# Scheme Actuarial Valuation as at 31 December 2017

ReturnToWorkSA

March 2018

At ReturnToWorkSA's request we have consented to the release of this report to the public, subject to the reliances and limitations noted in the report.

Third Parties, whether authorised or not to receive this report, should recognise that the furnishing of this report is not a substitute for their own due diligence and should place no reliance on this report or the data contained herein which would result in the creation of any duty or liability by Finity to the Third party.

While due care has been taken in preparation of the report Finity accepts no responsibility for any action which may be taken based on its contents.





8 March 2018

Ms Joanne Denley Chair ReturnToWorkSA 400 King William Street **ADELAIDE SA 5000** 

Dear Ms Denley

## Scheme Actuarial Valuation as at 31 December 2017

Enclosed is our report on the 31 December 2017 scheme actuarial valuation.

While we continue to see signs of stabilisation in the Short Term Claims segment of the scheme, there is still considerable uncertainty about the ultimate cost of Serious Injury claims, particularly in relation to the number of such claims that will eventuate each year. These uncertainties will not resolve until key legal precedent is established in relation to a number of the RTW Act provisions, and it is likely to be at least another year, perhaps longer, before the real-world operation of the Act is known with more confidence.

In particular we emphasise that all of our valuation work has been undertaken on the basis that the Mitchell decision will be overturned on appeal. This means there is no allowance for Mitchell-related costs in the central estimate projection, other than legal costs. If Mitchell is not overturned then the scheme's outstanding claims liability will be significantly higher than the estimates in this report, and we expect would exceed the provision recommended for a 75% probability of sufficiency.

We would be pleased to discuss our review and findings with your executive and Board as required.

Yours sincerely

**Andrew McInerney** 

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Fellows of the Institute of Actuaries of Australia

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# Scheme Actuarial Valuation as at 31 December 2017

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# **Glossary**

Actuarial Release A 'like with like' measure of how claims management activity has impacted on

scheme financial performance since the previous valuation. See section 11.3

for additional information.

APR Average Premium Rate – the premium charged by ReturnToWorkSA to

registered employers, on average, as a percentage of leviable wages.

BEP Break Even Premium – the estimated cost of running the scheme for a year,

including all future payments for claims incurred in the year after allowing for

investment earnings, expressed as a percentage of leviable wages.

Curam ReturnToWorkSA's claims management system.

Development The number of quarters between the injury date of a claim and the relevant

Quarter or DQ activity (whether a claim report or claim payment).

ER Incentives for early reporting of claims, introduced in 2008.

IBNER Incurred But Not Enough Reported – an allowance for cost growth on known

claims in addition to the reported cost.

IBNR Incurred But Not Reported – claims where the accident has occurred, but

ReturnToWorkSA are yet to be notified.

IS Income Support (also known as weekly benefits) payments.

NWE Notional Weekly Earnings.

OSC Outstanding claims liability.

PPAC Payments per active claim.

PPCI Payments per claim incurred.

RTW Return to work.

RTW Act The Return to Work Act 2014, which governs the scheme.

Serious Injury or Serious Injury Claim A claim that meets the definition of a "Serious Injury" under the RTW Act.

Short Term Claim Claims that do not meet the serious injury threshold.

WRCA Workers Rehabilitation and Compensation Act 1986, the previous Act which

governed the scheme.

WPI Whole Person Impairment.



# Part I Executive Summary

#### 1 Introduction

Finity Consulting Pty Limited ("Finity") has been engaged by ReturnToWorkSA to undertake an actuarial review of the Return to Work Scheme ("RTW scheme") as at 31 December 2017.

Our previous actuarial review was as at 30 June 2017, and was documented in a report dated 25 August 2017.

## 2 Scope of the Review

The scope of the review is specified in our contract with ReturnToWorkSA.

The primary purpose of the mid-year review is to provide ReturnToWorkSA with an independent estimate of the liability for outstanding claims and projected claim costs for registered (non self-insured) employers. These estimates are used by ReturnToWorkSA to update its financial position, and as an input in determining the average premium rate for the coming year.

The actuarial review also aims to provide analysis of the major features of the recent scheme claims experience, and a projection baseline against which ReturnToWorkSA can manage outcomes and monitor emerging experience in the coming year.

# 3 Valuation Approach

Our estimate of the outstanding claims liability is a central estimate of the liabilities. This means that the valuation assumptions have been selected such that our estimates contain no deliberate bias towards either overstatement or understatement.

Our estimates of the outstanding claims liabilities allow for the expected impacts of the Return to Work Act 2014 ("RTW Act") which governs the scheme, and separately project future benefits for Serious Injury claims from those for Short Term Claims to reflect the differences in benefit structure between the two groups.

We have also provided a recommended provision for outstanding claims which increases the central estimate to a level intended to achieve 75% probability of sufficiency.

#### **Treatment of Key (recent) Legal Decisions**

We note that in some areas the expected impacts of the RTW Act are currently subject to adverse legal decisions – decisions which have been appealed – and this increases the uncertainty around our estimates. At this time we have not changed our approach to setting the central estimate as a result of these SAET decisions while they are being appealed, which means that if the decisions are not overturned on appeal then the liability will be higher than is shown in this report.

In particular we emphasise that all of our valuation work has been undertaken on the basis that the *Mitchell* decision will be overturned on appeal. This means there is no allowance for *Mitchell*-related costs in the central estimate projection, other than legal costs. More information on this uncertainty is found in Section 13.2.1.



While the high number of decisions on appeal to the Supreme Court has been considered in setting the risk margin loading at this valuation, the risk margin has *not* been set at a level that would cover the increased costs if these adverse precedents are maintained. For example, if the *Mitchell* decision were to be upheld, the expected increase in the central estimate would exceed the current recommended provision at the 75% probability of sufficiency level.

## 4 Scheme Environment

Recent developments which affect the scheme's operating environment and/or the liability estimate include:

- Legal precedent: key sections of the RTW Act are being tested through the scheme's dispute resolution processes, and relatively few of these cases have completed the various appeal processes. Of particular importance to our assessment are the provisions about how and when a claim is determined to be a Serious Injury (the *Mitchell* case is an example). It is likely to take at least another 12 months until key precedent is established.
- South Australia's economy: low wages growth and higher than desired unemployment rates
  present a challenging set of conditions, and mean claim expenses and scheme costs will need to
  be tightly controlled in order for there not to be pressure on premium rates.
- Early intervention and RTW focus: despite the relatively unfavourable economic climate, there
  continues to be gradual improvement in income support claim durations.
- Dispute resolution and appeals: after significant reductions in the count of open disputes up to June 2016, the number of open disputes continue to rise. We also understand that more claims are appealing dispute decisions, following changes in the RTW Act that mean legal costs are no longer at risk on an appeal.

# 5 Recent Claim Experience

The key features of the claims experience in the six months to 31 December 2017 were:

- New claim numbers (across all claim types) is broadly flat since 2016, and increased slightly year on year for the more expensive income support claims.
- The number of new Serious Injury claims in the six months was again higher than expected, which is somewhat surprising as we (and ReturnToWorkSA) had expected that most applications from transitional claims would have been completed at the time of the previous valuation; the number of psychological injury claims reaching Serious Injury, although small, was also higher than expected. The valuation basis does not anticipate an ongoing emergence of long duration claims into the serious injury cohort, and so if this continues it will lead to an increase in the liability.
- Total net claim payments in the six months were \$23 million (13%) lower than expected, which was
  primarily due to economic loss lump sum payments taking longer to occur than projected (as most
  claims reaching two years on income support benefits are yet to have had a WPI assessment).
   The lower payments also reflected improved return to work experience.



# **6** Liability Valuation Results

#### **Summary of Results**

Our central estimate of the scheme's outstanding claims liability for registered employers as at 31 December 2017 is \$2,121 million. This is a discounted (present value) estimate, net of recoveries and including allowance for future expenses. Adding a risk margin of 15.0% to produce a provision with a 75% probability of sufficiency, consistent with ReturnToWorkSA's reserving policy, gives an outstanding claims provision of \$2,439 million, as shown in Table 1.

Table 1 – Recommended Balance Sheet Provision

	Central	Risk	Recommended
	Estimate	Margin	Provision
	\$m	\$m	\$m
Gross Claims Cost - Serious Injuries	1,402		
Gross Claims Cost - Short Term Claims	580		
Claims Handling Expenses	191		
Gross Outstanding Claims Liability	2,173	326	2,499
Recoveries	-52	-8	-60
Net Outstanding Claims Liability	2,121	318	2,439

Table 1 also demonstrates that the majority of the OSC liability relates to Serious Injuries. This balance will continue moving toward Serious Injury liabilities over time.

The provision includes an allowance for future claims handling expenses equivalent to 10% of gross claim costs, which is a higher proportionate loading than normal in recognition of the transition related costs which ReturnToWorkSA (still) faces in running off existing claims; most of the extra cost relates to the management of legal disputes.

#### **Movement in Liability**

Our central estimate is \$56 million higher than projected at the previous valuation. We have attributed the change in central estimate into two components:

- Movement in liability due to claims performance this covers the components that are due to claim outcomes (such as changes in the number and mix of claims), as well as the impact of revisions to our valuation assumptions. This step also includes the impact of changes in the timing of lump sum payments, where slower than expected lump sums lead to an increase in the remaining liability.
- Impact of changes in economic assumptions the component which is mandated by accounting standards (and therefore outside ReturnToWorkSA's control).

This split also allows calculation of the actuarial release, where we add the difference between actual and expected payments to the movement in the liability due to claims experience, to give a measure of the 'profit' impact of claims management performance relative to the previous valuation basis, as shown in Table 2 below.



Table 2 - December 2017 Central Estimate and Determination of Actuarial Release

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	Cen	Central Estimate			
		A√E			
	Projected	Payments			
	Dec-17	in 6 mths	Actuarial		
	Liability <sup>1</sup>	to Dec-17	Release <sup>2</sup>		
	\$m	\$m	\$m		
Liability at Jun-17 Valuation	2,017				
Projected Liability at Dec-17 (from Jun-17 valuation)	2,066				
Claims Movement - Short Term Claims	30	-25	-5		
Claims Movement - Serious Injury	11	2	-13		
Impact of Change in economic assumptions	14				
Recommended Liability at Dec-17	2,121				
Total Actuarial Release			-18		

<sup>&</sup>lt;sup>1</sup> Net central estimate of outstanding claims liability, including CHE

There is an actuarial **strengthening** (negative release) of \$18 million for the period, which is an unfavourable result for the scheme. Changes to economic assumptions further increase the central estimate liability by \$14 million. Each of these items is discussed briefly below.

#### **Components of the Actuarial Release**

Table 3 shows the actuarial release by entitlement group, and split between Short Term Claims and Serious Injuries.

Table 3 – Actuarial Release by Entitlement Group

Entitlement Group	Short Term Claims <sup>3</sup>	Serious Injury Claims³	Total Actuarial Release <sup>3</sup>	Release as
			\$m	%
Income & Related	8	-15	-7	-2%
Lump Sums	1	-24	-22	-9%
Legals	-1	-1	-2	-3%
Treatment Related <sup>1</sup>	-9	27	18	2%
Rehabilitation	-1	3	2	4%
Other Costs 2	0	0	0	3%
Recoveries	-1	-2	-3	-5%
Total Claim Costs	-3	-12	-15	-1%
Expenses	-2	-1	-3	-2%
Net Central Estimate	-5	-13	-18	-1%

<sup>&</sup>lt;sup>1</sup> Medical, hospital, physical therapy, travel, other

The movements which contribute to the \$18 million actuarial strengthening are:

- For Short Term Claims, the \$5 million actuarial strengthening comprises:
  - A net release of \$8 million for income support, following further improvement in claim durations as a result of RTW improvements



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments.

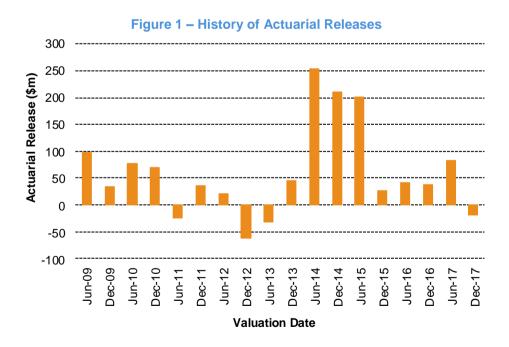
 $<sup>^{\</sup>rm 2}$  Investigation, common law , commutation, LOEC

<sup>&</sup>lt;sup>3</sup> Includes change in OSC and Act vs Exp payments.

- A neutral result for lump sums, as we have essentially treated the low level of payments in the six months (\$21 million below expected) as a delay, rather than a reduction
- A strengthening of \$8 million for treatment costs, including \$5.6 million increase for Medicals, \$1.1 million increase for hospital and \$1.4 million increase for 'other'. The majority of the movement results from higher than expected payments in the six months, with some consequent changes in the valuation basis
- Other minor movements.
- For Serious Injury claims, there was an overall strengthening of \$13 million, driven by:
  - Actual payments were \$2 million higher than expected
  - Net changes to claim numbers (including IBNR claims) increasing the liability by \$12 million, as new claim numbers were higher than expected, as discussed above
  - Changes to the entitlement status of already known claims increasing the liability by \$9 million
  - Basis and assumption changes leading to a net reduction of \$11 million, with treatment related savings partially offset by higher lump sum costs.

Our projections for the remaining entitlement types were also reviewed and updated, although none of the movements are significant in relation to the overall scheme liability.

Figure 1 shows the actuarial release at each valuation over the last eight years. As this shows, the current result (which is relatively small in magnitude, in the sequence) follows a series of releases over the last four years. Unless there is a material change in the serious injury claims liability, we expect that future actuarial releases, whether positive or negative, will generally be smaller than those in recent years.



#### **Impacts of Economic Assumption Changes**

Changes to inflation and discount rate assumptions increased the central estimate by \$14 million. As discussed in Section 10.1, there have been decreases in discount rates at durations longer than five



years, an event which is outside ReturnToWorkSA's control, which has led to this increase in the OSC liability. These decreases have been partially offset by reductions in expected wages growth.

### 7 Historical Scheme Costs

We have estimated the 'historical premium rate', otherwise known as the Break Even Premium rate (BEP), for each past accident year; this is the amount that would have been sufficient to fully cover claim costs, expenses and recoveries, assuming the scheme achieved risk free investment returns each year and that the current actuarial valuation is an accurate forecast of future payments. The BEP is calculated by dividing the total projected costs for the accident year (discounted to the start of that year at risk free rates) by the total scheme leviable remuneration in that year. We present the costs on this basis, i.e. using risk free discount rates, so that a like with like comparison can be made over the history of the scheme, which allows current scheme performance to be assessed in a long term context.

Figure 2 shows a summary of the estimated BEPs, including a comparison with the estimates at our previous valuation and the scheme's actual average premium rate charged for each year.

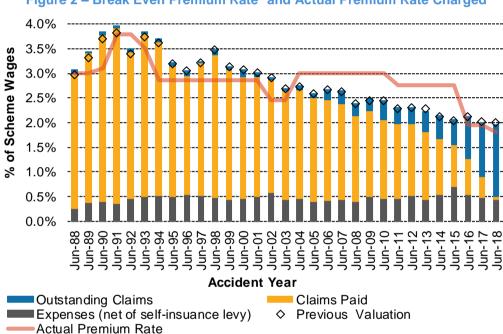


Figure 2 - Break Even Premium Rate\* and Actual Premium Rate Charged

The main points to note are:

- The introduction of the RTW Act reduced the BEP for accident years between 2008 and 2010 to just under 2.5% of wages
- For accident years since 2011 the costs are lower again, as claims have had less opportunity to remain on long term benefits
- The current estimate of the BEP for the 2018 accident year is 1.96%, down from 1.99% for the 2017 year, which is mainly the result of lower expenses



<sup>\*</sup> The Break Even Premium Rate in this Figure is calculated using the risk free rate, so that a like with like comparison can be made over the history of the scheme. For clarity, this is not the same as the scheme's pricing basis as the scheme targets a higher than risk free rate of return when premiums are set.

Scheme expenses were relatively high from 2014 to 2016, and particularly high in 2015, as a result
of additional transition related requirements. 2017 and 2018 scheme expenses are lower than
accident years 2014 to 2016, and ReturnToWorkSA expects to see some further reduction as
transition related activities are completed.

We note that these calculations assume past and future investment earnings at the risk free rate. All else being equal, any above risk free earnings or additional sources of income would act to reduce the required premium rate.

We emphasise that (as seen in the graph) the BEP estimates for recent accident years include a significant outstanding claims estimate and are therefore likely to change as experience emerges. We also note that the adopted wages figure for 2018 still involves some estimation.

## 8 Key Uncertainties

There is considerable uncertainty in the projected future claim costs, in particular around how and when claims are determined to be Serious Injuries. Section 12 details some of the uncertainties and sensitivities of our advice, in order to place our estimates in their appropriate context.

The main areas of uncertainty in our current estimates of the liabilities are:

- Legal precedent risk risks here include the possibility of decisions which are unfavourable to the scheme or the cultures and behaviours of its participants. In particular, recent decisions have gone against ReturnToWorkSA's interpretation of the WPI assessment rules and if maintained would lead to increases in the liability; these decisions are currently under appeal. On current timing, this risk is likely to remain for at least another year.
  - As noted, all of our valuation work has been undertaken on the basis that the *Mitchell* decision will be overturned on appeal. This means there is no allowance for *Mitchell*-related costs in the central estimate projection, other than legal costs. More information on this uncertainty is found in 13.2.1. Importantly, we note that if the *Mitchell* decision were to be upheld, the expected increase in the central estimate would exceed the current recommended provision at the 75% probability of sufficiency level.
- WPI assessments under the RTW Act, there are significant differences between the compensation available to claims above the 30% WPI threshold and those below. This factor, combined with the new lump for future economic loss payable to Short Term Claims, means there will be increasing pressure on WPI assessments. The scheme will face significant financial consequences if this leads to either extra claims getting over the 30% WPI threshold and/or 'WPI creep'. Robustness of the 'once and for all' WPI assessment rules under the RTW Act is an important area of risk.

#### Serious Injury

- Life expectancy with benefits payable for life, the future life expectancy for Serious Injury claims has a significant impact on future cost projections.
- Cost escalation the potential for future cost escalation in a number of medical, care and treatment related items poses a risk. One example is the extent to which care costs which are currently not compensated by the scheme may become compensable in future, as family-based carers age and claimants increasingly require paid attendant care and/or residential care facilities. Another example is the potential increase in costs for care related



- specialists and facilities, due to wage pressures and/or market demand pressures for these specialists (for example as the NDIS scales up in the next few years).
- **Ultimate numbers of claims** there are several areas of uncertainty in relation to claim numbers, including: the ultimate number of top-ups that are yet to emerge due to legislation changes, the impact the removal of top-ups will have on ultimate claim numbers and the number of claims from the 'potential' group that ultimately meet the 30% WPI threshold.
- Return To Work the potential improvements to scheme culture as a result of the new hard boundaries and Mobile Case Managers may encourage earlier RTW for Short Term Claims. While there have been good improvements in RTW in the last two years, the continued high level of legal involvement risks the sustainability of this.
- Compensability and claim acceptance there was expected to be potential for further reductions in new claim numbers following changes to compensability rules, however current precedent suggests this is not going to eventuate. Indeed one recent decision, *Li*, has the potential to significantly increase psychological injury claim numbers if not overturned on appeal. Regardless, it will be crucial to ensure that past closed claims cannot come back onto benefits for example, to ensure that past Work Capacity discontinuances or claims who have been discontinued at the two year boundary do not start new claims or 'restart the clock' following a short return to work.
- Outcomes for claims with current disputes risks here include the possibility of decisions which are unfavourable to the scheme, as well as the risk that settlements paid to finalise disputed claims may exceed the claims costs which would otherwise be incurred, or create behavioural incentives that lead to more disputes in future.
- Labour market pressures the combination of higher than desired unemployment and low wages growth presents a challenging environment, and could place additional pressures on achieving RTW outcomes and holding the BEP at current levels.

Even though the RTW Act provisions commenced on 1 July 2015, there are key areas of the Act still being tested in the Courts. The current valuation basis reflects our best estimate of how this experience will eventuate. Over time, our basis will further reflect the developing post-reform experience. It is possible that the experience could differ, perhaps materially, from our current expectations.

## 9 Reliances and Limitations

Our results and advice are subject to a number of important limitations, reliances and assumptions. This executive summary must be read in conjunction with the full report and with reference to the reliances and limitations set out in Section 13 thereof.

This report has been prepared for the sole use of ReturnToWorkSA's board and management for the purpose stated in Section 1. At ReturnToWorkSA's request, we consent to the release of our report to the public, subject to the reliances and limitations noted in the report.

Third parties, whether authorised or not to receive this report, should recognise that the furnishing of this report is not a substitute for their own due diligence and should place no reliance on this report or the data contained herein which would result in the creation of any duty or liability by Finity to the third party.

While due care has been taken in preparation of the report Finity accepts no responsibility for any action which may be taken based on its contents.



This report, including all appendices, should be considered as a whole. Finity staff are available to answer any queries, and the reader should seek that advice before drawing conclusions on any issue in doubt.



# Part II Detailed Findings

## 1 Introduction and Scope

#### 1.1 Introduction

Finity Consulting Pty Limited ("Finity") has been requested by ReturnToWorkSA to undertake an actuarial review of the Return to Work scheme as at 31 December 2017.

We have carried out half-yearly actuarial reviews since June 2003; the most recent was as at 30 June 2017, as documented in a report dated 25 August 2017.

## 1.2 Scope of the Review

The scope of the review is specified in our contract with ReturnToWorkSA.

The primary purpose of the mid-year review is to provide ReturnToWorkSA with an independent estimate of the liability for outstanding claims and projected claim costs for registered (non self-insured) employers. These estimates are used by ReturnToWorkSA to update its financial position, and as an input in determining the average premium rate for the coming year.

The actuarial review also aims to provide analysis of the major features of the recent scheme claims experience, and a projection baseline against which ReturnToWorkSA can manage outcomes and monitor emerging experience in the coming year.

#### 1.3 Control Processes and Review

Our valuation and this report have been subject to Technical and Peer Review as part of Finity's standard internal control process:

- Technical review focuses on the technical work involved in the project. The technical reviewer reviews the data, models, calculations and results, and also reviews our written advice from a technical perspective.
- Peer review is the professional review of a piece of work. The peer reviewer reviews the approach, assumptions and judgements, results and advice.

## 1.4 Structure of this Report

- Section 2 Describes the approach we have taken to the valuation, and provides a brief overview of information provided to us.
- Section 3 Sets out a summary of the operational landscape impacting on the scheme.
- Section 4 Summarises high level recent claims experience.
- Sections 5 to 9 Detail our analysis of scheme experience and valuation assumptions.
- Section 10 Sets out other valuation assumptions, including the economic assumptions of inflation and discount rates, and the risk margins and claim handling expenses adopted in setting accounting provisions.



Section 11	Shows detailed tabulations of the outstanding claims valuation results.

Section 12 Provides sensitivity analysis of the valuation to key assumptions and highlights some of the key uncertainties in our projections.

Section 13 Sets out important reliances and limitations.

Section 14 Outlines our understanding of key events and changes in the South Australian scheme over time.

The appendices include detailed specifications of the valuation models and results.

Figures in the tables in this report have been rounded. There may be instances where the rounded information does not calculate directly to the total shown.

In this report, we use the current titles "ReturnToWorkSA" and "RTW scheme" to include the previous authority (WorkCoverSA) and scheme (WorkCover scheme), where relevant.



# 2 Approach and Information

## 2.1 Approach

The Return to Work Act 2014 ("RTW Act") made significant changes to entitlements and to the scheme operations, with all of the new features having commenced on or before 1 July 2015. Our estimates of the outstanding claims liabilities allow fully for the expected impacts of the RTW Act, and for the emerging experience to date, other than in relation to a number of recent SAET decisions which are under appeal as discussed below.

Under the RTW Act, Serious Injury claims have very different entitlements from other claims. We have modelled these claims separately, with the remaining claims modelled as 'Short Term claims: Serious Injury claims are valued using an individual claim based approach by payment type, and Short Term Claims are valued using aggregate methods, by payment type.

Table 2.1 summarises where the entitlement and claim cohorts are documented in this report.

**Table 2.1 - Report Structure by Claim Cohort** Short Term Serious Injury Overall Other Claims Claims Assumptions Results Valuation Basis Sections Section 9 Section 10 Section 11 and Results 5 to 8 Section 10 (basis) and Section 11 (results) Economic Impacts

#### 2.1.1 Basis of the Valuation

Our estimate of outstanding claims is a central estimate of the liabilities. This means that the valuation assumptions have been selected such that our estimates contain no deliberate bias towards either overstatement or understatement. The estimates are shown discounted to allow for the time value of money using a risk free discount rate, consistent with accounting standards.

We note that all of our valuation work has been undertaken on the basis that the *Mitchell* decision will be overturned on appeal. This means there is no allowance for *Mitchell*-related costs in the central estimate projection, other than legal costs. More information on this uncertainty is found in 13.2.1.

We have also provided information on the recommended provision for outstanding claims which increases the central estimate to a 75% probability of sufficiency, in accordance with ReturnToWorkSA's reserving policy.

Importantly, we note that if the *Mitchell* decision were to be upheld, the increase in the central estimate would likely exceed the current recommended provision at the 75% probability of sufficiency level.

