%
2014	184.525	59.4%	109.672	115.345	105%
2013	79.728	60.8%	48.496	47.561	98%
2012	33.519	59.8%	20.031	19.262	96%
2011	9.338	60.7%	5.666	5.908	104%
2010 & earlier	28.791	51.0%	14.682	12.530	85%
Total	910.104		448.303	448.695	100%

Notes :

- (a) = from the adopted 30 Jun 15 actuarial projection and using PPCI for 2015 AYR
- (b) = from examination of the 2012/13, 2013/14 and 2014/15 quarterly Form WC20.
- (c) = (a) x (b)
- (d) = from Form WC20 to 31 Dec 15
- (e) = (d) / (c) %

The table below compares claim payments by type of payment in real terms:

Payment type	Six months ended			% Real change (d)
	31 Dec 15 \$M (a)	31 Dec 14 \$M (b)	31 Dec 14 in 31 Dec 15 values \$M (c)	
Weekly benefits	170.654	164.617	167.998	1.6%
Redemptions	86.795	71.791	73.266	18.5%
Schedule 2	22.940	20.219	20.634	11.2%
Fatal	1.652	1.117	1.140	44.9%
Medical Pracs/Specialists	40.267	39.149	39.953	0.8%
Hospital Expenses	20.412	20.959	21.389	-4.6%
All Other Treatment	21.946	19.771	20.177	8.8%
Vocational Rehab	15.473	14.845	15.150	2.1%
Miscellaneous	21.799	24.488	24.991	-12.8%
Legal Expenses	26.045	25.823	26.353	-1.2%
Common Law	21.409	30.602	31.230	-31.4%
Total	449.392	433.382	442.283	1.6%

Notes :
 (a) = from 2015/16 Form WC101 for returning entities
 (b) = from Form WC101 for returning entities including any late revisions submitted
 (c) = (b) x 1.021 in current values
 (d) = (a) / (c) - 1 in current values

This table shows that, after adjusting for 2.1% wage inflation, in total, claim payments for the six months are 1.6% higher than the same period in the prior year. All payment types had increases, except hospital, miscellaneous, legals and common law. The most significant decrease were for common law and miscellaneous which decreased by \$9.8 million (31.4%) and \$3.2 million (12.8%), respectively. The most significant increases were:

- Redemptions increasing by \$13.5 million (18.5%)
- Weekly benefits increasing by \$2.7 million (1.6%)
- Schedule 2 increasing by \$2.3 million (11.2%).

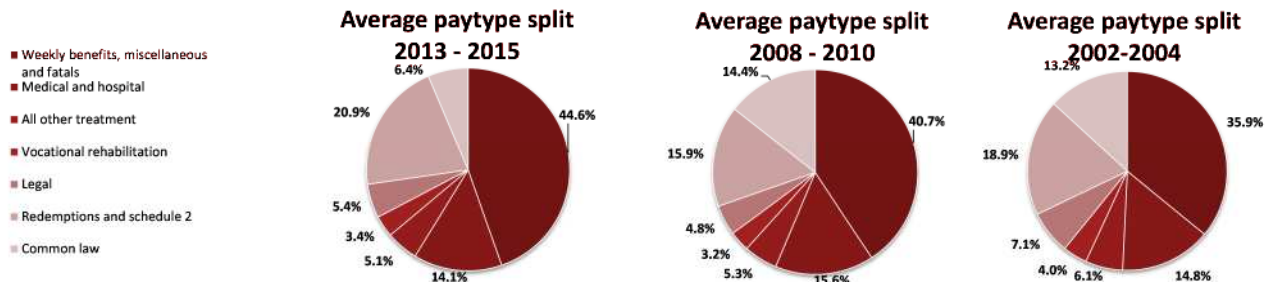
F2.4 Summary of experience for the six months to 31 December 2015

In summary, the six months to 31 December 2015 has been close to expected, with payments being in line with expected, but claim reports and closures slightly below expected. The experience is mainly driven by the 2014 to 2016 accident years.

F3 Analysis by type of payment

The purpose of this section is to investigate trends in the composition of claim payments by benefit type. We use higher level groups to explore the relative movement of ongoing and lump sum benefits. The claim payment data is from Form WC101 for the premium rating returning entities.

The pie-charts and table below show the composition in three period ranges over the past 15 years:



All three periods have weekly benefits as the major payment group, increasing from 36% to 45% of total payments over the periods, and redemptions and schedule 2 payments as the second highest group, changing from 19% down to 16% then up to 21% of payments.

Common law payments have experienced the most significant decline, from 13% of payments in the early 2000s, to 6% of payments in more recent years. The increased use of 92(f) settlements for redemptions as opposed to using common law caused the decrease over the three years ended 30 June 2015, and the corresponding increase in redemptions and schedule 2 payments over the same period.

Combined, lump sum payments have decreased from 32% to 27% of total payments. The sum of common law, redemptions, Schedule 2 and legal payments decreased from 39% of total payments in the early 2000s to around 33% currently. This means the material reduction in common law more than offset transfers to redemption plus Schedule 2 payments.

Medical, hospital, all other treatment and vocational rehabilitation payments decreased slightly from 25% to 23% of total payments.

Type of Payment	Financial years ending 30 June		
	2013 - 2015	2008 - 2010	2000-2002
Weekly bens, misc & fatalities	44.6%	40.7%	35.9%
Medical, hosp & other	19.2%	20.9%	20.9%
All lump sums incl legals	32.7%	35.1%	39.2%
Vocational rehabilitation	3.4%	3.2%	4.0%
Total	100.0%	100.0%	100.0%

The table below shows the annual composition of claim payments over the past 7.5 years.

Type of Payment	2015/16							
	6 months	2014/15	2013/14	2012/13	2011/12	2010/11	2009/10	2008/09
Weekly benefits, miscellaneous and fatal:	43.2%	44.2%	44.6%	45.0%	43.1%	42.9%	39.8%	42.0%
Medical and hospital	13.5%	13.8%	14.0%	14.5%	15.4%	14.8%	14.4%	15.6%
All other treatment	4.9%	4.8%	4.9%	5.6%	5.7%	5.8%	5.3%	5.4%
Vocational rehabilitation	3.4%	3.4%	3.5%	3.5%	3.4%	3.2%	3.3%	3.2%
Legal	5.8%	5.8%	5.3%	5.2%	5.6%	5.5%	5.1%	4.8%
Redemptions and schedule 2	24.4%	21.9%	20.3%	20.5%	20.4%	20.4%	17.8%	14.8%
Common law	4.8%	6.1%	7.4%	5.7%	6.4%	7.4%	14.4%	14.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Amount (\$000s)	449,392	868,311	830,666	741,903	674,573	602,108	597,158	548,429
% change	3.7%	4.5%	12.0%	10.0%	12.0%	0.8%	8.9%	
WC20 Amount (\$000s)	448,695	868,311	830,666	741,903	674,573	602,108	597,158	548,429
% difference from WC101	-0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

The growth in total payments over the six months to 31 December 2015 is lower than the same period of the previous year (3.7% this year compared to 6.8% last year). We have not included the December 2015 half year in the trend comments below because its payment composition is variable and subject to seasonal influences.

The following trends are apparent:

- weekly benefits group increased from 40% of total payments in 2009/10 to around 45% by 2013/14. However, it has decreased to 44% in 2014/15
- redemptions and Schedule 2 payments combined increased from 15% in 2008/09 to between 20% and 22% since 2010/11. This increase followed a shift of 92(f) settlements with no election from common law to redemptions
- common law payments were stable around 14% from 2008/09 to 2009/10, however since then they have decreased to be between 5.5% and 7.5%
- medical and hospital payments combined have been between 14% to 16% over the period shown
- all other treatment and legal payments have been stable between 5% and 6% over the period shown
- vocational rehabilitation payments have been stable around 3.5% over the period shown.

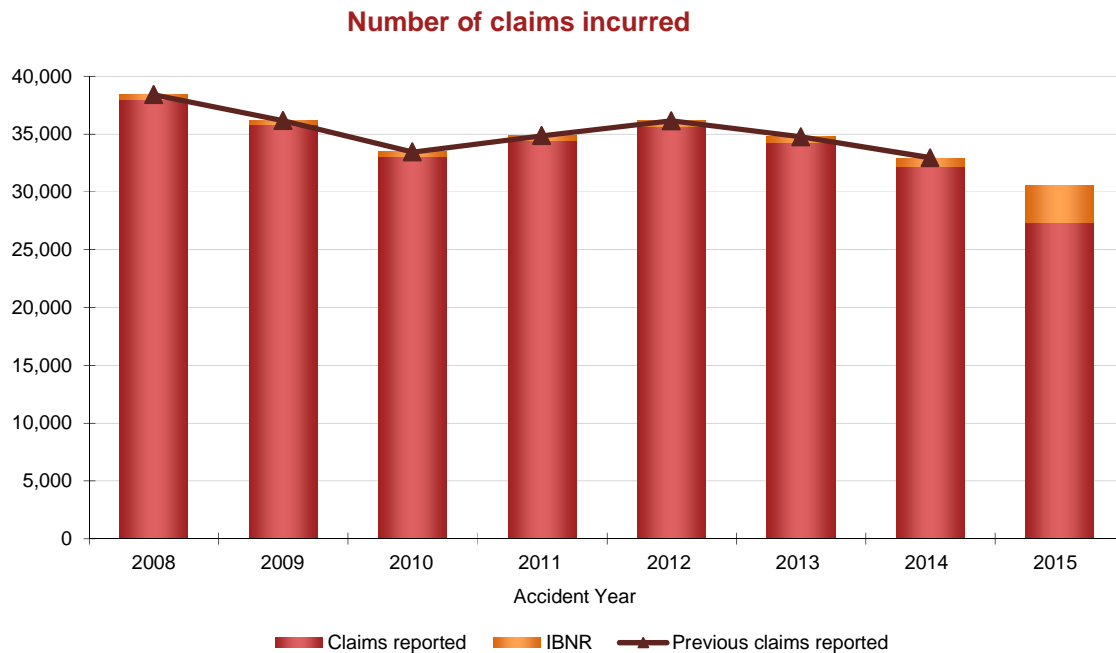
Appendix G Claims statistics

What this appendix covers

- Graphs the key data items including claims incurred, average claim size, incurred cost, loss ratios, finalisation rates and PPCI.
-

G 1 Number of claims incurred

Decrease in claims incurred for 2015 to a low of 30,500



The key experience points from the above chart are:

- Claims incurred decreased from around 38,000 to just under 33,500 claims in 2010
- 2011 and 2012 both experienced moderate increases of 4%, so that in 2012 there were 36,200 claims incurred
- Since 2012 there has been a strong decreasing trend, with reductions of 4%, 6% and 7% across the 2013, 2014 and 2015 accident years respectively. In 2015 the estimated number of claims incurred is just over 30,500, which is lower than all prior years.

