



## **Motor Accidents Insurance Board**

### **Tasmanian Economic Regulator Submission 2017**

20 February 2017

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## APPENDICES

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# EXECUTIVE SUMMARY

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## Background

In accordance with Section 24 of the *Economic Regulator Act 2009* (“ER Act”), the Tasmanian Economic Regulator (“the Regulator”) is investigating the pricing policies of the Motor Accidents Insurance Board (“MAIB”).

The Regulator is required to recommend maximum price changes for the MAIB premiums over the four years from 1 December 2017 to 30 November 2021.

As part of the investigation, the Regulator has requested a submission from the MAIB identifying:

- issues relevant to premium setting over the period 1 December 2017 to 30 November 2021, including any cross-subsidies; and
- forecast premium revenue and the scheme’s financial position.

This submission is intended to inform discussions of the MAIB's pricing policies in accordance with the investigation’s terms of reference. All issues listed in the terms of reference are addressed, with further background and supporting analysis contained in the appendices (a cross reference of information against the terms of reference is provided in Appendix O).

Throughout this submission, trends in various aspects of the MAIB’s experience are provided for financial years up to 30 June 2016, which is the most recent completed financial year. All projections incorporate claims and economic assumptions from the most recent actuarial review of the MAIB’s experience which was performed as at 31 December 2016.

The submission has been prepared by the MAIB with the assistance of Taylor Fry Consulting Actuaries.

## MAIB Purpose

The MAIB is the monopoly provider of compulsory third party motor accidents personal injury insurance in Tasmania under the *Motor Accidents (Liabilities and Compensation) Act 1973* (“MA Act”). It funds no-fault benefits including lifetime support for severely injured claimants requiring daily care. A claimant is eligible to receive common law damages where another motorist is at fault.

## Key developments since the 2013 (regulatory) pricing review

Over the four years to 30 June 2016, MAIB’s financial position has strengthened with highlights including:

- Investment returns and claims experience that were both better than target;
- After tax profits in each of the past four years, totalling \$442m;
- Dividend payments of \$222m;
- Funding ratio increased to 128%; and
- Premium reductions of 15%.

The most significant environmental, experiential and operational developments have been:

- **Registered Vehicles:** Continued steady growth in the number of registered vehicles.
- **Legislative reform:** To comply with the National Injury Insurance Scheme (NIIS) minimum benchmarks, some minor exclusions relating to interstate motorists have been removed.

- **Investment returns:** In the four years to June 2016, returns averaged 10.3% p.a. which was 4.6% p.a. above target. The MAIB has retained its long-term investment target of 3% in excess of wage inflation.
- **Target funding range:** A target funding range of 120% to 145% was adopted in 2014 (previous range was 120% to 125%). This wider range recognises the degree to which changes occur in investment returns (given the high weighting to growth assets) and outstanding claims liabilities (mostly through changes in bond yields). The previous range was too narrow; meaning it was very easy for the scheme's funding ratio to go outside the target range even under normal operating conditions.
- **Premium rates:** Class 1 premium rates were reduced by 7.4% in 2013-14 with a further 7.5% reduction in 2016-17. During 2014-15 and 2015-16 rates were not indexed. The Regulator's proposed relativity changes from the 2013 review have largely been implemented. Class 6 is the only class where the recommendation has not been fully incorporated as, following a decision of the Government, there was no relativity increase in 2015-16.
- **Breakeven premium:** The breakeven premium for 2017-18 is \$223. This is 14% lower than the \$258 2013-14 breakeven premium (or 23% lower on an inflation-adjusted basis).
- **Claims experience:**
  - **Claim numbers and frequency:** Experience has continued to improve with steady numbers of general claims, fewer common law settlements and fewer Future Care claims. When combined with increasing vehicle registrations this has resulted in reductions to claim frequency.
  - **Claim Costs:** Claims inflation has generally been at or below forecast allowances. The impact of the 2012 Fair Work Australia decision has, to date, been lower than the allowance made when the decision was announced. A significant increase to hospital bed day rates was flagged in MAIB's 2013 pricing submission and incorporated into the projections. This matter required proactive negotiation by the MAIB with the Tasmanian Health Service (THS) to remove this continuing uncertainty. The MAIB and the THS have agreed a phased increase in bed day rates over the next four years, providing a transition to the increased costs and reducing the potential for a step increase in the MAIB's costs and consequential premium instability.
  - **Economic Assumptions:** Government bond yields reduced significantly to June 2016 with the gap to wage inflation being at very low levels. This has increased the liabilities significantly. Since September 2016 yields have increased but are still low compared to historical levels.

## Premium setting methodology

The MAIB aims to achieve a sustainable commercial rate of return that maximises value for the State, while having regard to the economic and social objectives of the *Government Business Enterprise Act 1995* ("GBE Act"), recognising the long term risk profile of the MAIB and meeting the needs of all stakeholders.

In this context, the appropriate methodology for calculating premiums for the MAIB is to:

- set a "breakeven premium" – the amount required to cover the cost of claims experience;
- add an appropriate profit margin to cover the risks associated with providing insurance and to be consistent with the GBE Act requirement that the MAIB achieve a commercial rate of return;
- provide the MAIB with sufficient indexation to meet primary costs and allow for the considerable uncertainty in the operating environment which can have significant impacts on the MAIB's capital position; and
- allow the MAIB to continue its responsible approach to premium setting and only increase premiums as required by claims experience and cost changes.

## Recommendations

The MAIB makes the following recommendations in relation to premiums for the four years from 1 December 2017 to 30 November 2021:

- 1. Premiums for 2017-18:** Except for the changes to vehicle class relativities as described in recommendation 3, the MAIB recommends that there is no indexation of premiums and the 2017-18 premiums remain the same as those charged in 2016-17.

Without indexing premiums, the MAIB is projected to achieve a profit margin of 10.5% which is close to the target margin of 10%.

- 2. Maximum premium increases for 2018-19 to 2020-21:** The maximum allowable level of indexation should be Australian Average Weekly Ordinary Time Earnings ("AWOTE").

Allowing indexation up to AWOTE provides flexibility to increase premiums to meet claims inflation. As evidenced by past experience, MAIB has not indexed premiums unnecessarily and allowing a maximum rate of indexation at the rate of AWOTE may not translate to actual increases at this level. However, additional threats to premium rates remain over the next four years including:

- Claim frequency: Lower claim frequency across all benefit classes has allowed a reduction in premiums of 7.5% in 2016-17. The current projections allow for ongoing reductions in claim frequency which means that the projected profit margins have effectively already incorporated a reduction of 2% p.a. in the cost per vehicle.
- The Australia-wide roll-out of the NIS together with the National Disability Insurance Scheme (NDIS) may pose challenges for the Scheme including cost pressures from increased demand for carers and specialist service providers, particularly for carers with experience in managing support for people with catastrophic injuries.

- 3. Changes to premium relativities:** To reduce cross-subsidies and more closely align the premiums charged to the projected cost of claims, the following changes are proposed:

Class	Proposed relativity *	Proposed change in relativity
Motorcycles (Classes 4, 5 and 20)	1.70	Increase of 0.19
Taxi or Chauffeured Hire Cars (Class 6)	3.50	Increase of 0.10
Motor Trade Plate (Class 14)	1.00	Decrease of 0.06
Farm Tractor (Class 15)	0.30	Decrease of 0.08
Medium Passenger Vehicles (Class 16)	1.25	Decrease of 0.09
Small Motorcycle (Class 17)	0.60	Increase of 0.10
Off Road and Recreational Vehicle (Class 18)	1.00	Increase of 0.24
Special interest vehicles (Class 22)	0.25	Decrease of 0.07

*\*For some classes the proposed relativity changes may be phased in over the next four years.*

- 4. Pensioner Discounts:** No change to the entitlement to or quantum of discounts.

The discounts offered to pensioners cost \$6.2m annually, and may increase as the number of retirees increases. The discounts are provided for social policy reasons as motorists who receive the discount do not have lower claim costs. This means that motorists who receive discounts are being subsidised by other motorists.

- 5. Loadings for periodic premiums:** The current surcharge of 3% for half yearly registrations and 6% for quarterly registrations to remain unchanged.
- 6. The number of vehicle classes:** No change to the number of vehicle classes.

Tasmania has a similar number of classes to other Australian jurisdictions and while it may be possible to consider reducing the number of classes with limited impact on premiums, having fewer classes would make it more difficult to detect changes in trends within these aggregated classes. It could cause some disruptions with limited benefits for motorists and would restrict MAIB’s ability to charge different premiums in the future leading to unknown cross-subsidies.