#### 2.2 Information

#### 2.2.1 Standard Data Extracts

Claims data was provided in the form of a transaction file with complete scheme history to 31 December 2017. We have not independently verified or audited the data, but we have reviewed it for general reasonableness and consistency, including reconciliations to the previous actuarial review information and to information from ReturnToWorkSA's financial statements. The claims data appears to be of high quality and contains extensive detail.



As for previous valuations, our experience analysis excludes all claims related to employers who have become self-insurers (including claims before they became self-insured).

Appendix B shows summaries of the claims data, including data reconciliations.

#### 2.2.2 Qualitative and Additional Information

In addition to the standard data extracts, we obtained additional information from ReturnToWorkSA and their claims agents Employers Mutual and Gallagher Bassett. This included briefing sessions on 9 January 2018 and operational information that was separately provided.



## 3 Scheme Environment

This section summarises changes in the scheme's legislative and operational landscape which are considered in our valuation.

## 3.1 Legislation

There have been no changes to the scheme's legislation or Regulations which impact on our valuation since the June 2017 valuation.

#### 3.1.1 Legal Precedent under the RTW Act

Key sections of the RTW Act are being tested through the scheme's dispute resolution processes, although as yet relatively few of these cases have completed the various appeal processes. There are currently ten cases on appeal to the Supreme Court (or awaiting leave to appeal) – which is an unusually high number – and until these cases (in particular) are resolved there will be uncertainty as to the financial costs which eventuate under the RTW Act benefit package.

#### Mitchell

Under the current operational implementation of the RTW Act, injuries are not allowed to be 'combined' for a WPI assessment, including any secondary injuries that arise from medication use. This approach was rejected by SAET in *Mitchell*<sup>1</sup>, where the assessed WPI of 26% on the primary back injury was increased to 70% (i.e. an increase of 44%) by SAET. The Supreme Court has granted permission to appeal.

If this decision is maintained on appeal it would materially increase the number of claims that can access serious injury benefits; *Mitchell* also has implications for other areas of the scheme, but its impact on serious injury claim numbers is the most important for the scheme's claim costs.

As stated in Section 2.1.1, our assessment of the outstanding claims liability assumes the *Mitchell* precedent is overturned on appeal. If this is not the case, the outstanding claims liability would be materially higher than shown in this report.

#### Li

The case of  $L\hat{f}$  relates to the "reasonable administrative action" clauses in the RTW Act, that exclude some claims from being eligible for compensation for psychological injury if prescribed circumstances are met.

It had been thought that the legal precedent around this issue was relatively well established, but the *Li* decision has substantially reversed much of this.

If maintained, this decision would lead to a material increase in the number of psychological injury claims, which would mainly impact the cost of new and recent injury years.

#### **Other Cases**

There are eight other claims currently in or seeking leave to be heard in the Supreme Court, an unusually high number for the ReturnToWork scheme. These cases cover a wide range of areas including:



<sup>&</sup>lt;sup>1</sup> Return to Work Corporation of South Australia v Mitchell [2017] SAET 81

<sup>&</sup>lt;sup>2</sup> Li v Department for Health and Ageing [2017] SAET 75

- Combining of injuries for WPI assessment purposes
- Whether employment is the significant cause of secondary injuries or injuries away from the workplace
- Applications for future surgery and the definition of purpose of those surgeries
- Prior redemptions and the application of the federal minimum wage
- The reviewability of decisions (and indeed what information us regarded as a decision).

It is likely that in the next 12 months there will be more decisions that give clarity as to the application of the various RTW Act legislative provisions, although for some areas of the Act it may take longer for precedent to emerge.

#### 3.2 Scheme Boundaries

#### 3.2.1 Management of Serious Injury Claim Scheme Boundaries

Serious injury applications and assessment of 30% WPI is the most material scheme boundary.

Under the scheme's transitional Regulations, some old Act claimants were able to apply for additional Whole Person Impairment (WPI) assessments up until 30 June 2016 (although to be clear, the WPI did not need to be completed prior to this time, just the application for it to occur).

A high proportion of these applications have led to disputes and so there is still uncertainty about how many claims will access benefits under these regulations.

In addition to this there have continued to be other new 'old Act' serious injury claims recognised in the last six months.

#### 3.2.2 Management of Short Term Claim Scheme Boundaries

At December 2017 the scheme has seen a number of key boundaries implemented. This includes:

- At 30 June 2016 the first of the RTW Act scheme's hard boundaries came in to operation, ceasing benefits for some 'medical only' claims.
- At 30 June 2017 the first group of claims reached the RTW Act's income support 104 week boundary, this included all transitional claims who had their claim accepted under the old Act.
  - In addition, the scheme has implemented these 104 week income and 52 week medical boundaries for RTW Act claims. So far the scheme's experience has been a smooth implementation of these processes.

In the next six months the last transitional boundary will commence operating, the 52 weeks of medical entitlement for those claims which ceased income benefits on 30 June 2017.

## 3.3 Operational and Environmental Changes

This section describes recent trends in the scheme environment. Section 14 provides an overview of earlier operational and legislative changes which are useful in understanding the scheme's historical experience.

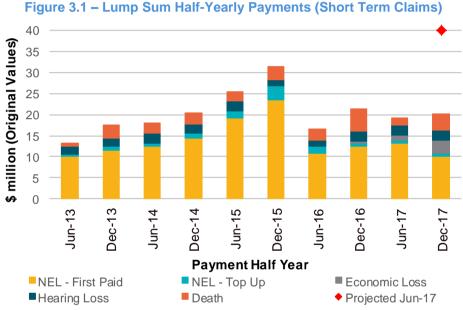


#### 3.3.1 **Slow Lump Sum Activity**

Lump sum payments have remained relatively stable over the last six months, which is well below our expectations (as per the previous valuation basis). For two reasons we expected lump sum payments to increase, namely:

- 1. The RTW Act introduced additional Economic Loss lump sum benefits while at the same time removing access to 'top up' lump sums; given Economic Loss lump sums are a much larger benefit compared to top up lump sums, this is expected to increase lump sum payments
- 2. The 104 week cap on income support is expected to lead to the earlier payment of lump sums. Speeding up the payment pattern will lead to a temporary higher level of lump sum payments. before they return to a 'steady state' level.

Figure 3.1 below shows lump sum payments by six-month period, split by the type of lump sum.



Currently, only around 20% of claims which reached the 104 week income support boundary have had a lump sum payment by that time. ReturnToWorkSA have advised that in their view this is a result of delays in undertaking WPI assessments, rather than a reduction in the number of claims eligible for a lump sum.

#### 3.3.2 **Dispute Numbers**

Dispute numbers were high during 2013, 2014, and the first part of 2015, due to greater numbers of claim rejections and work capacity decisions (under the old Act, these provisions no longer exist under the RTW Act). Dispute numbers then fell dramatically post 1 July 2015 under the RTW Act, although there have been a number of 'spikes' as key boundaries commenced: medical expenses disputes spiked after June 2016, due to a significant number of disputes around future surgery applications, and serious injury disputes increased around June 2017 as shown in Figure 3.2 below.



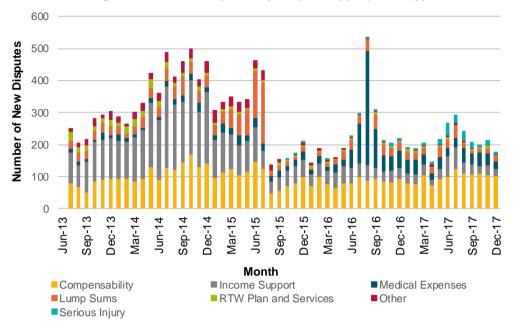


Figure 3.2 – New Disputes by Dispute Type (monthly)

Since October 2016, disputes have averaged just over 200 disputes per month, which is similar to the 'Old Act' experience prior to 2013. New disputes spiked around June 2017 driven by compensability and income support disputes. The spike coincides with the two-year boundary on income support benefits coming into effect for transitional claims. While it appears that current dispute numbers are more or less in line with earlier historical levels in aggregate, there are currently favourable signs that disputes have reduced on claims managed entirely under the RTW Act.

Figure 3.3 shows the number of open disputes over time. This shows the considerable reductions achieved between June 2015 and June 2016 under the various transition projects, following which open dispute numbers have again increased (an increase in the open dispute count means more new disputes are occurring than existing disputes are closing). In particular, the number of disputes relating to Medical Expenses has increased significantly since June 2016 as a result of the Transitional Regulation applications for future surgery as noted above. Disputes in relation to the Serious Injury threshold have also increased since June 2017.



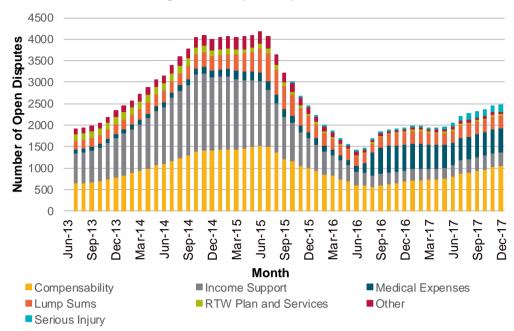
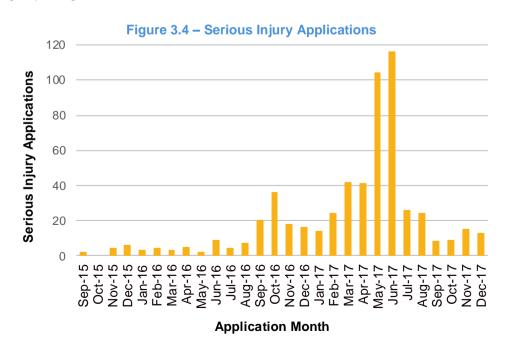


Figure 3.3 - Open Dispute Count

#### 3.3.3 Serious Injury Applications

Figure 3.4 shows the number of Serious Injury applications by month. As expected, in the lead up to 30 June 2017 there was a large spike in Serious Injury applications which has since largely subsided.

Over the last four months of 2017, where applications appear to have levelled off, Serious Injury applications averaged 11 per month, which is still higher than our allowance of roughly four accepted Serious Injury claims per month. To date, the majority of applications have been section 21(3) interim applications that have reviewable decisions. Around 75% of section 21(3) applications have been rejected, and of these almost 50% have disputed. This leaves a material (and growing) pool of claims that could become Serious Injury if the original rejection decision is overturned. If the success rate across this group is high then there would be a material strain on the liabilities.





## **Recent Claims Experience**

This section provides a high level analysis of scheme experience, including the numbers of new claims and overall payment trends.

#### 4.1 Claim Incidence

#### 4.1.1 **All Claims**

Figure 4.1 shows the estimated numbers of claims incurred in recent accident years (excluding reports which are determined as 'incidents'). The graph separates the actual numbers reported to date and our projection of claims incurred but not yet reported (IBNR).

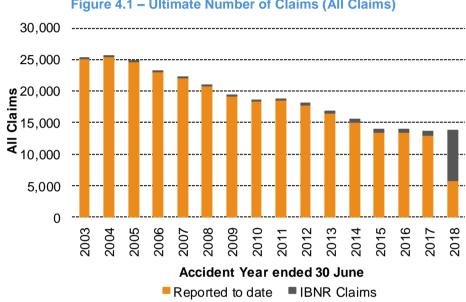


Figure 4.1 – Ultimate Number of Claims (All Claims)

The main feature of the experience is a general downwards trend, which began in the 1990s. There have been reductions in most years up to 2015 before levelling out over the last three years. Our current estimate of 13,966 claims for the 2016 accident year is 0.5% higher than the projected number for 2015. Our current estimates for the 2017 and 2018 accident years are at a similar level (2.1% decrease from 2016 to 2017 and a 0.3% increase from 2017 to 2018).

#### 4.1.2 **Income Support Claims**

Income Support (IS) claims are those who receive more than 10 days of lost time benefits. In addition to the early RTW focus which aims to stop claims getting to 10 days of lost time, the change in operational policy to focus on tighter claim acceptance, which began in late 2013, also reduced the number of IS claims between 2013 and 2015.

Figure 4.2 shows our projected ultimate numbers of IS claims (those with more than 10 days lost time), split into those who have already received an IS payment and those who are expected to receive their first IS payment in future (IBNR).



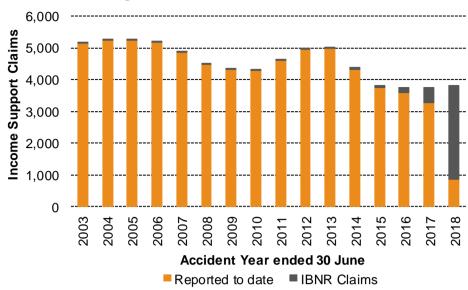


Figure 4.2 - Ultimate IS Claim Numbers

#### Figure 4.2 shows:

- Prior to 2007 IS claim numbers were reasonably stable, with just above 5,000 claims per annum.
- IS claim numbers dropped by 17% between 2006 and 2010 and then rose again over the next two years to reach around 5,000 claims per annum in 2012
- Our current projection shows IS claim numbers are expected to reduce materially in 2014 and again in 2015 (a 13% reduction each year). Our projection of IS claims for accident years 2015 and later are all below 4,000 (3,765 for 2017 and 3,808 for 2018), which is the lowest since the scheme commenced.

We note that for the 2017 and 2018 accident years our projection of IS claim numbers has decreased by 5% and 3% respectively from the previous valuation. These reductions reflect a change in the claim reporting pattern, as we had previously interpreted higher early claim numbers in these years as a deterioration, whereas with the benefit of hindsight we are now relatively confident that it was just claims being recognised earlier than they had been in the past (and so the IBNR component ought have been lower than we had allowed).

As shown in the graph, considerable development of claim numbers is still expected for the latest accident year, and there is therefore significant uncertainty around the ultimate outcomes in this year.

In order to better understand the changes in IS claim numbers, we separately model claim numbers by type of injury. Figure 4.3 below shows the number of claims that go on to receive 10 days of lost time (and thus are classified as an IS claim), as well as the number of all claims with that type of injury.

The biggest changes were the decrease in mental injury and musculoskeletal claims receiving IS from 2013 to 2014. Mental injury IS claims have since risen slightly and stabilised at around 100 ultimate claims per accident quarter. This mix has important implications for long term IS claim costs as mental injury claims tend to have longer average durations than the 'typical' IS claim.





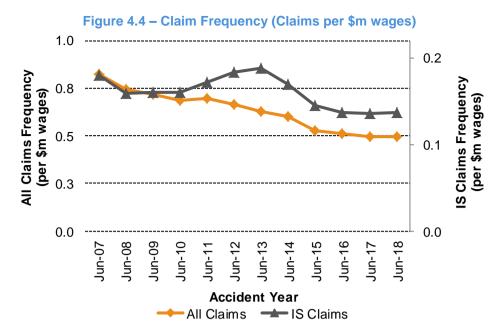
Figure 4.3 - All Claims and IS Claims by Type of Injury

Our lower projection of ultimate IS claims for 2017 and 2018 compared to the previous valuation is mainly due to lower (physical) injury claims in recent accident quarters.

#### 4.1.3 Claims Frequency – All Claims and IS Claims

Figure 4.4 compares the trends in (1) total claim frequency ('all claims' numbers from Section 4.1.1) and (2) IS claim frequency (IS numbers from Section 4.1.2); the frequencies are expressed relative to covered scheme wages (in current values). The two series are shown on different scales so the trends can be directly compared.

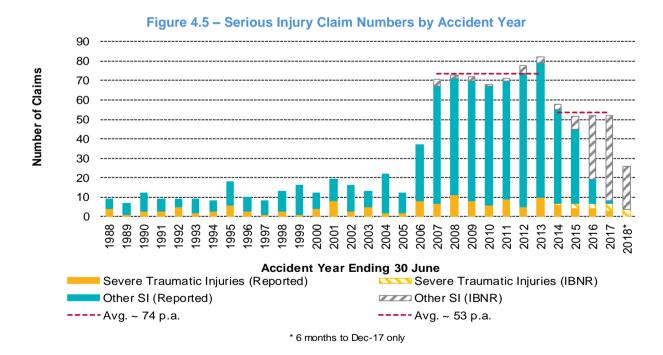




The IS claim frequency was on a similar trend to the all claims frequency between 2006 and 2009, before diverging between 2010 and 2013. The improvement in IS claim numbers between 2013 and 2015 led the estimated frequencies of IS claims and all claims to move more in line over this period before both measures have flattened off in the last three years.

## 4.2 Serious Injury Claims

Figure 4.5 shows our estimated numbers of Serious Injury claims by accident year.



The key features we note from this are:

• The number of recognised Serious Injury claims prior to 2007 is low, which is a result of past redemption activity removing such claims from the scheme.



- In the period from 2007 to 2013 the average is almost 75 Serious Injury claims per year.
  - However, this includes 10 20 'top-up' claims (i.e. deteriorations or aggravations) per year which are no longer expected under the RTW Act due to the requirement for 'once and for all' WPI assessments.
  - Around 7% of the claims that make up this cohort are still in the 'potential' Serious Injury category (i.e. they have not yet had an assessment to confirm that they meet the Serious Injury threshold), and it is possible that some of these claims will not ultimately meet the Serious Injury threshold. That said, there are still many other claims either in dispute or with an interim rejection that could lead to higher claims numbers than our IBNR allowances.
- From 2014 to 2017 the ultimate number of Serious Injury claims is currently lower, at around 53 claims per year, as to date there has been limited 'topping up' of WPI scores on these claims; these periods also include a material level of IBNR claims, as assessments have typically not occurred until a number of years after the injury occurred, and so the ultimate number of claims is still uncertain.

How the number of Serious Injury claims for the 2014 and 2015 accident year emerge over the next six to 12 months will be critical in determining whether our estimates of the ultimate number of claims under the RTW Act is correct. Although we have allowed for a proportion of disputes and applications with interim decisions to become Serious Injury claims, the risk remains that the actual number could be higher than we have allowed for. In this regard we note the continued emergence of new unexpected Serious Injury claims for very old injuries, and we emphasise that if this continues then we will need to increase our estimate of Serious Injury claim numbers.

If the new WPI assessment provisions work as intended, we expect there to be around 52 Serious Injury claims per year under the RTW Act (of which 7 are expected to be Severe Traumatic Injuries). We have allowed for 140 IBNR claims in our projections, equating to 2.7 injury years' worth of claims.

As discussed in Section 3.1 there are a number of adverse legal decisions that are subject to appeal, which if not overturned could lead to more claims getting higher WPI scores that would increase the Serious Injury claim numbers.

Given the high value of Serious Injury benefits, higher than expected Serious Injury claims would materially increase the liability.

## 4.3 Overall Payment Experience

Figure 4.6 shows gross claim payments (i.e. before recoveries) in half yearly periods over the last ten years, inflated to current values.



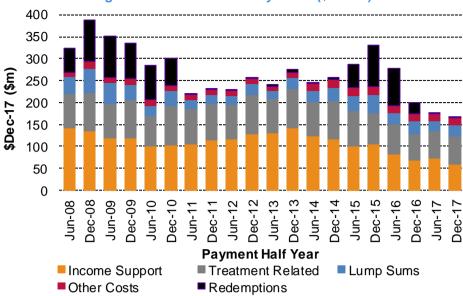


Figure 4.6 - Gross Claim Payments (\$Dec17)

Gross payments of \$165 million were 5% lower in real terms (i.e. after adjusting for inflation to current values) than the previous six months. This reflects some mixed experience by payment type:

- IS payments have steadily reduced since 2013 reflecting the reductions in new IS claim numbers (from 2013 to 2015) and improved RTW outcomes (since 2015)
- Treatment related costs have been relatively stable in the last two years
- Lump sum payments have been relatively low in the last 24 months. As discussed in Section 3.3.1,
   we expect lump sums will soon increase under the RTW Act provisions
- Redemption activity has essentially disappeared under the RTW Act.

After allowing for recoveries of \$10 million in the last six months, net claim payments of \$155 million were \$23 million (13%) lower than projected at the previous valuation. Table 4.1 shows the breakdown.



Table 4.1 - Payments: Actual vs Expected

Entitlement	Entitlement Six Months to Dec-17			Split by	Category	
Group	Actual	Expected	Act - Exp	Act/Exp	Short Term	Serious Inj
	\$m	\$m	\$m		\$m	\$m
Income support	59.0	64.7	-5.7	91%	-6.3	0.6
Redemptions	0.8	0.1	0.6	623%	0.0	0.6
Lump sums	24.9	45.4	-20.5	55%	-20.5	-0.1
Worker legal	5.8	5.1	0.8	115%	0.1	0.6
Corporation legal	9.4	8.6	0.8	110%	0.6	0.2
Medical	33.1	29.7	3.4	111%	3.3	0.1
Hospital	8.1	7.3	0.8	111%	0.8	0.1
Travel	2.8	2.7	0.1	103%	0.2	-0.1
Rehabilitation	7.8	8.0	-0.2	98%	0.1	-0.2
Physical therapy	4.6	4.6	0.1	102%	0.1	0.0
Investigation	1.0	0.9	0.1	107%	0.1	0.0
Other	7.4	6.9	0.4	106%	0.2	0.2
Common law	0.0	0.2	-0.2	0%	-0.2	0.0
LOEC	0.1	0.1	0.0	97%	0.0	0.0
Commutation	0.2	0.2	-0.1	70%	-0.1	0.0
Gross Payments	164.8	184.3	-19.5	89%	-21.5	2.0
Recoveries	-10.2	-6.8	-3.3	149%	-3.6	0.3
Net Payments	154.6	177.5	-22.9	87%	-25.1	2.2

The key features of the last six months' payment experience are:

- IS payments were \$6 million (9%) lower than expected; driven by accident years 2017 and prior, where the number of active claims has been lower than expected, together with a reduction in the average amount of IS paid to each claim.
- STC lump sum payments were materially lower than expected in the last six months, as explained in Section 3.3.1.
- Legal payments remain at relatively high levels, and were higher than projected. We observe that legal costs equate to 25% of Income Support payments in the last six months.
- Treatment costs tended to be higher than expected with Medical and Hospital up 11%
- Recoveries were \$3.3 million (49%) higher than expected; driven by STCs.
- STCs (especially lump sum payments) largely explained the \$23 million aggregate difference
  described above, with actual payments on STCs being \$25 million lower than expected. For
  Serious Injuries, most of the higher than expected payments relate to IS, redemption and worker
  legal payments; with offsetting differences across other benefit types.

Our valuation basis for STC is discussed in the following sections: IS and related expenditure in Section 4; Lump sums in Section 6; treatment related expenditure in Section 7 and all other entitlements in Section 8. Section 9 discusses our valuation of Serious Injury claims.



## 5 Income Support – Short Term Claims

This section describes our valuation of Income Support (IS) payments for Short Term Claims (STC) only. There has been no IS redemption activity in the six months since June 2017, and no future IS redemptions are anticipated.

There is still some medical-only redemption activity, and the associated liability is discussed in Section 5.5. The results in Section 5.6 include both IS payments and medical-only redemptions.

## 5.1 Summary of Results

Table 5.1 summarises the movements in our liability estimates for IS payments since the June 2017 valuation.

**Table 5.1 - Valuation Results: Income Support** 

Jun-17 Valuation	\$m	\$m	\$m
Estimated Liab at Jun-17	127.7		
Projected Liab at Dec-17	124.3		
Dec-17 Valuation		AvE pmts ActI	Release
Impact of experience/OSC - valuation release	(1.5)	(6.3)	7.8
Estimated Liab at Dec-17 (Jun-17 eco assumptions)	122.8		
Impact of change in eco assumptions	(0.0)		
Estimated Liab at Dec-17 (Dec-17 eco assumptions)	122.8		

At December 2017 there is an actuarial release of \$7.8 million, reflecting the claims experience since June 2017 and our valuation response. The actuarial release comprises a release of \$1.5 million from the liability estimate and lower than expected claim payments in the six months of \$6.3 million.

The impact of economic assumptions is negligible for the STC IS payments; the impact of economic assumptions is discussed in Section 11.3.2.

## 5.2 Experience vs Expectations

#### 5.2.1 Payments

Table 5.2 compares the IS payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.

Table 5.2 - Actual vs Expected Payments: IS

Accident	Payn	nents in Six	Months to De	ec 17
Period	Actual	Expected	Act - Exp	Act/Exp
	\$m	\$m	\$m	
To 30 Jun 05	0.3	0.4	(0.1)	83%
2005/06 - 2013/14	2.0	2.5	(0.4)	82%
2014/15 - 2015/16	15.5	19.7	(4.2)	79%
2016/17	25.0	27.2	(2.1)	92%
2017/18	7.0	6.4	0.6	109%
Total	49.9	56.2	(6.3)	89%

IS payments were around 20% lower than expected across the older accident periods, accident year 2016/17 was 8% lower than expected and accident year 2017/18 was 9% higher than expected.



#### 5.2.2 **Active Claims and Exits**

Figure 5.1 shows the numbers of (quarterly) active IS claims, by duration, over the last three years.

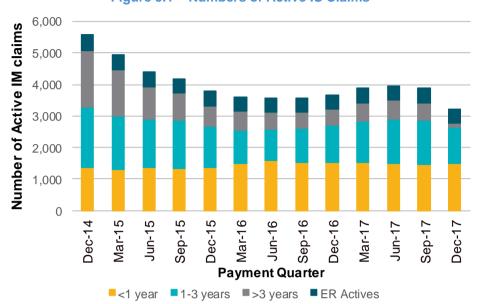


Figure 5.1 - Numbers of Active IS Claims

Active claim numbers have fallen by around 40% since late 2014, as a result of the impacts of the RTW Act and ReturnToWorkSA's claim management strategies. During calendar year 2016, medium-duration actives (1-3 years) were low as many transitional claims exited the scheme via redemption in the lead up to the RTW Act. With IS redemptions no longer being used, the numbers of 1-3 year actives increased up to June 2017 after which active claim numbers have declined notably in December 2017 as a result of claims exiting due to the 104 week boundary on IS payments

In Table 5.3 we compare the numbers of active IS claims at December 2017 with our June 2017 valuation projection. This has been done only for periods where we projected future active claims at the June 2017 valuation (accident years 2014/15 and later).