In the six months to 31 December 2015 the number of claims reported for claims incurred during the 2016 accident year is lower than the comparable period in the 2015 accident year, and is 2.9% lower than expected. This indicates that the number of claims incurred for 2016 could be lower than 2015.

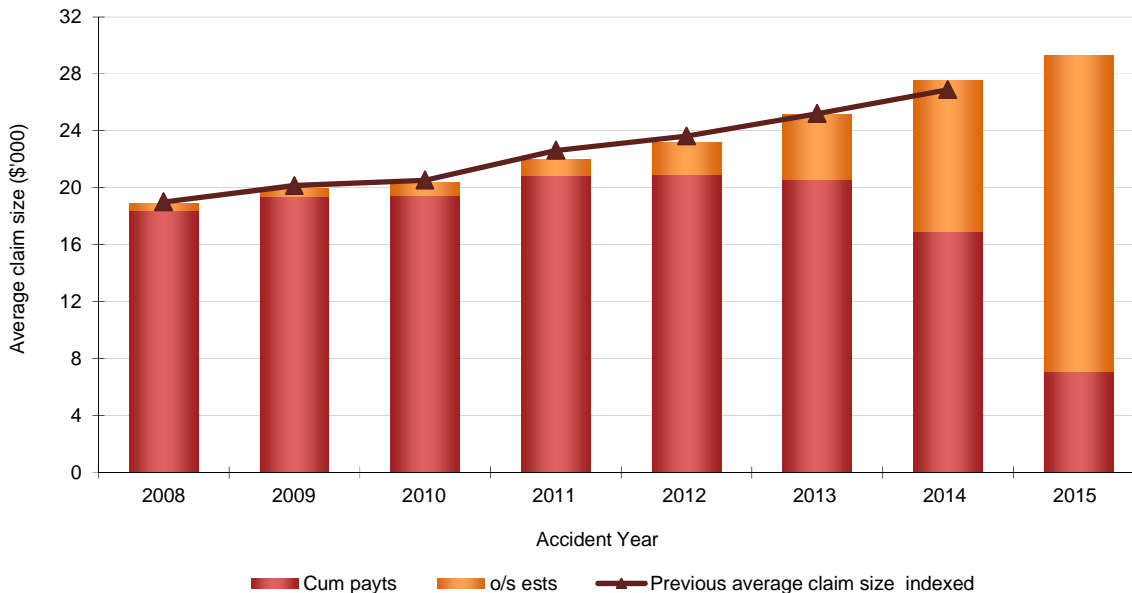
From reviewing the number of claims by duration it seems that it is the number of short duration claims that have caused the reduction in claims numbers.

The number of claims incurred for the current valuation is on par with the previous valuation.

G 2 Average claim sizes

Strong increasing trend continues in 2015 accident year

Average claim size in 30 June 2015 values



The higher average claim sizes in recent years are a reflection of the trends shown in Appendix G6. Over the eight years shown in the graph there has been an increasing trend, with an overall increase of 55.5% or 6.5% pa, in current values.

The uncertainty of the estimates, and any future development which occurs, means that the ultimate level may differ from projected at this early development stage for recent accident years. This is especially true for the 2015 accident year where a high proportion (76%) of the average claim size consists of the uncertain future estimate.

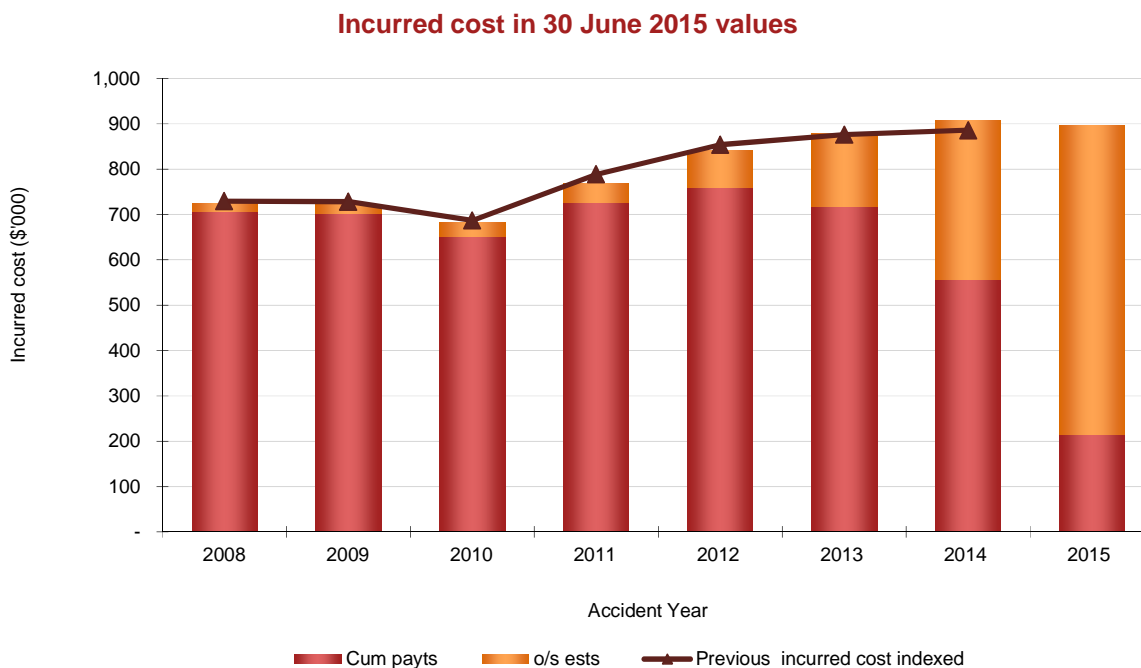
The real average claim size trends show the combined impact of:

- change in mix of claims with the reduction in claims for the most recent years mainly a reduction in small claims
- high levels of superimposed inflation
- the increasing average duration of claims.

The average claim sizes for 2014 and earlier are similar to the previous valuation, with small reductions for 2011 and 2012 and an increase for 2014.

G 3 Incurred cost

Stable over last three accident years around \$900 million



The incurred cost has shown the following trends:

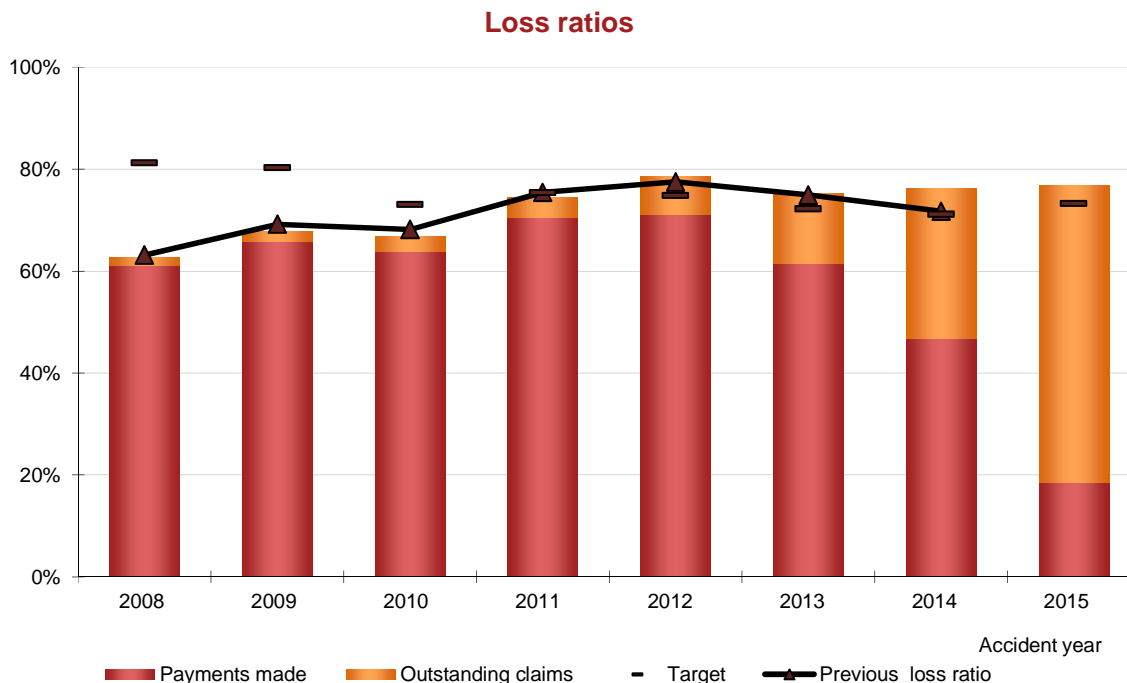
- A decreasing trend between 2008 and 2010 as the reduction in claim numbers had a more significant impact than the increase in the average claim size
- An increasing trend between 2010 and 2013, from just under \$700 million to around \$900 million. This is driven by strong increases in the average claim size and increases in number of claims until 2012
- A stable incurred cost around \$900 million between 2013 and 2015. The significant decrease in the number of claims incurred is offset by the strong increase in the average claim size over this period.