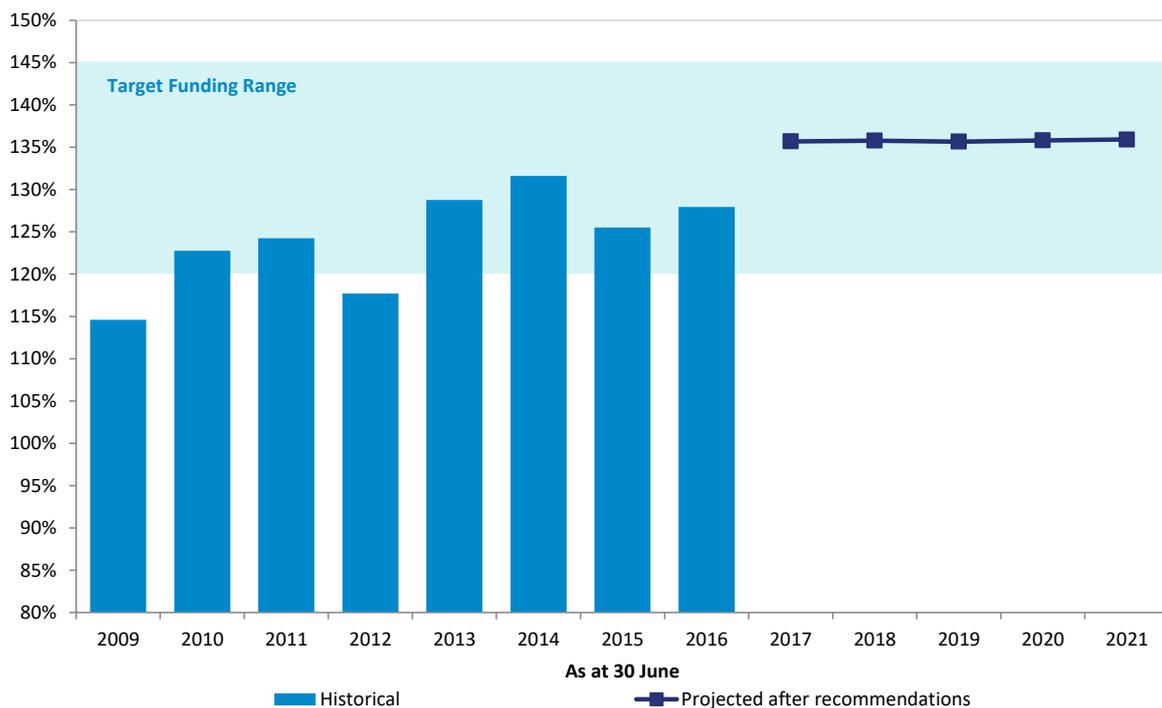
- 7. **Premiums for vehicles providing ride-sourcing services:** Without capturing additional information, allowing ride-sourcing vehicles to remain as a Class 1 vehicle is the most pragmatic solution for the time being and one that allows a new industry to develop.

The creation of a new premium class needs to be evidence based and until such evidence is available it is preferable not to create a new premium class, especially if it locks MAIB into premiums which do not align with the class’s actual level of risk. However, the MAIB suggests some flexibility in this approach if additional data becomes available from ride-sourcing operators which supported a material change in premiums prior to 30 November 2021, or as part of MAIB’s next regulatory submission.

### Impact of these recommendation on MAIB’s financial position

Over the past four years, the funding ratio increased to 128% at June 2016 and as a result of subsequent experience is projected to increase to 136% by June 2017. The chart below shows the projected funding ratio after allowing for the recommendations listed above.

Figure 1 Projected Funding Ratio



The funding ratio is projected to remain flat over the next four years. However, several risks to MAIB’s capital position remain, with the largest over the next four years relating to investment returns and bond yields. Investment returns are also one of the largest risks to the adequacy of premiums, and if returns are just 1% p.a. lower than expected this will reduce the profit margin from 10.5% to 5.0%.

# 1 INTRODUCTION

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## 1.1 Regulatory oversight of Motor Accidents insurance

Personal injury Motor Accidents “MA” insurance (or Compulsory Third Party “CTP” insurance) is compulsory for all motorists in Australia. This approach recognises the essential nature of road transport, a socialisation of the risks and costs across all motorists and provides an equitable system for personal injury arising from motor vehicle accidents.

Each state and territory in Australia operates its own MA insurance and from 1 July 2016 all jurisdictions also provide no-fault support for catastrophically injured motorists in accordance with the NIIS minimum benchmarks.

MA insurance is by nature a risky business and is considered one of the more volatile insurance classes. This risk, the essential nature of road transport, affordability and the need for stability are key issues which impact on pricing policies. In both the private and public sector MA insurance schemes in Australia, there is therefore a degree of government intervention/regulation in pricing of the insurance. This intervention is aimed at maintaining a degree of community rating, avoiding excessive profitability and maintaining relatively stable prices.

## 1.2 Terms of reference for this review

In accordance with Section 24 of the ER Act, the Tasmanian Economic Regulator (“the Regulator”) is investigating the pricing policies of the MAIB. It is the seventh investigation undertaken by the Regulator. The previous investigation was undertaken in 2013.

The Regulator is required to recommend maximum price changes for MAIB premiums over the four years from 1 December 2017 to 30 November 2021.

Section 31 of the ER Act lists the matters that must be considered by the Regulator and which this submission addresses. This includes:

- Describing the functions and other activities of the MAIB;
- Specifying the pricing policy of the MAIB including breakeven premiums and maximum prices;
- Information and analysis of premium relativities;
- Interstate benchmarks of other motor injury schemes;
- Forecast premium revenue, the scheme’s financial position and projected returns and dividends; and
- Community benefits and obligations.

In addition to the matters referred to in Section 31 of the ER Act, this submission must consider:

1. The scope and intent of the *Motor Accidents (Liabilities and Compensation) Act 1973*;
2. Whether any cross-subsidies exist in the current pricing structure and if they exist, the benefits/costs of retaining them;
3. An appropriate mechanism to remove these cross-subsidies should this be considered desirable;
4. The appropriateness of using insurance industry prudential requirements to measure sustainability;
5. The provision of funding by the MAIB to road safety and injury prevention;
6. The appropriateness of current claim liability valuations;
7. Loadings required on periodic premiums to ensure there is no net impact on MAIB’s revenue;
8. The future classification of vehicles that are used to provide ride-sourcing services; and
9. The appropriateness of the current set of vehicle classes.

## 2 STRATEGY AND OBJECTIVES

### 2.1 Core function

The MAIB administers the MA scheme in Tasmania. It is a no-fault scheme that funds a range of benefits (including medical costs and disability allowances) for those people injured as a result of a motor vehicle accident. It also allows for access to common law. The MAIB aims to achieve a sustainable commercial rate of return that maximises value for the State, whilst having regard to the economic and social objectives of the GBE Act, recognises the long-term risk profile of the MAIB and meets the needs of all stakeholders.

The core business activities of the MAIB are as follows:

- Assessment and payment of scheduled benefits in accordance with the requirements of the MA Act and the *Motor Accidents (Liabilities & Compensation) Regulations 2010*;
- Settlement of common law damages claims pursuant to the indemnity provisions of the MA Act;
- Setting of premiums in accordance with Part 4 of the Ministerial Charter;
- Investment of the assets of the MAIB; and
- Funding of motor accident injury prevention and management initiatives.

### 2.2 Vision, mission and values

**Vision:** To be highly regarded nationally in the provision of personal injury motor accident insurance.  
**Mission:** To provide an affordable and viable, personal injury insurance scheme which offers fair and equitable compensation for people injured in a motor accident.

All our work is undertaken in a manner that reflects our shared work **values**:

<b>Team Commitment</b>	<b>Flexibility and Adaptability</b>
<b>Community Awareness</b>	<b>Accountability</b>
<b>Respect, Understanding and Dignity</b>	

### 2.3 Strategic Direction

- **Financial Management:** Maintain a balance between premium income, the cost of claims and the requirement to achieve a sustainable commercial rate of return that maximises value for the State;
- **Claims & Rehabilitation:** Maintain best practice solutions to meet the challenges in providing no-fault insurance, including an efficient and effective claims management system;
- **Accident Prevention and Injury Management:** Pursue reductions in the number and severity of motor accidents in Tasmania, through contributions to road safety and injury management programs;
- **Service to Claimants:** Continually improve service to claimants and their families;
- **Business Systems:** Continually improve the efficiency, reliability and accuracy of business systems to increase business productivity, enhance customer service and support decision making;
- **Human Resources:** Maintain an efficient and well-motivated workforce capable of delivering quality client service; and
- **Social, Community and Environmental:** Meet the social, community and environmental responsibilities of the business and raise community awareness of the MAIB's contribution to the broader community.