Table 5.3 – AvE Active Claims						
Accident	Proj from	Actual	Act less	Diff as %		
Year	Jun-17 Val	Actives	Proj	Proj		
Jun-15	28	46	18	67%		
Jun-16	653	635	-18	-3%		
Jun-17	1,288	1,195	-93	-7%		
Jun-18	746	788	43	6%		
Total	2,714	2,664	-50	-2%		

Overall, active claim numbers at December 2017 for these accident periods were 2% below expectations.

The lower active numbers for accident years 2015/16 and 2016/17 reflect the improved return to work performance of the scheme. At this early stage, the 2017/18 numbers are higher than expected, but the experience for this year is very immature.

Active IS numbers were higher than projected for accident year 2014/15, and there were some 'unexpected' actives for earlier periods (not shown in the table), for two main reasons:



<sup>&</sup>lt;sup>1</sup>Six months to 31 Dec 17

- Some claims with IS entitlements that ceased at 30 June 2017 continued to receive IS payments into the December quarter, due to delays between entitlement and payment, and the number of these claims was higher than expected. Payments for these claims are not expected to continue.
- More claims than expected continue to have IS entitlement more than two-years after injury, because they had long delays to first incapacity; their entitlement ceases at two years after first incapacity.

## 5.3 Modelling of STC IS Payments

At this valuation we have changed the structure of our modelling approach for IS payments to the following:

- For all IS payments in the first three years after injury (development years 1 to 3) a PPAC model which models all IS entitlements at these durations; this includes IS payments to dependants, and IS payments made following surgery where the claimant would not otherwise have been entitled to IS.
- For all IS payments more than three years after injury (development years 4 and later) a PPCI model, once again valuing all IS entitlements together. This PPCI model using total claim numbers (not just IS claims) as the base.

At the previous valuation, the PPAC model was used only for 'standard' IS payments. IS payments for dependants and post-surgery IS payments (all durations) were valued separately using independent PPCI models.

#### 5.4 Valuation Basis

#### 5.4.1 IS Payments in Years 1-3: PPAC Model

Claims from post-30 June 2015 accidents have been managed under the RTW Act since their inception. The PPAC basis adopted for these claims began with our initial scheme costings, and is being adapted at each valuation as further post-RTW Act experience emerges.

#### Projection of Active Claims

Figure 5.2 below shows the recent continuance experience relating to post-reform claims, and our adopted bases at the previous and current valuations.



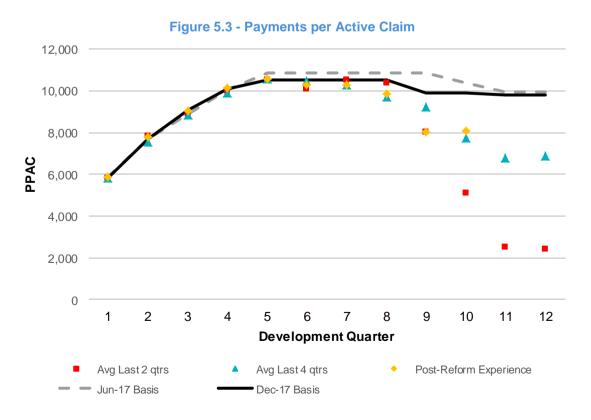
100% Impact of two year boundary 90% 80% Continuance Rate 70% 60% 50% 40% 30% 20% 3 5 8 9 10 11 12 **Development Quarter** Jun-17 Basis Dec-17 Basis Post-Reform Experience

Figure 5.2 - Continuance Rates

The overall impact of the changes to continuance rates is a reduction in the estimated liability, and reflects improving return to work outcomes. We note that the post-reform experience from DQ 9 onwards is very immature and we have not shown the experience beyond DQ9.

#### Payments per Active Claim

Figure 5.3 below shows the recent PPAC experience relating to post-reform claims, and our adopted bases at the previous and current valuations.



**E**finity

The most recent PPAC experience is emerging lower than our June 2017 basis, reflecting improved return to work outcomes. We have reduced our adopted PPACs, particularly after the first development year.

#### 5.4.2 IS Payments after Year 3: PPCI Model

The overall adopted average PPCI size of about \$280 per reported claim is made up of three components:

- The allowance for dependant claims remains unchanged at around \$100 per reported claim<sup>3</sup>
- The PPCI for post-surgery IS payments is also unchanged at around \$110 per reported claim<sup>4</sup>
- An additional allowance for claims with 'late starting incapacity' of about \$70 per reported claim. This equates to an increase of about \$5.4 million in the December 2017 outstanding claims liability across all accident years. It allows for about 5-10 claims per accident quarter to commence IS payments after the two-year mark, and to receive about one year's IS benefits on average.

Figure 5.4 shows the adopted PPCI basis and its components.

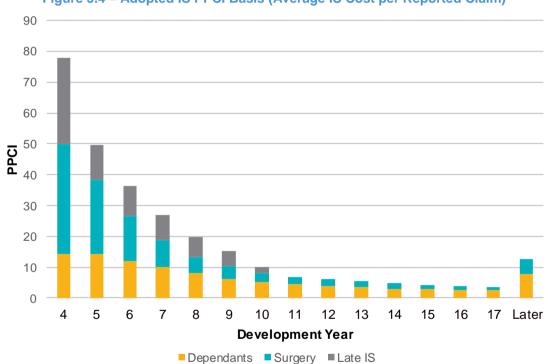


Figure 5.4 – Adopted IS PPCI Basis (Average IS Cost per Reported Claim)

#### 5.5 **Medical-Only Redemptions**

The medical redemption payments in the six months to 31 December 2017 were very small (they are trailing off), and about 5% lower than expected.



<sup>&</sup>lt;sup>3</sup> The PPCI adopted at the last valuation was 'converted' from a PPCI using IS claims as the base to a PPCI using all reported claims as the base.

Again, the previous PPCI was 'converted'.

An allowance of just \$0.1 million for medical redemption payments is included at the current valuation for future medical redemption payments. Table 5.4 summarises the movements in our liability estimates for medical redemption payments since the June 2017 valuation.

**Table 5.4 - Actuarial Release: Medical Redemptions** 

Jun-17 Valuation	\$m	\$m	\$m
Estimated Liab at Jun-17	0.2		
Projected Liab at Dec-17	0.1		
Dec-17 Valuation		AvE pmts	Actl Release
Impact of experience/OSC - valuation release	(0.0)	(0.0)	0.0
Estimated Liab at Dec-17 (Jun-17 eco assumptions)	0.1		
Impact of change in eco assumptions	(0.0)		
Estimated Liab at Dec-17 (Dec-17 eco assumptions)	0.1		

#### 5.6 Valuation Results and Actuarial Release

Table 5.5 sets out the components of the actuarial release for IS payments and medical redemptions (combined).

Table 5.5 - Components of Actuarial Release: IS and Medical Redemptions

Release (strengthening) due	e to	
	\$m	\$m
AvE payments in six mon	ths	
Income Support	6.3	
Medical Redemptions	(0.0)	
		6.3
Difference from projected	liability	
Experience	(1.1)	
IS Basis - Front End	(2.5)	
IS Basis - Tail	5.1	
		1.5
Total		7.8

The actuarial release of \$7.8 million is made up of payments in the six months being \$6.3 million lower than expected, and a \$1.5 million reduction in the projected liability from June 2017, composed of the following changes:

- A \$1.1 million increase due to the IS active claim numbers being higher than expected (particularly for the 2017/18 year, which is very immature)
- A \$2.5 million decrease due to the scheme's improved return to work experience being reflected in the adopted continuance rates and average payments
- A \$5.1 million increase due to a higher allowance for late reported income support claims.

Table 5.6 summarises these movements by accident period. The results on recent accident periods drive the saving, following the continued RTW improvements.



**Table 5.6 - Actuarial Release for IS and Medical Redemptions** 

	<u> </u>	<del></del>				
	Projected Liab	Dec 17	Difference	Act v Exp		
	at Dec 17 from	Estimate on	from	Pmts in		
	Jun 17	Jun 17 Eco	Projected	6 mths to	Actuarial	Release
Accident Period	Valuation	Assumps	Liability	Dec 17	Release	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	3.0	3.2	0.2	(0.1)	(0.2)	-7%
2005/06 - 2014/15	11.6	13.8	2.2	(0.4)	(1.8)	-15%
2015/16 - 2016/17	15.4	16.9	1.6	(4.3)	2.7	18%
2016/17 - 2017/18	94.6	89.1	(5.5)	(1.6)	7.1	7%
Total	124.5	123.0	(1.5)	(6.3)	7.8	6%



# 6 Lump Sums - Short Term Claims

This section describes our valuation of lump sum payments for Short Term Claims. A lump sum is payable to a worker who suffers a compensable disability that results in at least 5% whole person permanent impairment (WPI). Separate Lump Sums compensate claimants for non-economic loss and future economic loss, although compensation for future economic loss is only available to claims with injuries after 1 July 2015.

#### Introduction

We value lump sums in five segments:

- "Death" and funeral claims
- "Deafness" claims
- "First Paid" lump sums where a claimant receives their first lump sum payment for the relevant claim (excluding Death and Deafness claims); this is for non-economic loss only
- "Top Up" lump sums where a claimant receives an additional payment in a half-year after they received their first lump sum payment (excluding Death and Deafness claims). These are now only allowable for claimants with injury dates prior to 1 July 2015 who lodged an application prior to 30 June 2016
- "Economic Loss" lump sums Short Term Claims may receive an additional payment for loss of future earning capacity. This is a new benefit under the RTW Act and is available to new injuries from 1 July 2015.

Appendix A specifies the complete definitions for the lump sum valuation.

# 6.1 Summary of Results

Table 6.1 summarises the movements in our liability estimates for lump sum payments since the June 2017 valuation.

Table 6.1 - Valuation Results: Lump Sums

Jun17 Valuation	\$m	\$m	\$m
Estimated Liab at Jun-17	208.3		
Projected Liab at Dec-17	209.6		
Dec-17 Valuation		AvE pmts	Release
Impact of experience/OSC - Movement in liab	19.0	(20.5)	1.4
Estimated Liab at Dec-17 (Jun-17 eco assumptions)	228.7		
Impact of change in eco assumptions	(0.1)		
Estimated Liab at Dec-17 (Dec-17 eco assumptions)	228.6		

The December 2017 liability shows an actuarial release of \$1.4 million since June 2017, reflecting an increase of \$19.0 million in the liability, and \$20.5 million of lower claims payments. The remainder of this section deals with this impact while the impact of the change in economic assumptions is discussed in Section 11.3.2.

# 6.2 Payment Experience

Table 6.2 compares the payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.



Table 6.2 – Actual vs Expected Payments: Lump Sums

Accident	Payments in Six Months to Dec 17					
Period	Actual Expected Act - Exp Act/					
	\$m	\$m	\$m	_		
To 30 Jun 05	0.5	0.7	(0.1)	79%		
2005/06 - 2012/13	3.3	3.6	(0.4)	90%		
2013/14 - 2014/15	6.4	8.7	(2.3)	74%		
2015/16 - 2017/18 1	9.6	27.3	(17.7)	35%		
Total	19.7	40.2	(20.5)	49%		

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

Payments were around 50% lower than expected in the six months to 31 December 2017. This was driven by a significantly lower than expected number of First Paid and Economic Loss lump sum payments for RTW Act accidents as discussed in Section 3.3.1. We have interpreted this experience as a slowdown rather than an overall reduction in the level of lump sum payments.

## 6.3 Valuation Basis

## **Valuation Basis for First Paid Lump Sums**

Our valuation basis adopts a combination of the chain ladder approach for more mature accident periods and a frequency based approach for more recent accident periods where there is less experience. Table 6.3 below compares the actual and expected number of First Paid lump sums paid in the six months to December 2017.

Table 6.3 – Actual vs Expected Payments: First Paid Lump Sums

Accident	Number of Payments in Six Months to Dec 17					
Period	Actual	Act/Exp				
To 30 Jun 06	19	6	13	329%		
2006/07 - 2012/13	96	54	42	177%		
2013/14 - 2014/15	198	300	-102	66%		
2015/16 - 2017/18 <sup>1</sup>	121	365	-244	33%		
Total	434	725	-291	60%		

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

Payments for accident years up to 2012/13 were higher than expected particularly for accidents older than 10 years. We have interpreted this experience as a speeding up of payments due to the recent transition claims settlement activity. This is the second consecutive valuation where we have observed more first paid lump sums in old periods. In response, we have further reduced our future chain ladder factors for accidents up to June 2013.

For periods after June 2013 we continue to adopt a frequency based approach. The selected ultimate numbers for these periods remain unchanged at this valuation. For RTW Act accidents, we have reshaped our payment pattern at this valuation by slowing down the payment pattern up to development year 5 in line with the emerging experience. This effectively lengthens the payment pattern as lump sums are being paid out considerably slower than previously anticipated.

Figure 6.1 shows the ultimate number of First Paid lump sums, split into paid and IBNR claims. This also demonstrates the reduction in lump sum claim numbers following the June 2008 reforms when a 5% WPI threshold was introduced.



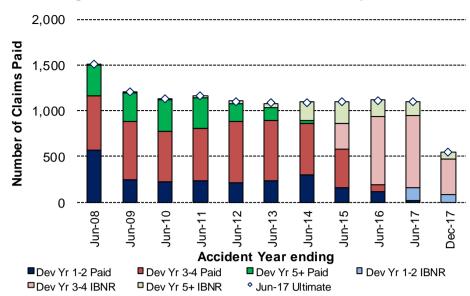


Figure 6.1 - Ultimate Number of First Paid Lump Sums

Figure 6.2 shows the average size of First Paid claims as a percentage of the maximum benefit available, by duration from injury.

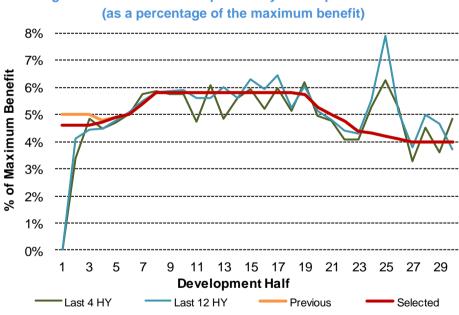


Figure 6.2 - First Paid Lump Sums by Development Half-Year

We have reduced our selected size assumptions up to development-half four to better reflect the experience. At an overall level, the average First Paid lump sum is expected to be 5.2% of the prescribed maximum benefit, or around \$25,000.

## **Valuation Basis for Top Up Lump Sums**

The number of Top Up lump sums is projected as a percentage of the ultimate number of First Paid lump sums. Top Up lump sum payments were initially removed under the RTW Act changes, but following a Regulation change in December 2015, they were added back in a restricted form, with a requirement that any applications for a Top Up lump sum had to be made by 30 June 2016 (although the assessments can still take place at a later date).



Top Up lump sums payments were significantly lower than expected in the last six months across all accident periods. At the current valuation, we have reduced our Top Up lump sums allowance to around 140 payments, down from 175 in our previous basis. Our selected basis reflects the reduced number of outstanding applications but also allows for some extra claims to emerge from adverse legal precedents and disputed applications. While there is uncertainty around the success rate of the current applications and the lump sum payments, the dollars are not large.

Figure 6.3 shows the projected ultimate numbers of Top Up lump sums, split into paid and IBNR claims. The totals reduce for more recent accident years, as there is only a limited opportunity for these claims to have made applications for subsequent assessments prior to 30 June 2016 in line with the Regulations.

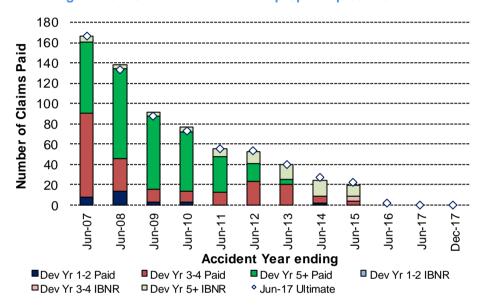


Figure 6.3 - Ultimate Number of Top Up Lump Sum Claims

The ultimate numbers have reduced for 2012 and later accident years, where a large proportion of the payments are still outstanding.

Figure 6.4 shows the average size of Top Up lump sum payments as a percentage of the maximum benefit available.

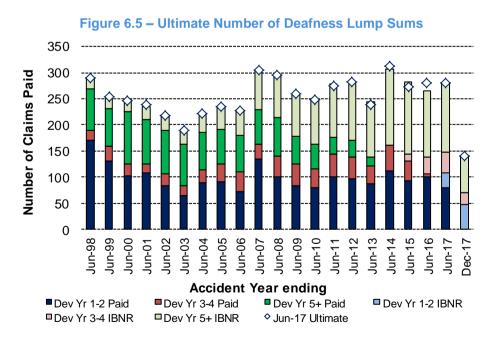


Figure 6.4 – Top Up Lump Sum Size by Development Half-Year (as a percentage of the maximum benefit)

Our selected average size has been increased at the front-end from our previous valuation and is consistent with the long term experience. At this stage we have not responded to the generally higher top-up size (as demonstrated by the 'last 4 HY' line), given there appears to be some conservatism in our top up claim counts.

## **Valuation Basis for Deafness Lump Sums**

When estimating the number of future Deafness lump sums, there is no differentiation between First Paid and Top Ups. Figure 6.5 shows the projected numbers of Deafness lump sums by accident year. The tail of Deafness IBNR claims is considerably longer than for First Paid lump sums, with claims still occurring many years after the injury (as is for common Deafness claims).



Deafness lump sum payments over the last six months were around 11% higher than expected driven by recent accident periods. We have maintained a frequency approach for accident periods after December



2015 to allow for changes in payment speeds, consistent with the "lumpy" nature of deafness lump sum payments. Our selected ultimates for these periods are unchanged and consistent with the long term experience. Periods prior to December 2015 adopt a chain ladder approach with the same claim reporting pattern as our previous valuation.

Figure 6.6 shows the overall average benefit paid for a Deafness lump sum claim. The selected average Deafness benefit is unchanged at this valuation and is similar to the experience over the last two years at around \$16,700.

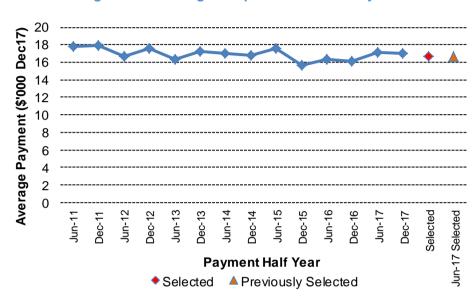


Figure 6.6 - Average Lump Sum Deafness Payment

# **Valuation Basis for Death Lump Sums**

Experience for Death (and funeral) lump sums were favourable over the last six months with the number and amount of payments being 35% and 20% lower than expected respectively. Death lump sums experience tends to be volatile and at this valuation, we have maintained our underlying projection basis consistent with the longer term experience.

In addition to the underlying projection, our basis has allowed for one-off ex-gratia dependent benefit payments to occur in line with changes introduced with the RTW Act; these ex-gratia payments were available only to a small number of past part-death benefit recipients, but to date there has been very little activity and so we continue to reduce the IBNR allowance by one half-year to recognise that not all potentially entitled dependents will claim this benefit.

Figure 6.7 shows the numbers of Death lump sums by accident year.



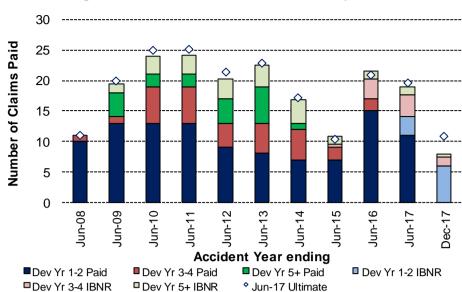


Figure 6.7 – Ultimate Number of Death Lump Sums

Figure 6.8 shows the average benefit paid to a Death lump sum claim, by payment half year.

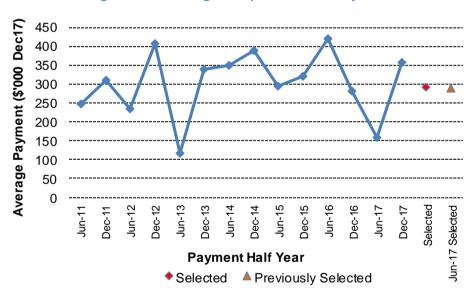


Figure 6.8 - Average Lump Sum Death Payment

Our adopted size is unchanged and consistent with the long term average.

## **Valuation Basis for Economic Loss Lump Sums**

Economic Loss lump sums are paid to a worker for loss of future earning capacity. This is a new benefit under the RTW Act and is available to injuries from 1 July 2015. Payments have started to emerge over the last twelve months, albeit at a much slower rate than anticipated.

We have continued to align the ultimate number of Economic Loss lump sum payments with First Paid lump sums. As with First Paid lump sums, we have reshaped the profile of payments at this valuation to allow for the slower than expected payments emerging in the experience. We will continue to monitor the experience as claims are paid and revise our assumptions as necessary.



## 6.4 Valuation Results and Actuarial Release

Table 6.4 sets out the actuarial release resulting from our valuation of lump sum payments. The first column represents our projection from the June 2017 valuation.

Table 6.4 – Actuarial Release for Lump Sums

	Table 01-1	7 / Motdana Kolodoo loi Zamp Gamo				
	Projected Liab	Dec 17	Difference	Act v Exp		
	at Dec 17 from	Estimate on	from	Pmts in		
	Jun 17	Jun 17 Eco	Projected	6 mths to	Actuarial	Release
Accident Period	Valuation <sup>1</sup>	Assumptions	Liability	Dec 17	Release <sup>2</sup>	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	6.1	5.8	(0.3)	(0.1)	0.4	7%
2005/06 - 2012/13	17.6	16.7	(0.9)	(0.4)	1.3	7%
2013/14 - 2014/15	22.8	25.7	2.9	(2.3)	(0.6)	-3%
2015/16 - 2017/18 <sup>1</sup>	163.1	180.4	17.4	(17.7)	0.3	0%
Total	209.6	228.7	19.0	(20.5)	1.4	1%

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

The \$19.0 million increase in projected liability offset by actual payments being \$20.5 million less than expected results in an actuarial release of \$1.4 million. Most of the release comes from older accident years, where we have reduced the allowance for ex-gratia death benefits.

Table 6.5 breaks down the actuarial release by source.

Table 6.5 - Components of Actuarial Release: Lump Sums

Release (strengthening) due to		
	\$m	\$m
AvE payments in six months		20.5
Changes to Valuation Basis		
Slower First Paid numbers	(8.2)	
Top Up size	(0.1)	
Lower Deafness IBNR	0.3	
Slower Economic Loss numbers	(11.0)	
Subtotal		(19.0)
Total		1.4

Changes to the First Paid and Economic Loss lump sum basis results in an increase of \$8.2 million and \$11.0 million respectively. The increase is a result of treating the slower payments in the recent experience as a delay rather than a saving. Changes to the Top Up Size and lower Deafness IBNR produce a combined release of \$0.2 million.



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

## 7 Treatment and Related Costs - Short Term Claims

Workers who suffer a compensable injury are entitled to be compensated for a range of medical and other treatment related costs. For the valuation we split these entitlements into the following groups: Medical, Physical Therapy, Hospital, Rehabilitation (Vocational Rehabilitation), Travel and 'Other'. Medical payments are the most significant of these entitlements.

# 7.1 Summary of Results

Table 7.1 summarises the movements in our liability estimates for treatment and related cost payments since the June 2017 valuation.

**Table 7.1 - Valuation Results: Treatment Costs** 

					Physical		Total
	Medical	Hospital	Travel	Rehab	Therapy	Other	Treatment
Jun17 Valuation	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Estimated Liab at Jun-17	104.4	16.9	4.3	16.3	6.7	9.6	158.2
Projected Liab at Dec-17	102.1	17.4	4.1	16.0	6.4	9.0	154.9
Dec-17 Valuation							
Impact of experience/OSC - Movement in liab	2.2	0.3	0.4	0.6	0.4	1.2	5.1
Estimated Liab at Dec-17 (Jun-17 eco assumptions)	104.4	17.7	4.5	16.6	6.7	10.2	160.0
Impact of change in eco assumptions	(0.3)	(0.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.4)
Estimated Liab at Dec-17 (Dec-17 eco assumptions)	104.0	17.6	4.5	16.6	6.7	10.2	159.6
AvE Payments - six months to Dec-17	3.3	0.8	0.2	0.1	0.1	0.2	4.7
Actuarial Release at Dec-17	(5.6)	(1.1)	(0.6)	(0.6)	(0.5)	(1.4)	(9.8)

The main movements from our June 2017 projection of the December 2017 liability are:

- An increase of \$5.1 million in the liability, reflecting the claims experience since June 2017 and our valuation response. This produces an actuarial increase (strengthening) of \$9.8 million when combined with actual payments in the period being \$4.7 million higher than expected.
- Movements in economic assumptions, decreasing the treatment related liabilities by \$0.4 million.

The remainder of this section deals with the payment experience and valuation basis. The impact of the change in economic assumptions is discussed in Section 11.3.2.

