WorkCover Western Australia

Overview Summary of the Actuarial Report on the Recommended Premium Rates for 2008/09 for Western Australian Workers' Compensation Insurance

1 Overview summary

This overview summary is extracted from the report presented to WorkCover Western Australia (WorkCover WA). The summary in no way replaces the full report dated 30 April 2008 and the reliances and limitations stated therein, rather it is intended for broad communication purposes only.

2 Background

The recommended premium rates are published annually, usually during the June quarter, in the Government Gazette. The published rates are sub-divided into 480 classes which broadly follow the Australian and New Zealand Standard Industrial Classification 1993 (ANZSIC). The rates are a guide to insurance companies when underwriting the workers' compensation insurance risks of employers. Depending upon an employers' risk profile and past experience, insurers may discount the recommended rates by any amount, or surcharge up to a maximum of 75% of the applicable recommended rate. Subject to the approval of the Board of WorkCover WA, an insurer may surcharge beyond 75% of the recommended rate. The maximum surcharge was 100% up to 14 November 2005, when it was reduced to 75% by the 2004 Workers Compensation Reform Act (2004 Reforms).

Consistent with instructions from WorkCover WA, we have incorporated the impact of the 2004 Reform Act in this report. The initial estimate of the impact on the recommended rates is detailed in a special actuarial assessment report dated 13 April 2005. The Act change allowance has been scaled down at this valuation to reflect the extent that post Act change claims experience forms part of our adopted projection basis.

3 Objectives

The *objectives* of the actuarial assessment of the recommended rates are :

- to calculate the total amount of premium income required
- to achieve broad equity across industry classes
- to minimise cross subsidy of rates, and
- to achieve relative stability in the rating structure.

A further objective is to assess the adequacy of insurers' outstanding claim reserves.

The actuarial assessment includes the calculation of the amount of premium income required to meet the projected cost of claims including expenses and margins with anticipated investment income. However, the recommended rates do not make allowance for brokerage/commission costs. *Also the experience of the Western Australian Local Government Association (WALGA) is excluded from the premium rating process.* As a consequence, the rate for Local Government Administration (81130) may not be appropriate as it is based on historical data which does not reflect the current experience of the Local Government self-insurance scheme. Users of the Gazette rates need to be aware of this.

4 Key findings

The *key findings* of the actuarial assessment are:

- recommended Gazette premium rates for 2008/09 should be decreased by:
  - 14.4% for expected claims experience inclusive of the estimated impact of the 2004 Reforms

The 2008/09 premium rating basis has reduced as a result of three major influences:

- a 6.3% reduction from phasing out the 2004 Reform Act allowances as the actual post Act change claims experience emerges
- a 6.5% decrease due to wages increasing by significantly more than wage inflation and
- a 3.9% decrease due to the reduction in superimposed inflation (ie claim cost inflation in excess of wage inflation)

The other influences are more minor and include smaller increases and decreases, the net impact of which makes up the balance of the recommended change in premium rates.

The following table shows the main drivers influencing the overall level of premium rates since last year. It reconciles this year's recommended rate to last year's rate of 1.849%.

Key driver change	Estimated ave premium rate %	% change
Recommended rate	1.582%	
Adjusted Act change allowance	1.689%	-6.3%
Decrease in Dec 07 halfyear claim numbers	1.707%	-1.0%
Increase in 2006/07 claim numbers	1.678%	1.7%
Expense and other loadings	1.663%	0.9%
Excess growth in declared wages above AWE	1.778%	-6.5%
Decrease in superimposed inflation	1.851%	-3.9%
Common law frequency	1.862%	-0.6%
Common law average claim size	1.850%	0.7%
Change in market interest rates	1.862%	-0.7%
Increase in inflation rates	1.854%	0.5%
Balance due to other sources	1.849%	0.2%
Total % change		-14.4%

Note that the percentages are calculated as the multiplicative impact on the risk premium rate. The additive sum of the individual components do not add up to -14.4%, but it is the total of all the percentages when applied multiplicatively.

5 Premium rating returns

The latest *premium rating returns* collected are for the 2006/07 year. These are the *thirteenth* set of returns based on the ANZSIC industry classification and they are presented on the same basis as last year. The data validation process shows that data quality and efficiency of its collection has improved, however there are still some areas of inaccuracy and issues which need to be considered.