Further background on the insurance market and MAIB operations is included in Appendices B to E.

## 3 OPERATING ENVIRONMENT

### 3.1 Key features of the MAIB

The MAIB is a statutory MA insurance scheme that operates as the monopoly provider in Tasmania. It provides coverage regardless of fault with a range of benefits including lifetime support for severely injured claimants requiring daily care. A claimant is eligible to receive Common Law damages where another motorist is at fault in causing the accident. The features are discussed in more detail in Appendix D.3.

### 3.2 Stakeholders

The MAIB is responsible to three main stakeholder groups in Tasmania and must balance the competing interests of those groups. All stakeholders have an interest in the continued financial viability and stability of the MAIB scheme.

**Table 3.1 MAIB stakeholder interests**

Stakeholder	Interest
Persons injured as a result of a motor accident, and their families	Quality service and appropriate levels of compensation
Motorists	Affordable and cost competitive premiums
General community (represented by the State Government)	A commercial rate of return on capital (as required by the GBE Act) and efficient use of that capital

#### 3.2.1 Results of client market survey

The MAIB commissions annual surveys of claimant satisfaction as part of its performance evaluation and to gather information which can be used to improve the efficiency and effectiveness of the organisation. The latest survey was completed in October 2016.

As part of the survey claimants scored aspects of service both in terms of their importance and the MAIB performance. The survey considered 4 key areas of customer service:

- experience with the claims officer;
- MAIB's documentation;
- MAIB's procedures; and
- rehabilitation issues.

The overall satisfaction result for 2016 was 85.25% which follows on from a result of 84.75% in 2015, both of which comfortably exceeded the 75% target.

### 3.3 MAIB's Experience

Key features of the MAIB's experience over the past four years include:

- Two premium reductions and no increases. The 2016-17 Class 1 premium of \$294 (excluding stamp duty) is below the premium paid in 2002-03;
- Continued steady growth in the number of registered vehicles;
- Stabilisation of claim numbers with associated reductions in claim frequency;
- Reduction in Common Law claim numbers;
- Fewer new Future Care claims and higher levels of mortality for existing Future Care claims;
- Reduction in bond yields to record lows (increasing the present value of liabilities);
- Above target investment returns for the four years to June 2016;
- Maintenance of the funding ratio within the target range despite low bond yields and dividend payments to Government (including a \$100m special dividend in 2014-15); and
- Achievement of a claimant satisfaction score of 85% (well above target).

### 3.4 Changes to MAIB's operating environment since 2013

Aside from the indexation of benefits payable, since the 2013 pricing review there has been one other material amendment to the MA Act and Regulations. As at 19 November 2013, the MA Act was changed to allow otherwise uninsured catastrophically injured non-Tasmanians who are injured in a non-Tasmanian vehicle whilst in Tasmania, to claim benefits from the MAIB if they otherwise qualify for daily care.

The past four years has seen the implementation of a number of initiatives such as the National Injury Insurance Scheme, relevant Fair Work Australia decisions, changes to hospital bed day rates and a new National Heavy Vehicle Regulator. This has reduced the uncertainty in those areas that confronted the MAIB in 2013.

#### 3.4.1 Changes to *Taxi and Hire Vehicle Industries Act 2008*

In 2012 Uber began offering a new approach to providing transport. Since then, Uber and other ride-sourcing operators have taken on an increasingly prominent role in the passenger transport sector. In many states, there are still decisions to be finalised relating to the regulation of the industry and the appropriate MA premiums the operators should pay. In 2016, the Tasmanian Government amended section 91E of the *Taxi and Hire Vehicles Industries Act* to allow people to use a vehicle as part of a ride-sourcing service. This also had the effect that the vehicles used will remain classified as a Class 1 vehicle.

There are fewer than 650 taxis / chauffeured hire cars in Tasmania (Class 6 vehicles), the premiums for which are currently 3.4 times the Class 1 premium. This differential may be queried from a commercial perspective as the ride-sourcing industry becomes fully established. The options for any further changes to the treatment of ride-sourcing vehicles are discussed in Section 10.2. However, agreed data reporting from ride-sourcing operators and further analysis is required before any potential changes can be considered.

#### 3.4.2 Autonomous vehicle testing and development

The current and future development in autonomous vehicles represents a technological challenge that the Scheme will need to manage. Tasmania does not currently have any trial sites so at present this is not an issue for MAIB. If testing did begin in Tasmania or if a Tasmanian registered vehicle was involved in an accident with an autonomous vehicle in another jurisdiction this could pose liability questions should the injured person seek common law damages.

## 3.5 Interstate comparisons

### 3.5.1 Scheme design

Table 3.2 summarises the key arrangements in each Australian MA scheme for new claims. For catastrophic (NIIS) injuries the table only relates to medical treatment and other support. Note that the table reflects the rules applicable to most claimants rather than considering all possible exceptions.

**Table 3.2 Comparison of key arrangements in Australian MA schemes**

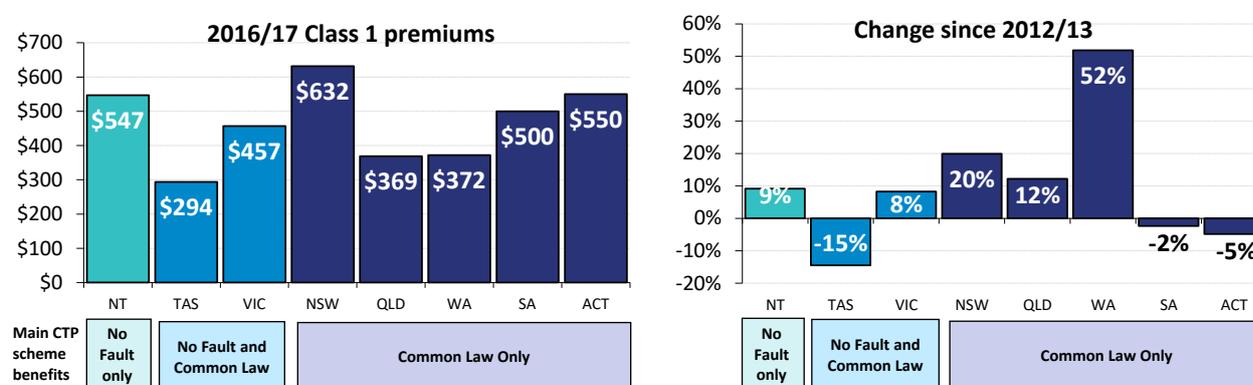
Injury type	TAS		VIC		NSW		QLD		SA		WA		ACT		NT	
	All	NIIS														
<b>Type of Insurer</b>																
- Public sector	✓	✓	✓	✓		✓		✓		✓	✓	✓	✓		✓	✓
- Private Sector					✓		✓		✓				✓			
<b>Benefits</b>																
- No Fault (periodic)	✓	✓	✓	✓		✓		✓		✓	✓		✓		✓	✓
- Common Law (lump sum)	✓		✓		✓		✓	✓	✓		✓	✓	✓			
<b>Government involvement in pricing</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

The main points to note from this table are:

- The compulsory nature of the insurance combined with the importance of remaining fair and affordable means that there is government involvement in pricing across all jurisdictions.
- Private sector insurers generally provide only common law benefits. This reduces their exposure to paying benefits over a very long time horizon as often occurs with no-fault benefits. In NSW, there are limited no-fault benefits of up to \$5,000 but this represents only a small proportion of overall CTP costs and therefore is not included in the table.
- All medical and support costs for catastrophic injuries are covered by the public sector on a no-fault basis. This is because the nature of the services provided more closely resembles disability support rather than traditional insurance. In Queensland and WA some catastrophically injured claimants have access to common law for their care and support needs depending on their level of fault.