# 7.2 Valuation Approach

Under the RTW Act most treatment and related costs cease 12 months after income support ends. The two exceptions to this are payments for medical aids and appliances, and payments related to approved surgeries. Our modelling approach captures these features using:

- Long term active claim model (PPAC) this is used for the valuation of Medical liabilities
  (excluding Aids and Appliances) for claims that are also receiving Income Support (IS) payments;
  for up to three years from the date of injury.
- Long term model (PPCI) this is a quarterly model used for the valuation of all other treatment related liabilities.
  - For Medical (excluding Aids and Appliances): this is a quarterly model used for the valuation of claims that are not receiving IS payments.
  - We have made an additional allowance at this valuation for claimants receiving Medical payments (excluding Aids and Appliances) alongside IS payments after three years from the date of injury.



- For other treatment related costs: this is used to value the total future cost of that entitlement, without differentiating between claims receiving income support.
- In most cases, we have shown two sets of valuation assumptions, namely:
  - "RTW Act claims" claims occurring after the RTW Act provisions commenced on 1 July 2015, that is where the new rules apply from day one of the claim: for these claims, it will typically take around four to five years before payments reduce to zero, due to a combination of (1) claimants who do not commence their incapacity until sometime after their injury, and (2) payment delays.
  - "Transitional claims" those that occurred prior to 30 June 2015: for these claims, the duration boundaries will commence on 1 July 2015 and so payments will generally cease soon after 30 June 2018. The "Transitional claims" selections shown in this section relate to our projections up this date. The "RTW Act claims" selections are used for our payment projections past this date.

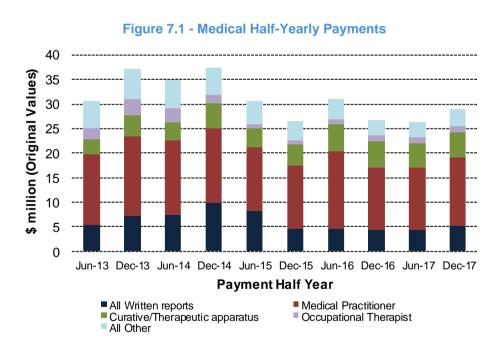
Detailed descriptions of the projection models and details of all projection assumptions are included in Appendix A and H.

## 7.3 Medical

Medical payments includes payments for treating doctors, written medical reports, therapeutic devices, pharmaceuticals, psychologists, and dentists, including medico-legal costs.

## Payments vs Expectations

Figure 7.1 below shows medical payments by six month period, split by the type of service.



Medical payment levels have reduced since December 2014 and remain lower compared to prior periods. The reduction is largely driven by:

- Lower written report activity post-June 2015 following the removal of WCA under the RTW Act.
- Lower other medical expenses including psychologist and chemist costs.



Offset by higher medical apparatus costs.

Table 7.2 compares the payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.

Table 7.2 - Act	ual vs Exped	cted Paym	ents: Medical
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Tubic 1.2	Aotual	S Expedica i	ayincints. Mcaidai			
Accident	Payments in Six Months to Dec 17					
Period	Actual	Expected	Act - Exp	Act/Exp		
	\$m	\$m	\$m	_		
To 30 Jun 05	1.4	1.8	(0.3)	82%		
2005/06 - 2012/13	3.3	2.9	0.4	113%		
2013/14 - 2014/15	2.9	2.6	0.3	114%		
2015/16 - 2017/18 <sup>1</sup>	21.4	18.5	2.9	116%		
Total	29.0	25.7	3.3	113%		

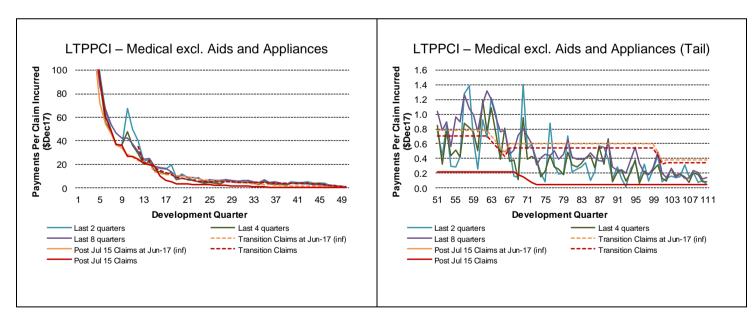
<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

Overall, payments were higher than expected in the six months to December 2017. On a dollar basis this was driven by post-reform accident periods, although payments were also higher than expected by a similar proportion in years back to 2006. Higher payments in the last six months were a result of increases in AMA fees and the mix of services under these (i.e. more 'long consults'), increases in spending on clinical assessments and reports (volume and average cost) and increases in psychological, occupational therapy and dentistry services.

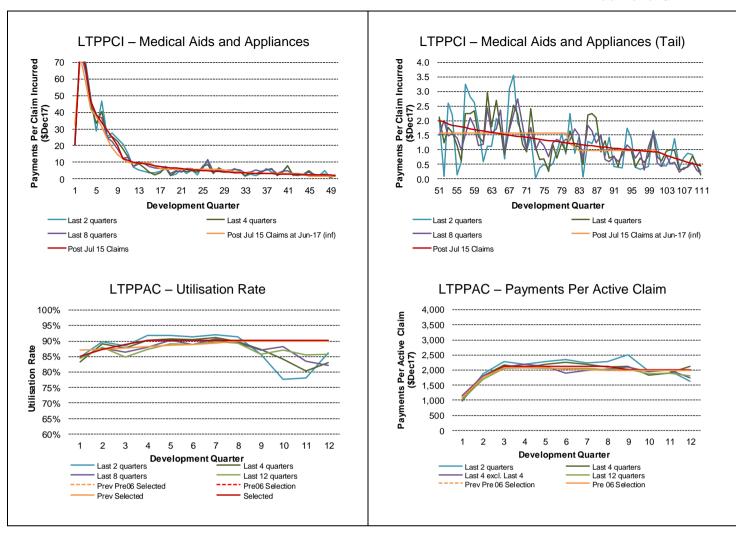
#### Valuation Basis

Figure 7.2 below shows the recent experience and selected basis for medical payments.

Figure 7.2 - Medical Experience and Selections







Our comments on the experience and selected assumptions are:

- LTPPCI (Medical, excluding aids and appliances):
  - We have reshaped our previous valuation basis for transition claims to better reflect the recent payment experience. The longer-duration experience is higher than our basis as a result of high levels of written report activity. We do not expect this to be a feature of the experience going forward following the removal of WCA under the RTW Act.
  - From 1 July 2015 the capping of benefits under the RTW Act commences, and our selected PPCIs reduce significantly by 4.5 years duration. We have increased our projection basis for post-reform accident quarters, up to the second year of development, in light of the recent higher than expected level of payments.
- LTPPCI (Medical aids and appliances)
  - We have used the same PPCI pattern for transitional claims and RTW Act claims.
  - We have reshaped our projection assumptions for both older and more recent accident periods in line with emerging payment patterns.
- LTPPAC:



- We have increased the utilisation pattern at earlier durations to reflect the higher proportion of claims receiving both IS and medical payments, and have marginally increased our assumptions from the two year duration mark through to later durations.
- Payments per active claim have been reshaped slightly to better reflect the emerging experience.
- LTPPCI (late medical payments for claimants also receiving IS)

An allowance has been made at this valuation for longer duration medical payments to claimants also receiving IS (after three years from the date of accident). Payments have been projected at 20% of the level of late IS payments described in Section 5.4.2.

## Medical Fee Increases

The medical fee rate paid to General Practitioners (GP) saw significant annual increases above inflation over the last three years, as part of a plan which started in July 2015 to better align fee rates with AMA rates. Our understanding is that this process is largely complete and we expect only modest increases going forward.

## Valuation Results and Actuarial Release

Table 7.3 sets out the actuarial release resulting from our valuation of medical payments. The first column represents our projection from the June 2017 valuation.

Table 7.3 - Actuarial Release for Medical

	Projected Liab	Dec 17	Difference	Act v Exp		
	at Dec 17 from	Estimate on	from	Pmts in		
	Jun 17	Jun 17 Eco	Projected	6 mths to	Actuarial	Release
Accident Period	Valuation <sup>1</sup>	Assumptions	Liability	Dec 17	Release <sup>2</sup>	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	18.6	18.5	(0.1)	(0.3)	0.4	2%
2005/06 - 2012/13	24.8	25.3	0.4	0.4	(0.8)	-3%
2013/14 - 2014/15	10.4	10.7	0.2	0.3	(0.6)	-5%
2015/16 - 2017/18 1	48.2	49.9	1.7	2.9	(4.6)	-10%
Total	102.1	104.4	2.2	3.3	(5.6)	-5%

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

The \$2.2 million increase in the projected liability combined with actual payments being \$3.3 million higher than expected results in an actuarial increase (strengthening) of \$5.6 million.

Table 7.4 breaks down the actuarial strengthening by source.

Table 7.4 - Components of Actuarial Release: Medical

Release (strengthening) due to		
	\$m	\$m
AvE payments in six months		(3.3)
Changes to Valuation Basis		
Ultimate claims	0.6	
PPCI Changes	(2.1)	
Allowance for late medical payments (with IS)	(1.1)	
Subtotal		(2.2)
Total	-	(5.6)



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

The main drivers of change are:

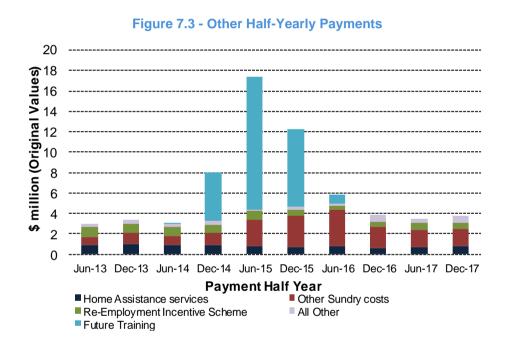
- Lower ultimate claim numbers result in an actuarial release of \$0.6 million.
- For medical payments on claims also receiving IS, there is an increase of \$0.7 million and changes to PPCI assumptions for other medical payments have resulted in a \$1.4 million increase in the liability.
- Our additional allowance for long duration medical payments to claimants also receiving IS adds \$1.1 million to the liability.

## 7.4 Other

The Other payment type includes payments on home assistance and modifications, Re-Employment Incentive Scheme (RISE), future retraining costs and other sundry costs.

## Payments vs Expectations

Figure 7.3 below shows 'other' payments by six month period.



After a period of high payments peaking with the June 2015 half-year, Other payments have stabilised in the last 18 months following reductions in Other Sundry Costs (which relate to professional financial advice fees that were part of the redemption activity). 'Future training and education' benefits are no longer paid to workers.

Table 7.5 compares the payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.



**Table 7.5 - Actual vs Expected Payments: Other** 

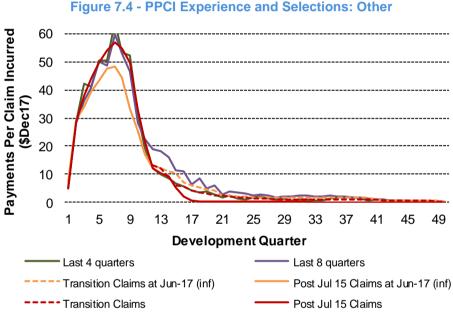
Accident	Payments in Six Months to Dec 17					
Period	Actual	Expected	Act - Exp	Act/Exp		
	\$m	\$m	\$m			
To 30 Jun 05	0.1	0.1	0.1	204%		
2005/06 - 2012/13	0.3	0.5	(0.2)	60%		
2013/14 - 2014/15	0.6	0.6	(0.0)	95%		
2015/16 - 2017/18 1	2.7	2.3	0.4	116%		
Total	3.7	3.5	0.2	107%		

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

Overall, payments were slightly higher than expectations. This is largely driven by the RTW Act accident periods with some offsetting differences in older years.

#### Valuation Basis

Figure 7.4 below shows the recent experience and selected basis for 'other' payments.



Post Jul 15 Claims at Jun-17 (inf)

For pre-reform accident periods, we adopt the transitional claims PPCI basis for payments up to June 2018. We have recognised a further decrease in the level of these payments and have lowered our basis (red dotted line) this valuation to reflect this.

For post July 2015 claims we have increased our front end PPCI assumptions (full orange line to full red line) in line with the heightened level of payments observed for these accident periods (as shown in Table 7.5). Our tail assumptions are unchanged from the previous valuation.

## Valuation Results and Actuarial Release

Table 7.6 sets out the actuarial release resulting from our valuation of 'other' payments. The first column represents our projection from the June 2017 valuation.



**Table 7.6 - Actuarial Release for Other** 

Table 1.0 - Actualial Release for Other						
	Projected Liab	Dec 17	Difference	Act v Exp		
	at Dec 17 from	Estimate on	from	Pmts in		
	Jun 17	Jun 17 Eco	Projected	6 mths to	Actuarial	Release
Accident Period	Valuation <sup>1</sup>	Assumptions	Liability	Dec 17	Release <sup>2</sup>	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	0.1	0.0	(0.0)	0.1	(0.0)	-68%
2005/06 - 2012/13	0.4	0.3	(0.1)	(0.2)	0.3	76%
2013/14 - 2014/15	0.6	0.5	(0.1)	(0.0)	0.1	24%
2015/16 - 2017/18 <sup>1</sup>	8.0	9.4	1.5	0.4	(1.8)	-23%
Total	9.0	10.2	1.2	0.2	(1.4)	-16%

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

The actuarial increase (strengthening) of \$1.4 million is due to the changes to our valuation basis in the front end, combined with higher than expected payments in the last six months.

Table 7.7 breaks down the actuarial strengthening by source.

**Table 7.7 - Components of Actuarial Release: Other** 

Table 111 Components of Act	Table 111 Components of Actualian Release. Other					
Release (strengthening) due to						
	\$m	\$m				
AvE payments in six months		(0.2)				
Changes to Valuation Basis						
Ultimate claims	0.1					
PPCI Changes	(1.3)					
Subtotal		(1.2)				
Total		(1.4)				

The main driver is the increase in our front end PPCI basis for RTW Act claims, partially offset by a decrease in our runoff assumptions for pre-reform accident periods which has resulted in a \$1.3 million increase in the liability.

# 7.5 Hospital

Hospital payments include payments made to public and private hospitals.

## Payments vs Expectations

Figure 7.5 below shows hospital payments in each six month period.



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

Figure 7.5 - Hospital Half-Yearly Payments

Hospital payments have increased slightly in the six months to December 2017 after stabilising in the 2017 financial year. This follows a spike in payments in the June 2016 half-year which we are largely treating as a one-off feature of the experience.

Private Hospital-Theatre Fee

Table 7.8 compares the payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.

Table 7.8 - Actual vs Expected Payments: Hospital

Accident	Payments in Six Months to Dec 17					
Period	Actual	Expected	Act - Exp	Act/Exp		
	\$m	\$m	\$m	_		
To 30 Jun 05	0.1	0.1	(0.0)	95%		
2005/06 - 2012/13	0.4	0.4	0.0	105%		
2013/14 - 2014/15	0.4	0.3	0.1	139%		
2015/16 - 2017/18 <sup>1</sup>	6.5	5.9	0.7	111%		
Total	7.4	6.6	0.8	112%		

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

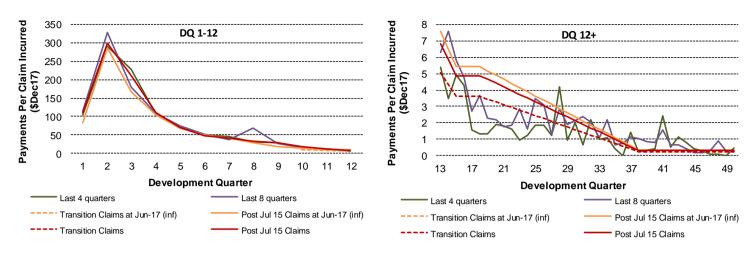
The bulk of hospital payments are made in the first year or two after injuries occur. Payments in the last six months were \$0.8 million higher than expected; driven by post-reform accident periods.

#### Valuation Basis

Figure 7.6 below shows the recent experience and selected basis for hospital payments.



Figure 7.6 - Hospital Experience and Selections



At the current valuation we have increased our PPCI pattern for RTW Act claims at early durations to reflect the higher recent payment experience. We have reduced our assumptions for later durations (as per the graph above on the right).

The basis for transitional claims is unchanged at this valuation given payments for accident years 2015 and prior are running off close to expectation. Additionally, there have been no material changes in the number of applications made for future surgeries and the proportions of these applications that have been accepted or rejected. Hence, we have not adjusted the allowance for future surgery costs for both transitional claims and RTW Act claims in our existing PPCI patterns; the expected cost for RTW Act claims is higher, as redemptions have not removed claims from the scheme as they did for pre-reform periods.

#### Valuation Results and Actuarial Release

Table 7.9 sets out the actuarial release resulting from our valuation of hospital payments. The first column represents our projection from the June 2017 valuation.

Table 7.9 - Actuarial Release for Hospital

	Projected Liab	Dec 17	Difference	Act v Exp		
	at Dec 17 from	Estimate on	from	Pmts in		
	Jun 17	Jun 17 Eco	Projected	6 mths to	Actuarial	Release
Accident Period	Valuation <sup>1</sup>	Assumptions	Liability	Dec 17	Release <sup>2</sup>	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	0.9	0.9	(0.0)	(0.0)	0.0	1%
2005/06 - 2012/13	2.4	2.4	(0.0)	0.0	(0.0)	0%
2013/14 - 2014/15	1.8	1.8	(0.0)	0.1	(0.1)	-5%
2015/16 - 2017/18 1	12.3	12.6	0.3	0.7	(1.0)	-8%
Total	17.4	17.7	0.3	0.8	(1.1)	-6%

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

The \$0.3 million increase in the projected liability combined with actual payments being \$0.8 million higher than expected results in an actuarial increase (strengthening) of \$1.1 million.

Table 7.10 breaks down the actuarial strengthening by source.



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

**Table 7.10 - Components of Actuarial Release: Hospital** 

Release (strengthening) due to		_
	\$m	\$m
AvE payments in six months		(8.0)
Changes to Valuation Basis		
Ultimate claims	0.2	
PPCI Changes	(0.5)	
Subtotal		(0.3)
Total		(1.1)

## 7.6 Rehabilitation

The rehabilitation payment type includes payments made to approved vocational rehabilitation providers and job search agencies.

## Payments vs Expectations

Figure 7.7 below shows rehabilitation payments by six month period.

Figure 7.7 - Rehabilitation Half-Yearly Payments

From 2012 to June 2016 rehabilitation payments reduced considerably. Since then however, there has been an increase in rehabilitation spending by agents as part of new strategies to achieve better return to work outcomes. The level of payments in the six months to December 2017 was similar to the June 2017 half year, although the monthly pattern shows that expenditure is currently reducing.

Table 7.11 compares the payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.



**Table 7.11 - Actual vs Expected Payments: Rehabilitation** 

Accident	Payments in Six Months to Dec 17					
Period	Actual Expected		Act - Exp	Act/Exp		
	\$m	\$m	\$m			
To 30 Jun 05	0.0	0.0	(0.0)	26%		
2005/06 - 2012/13	0.2	0.3	(0.1)	60%		
2013/14 - 2014/15	0.7	0.8	(0.1)	90%		
2015/16 - 2017/18 1	6.9	6.6	0.3	104%		
Total	7.7	7.6	0.1	101%		

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

Overall, payments were close to expectation, with higher payments in the RTW Act years offset by lower payments in pre-reform years.

## Valuation Basis

Figure 7.8 below shows the recent experience and selected basis for rehabilitation payments.

Payments Per Claim Incurred 180 160 140 120 (\$Dec17) 80 80 60 60 40 20 5 9 13 17 21 25 29 49 1 33 37 41 45 **Development Quarter** Last 4 quarters Last 8 quarters Transition Claims at Jun-17 (inf) Post Jul 15 Claims at Jun-17 (inf) Transition Claims Post Jul 15 Claims

Figure 7.8 - Rehabilitation Experience and Selections

We have increased the RTW Act PPCI pattern at this valuation to reflect the recent increase in the utilisation of rehabilitation services at early durations.

The adopted transitional claims PPCIs for rehabilitation have been decreased slightly to reflect the emerging experience in accident years 2015 and prior.

#### Valuation Results and Actuarial Release

Table 7.12 sets out the actuarial release resulting from our valuation of rehabilitation payments. The first column represents our projection from the June 2017 valuation.



**Table 7.12 - Actuarial Release for Rehabilitation** 

Table 1.12 - Actualial Nelease for Nellabilitation						
	Projected Liab	Dec 17	Difference	Act v Exp		
	at Dec 17 from	Estimate on	from	Pmts in		
	Jun 17	Jun 17 Eco	Projected	6 mths to	Actuarial	Release
Accident Period	Valuation <sup>1</sup>	Assumptions	Liability	Dec 17	Release <sup>2</sup>	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	0.0	0.0	(0.0)	(0.0)	0.1	181%
2005/06 - 2012/13	0.2	0.1	(0.1)	(0.1)	0.2	92%
2013/14 - 2014/15	0.5	0.4	(0.1)	(0.1)	0.2	40%
2015/16 - 2017/18 <sup>1</sup>	15.2	16.0	0.8	0.3	(1.1)	-7%
Total	16.0	16.6	0.6	0.1	(0.6)	-4%

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

The \$0.6 million increase in the projected liability combined with actual payments being slightly higher than expected results in an actuarial increase (strengthening) of \$0.6 million. The increase falls in the RTW Act accident years with some offsetting decreases in earlier years.

Table 7.13 breaks down the actuarial strengthening by source.

Table 7.13 - Components of Actuarial Release: Rehabilitation

Release (strengthening) due to		
	\$m	\$m
AvE payments in six months		(0.1)
Changes to Valuation Basis		
Ultimate claims	0.2	
PPCI Changes	(0.7)	
Subtotal		(0.6)
Total		(0.6)

# 7.7 Physical Therapy

Physical therapy payments include payments made to physiotherapists and chiropractors.

## Payments vs Expectations

Figure 7.9 below shows physical therapy payments by six month period over the last five years.



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

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Jun-13 Dec-13 Jun-14 Dec-14 Jun-15 Dec-15 Jun-16 Dec-16 Jun-17 Dec-17

Payment Half Year

Physiotherapist services

Figure 7.9 - Physical Therapy Half-Yearly Payments

Physical therapy payments have been relatively stable since June 2015.

Table 7.14 compares the payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.

**Table 7.14 - Actual vs Expected Payments: Physical Therapy** 

Accident	Payments in Six Months to Dec 17					
Period	Actual	Expected	Act - Exp	Act/Exp		
	\$m	\$m	\$m			
To 30 Jun 05	0.0	0.0	(0.0)	38%		
2005/06 - 2012/13	0.1	0.2	(0.0)	86%		
2013/14 - 2014/15	0.3	0.3	(0.0)	98%		
2015/16 - 2017/18 1	3.9	3.7	0.2	105%		
Total	4.3	4.2	0.1	103%		

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

Overall, payments were \$0.1 million (3%) higher than expected; due to RTW Act years, offset by marginally lower payments in earlier years.

#### Valuation Basis

Figure 7.10 below shows the recent experience and selected basis for physical therapy payments.



Payments Per Claim Incurred 160 140 120 (**\$Dec17**) 80 60 40 20 0 9 13 17 21 25 29 5 33 37 49 **Development Quarter** Last 4 quarters Last 8 quarters -- Transition Claims at Jun-17 (inf) Post Jul 15 Claims at Jun-17 (inf) Transition Claims Post Jul 15 Claims

Figure 7.10 - Physical Therapy Experience and Selections

We have slightly increased our front end PPCI assumptions for RTW Act claims to reflect the increased level of payments observed for the last three accident years.

We have reshaped our transitional claims PPCI assumptions at this valuation; primarily a decrease to our basis at later durations to reflect the faster runoff of payments in older accident years.

#### Valuation Results and Actuarial Release

Table 7.15 sets out the actuarial release resulting from our valuation of physical therapy payments. The first column represents our projection from the June 2017 valuation.

Table 7.15 - Actuarial Release for Physical Therapy

Table 1.15 - Actuariar Neicase for Finysical Therapy						
	Projected Liab	Dec 17	Difference	Act v Exp		
	at Dec 17 from	Estimate on	from	Pmts in		
	Jun 17	Jun 17 Eco	Projected	6 mths to	Actuarial	Release
Accident Period	Valuation <sup>1</sup>	Assumptions	Liability	Dec 17	Release <sup>2</sup>	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	0.0	0.0	(0.0)	(0.0)	0.1	153%
2005/06 - 2012/13	0.1	0.1	(0.0)	(0.0)	0.0	29%
2013/14 - 2014/15	0.2	0.2	(0.0)	(0.0)	0.0	15%
2015/16 - 2017/18 <sup>1</sup>	6.0	6.4	0.4	0.2	(0.6)	-10%
Total	6.4	6.7	0.4	0.1	(0.5)	-7%

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

The \$0.4 million increase in the projected liability combined with actual payments being \$0.1 million higher than expected results in an actuarial increase (strengthening) of \$0.5 million.

Table 7.16 breaks down the actuarial strengthening by source.