Over the period shown in the graph, the proportion outstanding increases from 2% of the total incurred cost to 76% of the total incurred cost for 2015.

The incurred costs are similar to the previous valuation, with small reductions for 2011 and 2012 and an increase for 2014.

G 4 Loss ratios

Deterioration in experience relative to previous valuation such that the most recent four accident years are above the target



Note: (a) The target loss ratio was developed in section 6.5, and equivalent section of prior reports. Including brokerage, the 2016/17 target loss ratio is 73.8% in inflated and discounted values. This is equivalent to 73.6% in current values or 76.9% inflated.

Loss ratios are calculated for each accident year using the following formula:

$$\frac{\text{(Past claim payments to 30 June 2015+ estimated outstanding liability at 30 June 2015)}}{\text{earned premium}}$$

The past claim payments, estimated outstanding liability and earned premium are all in 30 June 2015 values i.e. current values. Also the estimated outstanding liability includes allowance for future superimposed inflation.

These ratios are not a proper measure of profitability as they do not allow for investment returns or expenses. Nevertheless, as a crude measure, they do provide an indication of trends in the experience.

The loss ratios are calculated in the following table and illustrated in the chart above. The chart shows separately the portion of the loss ratios relating to amount already paid and amount still outstanding:

Accident year ended 30 June	Gross earned premiums		Cumulative payments		Estimated net outstanding claims liability	Estimated loss ratio
	In historic values	In 30 June 2015 values	In historic values	In 30 June 2015 values	in 30 June 2015 values	
	\$M	\$M	\$M	\$M	\$M	
2008	796.107	1,154.541	537.731	706.934	17.214	63%
2009	788.115	1,063.133	565.182	700.791	20.633	68%
2010	806.291	1,018.980	557.513	650.924	30.563	67%
2011	867.752	1,029.982	655.209	727.095	40.328	75%
2012	953.524	1,067.215	712.502	758.702	80.952	79%
2013	1,101.293	1,166.210	691.643	717.979	159.156	75%
2014	1,141.454	1,186.626	543.433	555.782	350.287	76%
2015	1,151.461	1,165.018	213.336	215.848	679.367	77%

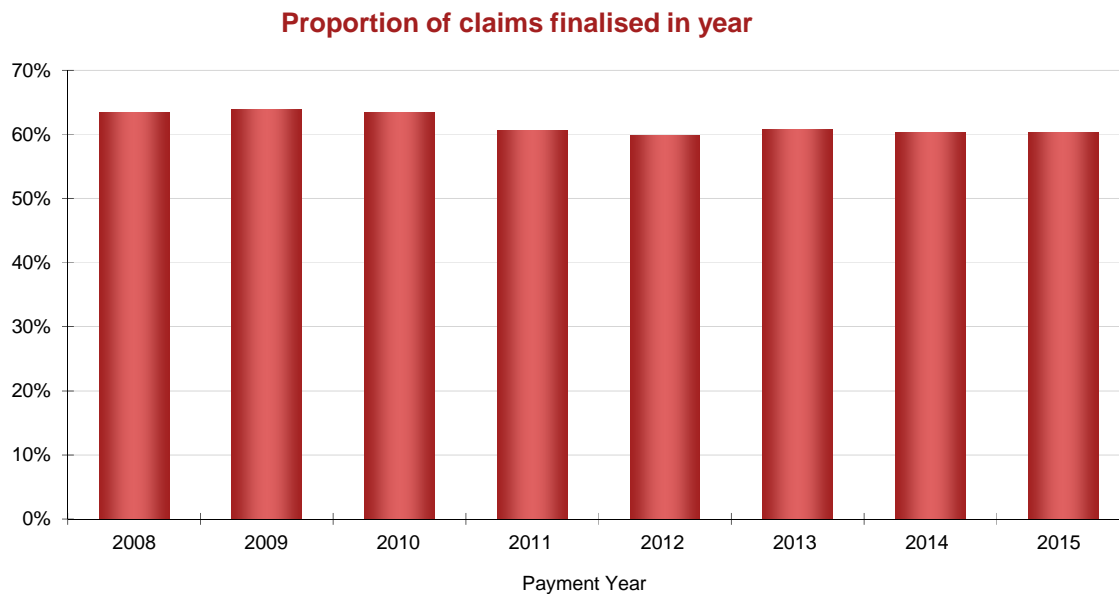
The loss ratio is in current 30 June 2015 values.

The table and chart show:

- The loss ratios had a generally increasing trend from 2008 to 2012, from around 63% to 79%
- Since 2012 the loss ratio has been stable between 75% and 80%
- Compared to the previous valuation the loss ratio for the 2014 accident year has increased. This is due to a decrease in the earned premium
- The 2008 to 2011 accident years are all below the target loss ratio, while the 2012 to 2015 accident years are all above the target.

G 5 Finalisation of claims

Stable claim finalisation in most recent five payment years of 60%



Probabilities of claim finalisation is defined as:

Number of claims finalised in year

(Number of outstanding at beginning of the year plus number reported during the year)

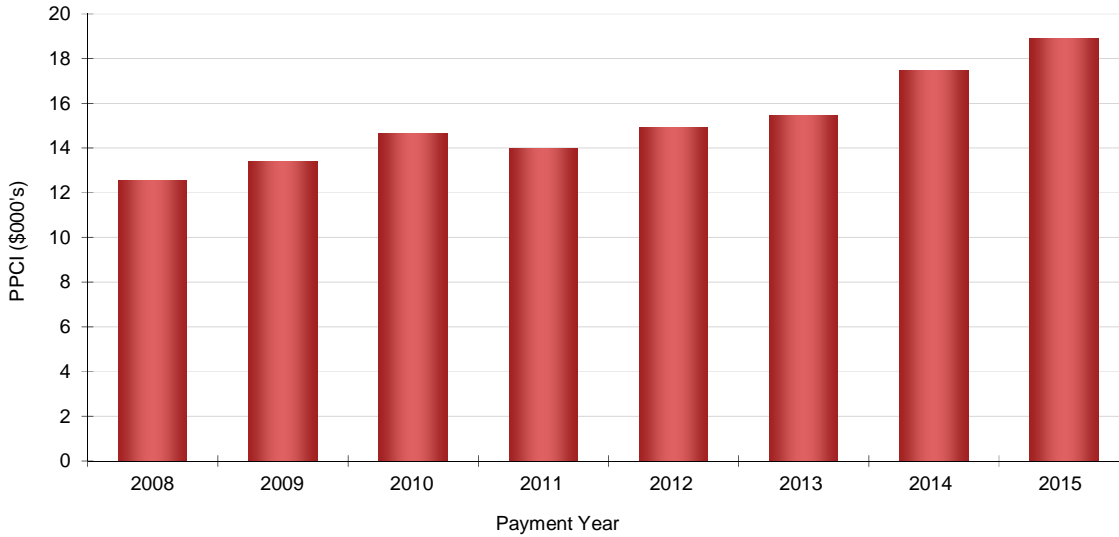
The proportion of claims finalised was relatively stable from 2008 to 2010, between 63% and 64%. However, there has been a decrease in the last five payment years, to be between 59% and 61%. This is mainly due to a slow down in the finalisation rate for the equivalent accident year to the payment year, the older accident years generally have faster finalisation rates.

G 6 *Payment per claim incurred*

By payment year

Significant increase in 2015 to just under \$19,000

Real payments per claim incurred : development years 1 - 6

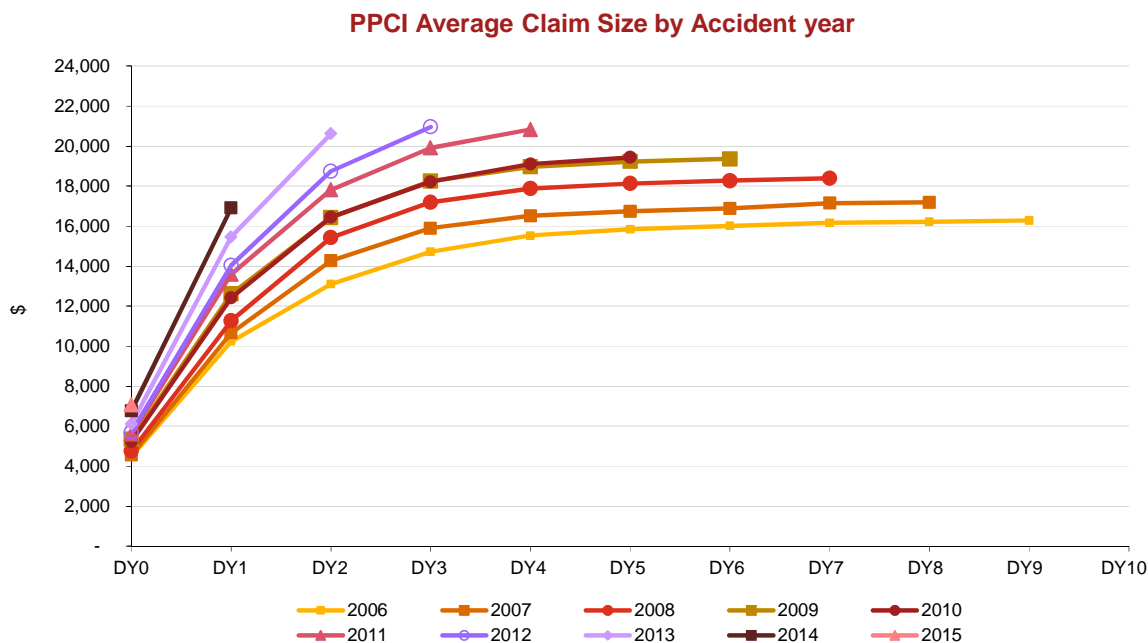


Since the 2006 payment year there has been an increasing trend, except for the reduction in 2011 following the spike in 2010. This spike was due to a large number of settlements being paid in 2010.