### 3.5.2 Premiums (including catastrophic injury schemes premiums)

**Figure 3.1 Comparison of Class 1 (motor car) premiums across Australia**



Source: Scheme websites

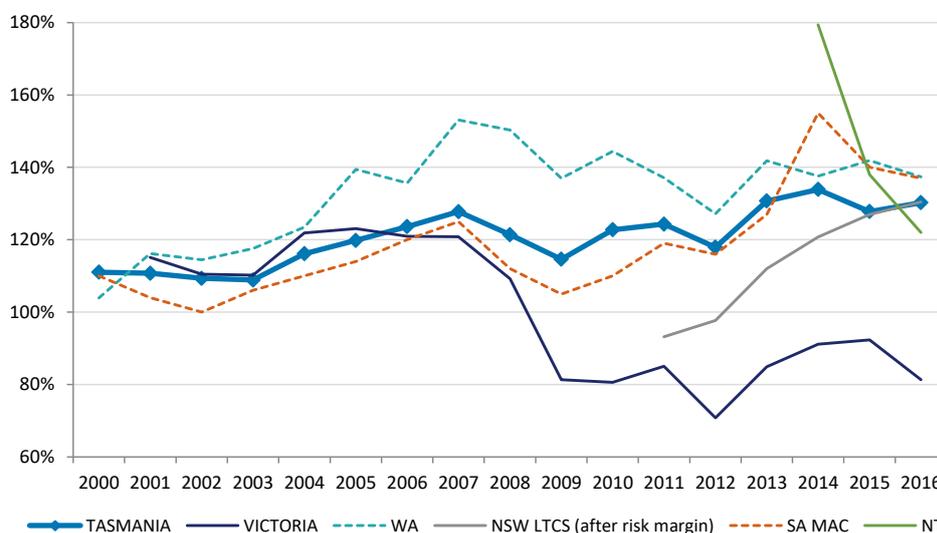
Tasmania’s premium for Class 1 vehicles is the lowest in Australia. Tasmania’s premiums are not only the cheapest but have also had the largest reduction in recent years, without any changes to benefits. The reduction in SA is largely attributable to changes in access to the scheme and benefits available as part of reforms in 2013.

The increases in Queensland and WA are largely attributable to their new catastrophic injury schemes, whereas the increase in NSW is due to the higher claim frequency which instigated the recent scheme review as discussed in Appendix E.3.

### 3.5.3 Scheme Solvency: Funding Ratio

In its simplest form the funding ratio is equal to assets divided by liabilities, although each scheme makes some modifications to this definition. The chart below compares the funding ratio for Australian MA schemes.

**Figure 3.2 Funding levels of centrally managed MA schemes**



MAIB’s funding ratio is similar to NSW LTCS and NT MACC but is below WA (ICWA) and SA MAC. Some points to note in interpreting the chart are:

- The Victorian scheme (TAC) suffered the largest deterioration in its funding ratio in 2009 and has yet to recover its capital position. The funding ratio for the TAC adjusts for several factors and currently excludes significant deferred tax assets<sup>1</sup> (which reduces their capital position).
- NSW LTCS scheme’s funding ratio has been increasing, and over the last two years it has been very similar to MAIB’s.
- ICWA’s motor accident fund has consistently had the highest funding ratio and is currently 137%, having peaked at 153% in 2007. ICWA targets a minimum funding level of 125% with a target of 135%. This is slightly higher than MAIB’s target.
- The increase in SA MAC’s funding ratio is partly owing to benefit reform.
- The reduction for NT MACC scheme in 2015 is due to the uncapping of attendant care hours and the payment of a \$140m dividend.

Further details comparing scheme design and recent experience for each scheme are in Appendix E.

<sup>1</sup> TAC 2015-16 annual report, page 7.

## 4 PREMIUM SETTING FRAMEWORK

### 4.1 Elements of the Scheme’s financial position

The MAIB’s financial position is largely determined by its experience in five main operational areas of claims, investments, administration, prevention & research programs and premiums. These areas do not operate in isolation, with the strong relationship between claims experience and future premium rates being a prime example.

Several different elements drive the outcome for each area. Some of these have a large impact on the Scheme’s financial position while others have a relatively small financial effect. The degree of control that the MAIB exerts over some of these elements can often be quite limited. Those elements which have a large financial impact and where MAIB has limited influence, become the Scheme’s largest risks.

**Table 4.1 Drivers of MAIB’s financial position**

Claims	Investments	Administration	Prevention & Research Programs	Premium
- Claim frequency	- Asset allocation	- Expenses	- Road Safety	- Breakeven cost
- Injury severity	- Market returns		- Foundation	- Profit margin
- Average claim size				- Indexation
- Claims inflation				- Registrations
- Bond yields				- Class relativities
				- Number of vehicle classes
				- Discounts & loadings

**MAIB’s financial position**

This submission is structured with this operational framework in mind and in accordance with the MAIB’s legislative framework. In addition, the submission examines developments relating to MA insurance in other Australian jurisdictions and the impact of other industry changes.

Although this submission considers many aspects of the MAIB’s operations and finances, its primary focus is on the premiums charged by the Scheme.

## 4.2 Premium recommendations considered in this submission

Decisions relating to future premiums can be categorised into two groups.

- **Aggregate premium decisions:** These decisions affect all premiums and in the context of this submission they include the average premium charged in 2017-18, the maximum level of future premium indexation and an appropriate profit margin.
- **Vehicle class decisions:** These decisions affect only a portion of motorists and include vehicle class relativities, the number of vehicle classes, discounts provided and periodic premium loadings.

This submission outlines the MAIB's recommendations in relation to these matters. Except for the 2017-18 premium (where two options are considered – one with indexation and one with no indexation) only the MAIB recommended positions are detailed in this submission.

The MAIB starts from the premise that claims costs and expenses will increase in line with wage inflation and therefore premiums should also increase at this rate. Wage inflation, measured by AWOTE, is considered to be the most appropriate index as the costs of most benefits depend on services (medical, care, economic losses) rather than goods. The cost of services is in turn driven by the costs of people providing them, the largest of which is wages costs, and increases in wage costs are reflected by AWOTE.

The Regulator determines the **maximum** rate at which premiums can increase. Historically this has been set to increases based on the annual change in Australian AWOTE (Tasmanian AWOTE is not considered a reliable data series and is therefore not recommended as the basis for indexation of the MAIB premiums).

Over the past ten years, actual indexation has been below this allowable maximum, however, this may not continue into the future if there are changes to claim frequency or if the cost of services increases at a different rate to overall wage levels.

Setting a maximum rate of indexation at AWOTE should provide sufficient flexibility for MAIB to set fair and reasonable premiums over the next four years including cases where claims experience deteriorates.

## 4.3 Response to the 2013 Regulator's Recommendations

### 4.3.1 Changes to premium relativities

The Regulator's proposed relativity changes have largely been implemented. Class 6 is the only class where the recommendation has not been fully incorporated as, following a Government decision, there was no increase in the relativity during 2015-16. This is discussed further in Section 9.1.

### 4.3.2 Horizon to return to target capital range

In 2013 the Regulator recommended that MAIB establish a time horizon over which it would anticipate returning to its target capital range.

MAIB has performed significant analysis to better understand the risks to its financial position. However, given the current funding ratio level the MAIB has not determined a formal policy for returning to the target range should it fall below this level. However, it is believed that a five-year horizon is reasonable in most circumstances. This is consistent with many of the measures used to set the target funding range as well as the policy employed by the TAC in Victoria.

## 5 CLAIMS

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The MAIB segments claim costs into Scheduled Benefits, Common Law and Future Care as these categories represent distinct cost or claimant groups which exhibit very different experience. Further details are provided in Appendix D.3 but, in summary, Scheduled Benefits cover periodic payments whereas Common Law costs mostly involve a single lump sum payment for claimants who were not at fault. Future Care costs relate to a small group of high cost claims that will require significant lifetime support. Separate examination of the trends in these groups provides a clearer picture of the MAIB's experience and risks, which allows the MAIB to be more responsive to managing the Scheme.

### 5.1 Claim frequency and injury severity

Since the 2013 submission, claim numbers have reduced with fewer general claims, common law settlements and Future Care claims. These reductions are despite registrations increasing by 10% and have resulted in a substantial decrease in claim frequency (claims per registration).

Due to their high cost, of most significance has been the reduction in the number of Future Care claims. Experience has been better than expected with only 14 new claims over the past four years. This resulted in a reduction in the expected number of annual Future Care claims from 8 to 6. This has resulted in liability reductions of \$135m and demonstrates the large savings achieved from preventing these types of injuries.

### 5.2 Average claim size and claims inflation

Over the past four years, average claim sizes have increased slightly below projected claims inflation (wage inflation plus superimposed inflation).