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

Table 7.16 - Components of Actuarial Release: Physical Therapy

Release (strengthening) due to		
	\$m	\$m
AvE payments in six months		(0.1)
Changes to Valuation Basis		
Ultimate claims	0.1	
PPCI Changes	(0.4)	
Subtotal		(0.4)
Total		(0.5)

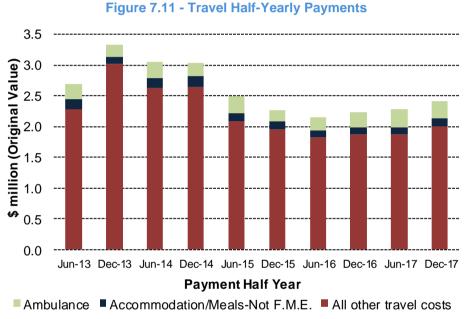
## 7.8 Travel

Travel payments include payments made for claimant related travel and accommodation.

## Payments vs Expectations

increase in the last six months.

Figure 7.11 below shows travel payments by six month period over the last five years.



Overall, travel payments have increased every half year since June 2016, with a \$0.1 million (6%)

Table 7.17 compares the payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.

Table 7.17 - Actual vs Expected Payments: Travel Accident Payments in Six Months to Dec 17 Period Actual Expected Act - Exp Act/Exp \$m \$m \$m To 30 Jun 05 0.0 0.0 (0.0)51% 2005/06 - 2012/13 0.2 0.2 (0.0)94% 2013/14 - 2014/15 0.2 131% 0.3 0.1 2015/16 - 2017/18 1 1.9 1.8 0.1 107% 2.4 2.3 0.2 Total 107%



<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

Overall, payments in the last six months were \$0.2 million higher than expected.

#### Valuation Basis

Figure 7.12 below shows the recent experience and selected basis for travel payments.

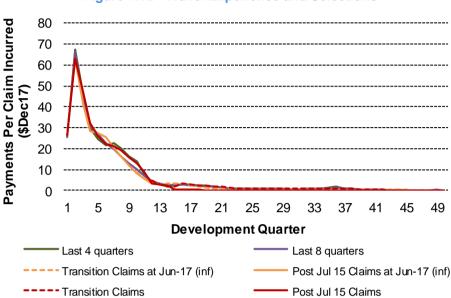


Figure 7.12 - Travel Experience and Selections

The front end PPCI assumptions for RTW Act claims have been reshaped (mostly increased) to better reflect the emerging payment pattern of the last three accident years.

We have reshaped the adopted PPCIs for transitional claims at the medium and late durations to reflect the emerging experience in older accident years.

#### Valuation Results and Actuarial Release

Table 7.18 sets out the actuarial release resulting from our valuation of travel payments. The first column represents our projection from the June 2017 valuation.

Table 7.18 - Actuarial Release for Travel						
	Projected Liab	Dec 17	Difference	Act v Exp		
	at Dec 17 from	Estimate on	from	Pmts in		
	Jun 17	Jun 17 Eco	Projected	6 mths to	Actuarial	Release
Accident Period	Valuation <sup>1</sup>	Assumptions	Liability	Dec 17	Release <sup>2</sup>	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	0.0	0.0	(0.0)	(0.0)	0.0	60%
2005/06 - 2012/13	0.2	0.2	0.0	(0.0)	0.0	3%
2013/14 - 2014/15	0.2	0.2	0.0	0.1	(0.1)	-33%
2015/16 - 2017/18 <sup>1</sup>	3.6	4.1	0.4	0.1	(0.5)	-14%
Total	4.1	4.5	0.4	0.2	(0.6)	-14%

Table 7.18 - Actuarial Release for Travel

The actuarial increase (strengthening) of \$0.6 million is a result of a \$0.4 million increase to the liability and payments being \$0.2 million higher than expected in the last six months. The strengthening is primarily spread across accident years 2015 and later.



<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

Table 7.19 breaks down the actuarial strengthening by source.

**Table 7.19 - Components of Actuarial Release: Travel** 

Release (strengthening) due to		
, , ,	\$m	\$m
AvE payments in six months		(0.2)
Changes to Valuation Basis		
Ultimate claims	0.0	
PPCI Changes	(0.5)	
Subtotal		(0.4)
Total		(0.6)



## 8 Other Entitlements - Short Term Claims

This section presents results for the remaining entitlements. These include legal and investigation costs, recoveries, common law, LOEC, and commutations.

## 8.1 Summary of Results

Table 8.1 summarises the movements in our liability estimates for the remaining entitlement groups since the June 2017 valuation.

**Table 8.1 - Valuation Results: Other Payment Types** 

	Worker	Corporation	Invest-	Common		Commu-		
	Legal	Legal	igation	Law	LOEC	tation	Recoveries	Total
Jun17 Valuation	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Estimated Liab at Jun-17	28.8	31.4	1.9	2.4	0.9	2.2	(29.3)	38.3
Projected Liab at Dec-17	28.8	31.9	1.9	2.5	0.9	2.2	(29.5)	38.5
Dec-17 Valuation								
Impact of experience/OSC - Movement in liab	(0.0)	0.6	(0.1)	0.0	0.0	0.0	5.0	5.5
Estimated Liab at Dec-17 (Jun-17 eco assumptions)	28.8	32.5	1.8	2.5	0.9	2.2	(24.6)	44.1
Impact of change in eco assumptions	(0.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	0.1	(0.1)
Estimated Liab at Dec-17 (Dec-17 eco assumptions)	28.7	32.4	1.8	2.5	0.9	2.2	(24.5)	44.0
AvE Payments - six months to Dec-17	0.1	0.6	0.1	(0.2)	(0.0)	(0.1)	(3.6)	(3.0)
Actuarial Release at Dec-17	(0.1)	(1.2)	0.0	0.1	(0.0)	0.0	(1.4)	(2.5)

The movements from our June 2017 projection of the December 2017 liability are:

- An increase of \$5.5 million in the liability, reflecting the claims experience since June 2017 and our valuation response. Combined with payments being \$3.0 million lower than expected, this produces an actuarial increase (strengthening) of \$2.5 million.
- The change in economic assumptions at the current valuation decreases the estimated liability by \$0.1 million (see Section 11.3.2).

# 8.2 Worker Legal

Our valuation of legal costs separately models legal fees paid to ReturnToWorkSA's contracted legal advisers (Minter Ellison and Sparke Helmore), which we call 'corporation legal', and legal fees paid to workers' representatives and employers, which we call 'worker legal'. This section describes the Worker Legal results, with Section 8.3 discussing ReturnToWorkSA's legal results.

Disputes are the main driver of expenditure for both worker and corporation legal fees, and were discussed in Section 3.3.2. Worker legal accounts are generally only submitted upon completion of the dispute and therefore any changes in dispute numbers will usually involve a delay before they are translated into changes in worker legal costs. Corporation legal fees on the other hand are paid at commencement of the dispute and will usually reflect changes in underlying dispute numbers without delay.

## 8.2.1 Experience

Figure 8.1 below shows worker legal payments in each six month period over the last five years.



Figure 8.1 - Worker Legal Half Yearly Payments

Worker legal payments peaked in the December 2015 half-year and have reduced over the last two years. The reduction in dispute numbers during the 2015/16 year continues to emerge in the payment experience, reflecting the long delay between lodgement of disputes and payment of worker legal fees. That said, worker legal payments are still well higher than they were in 2013.

Table 8.2 compares the payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.

Table 8.2 – Actual vs Expected Payments: Worker Legal

Accident	Payments in Six Months to Dec 17					
Period	Actual Expected Act - Exp Act					
	\$m	\$m	\$m			
To 30 Jun 05	0.1	0.0	0.1	n/a		
2005/06 - 2012/13	1.4	1.4	0.0	101%		
2013/14 - 2014/15	1.2	1.4	(0.2)	89%		
2015/16 - 2017/18 1	1.9	1.8	0.2	108%		
Total	4.7	4.6	0.1	103%		

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

Overall, payments in the six months to December 2017 were in line with expectations.

#### 8.2.2 Valuation Basis

A PPCI model is used to value Worker Legal fees. Figure 8.4 below shows the recent experience and selected basis for worker legal payments.



Payments Per Claim Incurred 50 45 40 35 (\$Dec17) 30 25 20 15 10 5 0 21 25 29 33 37 **Development Quarter** Last 4 quarters Last 8 quarters Transition Claims at Jun-17 (inf) RTW Act Claims at Jun-17 (inf) Transition Claims RTW Act Claims

Figure 8.2 - Worker Legal Experience and Selections

Our valuation basis for RTW Act claims is unchanged at the current valuation and consistent with the emerging experience. For transition claims, we have added an additional allowance for claims with open disputes that are older than 10 years.

#### 8.2.3 Valuation Results and Actuarial Release

Table 8.3 sets out the actuarial release resulting from our valuation of worker legal payments. The first column represents our projection from the June 2017 valuation.

**Table 8.3 - Actuarial Release for Worker Legal** 

	1 4510 010	7 Motadila Rolodoo for Worker Logar				
	Projected Liab	Dec 17	Difference	Act v Exp		
	at Dec 17 from	Estimate on	from	Pmts in		
	Jun 17	Jun 17 Eco	Projected	6 mths to	Actuarial	Release
Accident Period	Valuation <sup>1</sup>	Assumptions	Liability	Dec 17	Release <sup>2</sup>	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	0.0	0.1	0.1	0.1	(0.2)	N/A
2005/06 - 2012/13	4.4	4.5	0.2	0.0	(0.2)	-5%
2013/14 - 2014/15	6.7	6.6	(0.1)	(0.2)	0.2	3%
2015/16 - 2017/18 <sup>1</sup>	17.8	17.6	(0.2)	0.2	0.1	0%
Total	28.8	28.8	(0.0)	0.1	(0.1)	0%

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

The actuarial increase of \$0.1 million is due to actual payments being \$0.1 million higher than expected, and liability increases on older accident periods.

Table 8.4 breaks down the actuarial release by source. The additional allowance for payments on old claims with open disputes is offset by changes to the ultimate claim number projections.



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

Table 8.4 - Components of Actuarial Release: Worker Legal

Release (strengthening) due to		
	\$m	\$m
AvE payments in six months		(0.1)
Changes to Valuation Basis		
Ultimate claims	0.3	
PPCI Changes	(0.3)	
Subtotal		0.0
Total		(0.1)

## 8.3 Corporation Legal

Corporation Legal refers to the legal fees paid to ReturnToWorkSA's contracted legal advisers. Since 1 January 2013 there have been two legal service providers, Minter Ellison and Sparke Helmore, who were originally paid fees based on the number of matters handled and the complexity of these matters.

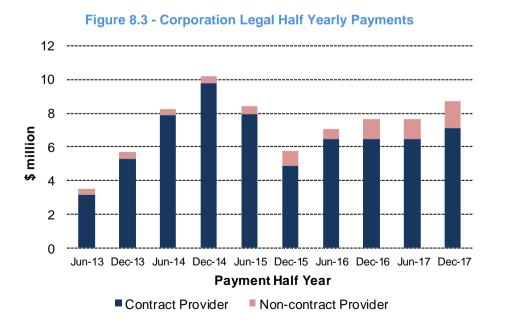
Beginning in 2016, a new one year contract was agreed upon whereby the contracted legal advisers would be paid a pre-determined fixed fee each month throughout the contract period. Fees for advice and representation pertaining to complex cases are paid in addition to the fixed fee at the same rate outlined in the previous contract. This contract was extended into the first half of 2017 with revised fixed fees. From July 2017 onwards, the contract moved into a financial year basis with the FY2018 contract fees increasing over the 2017 contract.

A performance fee is also payable at the end of each year based on the achievement of certain performance outcomes. This fee is unchanged for the CY2018 contract.

In addition to the two main legal service providers, ReturnToWorkSA also pay additional providers legal fees related to third party recoveries, staff claims and extra-ordinary matters. These providers are referred to as "non-contract" providers in the remainder of this section of the report.

#### 8.3.1 Experience

Figure 8.3 below shows Corporation Legal payments in each six month period over the last five years.





Corporation Legal expenditure in the six months to December 2017 is higher than previous periods due to higher contract and "non-contract" fees. The increase in "non-contract" fees reflect the high number of outstanding legal matters in the Supreme Court as discussed in Section 3.1.1.

Table 8.5 compares the payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.

**Table 8.5 - Actual vs Expected Payments: Corporation Legal** 

	Payments in Six Months to Dec 17						
	Actual	Expected	Act - Exp	Act/Exp			
	\$m	\$m	\$m	_			
Total	8.7	8.1	0.6	108%			

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

Overall, actual payments were \$0.6 million (8%) higher than expected driven by "non-contract" payments. A breakdown by accident period is not possible as Corporation Legal payments are not allocated to individual claims.

#### 8.3.2 Valuation Basis

Under the current extended contract, a fixed amount is paid to both legal providers each month regardless of the number of non-complex matters referred. Table 8.6 below summarises the payments applicable under the current contract.

**Table 8.6 - Corporation Legal Contract Components** 

	Contract Terms
Matter Type	Current
Advice only	Fixed Fee per month
Dispute representation	r ixed r ee per month
Complex matters	Paid per matter
Performance Fee	Paid at the end of year

To project the future costs of Corporation Legal we have:

- Adopted the fixed monthly fees payable to each provider under the contract
  - We have revised the fixed fee per month starting from July 2017 to reflect the new terms of the CY2018 contract. Beyond the current contract, the fees are estimated to remain at a similar level reflecting the recent stability in the number of new disputes in the scheme.
- Estimated the number of complex matters that will be referred each year for the duration of the contract and multiplied this by the relevant fees as specified in the contract terms
  - We have made an allowance for payment of two complex matters per year, unchanged from our previous valuation basis
- Allowed for payment of additional performance fees as specified in the terms of the contract as well as outstanding performance fees payable under the previous contract
- Allocated the cash flows in each payment year across accident periods
- Estimated a separate allowance for matters handled by "non-contract" providers.
  - Our base allowance of \$1.1 million per half year is unchanged from the previous valuation



We have included an additional allowance of \$1 million per half year for a period of one year reflecting the high number of outstanding matters currently in the Supreme Court.

Beyond the current contract, payments for Corporation Legal are projected to increase in line with inflation.

The allocation of cash flows across accident periods is based on the observed experience in Worker Legal costs, with an adjustment to reflect the quicker payment pattern of Corporation Legal costs. As transition claims run-off, dispute lodgements are expected to occur earlier due to the shorter duration of claims under the RTW Act.

#### 8.3.3 Valuation Results and Actuarial Release

Table 8.7 sets out the actuarial release resulting from our valuation of corporation legal payments. The first column represents our projection from the June 2017 valuation.

**Table 8.7 - Actuarial Release for Corporation Legal** 

	Projected Liab	Dec 17	Difference	Act v Exp		
	at Dec 17 from	Estimate on	from	Pmts in		
	Jun 17	Jun 17 Eco	Projected	6 mths to	Actuarial	Release
Accident Period	Valuation <sup>1</sup>	Assumptions	Liability	Dec 17	Release <sup>2</sup>	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	0.0	0.0	0.0	0.4	(0.4)	N/A
2005/06 - 2012/13	0.4	0.4	0.0	2.5	(2.5)	-611%
2013/14 - 2014/15	4.7	4.9	0.2	(0.1)	(0.1)	-3%
2015/16 - 2017/18 <sup>1</sup>	26.8	27.1	0.4	(2.2)	1.9	7%
Total	31.9	32.5	0.6	0.6	(1.2)	-4%

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

The \$0.6 million increase in the projected liability combined with actual payments being \$0.6 million more than expected results in an actuarial increase of \$1.2 million.

# 8.4 Investigation

## 8.4.1 Experience

Figure 8.4 below shows investigation payments in each six month period over the last five years.



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

2.0

1.5

0.5

0.0

Jun-13 Dec-13 Jun-14 Dec-14 Jun-15 Dec-15 Jun-16 Dec-16 Jun-17 Dec-17

Payment Half Year

Investigation

Figure 8.4 - Investigation Half Yearly Payments

Investigation spending remains low, with under \$1 million of payments being made each half year. The reduction in investigation payments since June 2016 is consistent with ReturnToWorkSA utilising claims agent staff as 'Mobile Insurance Loss Adjusters' which replaces some of the work that was previously done as part of investigation costs.

Table 8.8 compares the payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.

**Table 8.8 - Actual vs Expected Payments: Investigation** 

Accident	Payments in Six Months to Dec 17					
Period	Actual Expected Act - Exp Act					
	\$m	\$m	\$m			
To 30 Jun 05	0.0	0.0	0.0	2696%		
2005/06 - 2012/13	0.1	0.0	0.0	260%		
2013/14 - 2014/15	0.1	0.1	0.1	167%		
2015/16 - 2017/18 1	0.7	0.7	(0.0)	99%		
Total	0.9	0.8	0.1	110%		

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

Overall, actual payments were \$0.1 million (10%) higher than expected.

#### 8.4.2 Valuation Basis

A PPCI model is used to value investigation payments. Figure 8.5 below shows the recent experience and selected basis.



Payments Per Claim Incurred 25 20 (\$Dec17) 15 10 5 0 9 13 17 21 25 29 5 33 37 45 49 **Development Quarter** Last 2 quarters Last 4 quarters Post Jul 15 Claims at Jun-17 (inf) Last 8 quarters Post Jul 15 Claims

Figure 8.5 - PPCI Experience and Selections: Investigation

The adopted investigation PPCIs have been reshaped for earlier durations in response to the emerging payment pattern. We have not allowed for a different PPCI pattern for transitional claims up to 30 June 2015 on materiality grounds.

## 8.4.3 Valuation Results and Actuarial Release

Table 8.9 sets out the actuarial release resulting from our valuation of investigation payments. The first column represents our projection from the June 2017 valuation.

**Table 8.9 - Actuarial Release for Investigation** 

	Projected Liab	Dec 17	Difference	Act v Exp		
	at Dec 17 from	Estimate on	from	Pmts in		
	Jun 17	Jun 17 Eco	Projected	6 mths to	Actuarial	Release
Accident Period	Valuation <sup>1</sup>	Assumptions	Liability	Dec 17	Release <sup>2</sup>	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	0.0	0.0	0.0	0.0	(0.0)	N/A
2005/06 - 2012/13	0.1	0.1	(0.0)	0.0	(0.0)	-32%
2013/14 - 2014/15	0.1	0.1	(0.0)	0.1	(0.1)	-43%
2015/16 - 2017/18 <sup>1</sup>	1.7	1.6	(0.1)	(0.0)	0.1	7%
Total	1.9	1.8	(0.1)	0.1	0.0	1%

<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

The \$0.1 million decrease in the projected liability is offset by actual payments being \$0.1 million higher than expected; resulting in no material actuarial release or increase.

## 8.5 Recoveries

Recoveries can be made by ReturnToWorkSA from overpayments to workers, from the Motor Accidents Commission (MAC) and private insurers for CTP claims, or from third parties for recoveries relating to negligence claims. Third parties for negligence claims will often be companies engaged in labour hire and owners or head contractors on construction sites, as ReturnToWorkSA cannot recover money from an employer for negligence.



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

## 8.5.1 Experience

Figure 8.6 below shows recovery payments in each six month period over the last five years.

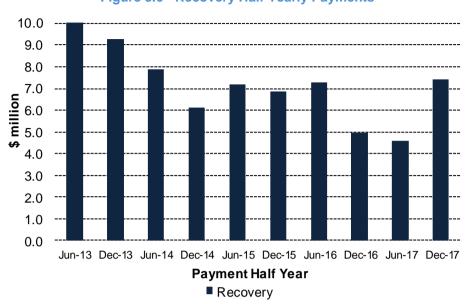


Figure 8.6 - Recovery Half Yearly Payments

Recovery payments have generally been lower since 2014 in line with reducing gross payment levels. Payments in the last six months however were significantly higher than in 2017 but similar to the level observed during the transitional period from June 2015.

Table 8.10 compares the payments in the six months to 31 December 2017 with the expected payments from our June 2017 valuation projection.

Accident	Payments in Six Months to Dec 17					
Period	Actual Expected Act - Exp Act					
	\$m	\$m	\$m			
To 30 Jun 05	(0.0)	0.0	(0.0)	n/a		
2005/06 - 2012/13	(5.2)	(1.9)	(3.3)	279%		
2013/14 - 2014/15	(1.5)	(1.5)	(0.1)	105%		
2015/16 - 2017/18 <sup>1</sup>	(0.7)	(0.5)	(0.2)	137%		
Total	(7.4)	(3.8)	(3.6)	194%		

**Table 8.10 - Actual vs Expected Payments: Recoveries** 

Overall, actual recovery payments were higher than expected (\$3.6 million more than expected); primarily driven by older accident years 2012 and prior.

### 8.5.2 Valuation Basis

A PPCI model is used for recovery payments. Figure 8.7 below shows the recent experience and selected basis.



<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

Payments Per Claim Incurred 50 (\$Dec17) 40 30 20 10 0 5 9 13 17 21 25 29 33 37 45 49 **Development Quarter** Last 4 quarters Last 8 quarters Selected at Jun-17 (inf) Selected

Figure 8.7 - PPCI Experience and Selections: Recoveries

At this valuation, we have increased our recovery PPCI assumptions at early durations and decreased our assumptions after two years of development. This reshaping reflects our expectation of the lower recoverability of costs going forward under the RTW Act (where gross payments are lower), and following CTP reforms in 2014.

## 8.5.3 Valuation Results and Actuarial Release

Table 8.11 sets out the actuarial release resulting from our valuation of recovery payments. The first column represents our projection from the June 2017 valuation.

Act v Exp Projected Liab Dec 17 Difference at Dec 17 from Estimate on from Pmts in 6 Jun 17 Jun 17 Eco Projected mths to Dec Actuarial Release Accident Period Valuation<sup>1</sup> **Assumptions** Liability 17 Release<sup>2</sup> as % \$m \$m \$m \$m \$m To 30 Jun 05 0% 0.0 0.0 0.0 (0.0)0.0 2005/06 - 2012/13 (2.9)(2.8)0.1 (3.3)3.2 -109% 2013/14 - 2014/15 (7.7)1.6 (0.1)17% (9.3)(1.6)2015/16 - 2017/18 1 3.2 17% (17.3)(14.1)(0.2)(3.0)Total (29.5)(24.6)5.0 (3.6)(1.4)5%

**Table 8.11 - Actuarial Release for Recoveries** 

The decrease in the recoveries asset of \$5.0 million offset by actual recoveries being \$3.6 million above expectations results in an overall actuarial strengthening of \$1.4 million (i.e. a decrease in expected recoveries). This change is mostly in recent accident years.

## 8.6 LOEC, Commutations, and Common Law

LOEC, Commutations, and Common Law are small entitlements with little outstanding claims liability.



<sup>&</sup>lt;sup>1</sup> Accidents to Dec17

<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

## 8.6.1 LOEC

Loss of Earning Capacity (LOEC) claims are a legacy feature of the portfolio, and are valued together with Short Term Claims. At 31 December 2017, there are only five remaining claims. The basis is largely unchanged from our previous valuation.

#### 8.6.2 Commutations

Commutation payments relate to claims receiving dependant benefits. Payments in the last six months were around 67% lower than expected.

The basis is unchanged from the previous valuation.

#### 8.6.3 Common Law

There were no common law payments in the last six months. The common law entitlement for short term claims relates to a small number of infrequent but relatively large claims related to other jurisdictions, and needs to be considered over long time horizons. Having taken this into consideration we have left the valuation basis unchanged.

Common law entitlements for some Serious Injury claims are considered in Section 9.



# 9 Serious Injury Claims

## 9.1 Overall Results

Table 9.1 shows the central estimate of Serious Injury claims costs at 31 December 2017, and the movement in our liability estimates since the June 2017 valuation.

Table 9.1 – Serious Injury claims Valuation Results (excluding CHE)

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									Legal -					
	Income		Other			Rehabi	Physical	Investi	Non-	Legal	Lump	Redemp-	Recov-	
	Support	Medical	(Care)	Hospital	Travel	litation	Therapy	gation	Contract	Contract	sums	tions	eries	Total
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Jun-17 Valuation														
Estimated Liab at Jun-17	290	443	333	91	50	37	35	1	9	9	28	0	-28	1,298
Projected Liab at Dec-17	298	463	347	96	52	39	37	1	9	9	27	0	-27	1,351
Dec17 Valuation														
Impact of experience/basis change	14	-15	1	-7	-5	-2	-1	0	0	0	24	0	1	10
Estimated Liab at Dec17 (Jun17 ecos)	313	449	348	89	47	36	36	1	9	9	51	0	-26	1,361
Impact of change in ecos	-2	8	6	2	1	1	1	0	0	0	0	0	-2	14
Estimated Liab at Dec17 (Dec17 ecos)	310	457	354	90	48	37	36	1	9	9	51	0	-28	1,375
A.E. Doumente, six menths to Dec 17	4	0	0	0	0	0	0	0	4	0	0		0	2
AvE Payments - six months to Dec-17	1													40
Actuarial Release at Dec-17	-15	15	-1	/	5	3	1	0	-1	0	-24	-1	-2	-12

The outstanding claims cost for Serious Injury claims (excluding CHE), is \$1,375 million at 31 December 2017. The main movements from our June 2017 projection of the December 2017 liability are:

- Claims experience and basis changes increasing the liability by \$10 million, as a result of:
  - Net changes to claim numbers (including IBNR claims) increasing the liability by \$12 million
  - Changes to the entitlement status of already known claims increasing the liability by \$9 million
  - Basis and assumption changings leading to a reduction of \$11 million
- The change in economic assumptions at the current valuation principally the decrease in the discount rate, increases the estimated liability by \$14 million. The impact of the change in economic assumptions is discussed in Section 11.3.2.

The remainder of this section deals with the claims experience and basis changes.

# 9.2 Background

"Serious Injury" claims are those with WPI of 30% or more, who are eligible to receive Income Support to retirement and other benefits for life under the RTW Act.