There has been a significant increase in the 2015 payment year, to just under \$19,000. This is 8.2% higher than the 2014 payment year. This is partially due to the changing mix in the size of claims.

By accident year

Continuing evidence of superimposed inflation in payments by accident year



The chart above shows cumulative PPCI by accident year. This is calculated as:

$$\frac{\text{sum of claim payments by development year made to date (in 30 June 2015 values)}}{\text{number of claims incurred to date}}$$

As the values in the chart are all in current values, any differences are the result of a change in the real cost of each claim. This is also referred to as superimposed inflation. The chart is based entirely on actual experience. There are no future projections included in this graph.

The key points from this chart may be summarised as follows:

- From 2011 to 2015 there is an increasing trend across accident years, with each year higher than the previous years at the same stage of development. This is due to the combined impact of:
 - the presence of superimposed inflation in the scheme
 - the change in the mix of claims and the reduction in the number of small claims reported for the most recent three accident years
- The 2010 accident year started below the 2009 accident year but is relatively on par from DY2 onwards
- Each accident year from 2006 to 2009 is greater than the previous, highlighting the prevalence of superimposed inflation between these years.

Appendix H Comparative statistics

What this appendix covers

- Compares data received to other sources, i.e. ABS statistics
 - Provides a high level analysis of the key trends.
-

H 1 Statistical trends

H1.1 Aggregate incurred cost of claims in current values

The table below shows, using the benefit of hindsight, the estimated incurred cost of claims in current values as at 30 June 2015 by financial year of accident:

Accident year ending 30 June	Estimated Incurred Costs in Current Values as at 30 June 2015						
	Cumulative payments \$M (a)	Estimated outstanding \$M (b)	Estimated incurred \$M (c)	Estimated no of claims incurred (d)	Average claim size \$ (e)	Earned wages in c/ values \$M (f)	Claim cost % of wages (g)
2015	215.8	679.4	895.2	30,554	29,299	83,602	1.07%
2014	555.8	350.3	906.1	32,869	27,566	82,819	1.09%
2013	718.0	159.2	877.1	34,825	25,187	81,869	1.07%
2012	758.7	81.0	839.7	36,197	23,197	80,237	1.05%
2011	727.1	40.3	767.4	34,899	21,990	73,928	1.04%
2010	650.9	30.6	681.5	33,484	20,353	70,118	0.97%
2009	700.8	20.6	721.4	36,196	19,931	71,681	1.01%
2008	706.9	17.2	724.1	38,436	18,841	69,588	1.04%

Notes :

- (a) cumulative actual claim payments indexed to current values
- (b) from appendix E4.4
- (c) = (a) + (b)
- (d) from appendix E3.1
- (e) = (c) in \$ / (d)
- (f) from Form WC11 indexed to current values adjusted to est final wages as in appendix C2.1
- (g) = (c) / (f) .

The key trends to highlight in the table are:

- The average claim size has increased in real terms from \$18,800 in 2008 to \$29,300 in 2015. This is an average annual increase over the period of 6.5%. For the most recent years this is driven by a reduction in the number of small claims
- Estimated claim cost as a percentage of wages decreased from 1.04% in 2008 to 0.97% in 2010. There was an increasing trend to 1.09% in 2014, but it has decreased to 1.07% in 2015
- The claim cost as a percentage of wages for 2012 and earlier decreasing by 0.01% but 2013 and more recent accident years has increased since the previous valuation. 2013 has increased by 0.01% due to higher claims cost and 2014 has increase by 0.6% due to earned wages developing less than historically.

Our estimates in the table above make realistic allowance for current trends to continue in future.

The wages above include the wage adjustment factors from Appendix C2.1 to develop them to ultimate.

Claim frequency has been as follows:

Claim frequency as % of :		
Accident year ending 30 June	Number of employees (a)	\$88,007 of real wages (b)
2015	2.9%	3.2%
2014	3.2%	3.5%
2013	3.4%	3.7%
2012	3.7%	4.0%
2011	3.7%	4.2%
2010	3.7%	4.2%
2009	3.9%	4.4%
2008	4.3%	4.9%

Notes : (a) item (g) from the last table in appendix H2
 (b) = number of claims incurred / (real wages / ave real wages (\$88,007)) from table above

Claim frequency per \$88,007 wages has declined by an equivalent 5.7% per year over 2008 to 2015 and by 5.2% per year per employee. The \$88,007 figure adopted is the annualised figure from ABS Cat 6302.0 Average Weekly Earnings for Western Australia (persons, full-time adult ordinary time earnings).

H1.2 Claim numbers and sizes and estimated incurred costs

Accident year ending 30 June	Estimated number of claims incurred (a)	Average claim size in 30 June 15 values (b)	Estimated inflated incurred cost of claims \$M (c)
2015	30,554	29,299	941.1
2014	32,869	27,566	924.0
2013	34,825	25,187	870.1
2012	36,197	23,197	805.0
2011	34,899	21,990	700.4
2010	33,484	20,353	591.6
2009	36,196	19,931	588.0
2008	38,436	18,841	556.5

Notes : (a) from appendix E3.1
 (b) from appendix E4.4
 (c) actual cumulative past payments plus inflated projected future payments (from appendix E4.5 but without claims expenses)

The table above shows that:

- There was a significant decrease in the estimated number of claims incurred from 2008 to 2010, with a reduction from around 38,000 to just fewer than 33,500 in 2010. There were increases in claims incurred over 2011 and 2012, to 36,000. Since 2012 there has been significant decreases, such that in 2015 the estimated incurred claims are just over 30,500
- Average claim size has increased by 55.5% in real terms since 2008, or 6.5% pa
- Inflated incurred cost increased by 69.1% (\$385 million) between 2008 and 2015 in actual (inflated) dollars, including the 2011 Amendment Act impact.

H1.3 Reserving and loss ratios

Some overall market reserving and loss ratios which may assist insurers to judge the relative strength of their outstanding claim estimates are as follows:

Accident year ending 30 June	Cumulative claim payments \$M (a)	Total case estimates \$M (b)	Inflated actuarial incurred cost ests \$M (c)	Total case estimates to claim payments (d)	Ultimate incurred costs/claim payments (e)	Ultimate incurred costs/total case ests (f)	Inflated loss ratios (g)
2015	213.3	587.6	941.1	275%	441%	160%	82%
2014	543.4	835.7	924.0	154%	170%	111%	81%
2013	691.6	834.2	870.1	121%	126%	104%	79%
2012	712.5	785.6	805.0	110%	113%	102%	84%
2011	655.2	690.5	700.4	105%	107%	101%	81%
2010	557.5	571.9	591.6	103%	106%	103%	73%
2009	565.2	572.7	588.0	101%	104%	103%	75%
2008	537.7	541.8	556.5	101%	103%	103%	70%

- Notes :
- (a) cumulative actual claim payments
 - (b) = (a) + insurer's case estimates outstanding
 - (c) = (c) from previous table
 - (d) = (b) / (a) x 100
 - (e) = (c) / (a) x 100
 - (f) = (c) / (b) x 100
 - (g) = (c) in \$ / (earned premium from WC11 supplied by insurers + earned but not yet raised premium supplied by insurers on their WC30) x development factor in Appendix C

By applying the ratios in columns (d), (e) and (f) above, insurers can obtain a measure of the strength of their own case estimates and total incurred claim cost, relative to overall market levels.

Compared to last year:

- The case estimate ratio (d) at the same stage of development was similar to last year, with changes between 1% and -3%, except the most recent year (2015) which decreased by 11%
- The ultimate incurred cost ratio to payments (e) reduced for all years, by up to 5%, except for 2015 (DY0) which increased by 4%
- The ultimate incurred cost ratio to total case estimates (f) decreased for all accident year by between 1% and 2%, except for DY0 (2015) where the ratio increased by 8%.

The inflated loss ratio (g) is a measure of the cost of claims to earned premium. The higher the loss ratio, the less profitable the portfolio of risks. Compared to last year, loss ratio estimates are lower (better) for all accident years, by between 0% and 2%, except 2014 which increased by 2%.

The target inflated loss ratio including all expenses (including brokerage) and profit loadings is 77% for 2016/17. See Appendix G4 for a comparison of loss ratios against target loss ratio in current values. Compared to the target loss ratio, the experience for most recent four accident years is higher (worse), while all other accident year's loss ratios are lower (more profitable). However, there is significant uncertainty in the ultimate cost for 2015 as a high proportion of total costs which are still outstanding (76%).

H1.4 Case estimates, expenses and discount levels and margins

Financial year ending 30 June	Insurers' case estimates outstanding \$ M	Total expense levels %	Discount level by insurers against Gazette
2015	974.333	18.0%	13.0%
2014	988.780	16.4%	13.7%
2013	941.803	15.3%	14.1%
2012	831.235	16.0%	15.5%
2011	795.037	17.3%	11.4%
2010	717.291	18.0%	18.6%
2009	719.510	17.6%	9.6%
2008	622.134	18.5%	17.1%
2007	614.860	17.8%	

Note that ICWA doesn't include brokerage or contingency margin in premium though, so discount overstated but impact immaterial (0.5%)

The table above shows that:

- outstanding case estimates decreased by 1.5% in 2015, following a 5.0% increase in 2014
- total expense levels increased to 18.0% from 16.4% last year (and increased by 1.5% excluding brokerage to 15.1% from 13.6% last year)
- insurer premium discounts to Gazette rates gradually decreased from 2008 to 2015, except for large decreases in 2009 and 2011. In 2015 the discount is around 13.0%, the lowest it has been over the most recent four years. We have developed the gross written wages based on historical development. Without this development the discount levels would be significantly higher. The discount levels for all years have increased since last year. The most significant increase has been for 2014, from 9.0% last year to 13.7%. 2011 to 2014 all had significant upwards movements as gross written premium development was lower than expected.