Aggregate data for the half year to 31/12/2007 and unit claim election application data was supplied and used as an indicator of the Act amendment impact on costs.

6 Relative premium rates by industry class

Relative premium rates by industry class were calculated using weighted average data over the ten year period ending 30/06/2007. A hierarchical credibility experience rating system is adopted as the basis of premium rating.

7 Actuarial projection methods

Several actuarial projection methods are used to estimate the incurred cost of claims. The final method was chosen after examining the results obtained and by forming a judgement as to which method or blend of methods to adopt.

The actuarial projection assists with both

- the examination of the adequacy of insurers' declared outstanding claim reserves, and

- the estimation of the expected incurred cost of claims.

The analysis of expenses and other margins combines with the estimated incurred cost to give a loss ratio, which leads to the calculation of the required premium income and the uniform percentage variation in relative premium rates. The resulting variation was -14.4% inclusive of the scaled-down allowance for the 2004 Reforms.

The brokerage component of expenses was removed from the loss ratio from the 2002 premium rates as a once-off adjustment.

The actuarial analyses and projections used to determine the recommended premium rates involve assumptions about uncertain future events, claims and economic, social and legislative conditions. Hence the actual outcome may well be different from the results shown.

These uncertainties should be borne in mind whenever using the results in our actuarial report on recommended premium rates and actuarial assessment of the cost impact of the 2004 Reforms.

8 Statistical trends

The *statistical trends* observed in the aggregate data up to 30/06/2007 are described below. For detail on the definition and source of these statistics see Attachment B of our current report on Recommended Premium Rates for 2008/09.

8.1 Claim numbers and sizes and estimated incurred costs

Accident year ending 30 June	Estimated number of claims incurred (a)	Average claim size in 30/06/2007 values (b)	Estimated inflated incurred cost of claims $M (c)
2007	37,603	13,461	590.422
2006	37,437	12,451	492.231
2005	39,275	12,652	486.723
2004	38,417	12,475	437.739
2003	37,935	11,711	382.866
2002	38,037	11,168	344.289
2001	42,858	10,808	356.993
2000	49,423	10,280	373.236

Comments:

- the number of claims had significant decreases to 2002, was stable in 2003 and had slight increases to 2004/05 before decreasing in 2005/06 and remaining stable in 2006/07
- average claim size has increased by 31% in real terms since 1999/2000 or 4% pa
- inflated incurred cost increased by 58% ($217M) between 2000 and 2007, ie from $373M to $590M in actual terms including GST and both the October 1999 and the 2004 Reform Act impacts.

8.2 Reserving and loss ratios

Some overall market reserving and loss ratios which may assist insurers to judge the relative strength of their reserves 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)	Loss ratios (g)
2007	111.017	336.385	590.422	303%	532%	176%	80%
2006	241.411	374.765	492.231	155%	204%	131%	70%
2005	307.630	392.880	486.723	128%	158%	124%	79%
2004	326.563	386.792	437.739	118%	134%	113%	76%
2003	309.903	338.384	382.866	109%	124%	113%	65%
2002	300.879	319.465	344.289	106%	114%	108%	59%
2001	333.067	346.470	356.993	104%	107%	103%	57%
2000	352.655	362.333	373.236	103%	106%	103%	63%

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 returned by insurers

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.

Since last year, the case reserving ratio (d) at the same stage of development has decreased or remained stable for all accident years except 2007, and the ultimate incurred cost ratio to payments (e) and to total case estimates (f), decreased or remained the same for all accident years.

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. The loss ratio estimates for all accident years have either improved or stabilised since last year.

A *target inflated loss ratio* including all expense and profit loadings would be 88%. All accident year's loss ratios are profitable though early estimates should not be relied on because of the high uncertain projected outstanding portion. Around 79% of projected ultimate cost is still outstanding for 2006/07.

8.3 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	Implicit margin in Gazette rates
2007	614.860	17.8%	22.6%	0%
2006	590.222	16.9%	20.3%	0%
2005	618.100	19.0%	16.9%	0%
2004	575.386	18.7%	13.2%	0%
2003	554.349	18.0%	14.0%	0%
2002	570.865	16.0%	11.6%	0%
2001	654.578	15.6%	10.8%	0%
2000	662.187	14.2%	14.5%	0%
1999	738.777	16.7%		0%

Comments:

- outstanding case estimates increased by 4% in 2007
- total expense levels increased to 17.8% from 16.9% last year (and increased by 0.8% excluding brokerage to 14.5% from 13.8% last year)
- insurer premium discounts to Gazette rates reduced significantly from 2000 to 2001 and then stabilised before increasing in 2003 (14%) and continuing to increase to 2007 (23%)
- a significant implicit margin in the Gazette rates was removed in 1998. The margin arose in 1994 on introduction of the industry based premium rating classes.