As Serious Injury claims were not identified before the RTW Act commenced, there is uncertainty as to the precise number and characteristics of the now Serious Injury cohort. Our Serious Injury cohort includes:

- Known Serious Injury claims, comprising:
  - Claims managed internally by ReturnToWorkSA in the EnABLE group, which generally are more like Severe Traumatic Injuries (i.e. they require significant levels of care and support, or else have other special needs)
  - Other Serious Injuries with a confirmed WPI assessment of 30% of more, but not currently internally managed by ReturnToWorkSA



- Other 'potential' Serious Injury claims these are claims who have not yet been formally assessed as Serious Injury, but who may do so at some point in future
  - The number of 'potential' Serious Injury claims has reduced significantly over the last 12-18 months as more claims have been reviewed, and in particular over these last six months after IS payments for transitional claims that are not Serious Injury ceased on 30 June 2017. This led to a spike in Serious Injury applications in the months preceding this cut-off, of which the vast majority have now been assessed reducing the uncertainty in this group.
- IBNR claims that will be identified in future.

# 9.3 Valuation Approach

As Serious Injury claims are essentially entitled to lifetime benefits, it is important to consider the characteristics of individual claims when projecting future costs. Our valuation approach therefore projects future claim costs individually for each claim by payment type.

Due to significant differences in the level of incapacity and associated treatment and care costs, we have separately modelled 'Severe Traumatic Injury' claims and 'Other Serious Injury' claims, and our assumptions have been set as described in Appendix A and summarised in the following table.

Table 9.2 – Approach to Setting Valuation Assumptions for Serious Injury claims<sup>1</sup>

	Severe Traumatic Injuries	Other Serious Injury
Life expectancy	Mortality improvement of 1.5% p.a  Mortality loadings for claims with high care needs (reducing life expectancy by 18 years) and for moderate care needs (reducing life expectancy by 8 years).	Mortality improvement of 1.5% p.a
Income Support	To retirement age on all operationally active claims.	To retirement age on all operationally active claims.
	Based on historical experience and estimates provided by ReturnToWorkSA.	Based on historical experience.
Treatment	Paid for life.	Paid for life.
Related Costs and Other <sup>2</sup>	Based on historical experience and estimates provided by ReturnToWorkSA.  Allowed for IBNER on Other and Medical	Early duration claims (in the treatment and recovery phase) based on payment per active claim curves selected from this cohort.
	costs above identified costs.	Mid-to-long duration claims (in the maintenance phase) based on historical experience.
Lump sums <sup>3</sup>	Paid to claimants who have not already had an assumed average WPI if no assessment	
Legal and Investigation	Legal costs are modelled as a percentage of IS costs, net of payments to date.	Modelled as payment per claim incurred.
	An average ultimate investigation cost is made per claim, net of payments to date.	
Recoveries	Projected on claims identified by ReturnToWorkSA as having recovery potential.	Applied a recovery as a proportion of gross payments for future periods.



	Severe Traumatic Injuries	Other Serious Injury		
Common Law	Not available to pre-1 July 2015 claims, and included in the cost of statutory entitlements for post-1 July 2015 claims.			
Future cost escalation	WCI: IS  AWE: Recoveries, Treatment and Other,	WCI: IS  AWE: Recoveries, Treatment and Other,		
	Legal and Investigation	Legal and Investigation		
	Superimposed: 2% p.a. on Treatment and Other	Superimposed: 2% p.a. on Treatment and Other		
	Needs Utilisation: 75% loading applied at age 65 on Treatment and Other.			
IBNR Assumptions	IBNR claims in the latest five accident years only.	IBNR claims in the latest twelve accident years, reflecting outstanding Serious Injury applications (for older accident		
	Claim size based on historical experience on current claims.	periods) and the delay from injury to WPI assessment (for newer accidents).		
		Claim size based on historical experience on current known and potential claims.		

<sup>&</sup>lt;sup>1</sup> Projected costs are those paid after the claim has been identified as Serious Injury.

The approach to modelling Other Serious Injuries smooths out volatility seen early in the life of many Serious Injury Claims, to reflect the general reduction in medical and related costs as claims move from the initial 'recovery' phase in the first few years to a longer term 'maintenance' level. The key features are:

- Aggregate models were built for all payment types, with the exception of Lump Sums
- The models selected for each payment type are as follows:
  - Income Support, Treatment and Other Payments per Active Claim. The only decrement for Treatment and Other payments is mortality, while Income Support payments have an additional decrement for retirement.
  - Legal and Investigation Payments per Claim Incurred
  - Recoveries Proportion of Gross Payments
- These models were adopted for the following:
  - All IBNR claims and future accident years
  - All Legal, Investigation and Recovery payments
  - All Treatment and Other payments for claims less than five years old. The utilisation of these benefits tends to be heightened at early durations, making it difficult to select future payment levels based on a claimant's historical experience. When aggregated across all claims the shape to this utilisation can be captured and applied up to a point (that has been selected as five years), where the Treatment and Other needs have stabilised.

One of the key determinants of very long term costs will be how much, if any, of the costs associated with ageing are compensated out of the compensation scheme. For example, whether ReturnToWorkSA will



<sup>&</sup>lt;sup>2</sup> Treatment related costs relate to Medical (including Aids and Appliances), Hospital, Rehab, Physio and Travel. Other costs have been split into "Care" and "Other" for the purposes of the valuation. Care relates to services such as attendant, respite and/or nursing care. The remaining payments in 'Other' mainly relate to home and vehicle modifications and domestic services.

<sup>&</sup>lt;sup>3</sup> Impairment lump sum only. Serious Injury claims are not entitled to the Future Economic Loss lump sum.

fund the full costs of living in a nursing home for an elderly claimant or just the additional care costs associated with the original injury is at this stage still in the early stages of being worked through, but will become increasingly important as the Severe Traumatic Injury claimants age. Our basis does not attempt to capture the full costs for age related care and support, which is consistent with the current understanding of the approach to aged care related costs being funded.

# 9.4 Valuation of Severe Traumatic Injury claims

## 9.4.1 Payments by Type

Figure 9.1 shows claim payments over the past three years for Severe Traumatic Injury claims.

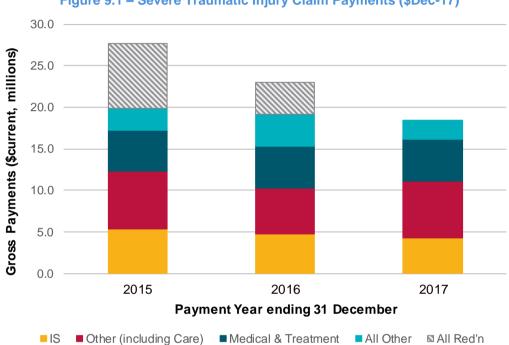


Figure 9.1 – Severe Traumatic Injury Claim Payments (\$Dec-17)

\$69 million has been paid to Severe Traumatic Injury claims in the last three years. After allowing for recoveries of almost \$15 million over this same period and excluding redemptions, this equates to an average of around \$14 million per annum in net claim payments (inflated to 31 December 2017 values), comprising around:

- \$6 million per annum in care and other costs
- \$5 million per annum in medical, treatment and related benefits
- \$5 million per annum in Income Support
- \$2 million per annum in lump sums
- Small amounts of legal and investigation payments (\$0.5 million per annum)
- \$5 million per annum in recoveries.

As Figure 9.1 shows, there were a number of redemption payments on this group, which relate to negotiations commenced prior to introduction of the RTW Act and IS only redemptions. It is not expected that redemptions will be an ongoing feature for Serious Injury claims.



#### 9.4.2 Claimant Profile

Figure 9.2 shows the number of active Severe Traumatic Injury claims (i.e. those being valued) at the current and previous valuations, along with the reasons for movement in the number of claims being valued.

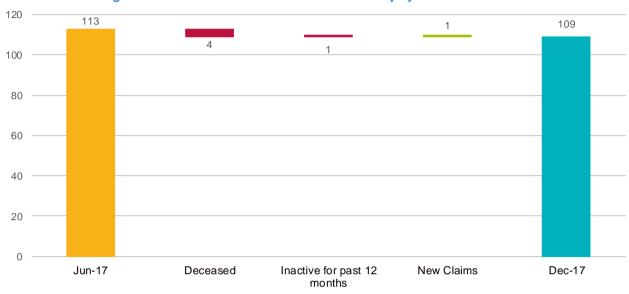


Figure 9.2 - Movement in Severe Traumatic Injury Claim Numbers

There are 109 active (i.e. with expected ongoing benefits) Severe Traumatic Injury claims at December 2017, compared to 113 at the previous valuation. The movements are:

- 4 claimants are now deceased
- 1 claim is inactive and has had their entitlement cease
- 1 new claim. New claim numbers continue to be lower than expected for this group of the most seriously injured claimants.

While we would generally expect a slow increase in the number of active Severe Traumatic Injury claims over time (as the benefits are available for life, and the scheme has not yet existed for long enough to reach its 'steady state'), this has not been the case in the last two years due to a combination of lower than expected new claims, slightly higher deaths and a number of claims being transferred to new self-insurers.

Figure 9.3 shows the age and life expectancy of the current Severe Traumatic Injuries.



25 Number of Claims 20 15 10 5 0 30s Older <20 20s 40s 50s 60s 70s Number of Claims 0 9 13 25 28 28 5 0 Loaded Life Expectancy 58 44 33 23 17 10 5

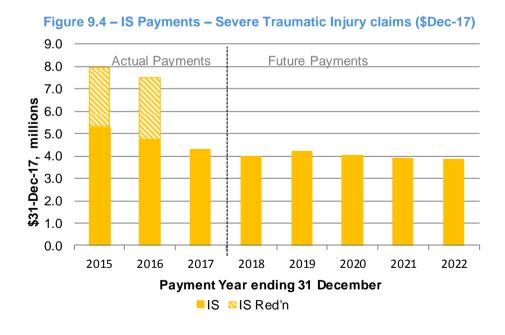
Figure 9.3 – Age Distribution and Life Expectancy (in years) of Severe Traumatic Injuries

Severe Traumatic Injury claimants are currently around 52 years old on average, with an expected future life expectancy of around 32 years (after allowing for mortality, mortality improvements and mortality loadings). The average age at injury was about 40 years.

A little over half the current Severe Traumatic Injuries have a WPI assessment, with an average WPI of around 55%; this low completion rate is partly explained by older claims being paid their lump sum prior to the introduction of WPI assessments in 2009. At this valuation, there were 9 claims with recorded WPI assessments less than 30%; ignoring these claims, the average assessed WPI is close to 60%.

## 9.4.3 Income Support

Figure 9.4 shows historic and projected Income Support payments for Severe Traumatic Injury claims (including IBNR claims, but only on existing accident years).



We estimate around \$4.0 million will be paid in Income Support to Severe Traumatic Injury claims in 2018. Future payments reduce over time in line with changes in replacement ratios, expected mortality and retirement, with the outstanding claim projection equivalent to 16 years of the 2018 payments.



## 9.4.4 Care and Other Costs

Figure 9.5 shows historic and projected care and other payments for Severe Traumatic Injury claims (including IBNR claims).

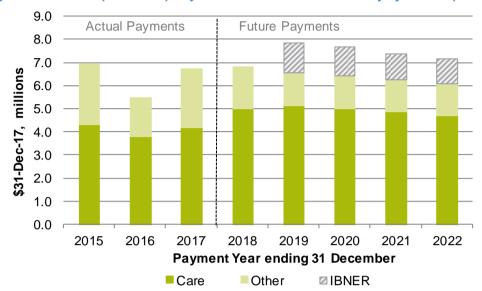


Figure 9.5 – Other (incl. Care) Payments – Severe Traumatic Injury claims (\$Dec-17)

We expect \$6.8 million of other and care payments in 2018, which is similar to the 2017 year. Payments then increase in the short term due to allowance for new Severe Traumatic (IBNR) claims and our IBNER allowance which is intended to capture an annualised contribution for other benefits (primarily modifications and transfers from initial hospital care into home care). These increases are slowly offset by reductions due to mortality, with the outstanding claims projection equivalent to 29 years of the 2018 payments, including the IBNER allowances.

#### 9.4.5 Treatment and Related Costs

Figure 9.6 shows historic and projected treatment and related costs for Severe Traumatic Injury claims (including IBNR claims).

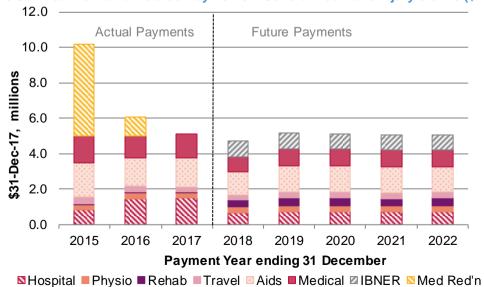


Figure 9.6 – Treatment and Related Payments – Severe Traumatic Injury claims (\$Dec-17)

We expect future treatment and related payments of \$4.7 million in 2018, similar to the 2017 level. The outstanding claims projection is equivalent to 37 years of the 2018 payments.

#### 9.4.6 **All Other Payments**

The following graph shows historic and projected other benefits for Severe Traumatic Injury claims – this includes one-off payments such as permanent impairment lump sums and recoveries, and smaller payments such as legal and investigation costs.

**Gross Costs** Recoveries 0.0 5.0 Actual Payments Future Payments 4.5 millions (recoveries) -1 O \$31-Dec-17, millions (gross) 4.0 -2.0 3.5 3.0 -3.0 2.5 -4.0 2.0 \$31-Dec-17, 1.5 -5.0 1.0 -6.0 0.5 Actual Payments Future Payments 0.0 2015 2016 2017 2019 2020 2021 2022 2015 2016 2017 2018 2019 2020 2021 2022 2018 Payment Year ending 31 December Payment Year ending 31 December

Figure 9.7 – All Other Payments – Severe Traumatic Injury claims (\$Dec-17)

In the three years to 31 December 2017, a net amount of -\$6 million of other benefits was received for Severe Traumatic Injury claims. Our future projections include:

- Lump sum benefits of \$11.1 million paid to current Serious Injury claims who have not yet had a lump sum paid
- Legal and investigation costs of \$1.8 million
- Recoveries of \$17.0 million, for those claims where ReturnToWorkSA has identified recovery potential.

Due to the one-off nature of most of these payments, the outstanding liability is a much lower multiple of 2018 expenditure.

#### 9.4.7 **Overall Results and Implications**

Figure 9.8 shows the net ultimate average claim size across current Severe Traumatic Injury claims. There is still a large share of the cost that is due to projected future payments, and so there is greater uncertainty about ultimate costs than in other areas of the valuation.



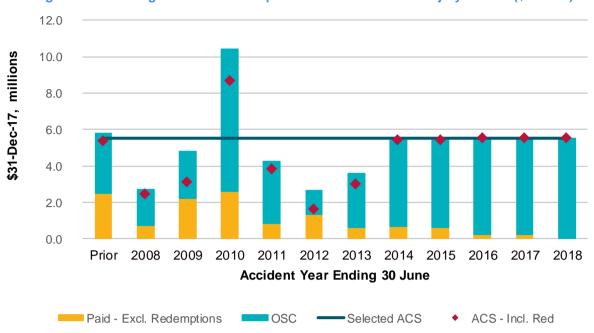


Figure 9.8 – Average Claim Size – Reported Severe Traumatic Injury Claims (\$Dec-17)

The average claim size across current Severe Traumatic Injury claims is around \$4.8 million in current dollar values; however, this includes claims that have been redeemed at less than the full lifetime value. Excluding redeemed claims the average claim size is \$5.3 million, which is similar to the projected average size (\$5.5m) for recent accident years where injuries are yet to stabilise. This is similar to the previous valuation.

In aggregate we have reduced claim numbers for Severe Traumatic Injury claims in recognition of consistent lower than expected new claims coming into the EnABLE group over the last few valuations, which reduces the ultimate costs for the last few accident years.

# 9.5 Valuation of Other Serious Injury claims

## 9.5.1 Payments by Type

Figure 9.9 shows claim payments over the past three years for the Other Serious Injury claims (i.e. excluding the Severe Traumatic Injuries).



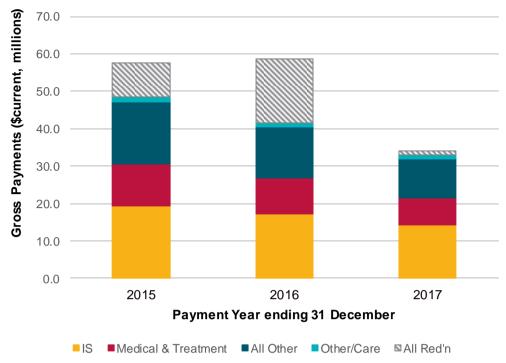


Figure 9.9 – Other Serious Injury Claim Payments (\$Dec-17)

Around \$150 million has been paid to Other Serious Injury claims in the last three years. After allowing for recoveries of around \$5 million over this same period and removing redemptions, this equates to an average of around \$40 million per annum in net claim payments (inflated to 31 December 2017 values), comprising:

- \$17 million per annum in Income Support
- \$9 million per annum in medical, treatment and related benefits
- \$11 million per annum in lump sums
- Only small amounts of other benefits (\$4 million)
- \$2 million per annum in recoveries.

## 9.5.2 Claimant Profile

Figure 9.10 shows the number of active Other Serious Injury claims (i.e. those being valued) at the current and previous valuation.



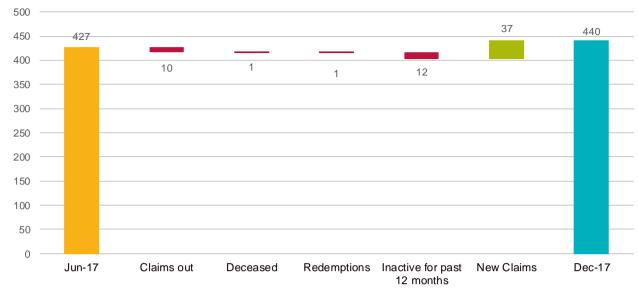


Figure 9.10 – Movement in Other Serious Injury Claim Numbers

There are 440 active (i.e. with expected ongoing benefits) Other Serious Injury claims at December 2017, compared to 427 at the previous valuation. The major reasons for this change are:

- Claims Out reduction of 10 claims. This largely refers to claims which were reviewed and found
  to not meet the eligibility criteria for a serious injury claim, or have low likelihood of being assessed
  as a serious injury claim (these were all in our 'potential' group)
- Deceased/Redeemed one claimant each
- Other Inactive reduction of 12 claims. This reduction is because claims that have been closed for a prolonged period are unlikely to access benefits
- New Claims increase of 37 claims. These are claims that were newly identified as Serious Injury
  over the last six months. Unlike the generally low value on claims removed in the 'Claims Out' and
  'Other Inactive' cohorts, these claims have had a recent payment profile similar to that of a typical
  Serious Injury claim, leading to a meaningful impact (increase) on the outstanding claims liability.

With relatively few claims remaining in the 'potential' group (and so less chance for claims to move out of serious injury between now and future valuations), we expect there to be a more consistent increase in the number of active Other Serious Injury claims over time (the size of which will be broadly in line with the number of new claims each year, as discussed in Section 4.2).

Figure 9.11 shows the current age and life expectancy of the known and potential Other Serious Injury claims.



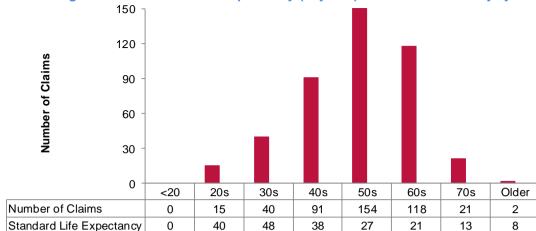


Figure 9.11 - Age Distribution and Life Expectancy (in years) for Other Serious Injury claims

The Other Serious Injury claims are currently, on average, around 55 years old, with an expected future life expectancy of just over 32 years (after allowing for mortality, including mortality improvements). We note the average age at injury was around 46 years.

Around 71% of the current Other Serious Injuries have a WPI assessment, averaging around 37% WPI. At this valuation, there were 53 claims with recorded WPIs below 30%. The average impairment level excluding these low assessments is around 39%.

## 9.5.3 Income Support

Figure 9.12 shows historic and projected Income Support payments for Other Serious Injury claims (including IBNR claims). The grey bars indicate Income Support payments for claims who have since been redeemed.

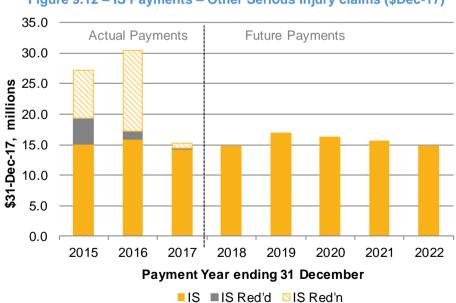


Figure 9.12 - IS Payments - Other Serious Injury claims (\$Dec-17)

We estimate around \$14.7 million will be paid in Income Support to Other Serious Injury claims in 2018. Future payments will generally reduce over time in line with expected mortality and retirement, although there is a stepwise change between 2018 and 2019 as the majority of additional IBNR claims are assumed to move into the Serious Injury group at one year's duration.



#### 9.5.4 Care and Other Costs

Figure 9.13 shows historic and projected care and other payments for Other Serious Injury claims (including IBNR claims). The grey bars indicate Care and Other payments for claims who have since been redeemed.

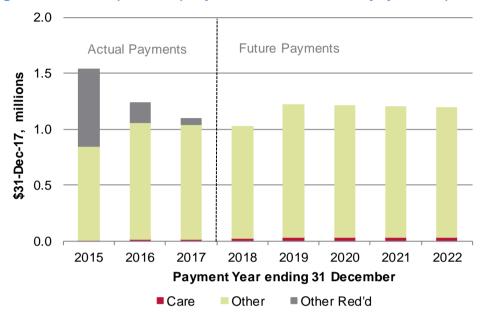


Figure 9.13 - Other (incl. Care) Payments - Other Serious Injury claims (\$Dec-17)

Other Serious Injury claims receive very little in care costs. We expect around \$1.0 million in other payments in 2018, after which payments increase due to IBNR claims (in 2019) offset by reductions in line with mortality.

## 9.5.5 Treatment and Related Costs

Figure 9.14 shows historic and projected treatment and related costs for Other Serious Injury claims (including IBNR claims). The grey bars indicate Medical and Treatment payments for claims who have since been redeemed.

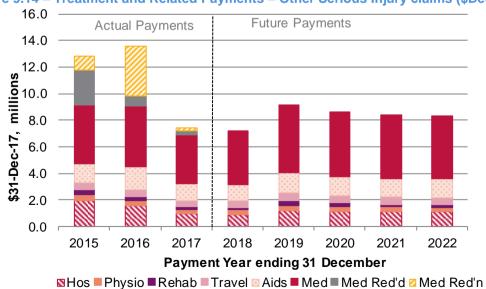


Figure 9.14 – Treatment and Related Payments – Other Serious Injury claims (\$Dec-17)

We expect treatment and related payments of \$7.2 million in 2018 for ongoing claims. Payments increase in 2019 due to IBNR claims offset by reductions in line with mortality.

## 9.5.6 All Other Payments

Figure 9.15 shows historic and projected other benefits for Other Serious Injury claims (including IBNR claims).

**Gross Costs Recoveries** 28.0 0.0 Actual Payments Future Payments 24.0 millions (recoveries) \$31-Dec-17, millions (gross) 20.0 -1.0 16.0 -1.5 12.0 -2.0 \$31-Dec-17, 8.0 4.0 -3.0 Actual Payments Future Payments 0.0 -3.5 2015 2016 2017 2018 2019 2020 2022 2015 2016 2022 2017 2018 2019 2020 2021 Payment Year ending 31 December Payment Year ending 31 December

Figure 9.15 - All Other Payments - Other Serious Injury claims (\$Dec-17)

Our future projections include:

- Lump sum benefits of \$39.6 million paid to current Other Serious Injury claims who have not yet had a lump sum paid. Lump sum payments on IBNR claims are pragmatically all assumed to be paid 3 years from the valuation date, leading to the spike in payments in 2020.
- Legal and investigation costs of \$16.6 million
- Recoveries of \$10.5 million.

## 9.5.7 Overall Results and Implications

Figure 9.16 shows the net ultimate average claim size (inflated to 31 December 2017 values) across all Other Serious Injury claims.



2.0 1.8 \$31-Dec-17, millions 1.6 1.4 1.2 1.0 8.0 0.6 0.4 0.2 0 0 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 Prior **Accident Year Ending 30 June** Paid - Excl. Reds OSC+IBNR Selected ACS ACS - Incl. Red

Figure 9.16 - Average Size by Payment Type

The total selected average size is just above \$1.5 million. Post 2015 accident years have a slightly higher size due to the increase in lump sum benefits for RTW Act claims and the lack of redemptions for these periods. More detail on the selections underlying this average size can be found in Appendix A.7.4.

As discussed in section 4.2, unexpected Serious Injury claim numbers from older accident periods have continued to emerge over the last six months which has placed a strain on the Other Serious Injury valuation. Although there has been some claims removed from these periods, these have typically been lower value claims so the overall impact on the liability has been an increase.

## 9.6 Valuation Results and Actuarial Release

Table 9.3 shows the actuarial release by accident period for Serious Injury claims.