H1.5 Comparison of workers compensation costs and wages by industry division

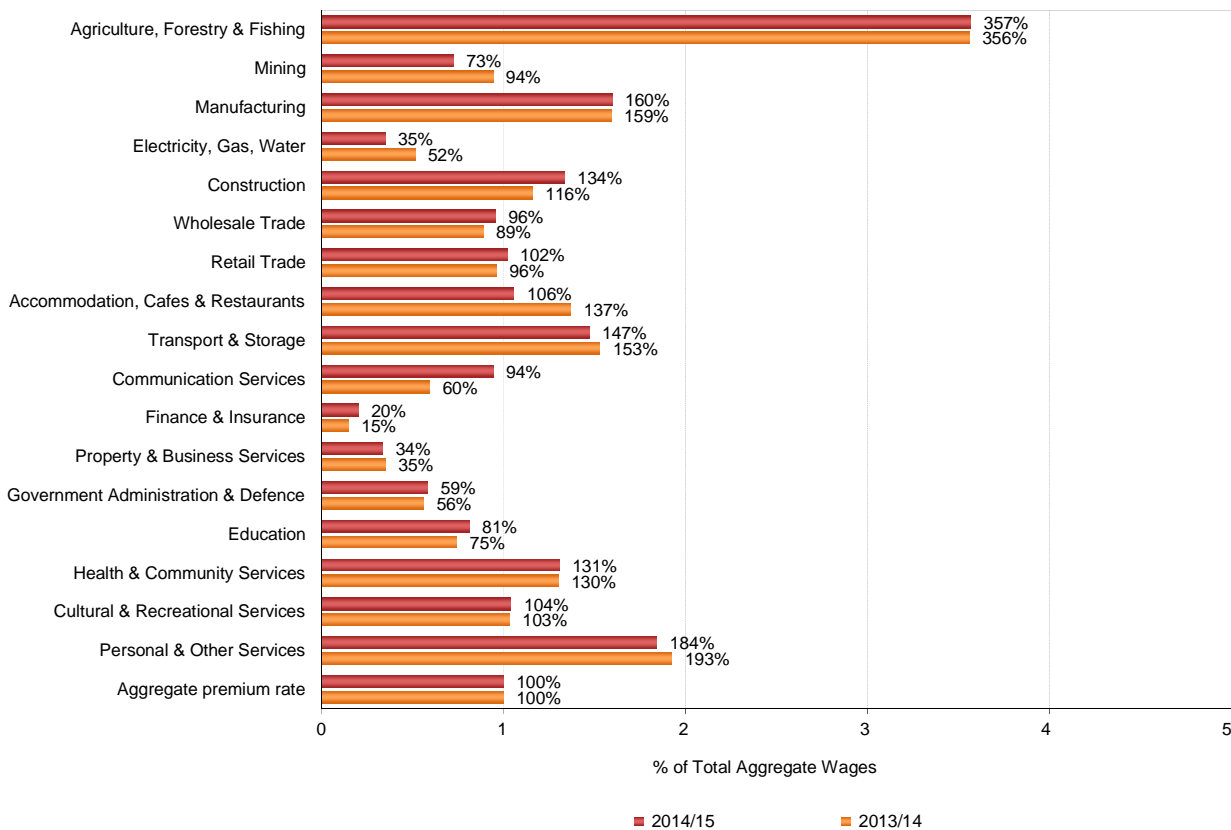
The charts below show the:

- comparative cost of workers compensation claims as a percentage of the aggregate premium rate over the past two years by industry
- composition of wages by industry for the 2014/15 accident year only and
- composition of wages by industry for the 2010/11 to 2014/15 accident years.

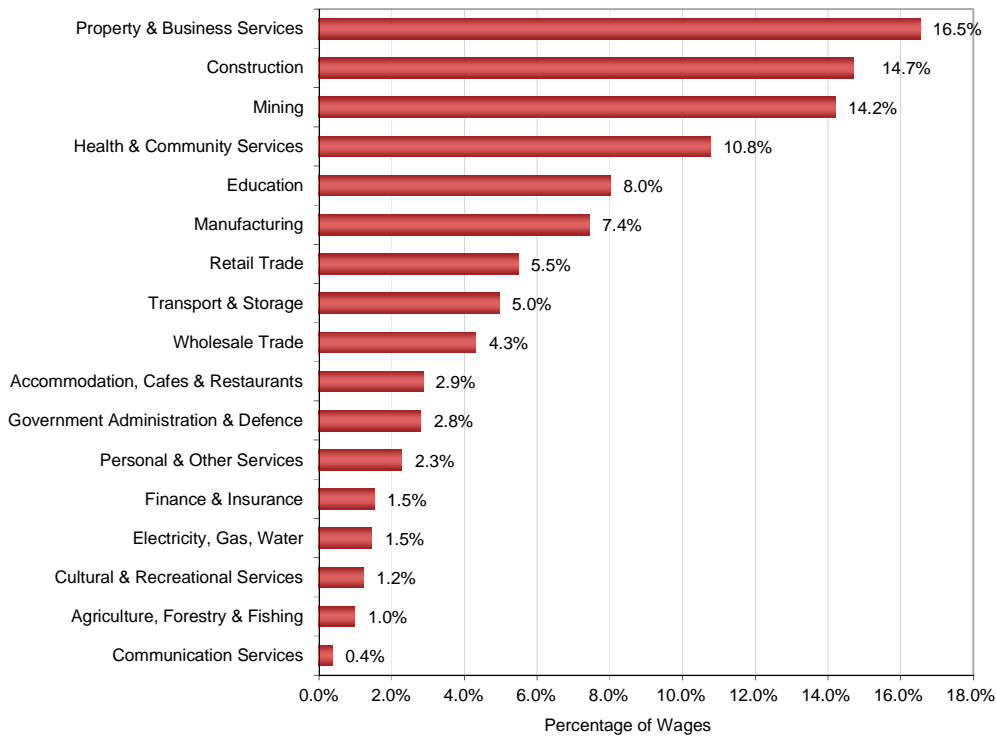
The cost of claims is estimated:

- by year of accident
- using the actuarial basis and methods in this report
- including an allowance for expenses and margins (as per section 3)
- using cost estimates including all development data up to 30 June 2015
- a higher proportion of total cost is estimated for 2014/15 than for the earlier accident years.

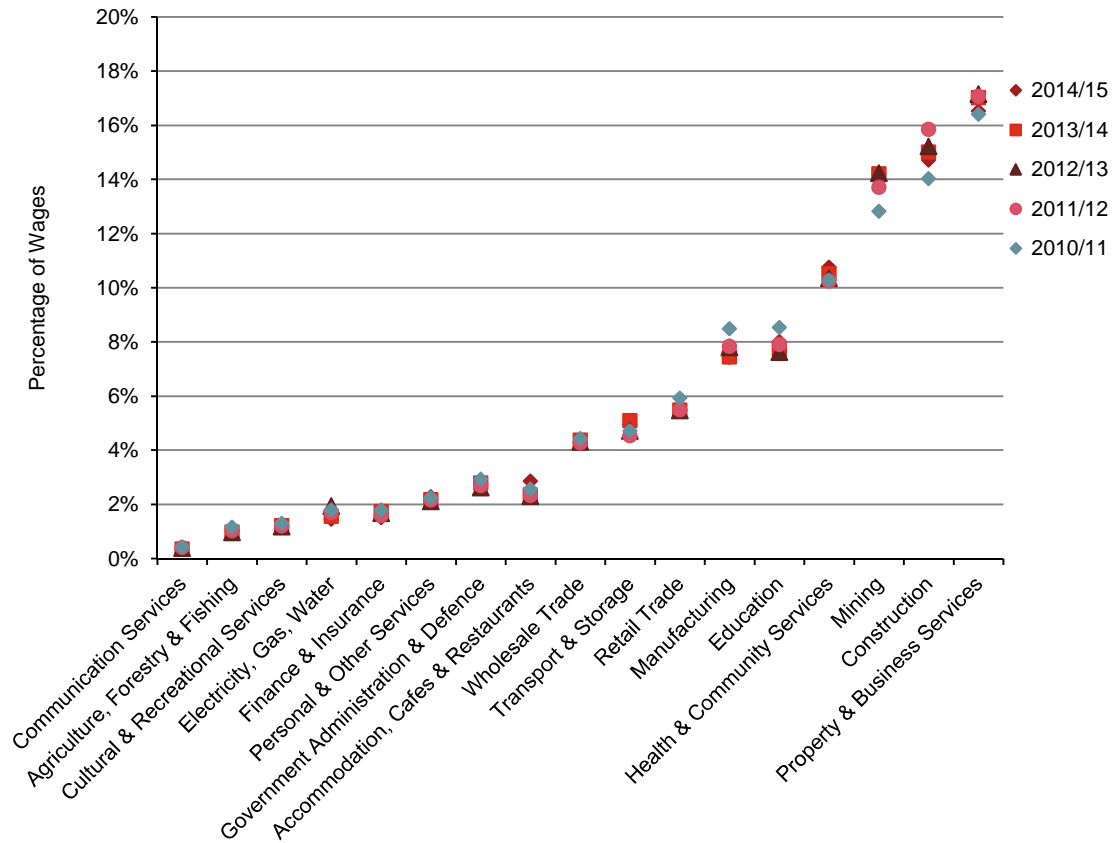
Industry premium rate by accident year as % of aggregate premium rate