Since the previous review there have been two significant changes to the prices MAIB pays for services:

- **Hospital bed day fees:** For many years, the Tasmanian Health Service (THS) indicated that the fees that the MAIB paid for hospital services were too low and significant increases were imminent. In the 2013 submission, this was highlighted as one of the largest uncertainties when estimating the adequacy of future premiums. To remove this uncertainty, the MAIB proactively negotiated hospital fee rates with the THS, effective from 1 July 2016. The outcome of those negotiations is that fees will effectively double over the next four years with increases in excess of inflation of 25% in 2016-17, 33% in 2017-18 and 2018-19, and 9% in 2019-20. This has avoided a sudden shock to bed day fee costs and eliminated the on-going uncertainty about this element of the MAIB's cost base. These increases had already been allowed for in previous liability and premium rate calculations and hence had no net impact on the actuarial projections.
- **Attendant care rates:** In February 2012, Fair Work Australia (FWA) announced increases in the award wages paid to the social, community and disability services industry. This was implemented via above inflation increases in the Awards relating to attendant carers each year until 2021. The extent of the increase varies by the level of experience of the carer and MAIB has negotiated increases in the rates it pays to its services providers. MAIB pays a fixed hourly rate to providers and it is up to the provider to manage that fee to cover the Award conditions. To date additional yearly increases of \$0.98 in the contracted hourly rates paid by MAIB have been required to cover the FWA decision. This increase has been close to, but slightly less than, the initial allowances made to the liabilities and breakeven premium.

The increases for hospital bed day fees and the FWA decision have explicit allowances in the valuation and premium projections. In addition, the projections include allowances for potential increases in costs above inflation from yet unknown sources, this is known as superimposed inflation. Based on past

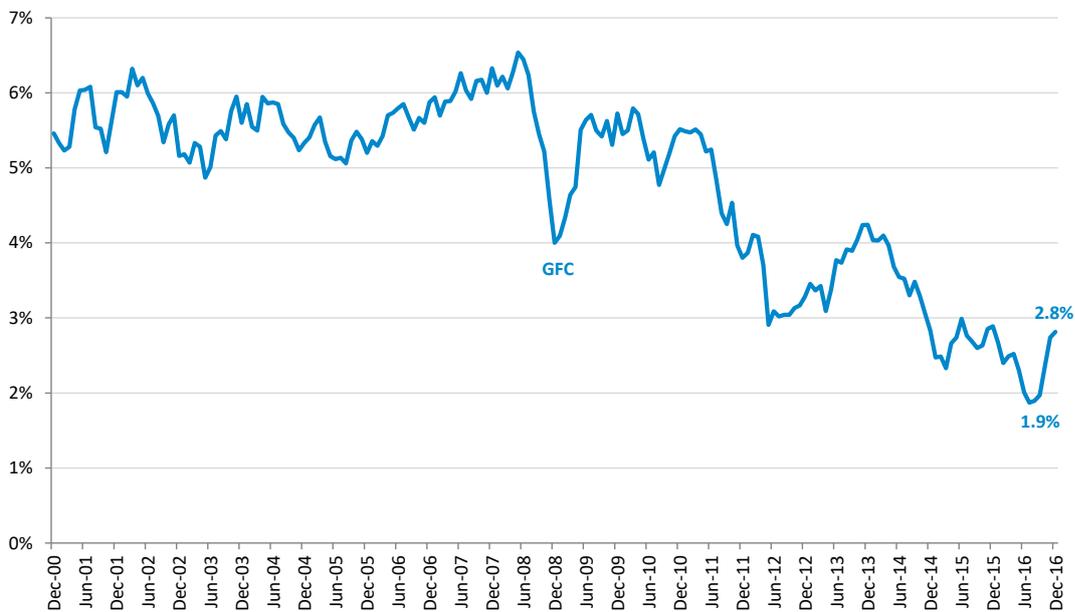
experience and future expectations, the projections allow for superimposed inflation of 1.5% p.a. for Scheduled Benefits and Common Law costs with no allowance for Future Care costs.

### 5.3 Bond yields

The outstanding claims liability is the amount MAIB holds to cover future claim costs for accidents which have already occurred. This liability is set in accordance with Australian Accounting Standard AASB 1023 which requires the liability to be calculated as the net present value of the outstanding claim payments using risk-free interest rates. Commonwealth Government Bonds are used as the basis for measuring the risk-free rates and hence the liability is highly sensitive to movements in bond yields.

A range of bonds are used to set the interest rates for discounting the outstanding claims liability. However, the trend in the ten-year bond yield provides a good guide as to the movement in the overall risk-free rate that is most relevant for MAIB. Government bond yields have reduced significantly since the previous submission, reaching a low in July 2016 when the ten-year yield fell to 1.9%. However, since then the ten-year yield has increased to 2.8%, although this is still low by historical standards.

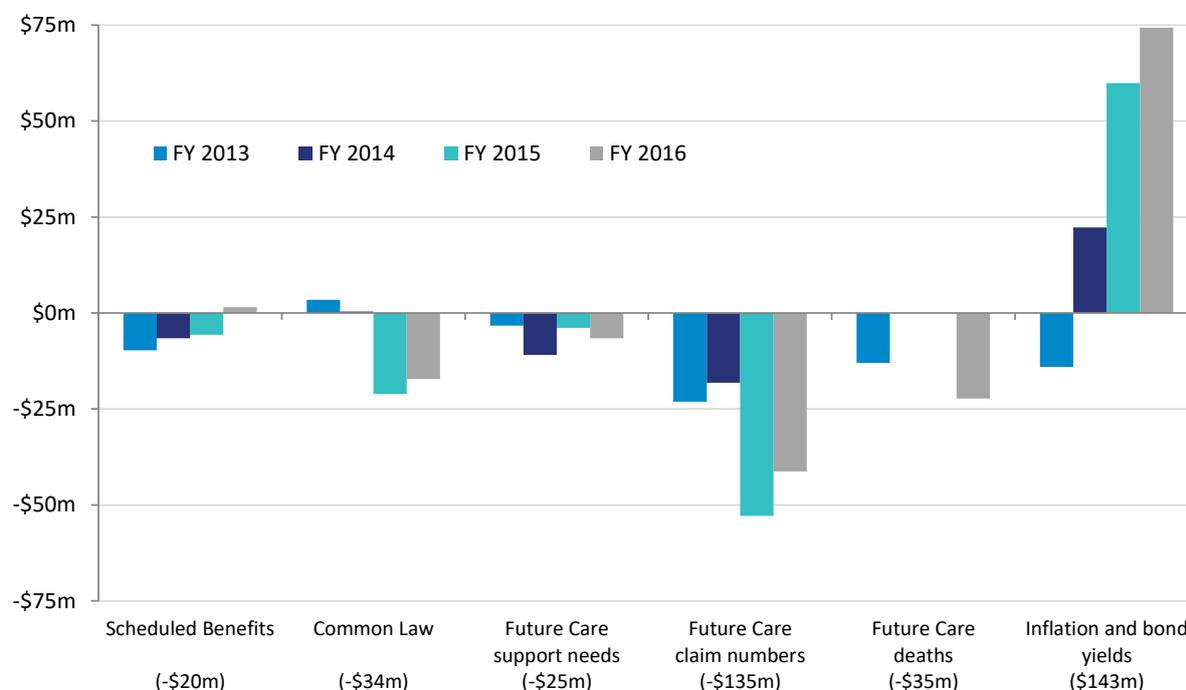
Figure 5.1 Australian ten-year government bond yields



## 5.4 Impact of changes to the outstanding claims liability

The following chart shows the impact of different changes in the MAIB's liabilities for the four years to June 2016.

Figure 5.2 Sources of changes in projected liabilities over the past four years



The key changes in the liability over the past four years are:

- Generally favourable experience for Scheduled Benefits, Common Law and Future Care support needs. This reflects underlying reductions in claim frequency, improvements in claims management and the later than expected increase in hospital bed day fees.
- The low number of Future Care claims has resulted in the expected number of annual Future Care claims reducing from 8 to 6. On average, each Future Care claim costs more than \$7m (when valued using Australian accounting standards) so even small reductions in claim numbers have a large impact on the Scheme's liabilities.
- The lower bond yields have increased the present value of MAIB's liabilities. This is not something that the MAIB has any control over and changes in economic conditions and interest rates will affect future bond yields.

The results for the 2017 financial year will not be known until after 30 June 2017, however, the mid-year valuation performed using data as at 31 December 2016 showed an \$86m reduction as a result of the higher bond yields but minimal changes in the underlying projected cost of claims.