Table 9.3 - Actuarial Release: Serious Injuries

	Projected Liab	Dec-17	Difference	Act v Exp		
	at Dec-17 from	Estimate on	from	Pmts in 6		
	Jun-17	Jun-17 Eco	Projected	months to	Actuarial	Release
Accident Period	Valuation	Assumptions	Liability	Dec-17	Release <sup>2</sup>	as %
	\$m	\$m	\$m	\$m	\$m	
To 30 Jun 05	253.4	265.1	11.7	1.8	-13.6	-5%
2005/06 - 2012/13	576.6	583.5	6.9	-1.3	-5.6	-1%
2013/14 - 2014/15	200.5	207.4	6.9	1.1	-8.0	-4%
2015/16 - 2017/18 <sup>1</sup>	320.6	305.3	-15.3	0.5	14.8	5%
Total	1,351.1	1,361.2	10.1	2.2	-12.4	-1%

<sup>&</sup>lt;sup>1</sup> Accidents to Dec 17

Older accident periods experienced a strengthening as newly identified Serious Injury claims from these periods have a higher average size than claims that were removed from the valuation, while the release from recent periods is predominantly associated with a reduction in IBNR levels for Severe Traumatic Injury claims in recognition of low numbers over the last few valuations.

Table 9.4 shows the drivers of the actuarial release for Serious Injury claims.



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

Table 9.4 - Components of Actuarial Release: Serious Injury Claims

	Severe	Other		
Release (strengthening) due to	Traumatic Injury	Serious Injury	Total	
	\$m	\$m	\$m	\$m
AvE payments in six months				(2)
Difference from projected liability				
Changes to Valuation Basis				
Claim Numbers <sup>1</sup>	11	(22)	(12)	
Change in Ongoing Status	0	(9)	(9)	
Basis and Assumption Changes	(6)	16	11	
Subtotal				(10)
Total				(12)

<sup>&</sup>lt;sup>1</sup>Net effect of deceased, removed, newly identified and IBNR claims

These movements are driven by:

- Claim Numbers strengthening of \$12 million split by:
  - Severe Traumatic Injury claims release of \$11 million. Claim numbers continue to come in below expectations for recent accidents periods and ultimate numbers for recent periods have been adjusted accordingly, with reductions in the IBNR allowance.
  - Other Serious Injury claims strengthening of \$22 million. Newly identified claims continue to exceed expectations, particularly on older accident periods, while claims that were removed (i.e. are no longer expected to be Serious Injury claims) have a low outstanding claim value from the previous valuation. As of 30 June 2017, claims from older accident periods must have made a Serious Injury application to remain on benefits, and it is therefore expected that there should be little new IBNR from this group at future valuations; however, there are a number of interim rejections and open disputes for these periods, the outcome of which is the major source of uncertainty going forward.
- Change in ongoing status strengthening of \$9 million. This is largely related to future IS payments on claims that were previously not operationally active or in dispute. Each of these claims have had their status changed in relation to one of these categories, which has led to the increased valuation
- Selection Changes release of \$11 million. This includes the impact of changes to the assumed half-yearly payment for each claimant and can attributed to:
  - Severe Traumatic Injury claims strengthening of \$6 million. This is a slight strengthening in the context of the overall liability for this cohort driven by changes to cost estimates provided by ReturnToWorkSA's internal claims management team and average size assumptions.
  - Other Serious Injury claims release of \$16 million. This is largely due to sustained lower recent payments than historically observed for this group, particularly for Medical and treatment type payments. There was a partial offset to the treatment cost savings due to the discovery of a technical error in the previous valuation work that meant around 30 serious injury claims did not have a lump sum estimate who should have been.



# 10 Economic and Other Assumptions

## 10.1 Discount Rate

Because the discounted mean term (DMT) of the liabilities continues to increase (as serious injury liabilities make up a bigger proportion of the OSC, the DMT is now 15 years), even relatively small changes on economic assumptions can have a material impact on the liability.

## 10.1.1 Approach

Accounting standard AASB 1023 states that the discount rates used in measuring the present value of expected future claim payments shall be: "risk free discount rates that are based on current observable, objective rates that relate to the nature, structure and term of the future obligations". It also says that:

"the discount rates are not intended to reflect risks inherent in the liability cash flows", and

"typically, government bond rates may be appropriate discount rates for the purpose of this Standard, or they may be an appropriate starting point in determining such discount rates".

We derive forward interest rates applying to each future duration by:

- Taking the quoted market yields on Australian Government coupon bonds for the durations they
  are available, as at the date of the valuation this information is sourced from the Reserve Bank
  website. These market yields are used to determine the zero coupon yields.
- Using these zero coupon yields to determine forward rates
- At longer durations we extrapolate the forward yield curve between current market rates and our expected long term forward rate. The assumed long term forward rate and extrapolation take account of:
  - The duration that government bonds are available to, and the volumes of longer term bonds traded
  - Long term risk free rates of return
  - General economic factors
  - Current monetary policy (e.g. CPI currently in the range of 2% to 3%), combined with expectations of long term real yields
- Beyond the end of our extrapolation, the yield is maintained at the long term forward rate.

The resulting forward rates are applied to the projected cash flows for each future period. When discounting using forward rates, the relevant rates must be 'chained' together, for example a payment at the end of year three is discounted using the product of the first, second and third year forward rates.

## 10.1.2 Current Assumptions

Discount rates at December 2017 are lower than at June 2017 at all durations longer than five years. We have assumed a long-term rate of 5.0%, based on the yield of the longest date bond (March 2047), which is 0.5% lower than assumed at June 2017.

Figure 10.1 shows the current forward rates, and compares these to the corresponding forward rates implied by the previous valuation (i.e. rolled forward to the current valuation date). This shows that the



discount rates have decreased for all durations with the equivalent single discount rate decreasing from 3.9% p.a. at 30 June 2017 to 3.7% p.a. at 31 December 2017.

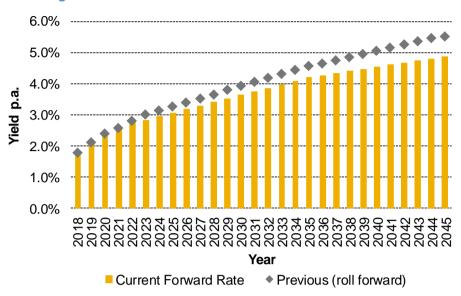


Figure 10.1 - Risk Free Forward Rate vs Previous Valuation

Details of the discount rates by year are included in Appendix C.

## 10.2 Inflation

In setting our inflation assumptions we consider:

- Forecasts of CPI and wage inflation
- RBA monetary policy
- Market-based information on inflation, with the aim of obtaining inflation expectations which are
  consistent with the discount rate expectations (as the discount rates are market based), for
  example using Treasury Indexed Bonds (TIBs). TIBs are essentially Government bonds where the
  original capital invested, and subsequent coupon payments, are indexed for CPI inflation. The
  difference between yields on TIBs and on nominal government bonds gives an implied breakeven
  rate of CPI inflation.

In summary, our assumptions at the current valuation are:

- Wage Price Inflation has been assumed to be 2.0% p.a. for the coming year, increasing to 2.75% after five years. This is a reflection of both current forecasts and the current low wage growth environment.
- Wage Price Inflation assumptions gradually increase from this level to 3.40% over the next 23 years, from where a gap of 1.60% p.a. is maintained between Wage Price Inflation and forward discount rates. This gap is below the June 2017 valuation, with the decrease in the yield curve partially offset by lower inflation assumptions.
- Average Weekly Earnings (AWE) is set to a 0.25% gap above Wage Price Inflation for all future periods. This is changed from the previous valuation where the gap begun at 0% for the first year and increased to 0.25% by the fifth year. The gap after the fifth year is consistent with the June 2017 valuation.



CPI inflation has been set at 2.5% p.a. for all future durations. This is consistent with the mid-point
of the Reserve Bank's targeted range of 2-3% p.a.

Overall, our resulting projected wage inflation is lower than at the previous valuation.

The combined impact of the above movements in adopted inflation and discount rates is a decrease in the 'gap' between inflation and discount rates for longer term cash flows, and a slightly higher gap for cash flows in the next five years as shown in Figure 10.2.

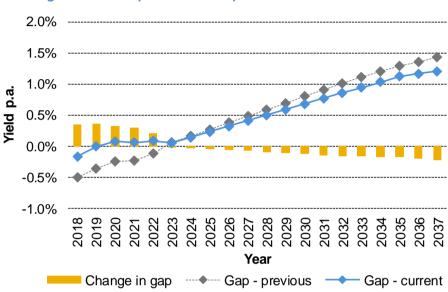


Figure 10.2 – Gap between Adopted AWE and Discount Rates

The impact of this change is to increase the scheme liability, which is quantified in Section 11.3.2.

The rates of inflation are applied to entitlement types as follows:

- IS entitlements and related expenditure for Short Term Claims have no inflation applied for the current cohort of claims, consistent with the RTW Act. AWE is initially applied for future injuries.
- IS entitlements and related expenditure for Serious Injury claims are inflated using the projected Wage Price Inflation rate until retirement.
- The maximum Lump Sum entitlement is indexed annually by the adopted CPI rate (the maximum entitlement applies to all accidents occurring in a year).
- All other entitlements are inflated at the adopted AWE rate, with allowance for superimposed inflation where warranted.

We have made assumptions about superimposed inflation for some payment types, and on the timing of the application of inflation. These assumptions are detailed in Appendix 0.



#### 10.3 **Expenses**

In setting provisions for outstanding claims, it is necessary under accounting and actuarial standards to include an allowance for the future costs of claim administration that are not allocated to individual claims.

Figure 10.3 below shows expenses as a percentage of wages over the past 10 years along with the budgeted figure for 2017/18 and the expected long term expenses of 0.4% of wages.

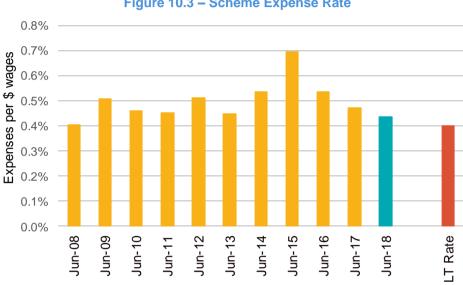


Figure 10.3 - Scheme Expense Rate

Following the passage of the RTW Act, there was a period of high expenses driven by transitional costs in the scheme. The expenses have been reducing over the last few years and will continue to reduce until a stable state is reached.

The approach we have taken to set our expense allowance for the outstanding claims valuation is as follows:

- For Serious Injury claims we express claim handling expenses as a percentage of outstanding claims - the allowance is 8.5%, unchanged from the previous valuation.
- For Short Term Claims, we estimate an expense allowance for transitional claims which is expected to run-off by the end of 2019. This allowance is unchanged from our previous valuation, and equates to \$19 million of remaining costs. Most of this is for the management of legacy legal disputes
- For future Short Term Claims under the RTW Act, we use ReturnToWorkSA's expected long term expenses of 0.4% of wages, consistent with the costing of the new scheme, where the claims handling component equates to around 12.5% of gross claim payments, unchanged from our previous valuation.

The expense allowances will need to be updated periodically during the transition period to reflect changes in the claims mix and expected future costs. Given the significant changes being undertaken by ReturnToWorkSA to implement the RTW Act, and the resulting changes in claimant profile over the next one to two years, it is expected that the expense loading will move more than would normally be the case over the next few valuations until a new steady state is reached.



The overall expense rate equates to 9.6% of gross outstanding claims, down from 9.9% at the previous valuation. The reduction is driven by a higher mix of Serious Injury Claims in the outstanding claims which have a lower expense rate compared to Short Term Claims.

## 10.4 GST Recoveries

Entitlements are modelled net of GST (ITC) recoveries.

## 10.5 Risk Margins

Since June 2017 ReturnToWorkSA has established its outstanding claims provision with a 75% probability of sufficiency.

In our previous valuation, we undertook a partial review of the key components of the risk margin and made adjustments to our assumptions accordingly. We have reviewed the key assumptions at this valuation and in absence of any new information in the last six months believe that they still remain appropriate.

Our current estimated CVs for each entitlement group, along with the total diversified and undiversified CV, are set out in Table 10.1 below.

Table 10.1 – Coefficient of Variation

	Total	CV
Risk Margin Group	Dec-17	Jun-17
Serious Injury	31.3%	31.3%
Short Term Claims		
IS + Redemption	15.7%	15.7%
Lump Sums	23.8%	23.8%
Legal + Investigation	24.8%	24.8%
Medical and Other Treatment	18.2%	18.2%
Recoveries	21.6%	21.6%
Total (Undiversified)	28.3%	28.2%
Total (Diversified)	24.3%	24.2%
Diversification	14.2%	14.2%

Based on a coefficient of variation of 24.3% and our modelled distribution (which is a blend between a normal and lognormal distribution), we recommend a risk margin of 15.0% at a 75% probability of sufficiency. This is unchanged from our previous valuation.

As described in Section 2.1.1 the current 75% probability of sufficiency risk margin would <u>not</u> be sufficient to cover the increase in liabilities if the Mitchell precedent is maintained on appeal.

# 10.6 Non-Exempt Remuneration

When making our assessment of the cost of future claims, we consider the underlying remuneration pool as a measure of the exposure from which claims will arise.

The movement in the remuneration pool over time is the net result of a number of influences: (1) growth in average weekly earnings, (2) 'natural' growth in the number of employees and (3) movements of firms out of/into the scheme due to becoming self-insured or exiting self-insurance.



The remuneration projection for current and future years is undertaken by ReturnToWorkSA. The implied annual growth in the total non-exempt remuneration by year is shown below in Figure 10.4

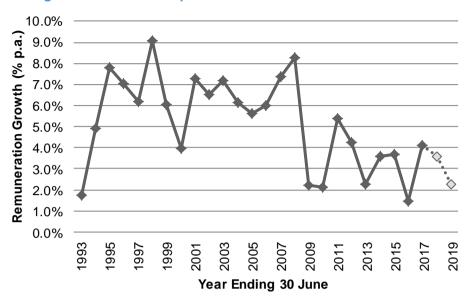


Figure 10.4 - Non-Exempt Leviable Remuneration: Annual Growth

We have adopted ReturnToWorkSA's remuneration projection of \$27.7 billion for 2017/18, noting that it is still subject to estimation as premium returns are yet to be completed for the current year. The key features we note in the remuneration experience are:

- The remuneration growth for 2009 and 2010 was the lowest seen since the early 1990's (the time of the last significant recession in Australia). There were two key contributors to this experience:
  - The global financial crisis (GFC) during 2009 unemployment rates were higher than for the previous few years, and the level of under-employment (people working fewer hours than they would like) also rose. The level of wage inflation also reduced in the year.
  - A change in the definition of leviable remuneration from 1 July 2008, to exclude wages for trainees and apprentices (noting that while their wages are excluded, their claims costs are not). This change to the remuneration base reduced remuneration estimates for 2008/09 by about 2% relative to the previous definition.
- Despite remuneration growth briefly heading up to more 'normal' historical levels in 2011 and 2012, wage growth has since reduced again towards levels seen during the GFC.
- ReturnToWorkSA is currently projecting 2018 remuneration growth to be 3.6%, higher than
  previously projected at June 2017 (1.8%) but lower than the 4.1% in the 2017 financial year (which
  was the highest since 2012). ReturnToWorkSA's projection of growth in years 2019 to 2021 are all
  currently below 2.5% which suggests a continuation of the recent low growth environment.

All else equal, the low wages growth puts pressure on the scheme's breakeven premium rate, unless claims cost growth can also be constrained.



## 11 Valuation Results

This section of the report summarises the valuation results, namely:

- The central estimate of outstanding claims as at 31 December 2017
- Our recommended balance sheet provision under AASB1023
- Movement in the central estimate compared to what was projected at the previous valuation
- Estimated historical scheme costs
- Projected future cash flows for the current outstanding claims
- Projected outstanding claims as at 30 June 2018 and 31 December 2018
- Reconciliation of results with 30 June 2017 projections.

As stated earlier, all the results in this section are shown on the basis that the *Mitchell* decision will be overturned on appeal. Refer to Section 2.1.1 for more details.

## 11.1 Outstanding Claims – Central Estimate

Our central estimate of the outstanding claims by entitlement type as at 31 December 2017 is set out in Table 11.1. This liability relates to all claims which occurred on or before 31 December 2017 and includes the impact of updated economic assumptions.

**Table 11.1 – Outstanding Claims by Entitlement Type** 

Table 11	. i - Outstanding Ci	aiiiis by Eiiddeiii	ent rype	
Entitlement	Estimate of	Outstanding Liab	oility	% of Net
Group	Short Term Claims	Serious Injuries	Total	Cent Est
	\$m	\$m	\$m	
Income	123	310	433	20%
Redemptions	0	0	0	0.0%
Lump sums	229	51	279	13%
Worker legal	29	9	37	2%
Corporation legal	32	9	41	2%
Medical	104	457	561	26%
Hospital	18	90	108	5%
Travel	4	48	53	2%
Rehabilitation	17	37	54	3%
Physical Therapy	7	36	43	2%
Investigation	2	1	3	0.1%
Other (including Care)	10	354	364	17%
Common law	2	0	2	0.1%
LOEC	1	0	1	0.0%
Commutation	2	0	2	0.1%
Gross Liability	580	1,402	1,982	93%
Recoveries	-24	-28	-52	-2%
Expenses	72	119	191	9%
Net Central Estimate	627	1,494	2,121	

The outstanding claims liability before recoveries and expenses is estimated to be \$1,982 million. The net central estimate, allowing for recoveries and including an allowance for claims handling expenses, is \$2.121 million.

Table 11.2 details the outstanding claims result by accident year.



**Table 11.2 – Outstanding Claims by Accident Year** 

Accident	Estimate of	Outstanding Liabil	lity	% of Net
Year	Short Term Claims	Serious Injuries	Total	Cent Est
	\$m	\$m	\$m	
Pre Jun-05 Years	29	267	296	14%
Jun-06	4	53	57	3%
Jun-07	5	69	74	3%
Jun-08	5	64	70	3%
Jun-09	6	57	63	3%
Jun-10	7	96	103	5%
Jun-11	9	79	88	4%
Jun-12	11	78	89	4%
Jun-13	14	99	113	5%
Jun-14	22	110	132	6%
Jun-15	36	113	149	7%
Jun-16	111	127	238	11%
Jun-17	181	125	307	14%
Jun-18	136	66	202	10%
Gross Liability	580	1,402	1,982	93%
Recoveries	-24	-28	-52	-2%
Expenses	72	119	191	9%
Net Central Estimate	627	1,494	2,121	100%

Table 11.3 shows the overall liability split between Serious Injuries and Short Term Claims, both before and after discounting. As this shows, there is a significant level of discounting in relation to the Serious Injury claims liability due to its long payment pattern.

**Table 11.3 – Impact of Discounting** 

rable 11.5 – impact of biscounting				
	Serious	Short Term		
	Injuries	Claims	Total	
	\$m	\$m	\$m	
Inflated	4,028	670	4,698	
Inflated and Discounted	1,494	627	2,121	
Ratio	37%	94%	45%	

# 11.2 Provision for Outstanding Claims

Table 11.4 sets out the components of our recommended provision at 75% probability of sufficiency, \$2,439 million.

**Table 11.4 – Recommended Balance Sheet Provision** 

	Central	Risk	Recommended
	Estimate	Margin	Provision
	\$m	\$m	\$m
Gross Claims Cost - Serious Injuries	1,402		
Gross Claims Cost - Short Term Claims	580		
Claims Handling Expenses	191		
Gross Outstanding Claims Liability	2,173	326	2,499
Recoveries	-52	-8	-60
Net Outstanding Claims Liability	2,121	318	2,439



## 11.3 Movement in Liability

Our central estimate is \$56 million higher than projected at the previous valuation, as shown in Table 11.5.

**Table 11.5 – Movement from Previous Valuation** 

	Gross	Recoveries	CHE	Net
	\$m	\$m	\$m	\$m
Liability as at Jun-17	1,888	-57	187	2,017
Plus liability for claims incurred in the period	216	-6	24	234
Less Expected Payments to Dec-17	184	-7	26	204
Plus Interest (unwinding of discount)	16	0	2	17
Liability Projected from Previous Valuation	1,935	-57	187	2,066
Current Valuation	1,982	-52	191	2,121
Difference	47	4	4	56

We have attributed the change in central estimate into the following components:

- Movement in liability due to claims experience this covers the components that are due to claim
  outcomes (such as changes in the number and mix of claims), as well as the impact of revisions to
  our valuation assumptions. This step also includes the impact of changes in the timing of lump sum
  payments, where slower than expected lump sums lead to an increase in the remaining liability.
- Impact of changes in economic assumptions the component which is mandated by accounting standards (and therefore outside ReturnToWorkSA's control).

This split also allows calculation of the actuarial release, where we add the difference between actual and expected payments to the movement in the liability due to claims experience, to give a measure of the 'profit' impact of claims management performance relative to the previous valuation basis.

Table 11.6 - Movement in Central Estimate and Determination of Actuarial Release

		A√E	
	Projected	Payments	
	Dec-17	in 6 mths	Actuarial
	Liability <sup>1</sup>	to Dec-17	Release 2
	\$m	\$m	\$m
Liability at Jun-17 Valuation	2,017		
Projected Liability at Dec-17 (from Jun-17 valuation)	2,066		
Claims Movement - Short Term Claims	30	-25	-5
Claims Movement - Serious Injury	11	2	-13
Impact of Change in economic assumptions	14		
Recommended Liability at Dec-17	2,121		
Total Actuarial Release			-18

<sup>&</sup>lt;sup>1</sup> Net central estimate of outstanding claims liability, including CHE

Each of these components is discussed in the following sections.

## 11.3.1 Actuarial Release at December 2017

The actuarial release over the period is a strengthening of \$18 million. Table 11.7 shows the actuarial release (strengthening) by entitlement type.



<sup>&</sup>lt;sup>2</sup> Includes change in OSC and Act vs Exp payments.

Table 11.7 – Actuarial Release by Entitlement Type

Entitlement Group	Short Term Claims <sup>1</sup>	Serious Injury Claims¹	Total Actuarial Release <sup>1</sup>	Release %
	\$m	\$m	\$m	%
Income	7.8	-14.7	-6.9	
Redemptions	0.0	-0.6	-0.6	
Combined	7.8	-15.3	-7.5	-1.8%
Lump Sums	1.4	-23.8	-22.4	-9.5%
Worker legal	-0.1	-0.6	-0.8	-2.0%
Corporation legal	-1.2	-0.2	-1.5	-3.6%
Investigation	0.0	0.0	0.1	2.4%
Medical	-5.6	14.5	8.9	1.6%
Other	-1.4	-0.9	-2.3	-0.7%
Hospital	-1.1	7.1	6.0	5.3%
Travel	-0.6	4.7	4.1	7.3%
Physical therapy	-0.5	1.3	0.8	1.9%
Rehabilitation	-0.6	2.6	2.0	3.7%
Common Law	0.1	0.0	0.1	5.3%
LOEC	0.0	0.0	0.0	-2.4%
Commutation	0.0	0.0	0.0	2.1%
Gross Liability	-1.7	-10.7	-12.3	-0.6%
Recoveries	-1.4	-1.7	-3.1	5.4%
Expenses	-2.2	-0.7	-2.9	-1.6%
Net Central Estimate	-5.2	-13.1	-18.4	-0.9%

<sup>&</sup>lt;sup>1</sup> Includes change in OSC and Act vs Exp payments, excludes economic impacts

The major factors contributing to the \$18 million actuarial strengthening at the current valuation are:

- For **Short Term Claims**, the \$5 million actuarial strengthening comprises:
  - A release of \$7.8 million for income support and redemptions, which is due to a combination of improving return to work experience, partially offset by extra late duration claims.
  - A release of \$1.4 million for lump sum payments, as much lower than expected payments have been interpreted as a slowdown, not a saving.
  - An increase of \$1.3 million for legal payments to reflect the high number of legal matters outstanding in the Supreme Court.
  - An increase of \$8.3 million for treatment benefits overall; primarily driven by medical benefits (\$5.6 million). We have reviewed the basis for all other treatment benefit types in light of emerging RTW Act payment levels, which have tended to be slightly higher than expected.
  - A \$1.4 million strengthening for recoveries, with lower recovery levels expected on STC
  - A \$2.2 million strengthening on claims handling expenses due to a higher proportion of RTW Act claims which have a higher expense rate in the liability.
- For Serious Injury claims, there was an overall strengthening of \$13 million, due to:
  - Net changes to Serious Injury claim numbers (including IBNR claims) increasing the liability by \$12 million, as new claim numbers continue to be higher than expected levels
  - Changes in the status of already known serious injury claims leading to more claims receiving benefits, increasing the liability by \$9 million



- Changes in valuation basis changes releasing \$11 million
- Higher than expected payments resulting in a strengthening of \$2 million.

Our projections for the remaining entitlement types were also reviewed and updated, although none of the movements are significant in relation to the overall scheme liability.

## 11.3.2 Impact of Economic Assumption Changes

Changes to inflation and discount rate assumptions increased the central estimate by \$14.4 million.

As discussed in Section 10.1 there have been decreases in discount rates at long durations, an event which is outside ReturnToWorkSA's control, which has led to this increase in the OSC liability.

## 11.4 Historical Scheme Costs

As part of our valuation we have estimated the 'historical cost' for each past accident year. This represents our estimate of total projected costs for the accident year, including expenses, and is discounted to the start of the accident year. Historical claims handling, operating expense and self-insurer levy figures are taken from ReturnToWorkSA's published annual accounts and the latest information from ReturnToWorkSA for 2018.