Percentage of wages by industry for the 2014/15 accident year only



Percentage of wages by industry for the 2010/11 to 2014/15 accident years



H 2 Comparative statistics

Wages

	Reporting period							
	2014/15	2013/14	2012/13	2011/12	2010/11	2009/10	2008/09	2007/08
Adjusted written wages \$M (a)	85,216	80,784	78,038	73,040	65,736	56,941	53,322	49,955
% change (b)	5.5%	3.5%	6.8%	11.1%	15.4%	6.8%	6.7%	
% change in rates (c)	-6.7%	-1.4%	7.8%	4.8%	-13.9%	9.9%	-14.4%	-12.7%
Notional premium \$M (d)	1,330.8	1,343.4	1,299.0	1,143.1	969.9	992.5	824.9	926.9
% change (e)	-0.9%	3.4%	13.6%	17.9%	-2.3%	20.3%	-11.0%	
Expected % change in notional prem (f)	-1.6%	2.1%	15.2%	16.5%	-0.6%	17.3%	-8.7%	
Returned Gross Written Premium (g)	1,050.1	1,108.5	1,098.1	981.9	881.0	830.5	767.6	793.1
Adjusted Gross Written Premium (h)	1,192.4	1,192.0	1,146.2	992.6	883.4	832.5	768.6	794.2
% discount by market (i)	13.0%	13.7%	14.1%	15.5%	11.4%	18.6%	9.6%	17.1%
Notional Average Premium Rate (j)	1.56%	1.66%	1.66%	1.57%	1.48%	1.74%	1.55%	1.86%
Insurer's average premium rate (k)	1.40%	1.48%	1.47%	1.36%	1.34%	1.46%	1.44%	1.59%

- Notes :
- (a) from Form WC11 adjusted to estimated final written wages as per appendix C2.1
 - (b) % change in (a) from previous year
 - (c) rate change as decided by RPR
 - (d) calculated from (a) and the applicable Gazette rates
 - (e) % change in (d) from previous year
 - (f) = $(1 + b) \times (1 + c) - 1$
 - (g) returned by insurers taken from Form WC11
 - (h) = (g) x (GWP adjustment factor as per appendix C2.1)
 - (i) = $\{1 - (h) / ((d) \times (1 + \text{the rate of commission}))\}$ to add back the brokerage allowance.
Note that ICWA doesn't include brokerage or contingency margin in premium though, so discount overstated but impact immaterial (0.5%)
 - (j) = (d) / (a)
 - (k) = (h) / (a)

Over the period shown in the table above returned written wages grew by greater than the level of AWE wage inflation. Wages for 2014/15 grew by 5.5% compared to AWE growth of 1.9% i.e. 3.6% excess wage growth. Excluding 2008/09 and 2009/10, prior years' growth in wages have significantly exceeded AWE growth, which is a reflection of the strong growth of the Western Australian economy.

The lower growth in wages in 2008/09 and 2009/10 probably reflects the cost cutting measures undertaken by companies in response to the GFC. The relatively low levels of wage growth in 2013/14 and 2014/15 compared to prior periods may reflect a shift in the current phase of the mining industry in WA, from a construction focus to a production focus.

The expected percentage change in returned notional premiums has been reasonably close to the actual change (within 2%), except for 2008/09 and 2009/10.

Insurer premium discounts to Gazette rates followed a decreasing trend, from 17.1% in 2008 to 13.0% in 2015, except for large decreases in 2009 to 9.6% and 2011 to 11.4%, and an increase in 2010 to 18.6%. We have allowed for the historical development of written premium. We have also increased the notional premium to add back brokerage.

As a basis for comparison we have extracted statistics from the Australian Bureau of Statistics Cat 6248.0 (Wage and Salary Earners, Public sector Australia), Cat 6202.0 Labour Force Australia (Private sectors) for wage and salary earners and Cat 5676.0 for private sector wages.

ABS Gross earnings statistics are not directly comparable with returned wages since:

- returned wages include the Agriculture private sector, ABS figures do not

- for ABS gross earnings we include only State Government all public sector earnings excluding permanent defence forces, and returned wages are on a similar basis, but exclude WA Police officers
- ABS gross earnings include self-insurers, while premium rating returns exclude self-insurers (including LGIS- WorkCare).

Adjustments made for these items for comparison purposes are:

- deduct the percent of RPR wages that self-insurers represent each year
- deduct 1% for police officers
- add back the percent of wages that the Agriculture division represents each year.

This year we have again analysed the percent of the total RPR wages that the self-insurers represent. In order to attain the relevant percentage we have examined the developed wages, which allows for development in wages reported for accident years across reporting periods. The analysis shows self-insurer wages represent between 8.8% and 9.8% of the total RPR wages.

	Reporting period							
	2014/15	2013/14	2012/13	2011/12	2010/11	2009/10	2008/09	2007/08
Wage & salary earners (000's) (a)	1,141.8	1,120.9	1,127.2	1,086.0	1,040.5	999.0	1,008.6	977.5
% change (b)	1.9%	-0.6%	3.8%	4.4%	4.1%	-0.9%	3.2%	
Estimated RPR employees (c)	1,036.2	1,012.6	1,024.0	984.3	943.7	902.6	920.4	894.2
Gross ABS earnings \$M (d)	86,494	85,235	82,225	75,481	67,718	58,924	58,537	50,675
Estimated gross RPR earnings \$M (e)	78,496	77,000	74,698	68,410	61,419	53,236	53,418	46,357
% change (f)	1.9%	3.1%	9.2%	11.4%	15.4%	-0.3%	15.2%	
RPR adjusted earned wages (g)	82,629	79,666	77,311	71,689	62,284	55,483	53,138	47,984
Earned wages % of est gross earnings (h)	105.3%	103.5%	103.5%	104.8%	101.4%	104.2%	99.5%	103.5%
Est RPR employees % of wage & salary earners (i)	90.8%	90.3%	90.8%	90.6%	90.7%	90.3%	91.3%	91.5%
Agriculture wages as % of total RPR wages (j)	1.0%	1.0%	1.0%	1.0%	1.2%	1.3%	1.4%	1.4%
Self insurer wages as % of total RPR wages (k)	9.1%	9.5%	9.0%	9.3%	9.4%	9.8%	9.0%	8.8%

Notes :

(a) = from ABS Cat 6248.0.55.002 2011-12 Table 1 Public sector employees state only from 2003/04 onwards
ABS Cat 6202.0 Labour Force Australia table 8 (Persons) for private sector Jan 2013.

(b) = % change in (a) from previous year

(c) = (a) x (1 - (j) self-insurers - 0.01 WA Police) / (1 - (i) Agriculture).

(d) = from ABS Cat 6248.0.55.002 2011-12 Table 2 Public sector cash wages and salaries for State Government only from 2003/04 onwards
Table 19 of ABS Cat 5676.0 for private sector June 2012 Quarter

(e) = (d) x (1 - (j) self-insurers - 0.01 WA Police) / (1 - (i) Agriculture).

(f) = % change in (e) from previous year

(g) from Form WC11 adjusted to estimated final written wages as per appendix C2.1

(h) = (g) / (e)

(i) = (c) / (a) x 100

(j) = Agriculture as % of total RPR wages chart in appendix H1.5 and equivalent in earlier reports

(k) = Self insurers as % of total RPR + self insurers wages

As mentioned above in 2014/15 adjusted earned wages increased by 5.5% or by 3.6% in excess of AWE inflation. There was an increase in wage and salary earners in 2014/15 of 1.9%, which means wages increased by 1.2% more than expected [$1.055 - 1.036 \times 1.019^{0.5}$]. Last year wage growth exceeded expectations by $(1.056 - 1.050 \times 1.00^{0.5}) = 0.6\%$.

Adjusted earned wages as a percentage of ABS data are all at or above 100%, with the exception of the 2008/09 reporting period. The 2010/11 wages are close to 100% (101.4%) but the other reporting periods shown in the table lie in the range of 103.5% to 105.3%.

Claim Experience

Claim payments, case estimates and claim numbers have varied as follows by financial year:

	Reporting period							
	2014/15	2013/14	2012/13	2011/12	2010/11	2009/10	2008/09	2007/08
Claim payments \$M (a)	868.3	830.7	741.9	674.6	602.1	597.2	548.4	482.5
% change (b)	4.5%	12.0%	10.0%	12.0%	0.8%	8.9%	13.7%	
Real claim payments \$M (c)	878.5	863.5	785.6	755.0	714.7	754.7	739.8	699.7
% change (d)	1.7%	9.9%	4.1%	5.6%	-5.3%	2.0%	5.7%	
Estd incurred claim numbers (e)	30,554	32,869	34,825	36,197	34,899	33,484	36,196	38,436
% change (f)	-7.0%	-5.6%	-3.8%	3.7%	4.2%	-7.5%	-5.8%	
Claim frequency (g)	2.9%	3.2%	3.4%	3.7%	3.7%	3.7%	3.9%	4.3%
Active claims (h)	21,080	22,228	22,835	23,081	21,508	19,869	20,876	21,428
% change (i)	-5.2%	-2.7%	-1.1%	7.3%	8.2%	-4.8%	-2.6%	
Case estimates outstanding \$M (j)	974.3	988.8	941.8	831.2	795.0	717.3	719.5	622.1
% change (k)	-1.5%	5.0%	13.3%	4.6%	10.8%	-0.3%	15.7%	

Notes :