Other trends in the returned data are:

- a material decrease in incurred number of claims up to 30 June 2002. Since then claim numbers have been relatively stable. Claim frequency per employee has reduced as employment numbers increased

- claim payments during 2006/07 were stable in real values i.e. after allowing for wage inflation. Claim payments decreased in real terms in the four years to 30 June 2004, increased by 5.0% for the year ended 30 June 2005 and have been stable since

- claim payments in the six months to 31 December 2007 increased by 4.8% in actual and 0.1% in real terms compared to the same period in the previous year

- the major source of claim payment increase is from weekly benefits and common law

- insurers case estimates on open claims reduced by 4.5% in the year to 30 June 2006 and increased by 4.2% in the year to 30 June 2007 to be at a similar level to 30 June 2005. At 31 December 2007 they are on par with 30 June 2007

- stable active claim numbers in the range 31,000 to 32,500 up to 1999 and then declined rapidly to 21,000 at 30 June 2002. Active claims have been fairly stable since then and were 20,528 at 30 June 2007 and 21,513 at 31 December 2007.

9 Assumptions, observations and conclusions

The analysis of the experience and the trends translate into the following *assumptions, observations and conclusions*:

- a *$15,130 after 2004 Reforms average claim* size in 30/06/2007 values which allows for past real growth in excess of wage inflation

- weighted average superimposed *inflation* in claim costs of:

  - 2.6% for statutory benefits and common law combined

- a 1.00% common law claim frequency rate with a $283,677 weighted average common law claim size excluding legal costs.

leading to

- a $14,204 *adopted average claim size* for the 2008/09 underwriting year, in inflated and discounted values

- 37,603 *incurred claims* for 2006/07 assumed to decrease by 1.0% to 37,213 for 2007/08 and 2008/09

- allowance is made for the current cost of claims

- the 0.8% increase in total expense levels excluding brokerage/commission

- the Gazette rates *do not* include the 10% GST on the premium itself

- market rates of interest as at 31 January 2008 are adopted
- future wage inflation has increased to 4.75% from 4.5% previously
- an *adopted loss ratio of 78.8% excluding brokerage* in discounted terms, down from 79.5% last year, including
  - an expense loading of 14.51% of premium (13.75% last year), or 17.80% before removing brokerage (16.90% last year), and
  - an unchanged contingency margin of 8% of risk cost
- the *total expense level* of insurers is 17.8% (16.9%), made up of 3.3% (3.2%) brokerage, 1.9% (1.9%) Statutory charges and 12.6% (11.8%) management expenses. The figures in brackets are from last year.

The combination of these assumptions imply a 14.4*% real decrease in claim costs* after the reduced estimated cost impact of the 2004 Reforms.

Other aspects include:

- retain minimum and maximum premium rates
- the *minimum premium* for a policy remains at $65 for householder policies and increases to $200 for all other policies
- at 30 June 2007 *insurers reserves* are higher than the actuarially assessed reserve requirements by $72 million (5%), while last year they were $85 million or 6% lower
- average declared *insurer reserves* to claim payments is 306% (322% last year). No current insurer has a ratio less than 200% this year and five of eleven returning insurers have ratios less than the average.
- declared *prudential margins* over net central estimates, in the range 8.5% to 42.7%, with an average prudential margin of 20.9% (20.1% last year).
- insurer *expense levels* vary between 11.4% and 30.7% of premiums, with an average of 17.8% (16.9% last year).

10 Communication of Outcomes

The analyses and calculations made highlight the following:

- recommended premium rates for the 2008/09 underwriting year decrease by 14.4% in aggregate

- uncertainty exists about how robust a measure of ultimate incurred cost the recent claims experience combined with the scaled down estimated cost impact of the 2004 Reforms will be. The eventual outcome may well differ significantly (either up or down) from the projected level

- the claim costs in the half year to 31/12/2007 are generally favourable compared to expected

- the 4.75% future wage inflation rate was adopted compared with 4.5% last year and market rates of interest as at 31 January 2007 are adopted.