Figure 11.1 summarises the currently estimated historical costs for each year since the scheme began. As this shows, commencement of the RTW Act has acted to contain the cost for recent accident years into the \$500 million to \$550 million range, breaking the strong upward trend seen in the lead up to 2010. scheme expenses were particularly high in 2015 as a result of additional transition related expenses. In general the hindsight cost estimates are similar to the previous valuation estimates.

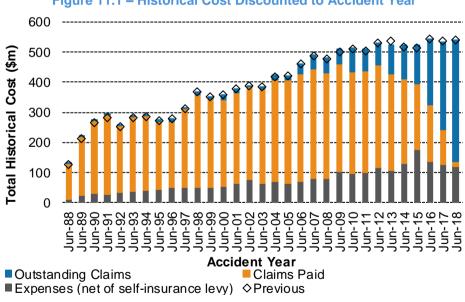


Figure 11.1 - Historical Cost Discounted to Accident Year

Using these costs we have estimated the 'historical premium rate', or the Break Even Premium (BEP) rate, for each past accident year; this is the amount that would have been sufficient to fully cover claim costs, including expenses and recoveries, assuming the scheme achieved risk free returns each year and the current actuarial valuation is an accurate forecast of future payments. The BEP is calculated by dividing the total projected costs for the accident year (from Figure 11.1) by the total scheme levyable remuneration in that year (discussed in Section 10.6). We present the costs on this basis, i.e. using risk



free discount rates, so that a like with like comparison can be made over the history of the scheme, which allows current scheme performance to be assessed in a long term context.

Figure 11.2 summarises the estimated annual BEP since the scheme began, including a comparison with the estimates at our previous valuation and the scheme's actual average premium rate charged for each year.

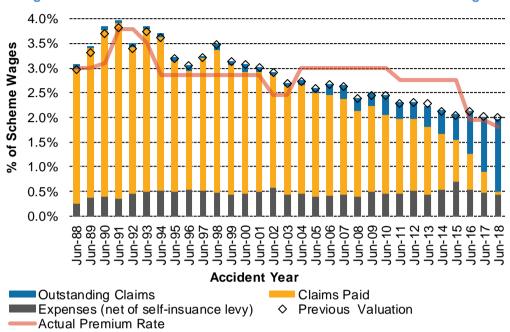


Figure 11.2 – Break Even Premium Rate and Actual Premium Rate Charged

#### The main points to note are:

- The introduction of the RTW Act reduced the BEP for accident years between 2008 and 2010 to just under 2.5% of wages
- For accident years since 2011 the costs are lower again, as claims have had less opportunity to remain on long term benefits.
- The current estimate of the BEP for the 2018 accident year is 1.96%, down from 1.99% for the 2017 year, which is mainly the result of over expenses.
- Scheme expenses were relatively high from 2014 to 2016, and particularly high in 2015, as a result
  of additional transition related requirements. 2017 and 2018 scheme expenses are lower than
  accident years 2014 to 2016, and ReturnToWorkSA expects to see some further reduction as
  transition related activities are completed.

We note that these calculations assume past and future investment earnings at the risk free rate, and adopt the annual cost of expenses in the year. All else being equal, any earnings above the risk free rate or additional sources of income would act to reduce the required premium rate.



<sup>\*</sup> The Break Even Premium Rate in this Figure is calculated using the risk free rate, so that a like with like comparison can be made over the history of the scheme. For clarity, this is not the same as the scheme's pricing basis as the scheme targets a higher than risk free rate of return when premiums are set.

We emphasise that (as seen in the graph) the BEP estimates for recent accident years include a significant outstanding claims estimate and are therefore likely to change as experience emerges. We also note that the adopted wages figure for 2018 still involves a degree of estimation.

## 11.5 Future Cash Flows

Table 11.8 presents projected cash flows for the coming four half-years, by entitlement type. These cash flows include allowance for future claims incurred as described in Section 11.6, but make no allowance for expenses.

**Table 11.8 – Projected Cash Flows** 

	Projected Cashflows for Period			
Entitlement Group	Dec-17 to	Jun-18 to	Dec-18 to	Jun-19 to
	Jun-18	Dec-18	Jun-19	Dec-19
	\$m	\$m	\$m	\$m
Income Support & Redemption	60.9	60.5	62.2	62.6
Medical	29.2	28.6	29.5	30.5
Lump sums	54.8	43.7	46.1	46.8
Rehabilitation	7.9	8.0	8.1	8.4
Physical Therapy	4.6	4.5	4.6	4.7
Hospital	8.1	8.5	8.7	9.0
Worker legal	5.3	5.0	5.1	5.2
Other	7.9	7.1	8.2	8.2
Corporation legal	9.5	9.6	8.8	8.9
Travel	2.8	2.5	2.7	2.7
Investigation	0.9	0.9	1.0	1.0
Commutation	0.2	0.2	0.2	0.2
LOEC	0.1	0.1	0.1	0.1
Common law	0.2	0.2	0.2	0.2
Recoveries	-5.8	-4.7	-5.2	-9.5
Net Claims Cost - Total	186.8	174.7	180.3	179.0
Serious Injuries (net)	33.7	20.7	25.1	21.9
Short Term Claims (net)	153.1	154.0	155.1	157.1

Cash flows over the next two years are expected to remain relatively stable, with the next half-year a little bit higher to catch up on the lower level of lump sum payments in the December 2017 half-year.

# 11.6 Projected Outstanding Claims

Table 11.9 shows the outstanding claims projected to 30 June 2018, 31 December 2018 and 30 June 2019. We note the payments shown here are based on that in Table 11.8, but also include an allowance for claims handling expenses for consistency with our liability estimate.



Table 11.9 – Projected Outstanding Claims Provision at 30 June 2018, 31 December 2018 and 30 June 2019

	Half year ending		
	Jun-18	Dec-18	Jun-19
	\$m	\$m	\$m
Provision at Period Start	2,439	2,486	2,558
Less Risk Margin	318	324	334
Central Estimate at Period Start	2,121	2,162	2,224
Plus Additional Liability Incurred in Period	235	239	242
Less Expected Payments in Period	-215	-198	-204
Plus Interest (unwind of discount)	21	21	26
Projected Central Estimate at Period End	2,162	2,224	2,287
Plus Risk Margin	324	334	343
Projected Provision at Period End	2,486	2,558	2,631

We project the central estimate for the net outstanding claims liability at 30 June 2018 to be \$2,162 million; this estimate includes allowance for claim payments and expenses, discount rate movements in line with forward rates and new claims incurred in the period 1 January 2018 to 30 June 2018. The corresponding provision at a 75% probability of sufficiency is \$2,486 million.

The projected increase to 30 June 2018 in the liabilities relates to the fact that the additional liability incurred on new Serious Injury claims is more than the expected payments on existing Serious Injury claims.

# 11.7 Reconciliation of Incurred Cost with Previous Projection

At the 30 June 2017 valuation we projected an additional claim cost liability of \$210 million would be incurred from claims arising in the July to December 2017 half-year. Our current projection for the ultimate value of this liability is \$213 million, a moderate increase of 1.5%. Changes in economic assumptions are the main reason for this increase.

Table 11.10 – Comparison of June 2017 Projections to Current Valuation

For period 01 Jul 2017 to 31 Dec 2017		
Incurred Claims Liability (\$m, excl. expenses):		Difference
Projected in Jun-17 Valuation	210	
Incurred (current valuation)	213	1.5%



# 12 Uncertainty and Sensitivity Analysis

## 12.1 Risk and Uncertainty

In this section we discuss the major areas of uncertainty involved in estimating the balance sheet outstanding claims provision (OSC, including allowance for expenses and risk margins, with provision at 75% probability of sufficiency). At the present time there are heightened uncertainties and risks, particularly on the unfavourable side, with the operation of the RTW Act still to stabilise.

To assist in understanding the uncertainty, we have designed a range of scenarios which illustrate potential scheme outcomes. For each scenario we have made an approximate estimate of its impact on the OSC provision.

We have considered the uncertainty in four broad categories:

- Economic employment, inflation, investment markets
- Legal disputes, tribunal decisions, transition to SAET, appeal court decisions
- Short Term Claims outcomes relating to claims whose entitlements are subject to the hard boundaries
- Serious Injury Claims outcomes for claims who are entitled to long term payments from the scheme.

There is overlap and interaction between these categories. ReturnToWorkSA has essentially no control over economic influences, full control over scheme management and strong influence (but not control) over legal and behavioural risks.

We note that sensitivity analysis is indicative only of a range of possible liability outcomes. The sensitivities shown below do not represent upper or lower bounds to the scheme's outstanding claims liabilities.

## 12.2 Economic Scenarios

In brief, the scenarios we have considered are a stronger economy and a weaker economy:

**Table 12.1 – Economic Scenarios** 

	Stronger	Weaker
Unemployment	Down to 4%	Up to 8%
Wage inflation	5% pa	3% pa
Investment earnings	8% pa	3% pa
Real 'Gap'1	3%	0%

<sup>&</sup>lt;sup>1</sup> Difference between inflation and discount rate

In undertaking sensitivity analysis it is straightforward to model inflation and investment earnings. In relation to unemployment, there is no clear way to estimate the impact on the cost of claims, and we refer to the RTW scenarios in the 'short term claims' section. Broadly, the claims impact will be in the same direction as other economic impacts, but the magnitude of the impact is probably smaller than that of inflation and investment changes.



Table 12.2 - Economic Sensitivities

	OSC Impact	
	\$m	%
31 Dec 17 OSC estimate (Including risk margin at 75% POS)	2,439	
Strong Economic Scenario (3% gap between inflation and discount rate)	-611	-25%
Weak Economic Conditions (0% gap)	+186	+8%
Economic assumptions return to pre-2008 levels over the next 5 years	-480	-20%

As this suggests, economic conditions are still currently unfavourable for scheme performance relative to long term historical norms. If conditions do improve the implications for both funding and premiums are favourable.

# 12.3 Legal Risk Scenarios

As discussed in section 3, there have been high numbers of disputes in the scheme at various times (and the count of open disputes is again growing) and a number of key provisions of the RTW Act are subject to adverse legal precedent which is under appeal. The table below indicates the sensitivity of results to two scenarios around dispute rates and dispute outcomes. It is likely that if the legal environment is either better or worse than we have implicitly assumed, then several experience changes are likely to happen together.

**Table 12.3 - Legal Sensitivities** 

OSC	OSC Impact	
\$m	%	
2,439		
>\$300m	>12%	
+223	+9%	
+180	+7%	
	\$m 2,439 >\$300m +223	

As indicated in the sensitivities above, if the WPI assessment provisions in the RTW Act do not work as intended then it is possible that the impacts could be measured in hundreds of millions of dollars. If several adverse outcomes occur together then the impact could be well more than \$100 million.

There is improvement potential that would measure in the tens of millions of dollars if favourable resolution trends occur and the number of disputes drops as a result.

## 12.4 Short Term Claim Scenarios

The implementation of the RTW Act has brought significant change to the scheme, and changes in the scheme's culture. It is possible that the early changes in the scheme's experience might not be sustained if patterns of behaviour revert towards those of past years. On the other hand, it is possible that the scheme experience might outperform current projections, because of the extent of the changes in expectations and behaviour of scheme participants.

In order to illustrate the type of changes that might occur we have looked at the sensitivity of the OSC to:

 Reduced effectiveness of claim managers in returning people to work, continued improvement in return to work outcomes that mirrors the most recent average payment experience and scenarios around late reported incapacity claims



- Higher access to surgery-related benefits
- Sustained higher legal fees, reflecting the current number of Supreme Court cases
- Increase in claims handling expense rate for RTW Act accidents
- Reduction in First Paid and Economic Loss lump sum payments
- Differences in future lump sums.

**Table 12.4 - Short Term Claim Sensitivities** 

	OSC I	OSC Impact	
•	\$m	%	
31 Dec 17 OSC estimate (Including risk margin at 75% POS)	2,439		
Post 1 July 15 Claims			
Claims experience mirrors Sep-15 experience (a high cost injury quarter)	+10	+0%	
Lower number of active claims getting to 2 years (12% reduction) and lower	-12	-0%	
second and third year PPACs (earlier exits and more partial return to			
works)			
Less late reported IS claims than currently allowing	-5	-0%	
Double the number of late reported IS claims than currently allowing	+5	+0%	
Treatment Costs			
Surgery costs emerge more than expected, approximately double the	+29	+1%	
current allowance			
Legal Fees			
"Non-contract" legal fees remain high for an additional two years due to	+5	+0%	
high number of matters in the Supreme Court			
Expenses			
Higher expense rate for Short Term Claims due to expenses not reducing	+12	+1%	
as much as gross claim costs			
Lump Sums			
Recent reduction in lump sum payments is due to First Paid and	-34	-1%	
Economic Loss lump sum numbers reducing by 15%			
Economic Loss lump sums emerge 20% higher than expected	+23	+1%	

These scenarios, along with the WPI scenarios in Table 12.3, demonstrate that the robustness of WPI assessments is the key driver of uncertainty for short term claim liabilities at this time.

# 12.5 Serious Injury Scenarios

With significantly higher benefits available to Serious Injury claims, the numbers of claimants becoming eligible for these benefits will have significant financial consequences for the scheme. In addition, with an increasing proportion of future claims liabilities relating to Serious Injury claims, changes in life expectancy and escalation of costs for Serious Injury claims costs will also have significant financial impacts.



**Table 12.5 - Serious Injury Sensitivities** 

	OSC Impact	
	\$m	%
31 Dec 17 OSC estimate (Including risk margin at 75% POS)	2,439	
Ultimate claim numbers do not reduce from 2008-2013 levels	+176	+7%
Half of the pending 'potential' Serious Injury claims are assessed as not	-45	-2%
Seriously Injured		
50% of all Serious Injury disputes end up as claims	+64	+3%
Adverse legal precedent increases older periods by 10 claims p.a. and	+377	+15%
more recent years stay at old Act levels		
Unpaid care on EnABLE cohort ceases immediately and is replaced with	+79	+3%
paid care (NB: this information is currently only available for two-thirds of		
the cohort)		
Uncertainty around mortality - impact of a 6 year increase in the life	+418	+17%
expectancy of the EnABLE claims (bringing them back in line with a		
standard population life expectancy).		
Superimposed inflation is 1% p.a. higher than assumed for medical and	+335	+14%
care, whether due to higher utilisation of services such as care and		
treatment, or from increasingly expensive treatments, above average award		
wage increases for carers, increased pressure as current unpaid family		
carers age, etc.		
Superimposed inflation is 1% p.a. lower than assumed for medical and	-245	-10%
care.		
No increase in utilisation of Care benefits after age 65	-169	-7%
Twice the additional allowance for utilisation of Care benefits after age 65	+130	+5%

Because of the very long tail of serious injury claims and the consequent leverage in the scheme's financial results, the scenarios illustrate some very large changes in the OSC.

We emphasise that there is significant uncertainty around ultimate claim numbers, from the following sources:

- If the removal of the ability to have subsequent WPI assessments (so-called 'top ups') changes behaviour such that claimants either wait longer to have their WPI assessment (i.e. allowing the injury time to deteriorate after initial stabilisation, and potentially capturing subsequent non-compensable issues) or that claimants attempt to include more aspects of injury in their initial assessment than they otherwise would, then it is possible that the top-up restrictions will have no real impact on ultimate claim numbers. This would equate to around a \$176 million strengthening on the OSC provision.
- Given the large number of claims that are still yet to be confirmed as having a WPI of 30% or over, if half of the 'potential' cohort remaining from ReturnToWorkSA's original profiling work are not ultimately confirmed in then the OSC provision would be around \$45 million lower.
- If half of the claims who currently have disputed a serious injury application decision are accepted as Serious Injury claims then the OSC provision would be around \$64 million higher.
- Somewhat similarly, if adverse legal precedent increases the number of Old Act claims accepted
  as serious injuries by 10 claims per year, and there is no reduction in claim numbers for recent
  accident years, then the provision would increase by around \$377 million.

Changes in the level of benefits payable for care, support and medical needs also have very significant implications for the OSC liability.



## 12.6 Key Uncertainties

A number of current factors mean there is more uncertainty than usual in our central estimate – primarily the uncertainty surrounding the impact of the changes introduced by the RTW Act.

The main areas of uncertainty in our estimates are:

- Legal precedent risk risks here include the possibility of decisions which are unfavourable to the scheme or the cultures and behaviours of its participants. In particular, recent decisions have gone against ReturnToWorkSA's interpretation of the WPI assessment rules and if maintained would lead to increases in the liability; these decisions are currently under appeal. On current timing, this risk is likely to remain for at least another year, and perhaps longer.
- WPI assessments under the RTW Act, there are significant differences between the compensation available to claims above the 30% WPI threshold and those below. This factor, combined with the new lump for future economic loss payable to Short Term Claims, means there will be increasing pressure on WPI assessments. The scheme will face significant financial consequences if this leads to either extra claims getting over the 30% WPI threshold and/or 'WPI creep'. Robustness of the 'once and for all' WPI assessment rules under the RTW Act is an important area of risk.

We note that there has already been some relaxing of these rules by Regulation, to allow the reintroduction of additional lump sums under some circumstances; if these rules do not operate as intended then the cost implications will be significant.

#### Serious Injury

- Life expectancy with benefits payable for life, the future life expectancy for Serious Injury claims has a significant impact on future cost projections.
- Cost escalation the potential for future cost escalation in a number of medical, care and treatment related items poses a risk. One example is the extent to which care costs which are currently not compensated by the scheme may become compensable in future, as family-based carers age and claimants increasingly require paid attendant care and/or residential care facilities. Another example is the potential increase in costs for care related specialists and facilities, if demand for these specialists outstrips supply (for example as the NDIS scales up in the next few years).
- **Ultimate numbers of claims** there are several areas of uncertainty in relation to claim numbers, including: the ultimate number of top-ups that are yet to emerge due to legislation changes, the impact the removal of top-ups will have on ultimate claim numbers and the number of claims from the 'potential' group that ultimately meet the 30% WPI threshold.
- Return To Work the potential improvements to scheme culture as a result of the new hard boundaries and Mobile Case Managers may encourage earlier RTW for Short Term Claims. Counter to this, adverse legal precedent may encourage further disputes and worse RTW experience leading up to the two-year boundary.
- Compensability and claim acceptance there was expected to be potential for further reductions in new claim numbers following changes to compensability rules, however current precedent suggests this is not going to eventuate. Regardless, it will be crucial to ensure that past closed claims cannot come back onto benefits for example, to ensure that past Work Capacity discontinuances or claims who have been discontinued at the two year boundary do not start new claims or 'restart the clock' following a short return to work.



- Outcomes for claims with current disputes risks here include the possibility of decisions
  which are unfavourable to the scheme, as well as the risk that settlements paid to finalise disputed
  claims may exceed the claims costs which would otherwise be incurred.
- Labour market pressures the combination of higher than desired unemployment and low wages growth present a challenging environment, and could place additional pressures on achieving RTW outcomes and holding the BEP at current levels.

Even though the RTW Act provisions commenced on 1 July 2015, there are still key areas of the Act being tested in the Courts. The current valuation basis reflects our best estimate of how this experience will eventuate, based on ours and ReturnToWorkSA's interpretation of the intent of the Act. Over time, our basis will further reflect the developing post-reform experience, and it is possible that the experience could differ, perhaps materially, from our current expectations.



## 13 Reliances and Limitations

Our results and advice are subject to a number of limitations, reliances and assumptions. The main ones are outlined below.

## 13.1 Reliance on Data and Other Information

We have relied on the accuracy and completeness of the data and other information (qualitative, quantitative, written and verbal) provided to us by ReturnToWorkSA for the purpose of this report. We have not independently verified or audited the data, but we have reviewed the information for general reasonableness and consistency. The reader of this report is relying on ReturnToWorkSA and not Finity for the accuracy and reliability of the data. If any of the data or other information provided is inaccurate or incomplete, our advice may need to be revised and the report amended accordingly.

## 13.2 Uncertainty

## 13.2.1 Mitchell Decision and other Supreme Court matters

Realising the expected long term financial savings from introducing the RTW Act depends on the effectiveness of maintaining the boundaries in practice. Any legal precedent that causes 'slippage' in the application of the boundaries will have an unfavourable impact on scheme costs

Along with *Mitchell*, there are currently ten cases on appeal to the Supreme Court (or awaiting leave to appeal) – which is an unusually high number – and until these cases are resolved there will be uncertainty as to the financial costs which eventuate under the RTW Act benefit package.

Our assessment of the outstanding claims liability at December 2017 assumes the *Mitchell* precedent is overturned on appeal. If this is not the case, the outstanding claims liability would be materially higher than shown. This applies particularly to the serious injury and income support benefit types; we also expect that claimants would be incentivised to stay on benefits for longer to help establish higher WPI scores through 'add ons' to the original injury if *Mitchell* is maintained.

#### 13.2.2 Other Uncertainty

There is considerable uncertainty in the projected outcomes of future claims costs, particularly for long tail claims; it is not possible to value or project long tail claims with certainty. Our payment projections for Serious Injury claims, in particular, include payments which are expected to occur many decades into the future.

We have prepared our estimates on the basis that they represent our current assessment of the likely future experience of the scheme. Sources of uncertainty include difficulties caused by limitations of historical information, as well as the fact that outcomes remain dependent on future events, including legislative, social and economic forces, and behaviour by scheme stakeholders such as Corporation management, claimants and claims agents.

In our judgement, we have employed techniques and assumptions that are appropriate and the conclusions presented herein are reasonable given the information currently available, subject to our comments above. However, it should be recognised that future claim outcomes and costs will likely deviate, perhaps materially, from the estimates shown in this report.



The uncertainty at the current valuation is heightened by the need to allow for the impacts of the RTW Act. Its key features only came into effect from 1 July 2015, and legal testing of its implementation is still occurring and likely to take a number of years to complete.

Our valuation assumes a continuation of the current environment with allowance for known changes where we have been able to quantify or estimate the effects. It is possible that one or more changes to the environment could produce a financial outcome materially different from our estimates.

## 13.3 Latent Claims

We have made no allowance for catastrophic aggregation of claims from latent sources (such as claims relating to asbestos) other than as reflected in the data and information we have received. Latent claim sources are those where the date of origin of a claim is many years before the claim is reported.

#### 13.4 Reinsurance

We understand that there is no reinsurance program in place in relation to any of the liabilities we have valued.

## 13.5 Limitations on Use

This report has been prepared for the sole use of ReturnToWorkSA's board and management for the purpose stated in Section 1. At ReturnToWorkSA's request, we consent to the release of this report to the public, subject to the reliances and limitations noted in the report.

Third parties, whether authorised or not to receive this report, should recognise that the furnishing of this report is not a substitute for their own due diligence and should place no reliance on this report or the data contained herein which would result in the creation of any duty or liability by Finity to the third party.

While due care has been taken in preparation of the report Finity accepts no responsibility for any action which may be taken based on its contents.

Finity has performed the work assigned and has prepared this report in conformity with its intended utilisation by a person technically competent in the areas addressed and for the stated purpose only. Judgements about the conclusions drawn in this report should be made only after considering the report in its entirety, as the conclusions reached by a review of a section or sections on an isolated basis may be incorrect.

This report, including all appendices, should be considered as a whole. Finity staff are available to answer any questions, and the reader should seek that advice before drawing conclusions on any issue in doubt.

Any reference to Finity in reference to this analysis in any report, accounts or any other published document or any other verbal report is not authorised without our prior written consent.



# 14 Scheme History

This section summarises the key events and changes in the scheme over the last ten years.

#### 2007-08

Changes to the Workers Rehabilitation and Compensation Act passed by the South Australian Parliament. The key aim was to place greater focus on earlier rehabilitation and return to work outcomes.

## 2008-09

Key components of the 2008 legislative changes commenced: earlier step-downs for IS claims; Work Capacity Assessment; changes to non economic loss payments; changes to the dispute resolution framework (including Medical Panels introduced); provisional liability.

### 2009-10

- Window' for continuation of redemptions under previous legislation closed 1 July 2010
- Replacement of IT system IDEAS with Curam
- Change to process for reimbursement of weekly payments to employers
- Initial projects commenced under the \$15 million Return to Work Fund.

#### 2010-11

Bonus/Penalty scheme for employer levies discontinued.

## 2011-12

Claims estimates introduced for all claims.

## 2012-13

- New employer payments scheme commenced 1 July 2012, with compulsory experience rating for medium and large employers, and optional 'retro paid loss' arrangement for large employers
- Second claims agent, Gallagher Bassett, commenced 1 January 2013 (Employers Mutual Limited had been the sole agent since 1 July 2006)
- Second legal service provider, Sparke Helmore, commenced 1 January 2013.

#### 2014-15

The **Return To Work Act 2014** was passed in late 2014, with major changes to the scheme and claimant entitlements. Key provisions took effect 1 July 2015.

The main features of the reforms, for claims occurring from 1 July 2015, were:

- A tighter link between employment and injury before compensation is available
- For Seriously Injured workers: ongoing benefits, reduced emphasis on RTW, access to common law benefits for economic loss



- Introduction of boundaries on claim duration for 'non-serious injuries': two years for weekly benefits and 12 months thereafter for medical costs
- New lump sum payment for loss of future earning capacity for non-serious injuries with WPI of 5% or more.

A number of **Regulations** in June 2015 impacted on the operation of the RTW Act. The changes related to pre-1 July 2015 injuries and allow:

- 'Top-up' payments for non-economic loss in limited circumstances; approval to seek further compensation was required before 1 July 2016
- Coverage of future surgeries and up to 13 weeks of IS benefits for existing non-Serious Injuries, even if surgery falls outside the standard time boundaries.

## 2015-16

The premium system was changed so that nearly all employers were subject to experience rating, but under a new and much simpler system.