- (a) from Form WC20 returned by insurers
- (b) % change in (a) from previous year
- (c) = (a) indexed into 30 June 2015 values
- (d) % change in (c) from previous year
- (e) = number reported + actuarial estimate of IBNRs
- (f) % change in (e) from previous year
- (g) = (e) / {row (c) from previous table}
- (h) from Form WC20 returned by insurers
- (i) % change in (h) from previous year
- (j) from Form WC20 returned by insurers
- (k) % change in (j) from previous year

- Real claim payments increased from \$700 million in 2007/08 to \$755 million in 2009/10, an increase of 7.9%, or 3.9% pa. However, in 2010/11 real claim payments decreased to \$715 million, a decrease of 5.3% from the 2009/10 level. Since this decrease there has been an increasing trend to \$879 million in 2015. Over 2007/08 to 2014/15 payments have increased 25.6% or 3.3% pa.
- Estimated incurred claim numbers decreased over 2008/09 and 2009/10, from around 38,000 in 2007/08 to just fewer than 33,500. There were increases in 2010/11 and 2011/12 to around 36,000 claims. However, since then there have been decreases in each year, such that in 2015 there are just over 30,500 claims incurred, the lowest level to date
- Claim frequency as a percentage of employees steadily declined from 4.3% in 2007/08 to 2.9% in 2014/15
- Active claims were varied between 20,000 and 21,500 from 2007/08 to 2010/11. Active claims increased to around 23,000 in 2011/12 and 2012/13, but since then there has been a decreasing trend to just over 21,000 active claims at the end of 2014/15
- Case estimates outstanding have increased significantly each year since 2007/08, except for slight decreases in 2009/10 and 2014/15. At the end of 2014/15 case estimates outstanding were \$974 million, which is \$352 million higher than 2007/08, or 56.6% which is equivalent to an average annual increase of 7.0%

- Since 2007/08 there has been an increasing trend in the level of real total estimates, except for 2014/15 which is on par with 2013/14. The decrease in real claim payments in 2010/11 is more than offset by an increase in the case estimates outstanding for this year, and similarly the decrease in case estimates for 2009/10 is more than offset by the increase in real claim payments. In 2014/15 the increase in payments was offset by the decrease in case estimates. All other years have seen increases in both real claim payments and case estimates outstanding.

Appendix I Analysis of lump sum claim experience

What this appendix covers

- Summary of the analysis of section 92(f) settlements, redemptions and Schedule 2 claims data.
-

I 1 Section 92(f) settlements

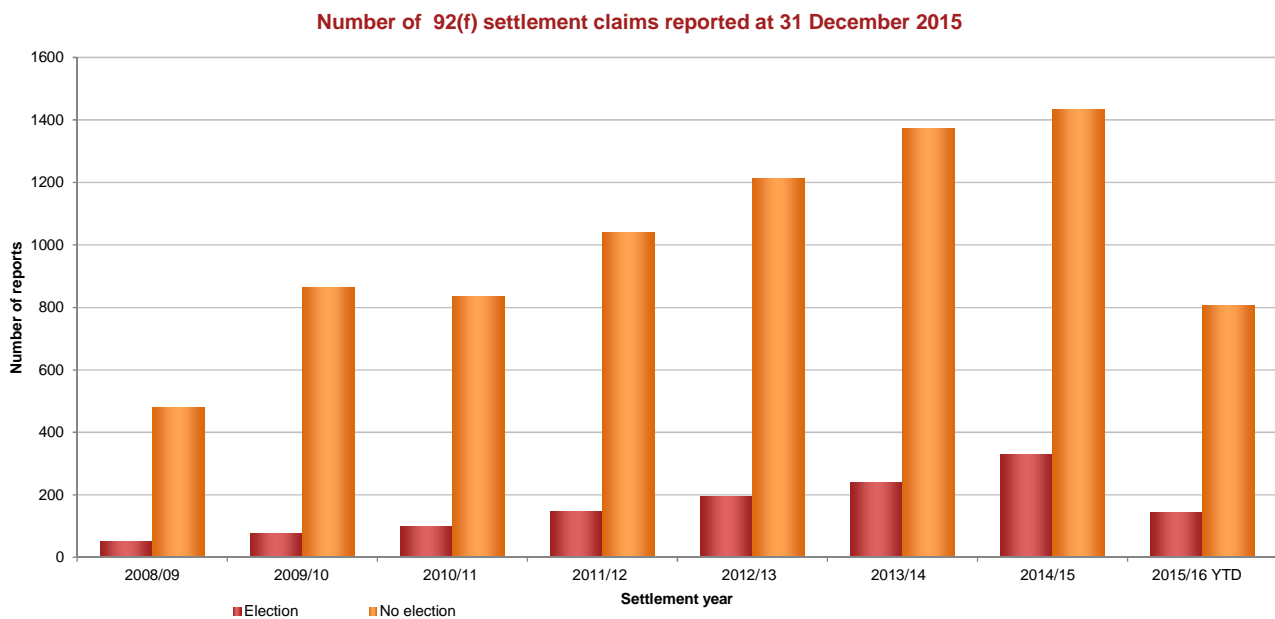
Section 92(f) has been in the Act since 1981, however the use of this settlement pathway has escalated significantly in the last few years. The intention of the section is to allow common law claims to be settled prior to the matter going to trial and close the claim off to any further common law action.

As the wording of the Act is quite broad, this section has been used for a number of purposes, including:

- redeeming claims before the six months of weekly benefits required for a redemption under the statutory system
- industrial relations claims, and
- the original intention of this section of the Act.

WorkCover WA supplied us with 92(f) settlement data separately for claims with and without an election application for the most recent settlement year. Data relating to previous settlement years was provided for previous reviews. An analysis of this data is presented in the chart and commentary below.

Significant increasing trend to 2014/15



The number of section 92(f) settlements was relatively stable between 2009/10 and 2010/11, but since then has steadily increased to 2014/15. The total growth over this period was 89%, or an equivalent annual rate of 17%. In the half year to December 2015 there has been 17% more 92(f) settlements compared to the half year to December 2014.

The proportion of 92(f) settlements made without an election application has been decreasing, from 92% in 2009/10 to 81% in 2014/15. We understand that workers' legal representatives have been lodging more applications, even if the claim is unlikely to proceed to common law. This has made it more difficult to differentiate between common law and redemptions settlements and we have not been able to reliably re-allocate between payment types.

The average size of 92(f) settlement payments with election has increased from \$96,000 for those lodged in 2008/09 to \$146,000 for those lodged in 2014/15, which is an average annual growth of 7.7%, which is higher than inflation. Despite this increasing trend, the average claim size for 2014/15 is slightly lower than 2013/14, and the average further reduced to \$142,000 in the half year to 31 December 2015. The lower average claim size may reflect the change in behaviour with more claims having elections rather than just those that could pursue common law.

The average size of 92(f) settlement payments without election decreased from \$53,000 for those lodged in 2008/09 to \$45,000 in 2011/12, however since then it has increased to \$49,000 for those lodged in 2014/15. The average has decreased to \$44,000 in the half year to 31 December 2015.

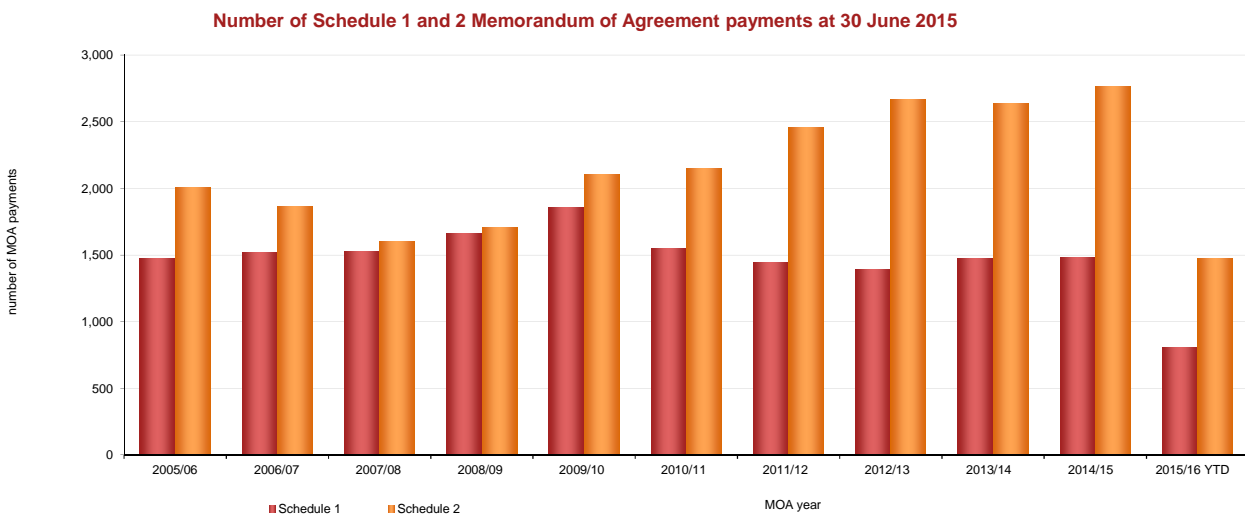
This other lump sum payment type data also showed that there were a few 92(f) settlements without election application occurring within six months of the accident. This is less than the minimum time required for a claim to be receiving weekly benefits prior to a redemption settlement being offered.

1 2 Redemptions and Schedule 2 payments

The change in section 92(f) settlements experience should be viewed together with the change in the number of Schedule 1 redemptions. There may be some transfer of costs between the settlement types.

The chart below shows that the recorded number of Memorandum of Agreement (MOA) Schedule 1 redemptions and Schedule 2 specific injury payments to 31 December 2015:

Schedule 1 settlements stable over last three years, schedule 2 has followed an increasing trend since 2007/08



Schedule 1 redemptions were liberalised with the October 1999 amendments. Over the period shown there was a steady growth to 1,850 in 2009/10. However, there were reductions in each of the three subsequent years to 1,400 in 2012/13. Over 2013/14 and 2014/15 the number of schedule 1 redemptions are just below 1,500.