## 6 INVESTMENTS

### 6.1 Importance of Investment Income

Premiums are received at registration and accumulate investment earnings to meet future payments for claims arising in the period of cover. The claim payments may be made relatively quickly after the accident (in the case of minor claims), or over a very long period of time (for example, where care costs are payable throughout the lifetime of a seriously injured young person).

Given the magnitude of investment assets and length of time before payment, the level of investment income is a key component to providing cost-effective insurance. Investment return objectives are balanced against the risks associated with earning that income to provide long-term real growth in the investment portfolio within acceptable bounds of risk.

### 6.2 Target investment return

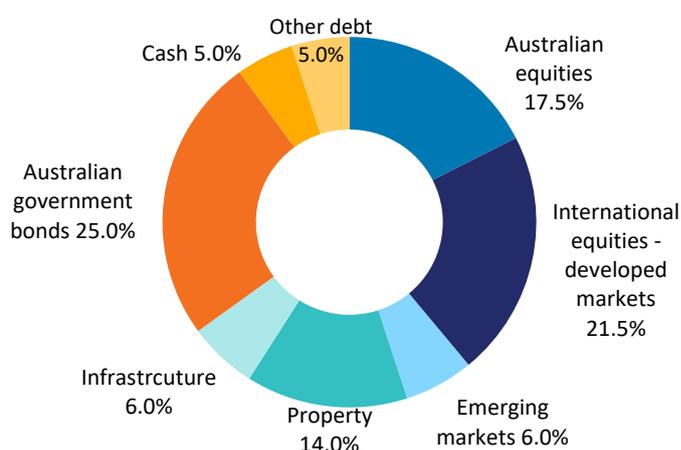
On average, payments relating to the outstanding claims liability will be made in 15 years. This results in a long-term horizon for the MAIB, requiring an investment strategy matched to the payment profile.

In conjunction with its investment consultant, Willis Towers Watson (WTW), the MAIB has established its target investment return relative to AWOTE. The target return is a “real return” as it is measured as a margin above AWOTE. Investments are structured so that over the long term, changes in AWOTE inflation will result in similar changes to investment returns with minimal net impact. Therefore, the absolute level of AWOTE does not have a material impact on the breakeven premium or projected financial positions.

Based on the profile of claim payments, the Scheme’s capital policy and the current funding level, WTW maintains a long term real rate of return of 3% p.a. above AWOTE as being appropriate, having regard to current and forecast economic conditions. This is unchanged from the 2013 TER review. In a presentation to MAIB in October 2016, WTW advised that MAIB’s current investment strategy has an expected real return of 3.1% p.a. over a 15-year period and that there is a risk that bond yields could remain ‘lower for longer’ which could lead to real returns reducing by approximately 0.5% p.a.

To achieve the 3% real return, following consideration of advice from WTW, an investment strategy comprising 65% growth assets and 35% defensive assets has been adopted.

Figure 6.1 MAIB’s strategic asset allocation



Given the long-term payment horizon, the allocation to growth assets (refer Figure 6.1) is expected to deliver higher investment returns over the longer term (although volatility in returns may be experienced over shorter periods) enabling lower premiums to be charged and strengthening the Scheme’s capital position.

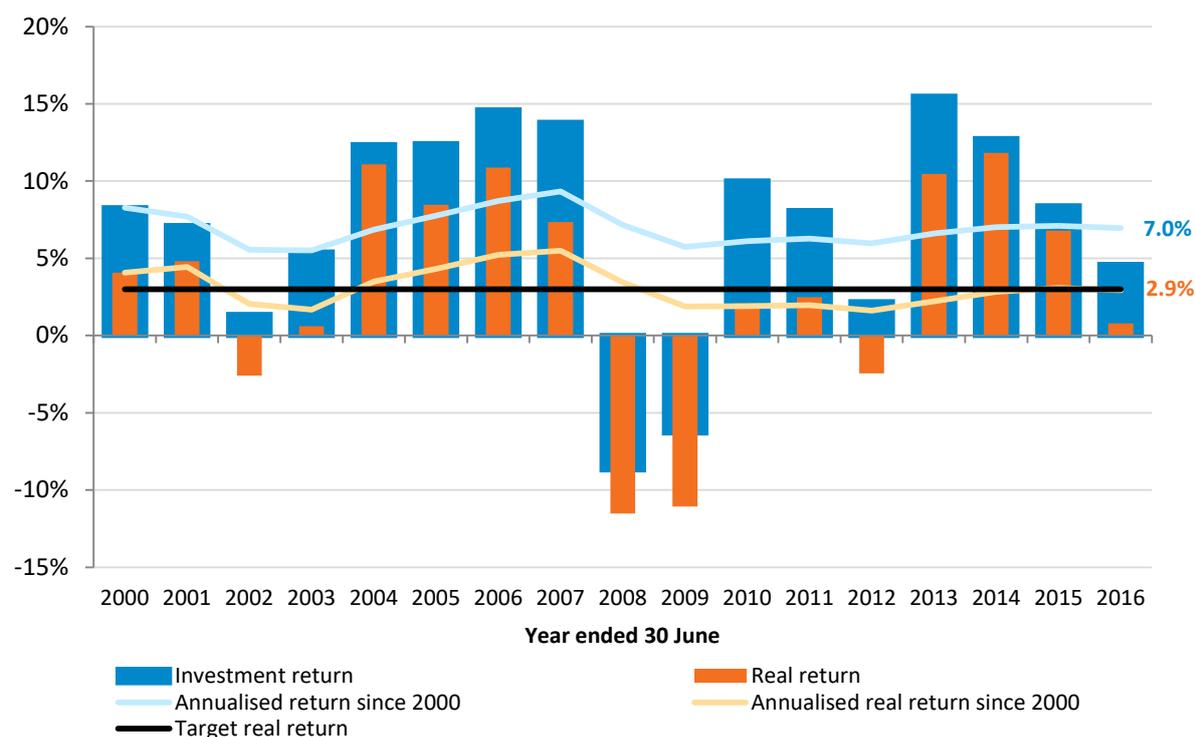
### 6.3 Past investment performance

Over the past four years the average investment return has been 10.3% p.a. which is 7.6% higher than wage inflation. MAIB has therefore exceeded its target of a 3% real return by 4.6% p.a. over that period.

However, as shown in Figure 6.2, this was not the case in any of the previous five years to 2012. Taking a longer-term view, since 2000, the real return on investments has been close to the 3% target, with MAIB achieving the annual target in nine of the past 17 years, including three of the past four years. The 2004 to 2007 and 2013 to 2015 periods are the largest contributors to the MAIB’s investment returns being close to their target.

The MAIB’s investment performance has only experienced two years with negative returns, being 2008 and 2009, which are offset by positive returns in other years.

Figure 6.2 Past actual and ‘real’ investment returns

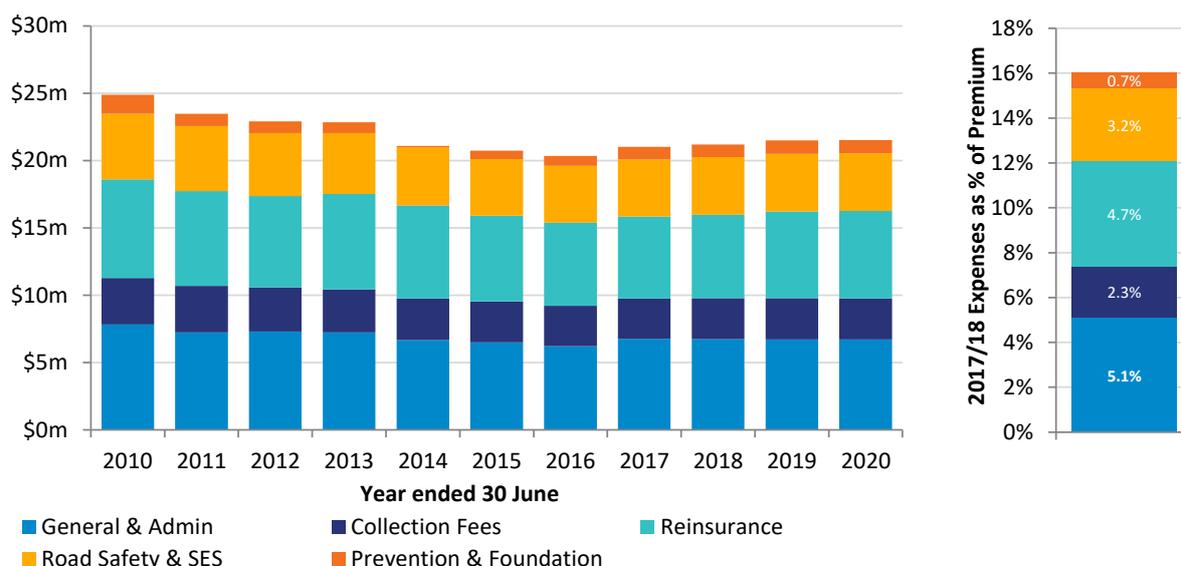


Significant uncertainty regarding the economic outlook remains over the next four years with the ramifications of the UK leaving the EU and a new US President just some of the forces that will have a large, but yet unknown, impact on investment markets and economic growth.