The number of Schedule 2 specific injury payments declined from 2,000 in 2005/06 to 1,600 2007/08. Since this low there has been a steady increase to 2,800 in 2014/15. This increase in the number of schedule 2 payments has been matched by an increase in the total amount of schedule 2 payments made.

The average size of Schedule 1 redemptions payments recorded has increased from \$29,000 for those lodged in 2009/10 to \$36,500 for those lodged in the half year to 31 December 2015 which is an average growth of 4.3% per year, which is on par with inflation over the same period. Over the same period the average claim size for schedule 2 payments has increased from \$13,000 to \$16,000 for the half year to 31 December 2015 which is an average growth of 3.5% pa.

Appendix J Additional data analysis

What this appendix covers

- We have analysed the duration of claims to understand the impact of any lengthening of claims duration
 - We have analysed the distribution of ages of claimants.
-

J 1 Duration analysis

We reviewed the data provided on the number of claims separated by duration of less than 60 days and those with 60 days or more. Historically as claims mature the proportion of claims with 60 days or more duration generally reduces from the initial estimates. However this data field is dependent on when and if insurers update their days lost estimate. This year the number of claims with more than 60 days' time lost for the 2010/11 and 2011/12 accident years has increased while the number of claims for 2012/13 has remained the same. This is very unusual for older years to change so much, particularly to increase.

We were also provided with more detailed duration data split into number of lost time days of 0, 1 to 4, 5 to 19, 20 to 59, 60 to 119, 120 to 179 and greater than 180 days' time lost.

We reviewed this data at a high level. The number of 60 or more day claims as a percentage of total claims has been increasing since the 2010/11 reporting year. The reporting year should be a reasonable match to an accident year basis.

In the 2016/17 premium rates we have not made an explicit additional allowance for the continued increase in the percentage of claims with a duration of 60 or more days. While the percentage of claims with 60 or more days' time lost has been increasing (and continues to do so) this is now reflected in our valuation, particularly in the superimposed inflation component.

J 2 Age data

Our review of the distribution of claims by age shows:

Age	Distribution of number of claims by age											
	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16 YTD
<20	8.3%	8.5%	9.3%	9.0%	7.7%	6.4%	6.8%	6.6%	5.7%	5.1%	4.7%	4.1%
20 to 24	12.9%	13.0%	13.1%	12.7%	12.3%	11.9%	12.2%	12.0%	12.3%	11.3%	10.8%	10.7%
25 to 29	11.5%	11.3%	10.9%	11.1%	11.5%	11.3%	11.6%	12.1%	12.4%	12.6%	12.1%	12.4%
30 to 34	12.1%	11.2%	10.9%	10.3%	10.2%	10.0%	10.0%	10.2%	10.3%	10.9%	10.8%	11.4%
35 to 39	11.4%	11.9%	11.1%	11.6%	11.5%	11.0%	10.7%	9.9%	9.7%	9.6%	9.4%	9.9%
40 to 44	12.3%	11.9%	11.3%	11.2%	11.1%	11.5%	11.2%	11.7%	11.3%	11.3%	11.0%	10.7%
45 to 49	11.1%	11.4%	11.5%	11.5%	11.9%	12.1%	11.8%	11.2%	11.2%	11.3%	11.6%	11.0%
50 to 54	9.9%	9.6%	9.9%	9.9%	10.2%	11.0%	10.7%	11.0%	11.0%	11.4%	11.8%	11.6%
55 to 59	6.9%	7.1%	7.5%	7.4%	8.0%	8.3%	8.3%	8.6%	8.5%	8.8%	9.5%	9.2%
60 to 64	3.0%	3.2%	3.5%	4.1%	4.4%	5.2%	5.2%	5.2%	5.7%	5.6%	6.1%	6.4%
65+	0.7%	0.9%	0.9%	1.1%	1.1%	1.4%	1.5%	1.6%	1.9%	2.0%	2.3%	2.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Since 2004/05 there has an increasing trend in the proportion of claimants over 60, from 3.7% to 9.0% in the half year to December 2015.

Given the general increasing trend since 2004/05, and the similarity in the percentage of claimants over 60 in 2011/12 and 2010/11, there is not conclusive evidence that the introduction of the 2011 Amendment Act has caused an increase in the claim frequency for older claimants.

The average claim size by age is shown in the table below. This is based on actual payments and case estimates with no allowance for actuarial development. Therefore the most recent accident years have a large amount of uncertainty regarding the ultimate value.

Average claim size based on payments plus case estimates, no allowance for actuarial development												
Age	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16 YTD
<20	2,663	2,999	3,440	4,826	4,573	4,358	6,300	6,597	5,285	6,503	7,034	10,684
20 to 24	4,580	4,841	4,991	7,467	7,045	7,431	8,364	9,476	11,556	14,239	12,485	14,433
25 to 29	7,037	6,927	7,595	8,613	11,079	11,696	14,127	14,324	16,304	17,272	17,172	16,885
30 to 34	10,205	10,212	11,610	12,572	14,303	14,233	15,398	17,800	21,851	24,251	22,012	19,443
35 to 39	13,126	11,494	13,712	15,367	17,561	17,625	21,878	26,046	27,600	24,924	24,465	19,424
40 to 44	13,579	15,059	15,766	17,930	19,894	21,792	24,634	25,717	30,805	32,048	29,345	21,451
45 to 49	16,373	15,860	19,245	18,894	20,864	23,461	27,226	30,278	30,442	35,211	30,503	23,813
50 to 54	14,141	16,741	17,080	20,730	21,890	23,296	26,591	28,807	31,232	33,472	29,490	23,153
55 to 59	14,132	15,253	17,418	20,270	23,824	24,653	28,363	29,231	29,823	34,961	32,848	24,054
60 to 64	11,014	14,883	16,608	18,632	20,229	22,216	22,418	30,040	30,867	33,058	33,071	24,442
65+	7,896	8,933	12,214	12,953	18,450	18,090	20,548	26,688	27,204	31,564	31,389	23,919
Total	10,591	11,027	12,287	14,073	15,905	17,178	19,617	21,760	23,817	26,158	24,523	20,211

This shows that for accident years prior to the 2011 Amendment Act the average claim size for claimants over the age of 60, particularly those aged 65 and older used to be much lower than the average claim size for claimants aged between 45 to 59. For accident years since the 2011 Amendment Act was introduced the average claim size for those claimants aged 60 to 64 is in line with claimants aged 45 to 59, while the average claim size for those aged 65 and older is closer to those aged between 45 to 59 than for 2011 and prior accident years.

We will probably never know the actual extent to which the removal of age limits has impacted the claim costs in the scheme as settlements for younger people may include an aspect for working beyond aged 65 but this will never be separately recorded or identified. Also other significant changes within the scheme over shadow any age related impacts.

Appendix K Glossary

AASB

Australian Accounting Standards Board

ABS

Australian Bureau of Statistics

Accident year

The financial year ending 30 June, in which the accident event leading to a claim occurs, irrespective of when the claim is reported, paid and finalised.

APRA

Australian Prudential Regulation Authority

Burner policies

Burner policies or adjustable premium policies, are a form of risk rated insurance, generally issued to large employers. The effect is ultimately that an employer pays the claims cost plus a margin for expenses and other loadings subject to a stated minimum and maximum premium. The initial burner premium is known as the deposit premium and the insurer will request a top-up premium once claim costs exceed a stated percentage of the deposit premium. When the burner is finalised or closed (usually after 36 months or longer) the final balance is either paid to the employer or insurer depending on the developed cost of claims.

In recent years, with the favourable economic environment the number of burner policies has increased as a percentage of the total premium pool and the deposit premium has reduced close to the minimum premium. This affects the initial level of discounting observed.

Central estimate

Unbiased actuarial estimate which has 50% probability of being sufficient. It is the median of the range of possible outcomes

Combined loading factor

The combined loading factor allows for expenses and contingency margin. It is equal to one divided by the loss ratio.

Conventional policies

Conventional policies pay premiums based on declared wages.

Developed wages

Developed wages are reported wages multiplied by the wage development factor (i.e. allowing for the initial underestimation of wages).

Development year

The number of completed years since the end of the accident year. Development year zero refers to the financial year ending 30 June in which the accident event occurs. Development year is also abbreviated to DY in this report.

Gross premium

The gross premium is an estimate of the total cost of a policy, that is the claims cost and allowance for expenses and margins.

$$\begin{aligned} \text{Gross Premium} &= \text{Risk Premium} + \text{loadings for expenses, margins etc.} \\ &= \text{Risk Premium} / [(1 - \text{expense loading \%} - \text{contingency margin \%}) \times \text{interest earned factor}] \end{aligned}$$

Inflated and discounted values

The estimates in current values are inflated to the dollar values in the estimated future year of payment. These values are discounted to 30 June 2015 values to allow for future investment income that will be earned until the claim is paid. The inflation and discount rates are outlined in Appendix D1.

Premium rating returning entities

Applicable approved private insurers and the Insurance Commission of Western Australia (ICWA)

Risk margin

The margin added to the central estimate to increase its level of adequacy to above 50%.

Risk premium

The risk premium is an estimate of the pure risk cost of claims and does not include allowance for expenses or margins.

$$\begin{aligned} \text{Risk Premium} &= \text{estimated incurred cost of the risk covered i.e. of the claims with} \\ &\quad \text{dates of occurrence in the risk/cover period} \\ &= \text{number of claims} \times \text{average claim size} \end{aligned}$$

Superimposed inflation (SII)

Superimposed inflation is claims inflation over and above wage inflation.

Wage development factor

The wage development factor is applied to reported wages to increase them to ultimate (or developed) wages.