## 7 EXPENSES AND ROAD SAFETY INITIATIVES COSTS

The chart below provides a history of expenses and road safety costs incurred by the MAIB adjusted for past inflation. The different types of expenses are shown in shades of blue with road safety initiatives costs in shades of orange.

**Figure 7.1 Annual expenses and road safety initiatives costs in current values**



Overall expenditure has been stable from 2014 to 2016 at approximately \$20m with total future expenditure set slightly above this level. This equates to expenses and road safety costs of \$39.72 per policy which represents 16.0% of the \$249 average (net of GST) premium.

### 7.1 Expenses

Expenses have been relatively stable for several years and have grown slower than AWOTE. The key elements of these costs are:

- Annual administration and collection expenses have reduced from approximately \$10m to under \$9m in 2016. These costs are projected to be approximately \$9.7m in the future.
- Reinsurance costs are partly controllable by MAIB depending on the retention level. Reinsurance costs are projected to increase to about \$6.3m p.a. to allow for potential reinsurance premium increases.

Further details of the basis for setting expenses used in the breakeven premium calculation are provided in Appendix H.

## 7.2 Road safety initiatives

The MAIB funds a range of activities aimed at reducing the number and/or severity of injuries or which improve the management and rehabilitation of injuries. Budgeted road safety and other initiatives costs are set slightly higher than recent experience. For 2017-18 MAIB is expected to fund just over \$5m towards injury prevention and research which equates to \$9.77 per vehicle. These are discussed in more detail below:

### 7.2.1 Road Safety Advisory Council

Initiated in July 1996 to reduce road trauma through enforcement and mass media, the Road Safety Task Force was incorporated under the Road Safety Advisory Council in October 2010. Funds spent in an effective manner on accident prevention are an investment in reducing future claims and the costs associated with those claims.

The MAIB engaged Dr Jeremy Woolley of the Centre for Automobile Safety Research, University of Adelaide, to undertake evaluations of the RSAC every three years with the most recent being in 2014. These evaluations have been positive and concluded that there have been benefits for the Tasmanian community and that the RSAC has contributed to a reduction in serious injuries and road trauma.

Following the 2014 review, the MAIB accepted Dr Woolley's recommendation for a continuation of funding, with \$3.6m p.a. (indexed) committed for a further three years from 1 January 2015.

### 7.2.2 Injury Prevention and Management Foundation ("Foundation")

The Foundation was established under Section 13A of the MA Act with funding up to 1% of annual premiums. The Board assesses projects for funding based on merit and whether they meet the Foundation's objectives of research, education, or service development directed towards the prevention of motor vehicle accidents and/or the reduction in severity or management of injuries resulting from motor vehicle accidents. In 2015-16, the MAIB provided \$726,000 in Foundation funding.

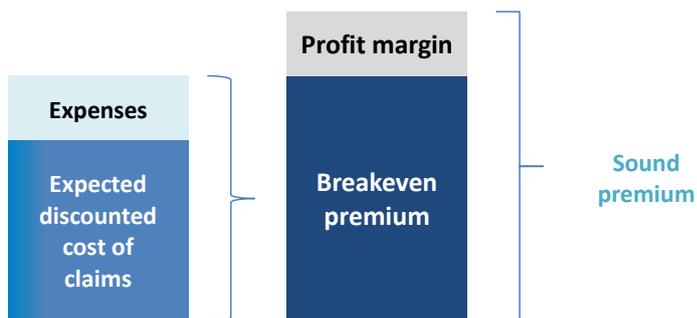
### 7.2.3 Other MAIB initiatives

- **Motorcycle Safety Strategy** - Initially, MAIB made a three year commitment of \$500,000 (in total) directed to a range of activities to enhance rider safety. The MAIB subsidised Motorcycle Road Skills Courses which have continued beyond the initial funding period with the use of unexpended funds. The take up rate has been modest with annual funding of only \$15,000 p.a. expected. The MAIB has also provided funding to the Tasmanian Motorcycle Council, Northern Motorcycle Riders Association and Ulysses club for various events and activities throughout the year that promote road safety.
- **Road Crash Rescue** - The MAIB funds the Tasmanian Fire Service (TFS) for extractions undertaken by the TFS involving MAIB claimants (part of the individual claim costs) averaging around \$400,000 per annum. The MAIB also provides annual funding of \$330,000 to the State Emergency Service to assist with its road rescue activities in rural areas.

## 8 AGGREGATE PREMIUMS

The overall premium collected allows for the **expected cost of claims** arising from incidents occurring during the period of coverage, **expenses** relating to collecting premiums, assessing and paying claims, payment of general overheads, and a **profit margin**.

Figure 8.1 Determining a sound premium

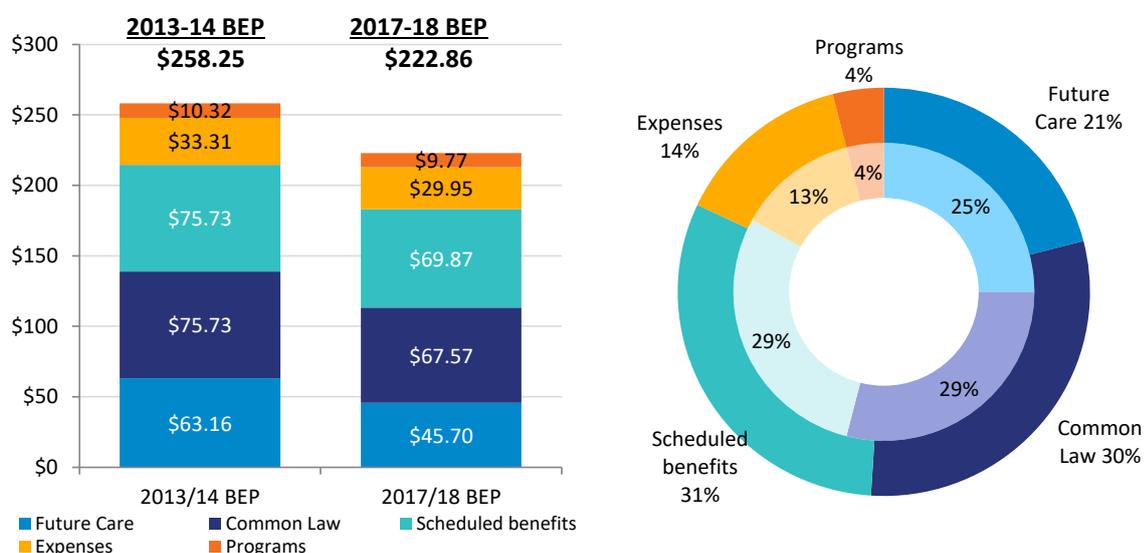


The “breakeven premium” is the amount required to cover the cost of claims and expenses. Consistent with the GBE Act, the actual premium charged should allow for a profit margin to cover the risks associated with providing the insurance and to achieve a commercial rate of return. Unless claims experience changes, in order to maintain profitability premiums will need to be indexed to claims inflation, which for the MAIB is most closely linked to AWOTE.

### 8.1 Breakeven premium

The estimated breakeven premium (BEP) for the period 1 December 2017 to 30 November 2018 is **\$222.86** (refer to Appendix F). The left-hand chart below shows the components of the BEP in dollar terms while the right-hand chart shows the percentage contribution. The outer ring represents the current 2017-18 breakeven premium and the inner ring with the lighter shading being the 2013-14 BEP.

Figure 8.2 Components of the breakeven premium



Compared to 2013-14, the breakeven premium has reduced by \$35.39 or 13.7% with the impact of claims inflation being more than offset by claim numbers (which reduced despite registrations increasing by 10%). This has reduced claim frequency (claims per registration) and hence the cost per vehicle. Had costs increased with AWOTE over the past four years, then the projected breakeven premium would have been \$291 therefore, in real terms the current breakeven premium represents a reduction of 23%.

In dollar terms, each element of the breakeven premium has reduced since 2013-14. Claim costs represent 82% of the total breakeven premium, a proportion that has reduced slightly since 2013-14. The most significant change is the reduction in Future Care costs which now represent only 21% of the BEP. This has resulted in Scheduled Benefits and Common Law making up a higher proportion of the BEP despite reductions in absolute terms.

The main reasons for the reductions in each type of cost are:

- **Future Care** has reduced by \$17.46. This is mostly owing to assumed average annual claim numbers reducing from 8 to 6, resulting in a \$15.79 (25%) reduction in the cost per vehicle. In simple terms, every Future Care claim costs each motorist nearly \$8. The remaining \$1.67 reduction is owing to claims inflation being more than offset by a change in the allowance for GST recoveries and growth in registrations.
- **Common Law** has reduced by \$8.16 which is attributable to fewer claims receiving a damages settlement. Since 2013 the number of settlements has reduced from 284 to 242. This has been partly offset by higher average settlement sizes.
- **Scheduled Benefits** claim numbers are slightly lower than the 2013-14 estimate despite the increase in vehicle registrations. This reduction in claim frequency has been partially offset by claims inflation over the past four years leading to a higher average claim size, resulting in a net reduction of a \$5.85.
- **Expenses and road safety initiatives** have reduced the breakeven premium by \$3.91. Over the past four years these costs have not exhibited any inflation but there is a reduction in the cost per vehicle as MAIB can spread the costs over a larger number of registered vehicles.

The details of the assumptions used to calculate the claims component of the breakeven premium are provided in Appendix G, while the expenses are discussed in Section 7.

#### Differences in assumptions between outstanding claims liability and breakeven premium

The main assumption differences in the estimation of the breakeven premium and the outstanding claims liability relate to the assumed investment earnings rate. Accounting Standard AASB 1023 does not apply to the setting of premiums and hence the breakeven premium calculation assumes that investment assets built up from premiums received will generate a return consistent with its target of 3% above AWOTE, rather than the lower risk free returns implied by Commonwealth Government bond yields.

## 8.2 Vehicle Registrations

Over the past four years the number of registered vehicles has increased by 2.5% p.a. which has increased the total number of vehicles by about 50,000 with associated premiums of \$12.5m. This has not been accompanied by increases in claim numbers which in turn leads to lower claim frequency and a lower cost per vehicle. Based on historic experience and future expectations, growth in registered vehicles is expected to occur at a rate of 2.0% p.a.

## 8.3 Profit margin

### 8.3.1 Target profit margin

**The MAIB targets a profit margin of 10%** of premiums. Based on the current target this is projected to achieve a return on capital of approximately 6.0% which is at the lower end or below what a commercial insurer might seek.

Chapter 5 of the 2013 report of the TER review discusses the basis for the Regulator's evaluation of an appropriate profit margin for the MAIB premium, with Section 5.2.2.1 concluding that a 10% profit margin was reasonable based on experience for other government CTP insurers. This is the same profit margin as per the 2009 review.

#### Target profit margin in other MA insurance schemes

The formulation of the target profit margin has considered information from other MA schemes, taking account of differences in scheme design and MAIB's exposure to Future Care claims which increase the uncertainty of costs.

There is limited publicly-available information regarding the profit margins set in other jurisdictions. Until 2012, NSW published the assumed profit margins used by its insurers (excluding catastrophic injuries) which indicated a profit margin of approximately 8%. However, lower than anticipated superimposed inflation over the past few years has shown that with hindsight the profit margins have been higher than was assumed when premiums were set<sup>2</sup>. Queensland's 2016 scheme review stated that historically an 8% profit margin has been assumed when assessing premiums<sup>3</sup>.

Victoria has a no-fault scheme and is more comparable to the MAIB. The most recent available information was from the 2006 Essential Services Commission review which noted that the TAC's target profit margin was 10%<sup>4</sup>.

### 8.3.2 Projected profit margin

The MAIB, like many public sector MA insurers has a profit margin target. In practice, the profit margin is an outworking of the premium charged rather than an explicit loading to the breakeven premium. When the implied profit gets above the target then premiums are reduced and when it drops too low then premiums may increase. Otherwise, premiums in public sector MA schemes tend to remain unchanged or are indexed with inflation.

Public sector schemes can take this approach because the insurance is compulsory and the schemes are monopolies, so there is an ability to avoid unnecessary volatility in premiums which is not available in most private insurance markets.

The expected average premium collected during 2016-17 is \$276.57. Once GST is removed and allowing for a 1% revenue shortfall (refer to Appendix L.3.2) the average premium from which MAIB will fund its operations is \$248.91. If there is no premium increase from 1 December 2017, the premium will contain an **average profit margin of \$26.05 or 10.5%**. This is close to the 10% target.

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<sup>2</sup> NSW Motor Accidents CTP Scheme "2015 Scheme Performance Report", page 26

<sup>3</sup> MAIC, Discussion Paper "A review of Queensland's Compulsory Third Party Insurance Scheme", 2016.

<sup>4</sup> Report of the Essential Services Commission, *Review of 2005-06 Transport Accident Charges; Report to the Minister for WorkCover*, April 2005.

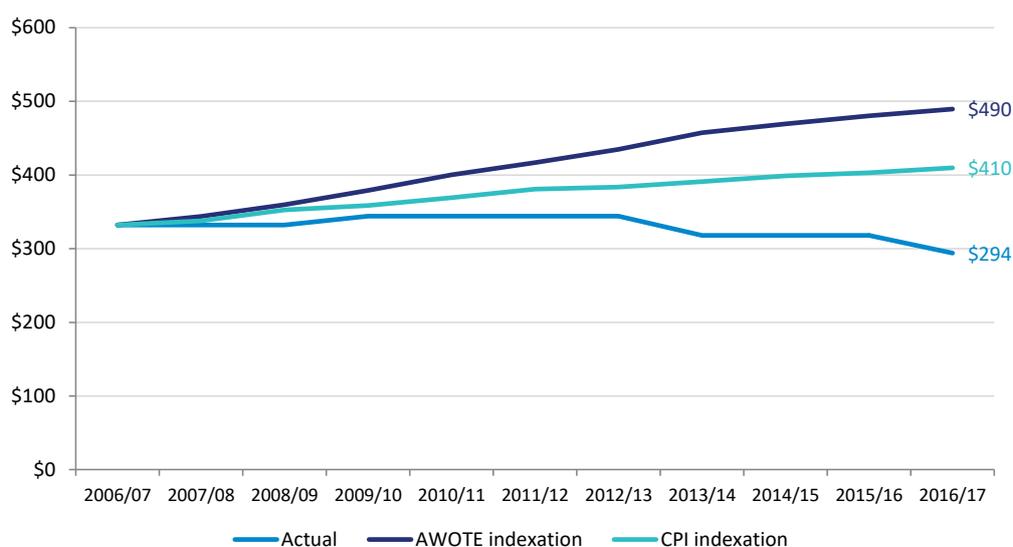
## 8.4 Premium Indexation

### 8.4.1 Historical indexation of premium

Over the past ten years, the Class 1 premium has reduced by 11% to \$294. In contrast, AWOTE indexation over this period would have resulted in a premium of \$490 and CPI indexation in a premium of \$410.

Not indexing premiums by AWOTE over the past ten years has saved Tasmanian motorists more than \$100m in 2016-17 alone with total savings over the past ten years of more than \$400m.

**Figure 8.3 Class 1 premiums charged since 2006-07 compared to premium indexation**



### 8.4.2 Future premium indexation scenarios

The table below summarises the expected after-tax profit margin and after-tax return on capital (“ROC”) from a single year’s premium in isolation under the two scenarios outlined in Section 4.2. In determining the ROC, target capital of 132.5% (the midpoint of the target range, 120% to 145%) has been assumed.

**Table 8.1 Single year premium net profitability and return on capital**

Premium Year	Pricing Scenario 1:		Pricing Scenario 2:	
	No premium indexation in 2017-18		Premium indexation in 2017-18	
	After-tax profit in premium	After-tax return on target capital	After-tax profit in premium	After-tax return on target capital
Dec 2017 - Nov 2018	10.5%	6.2%	13.1%	6.9%
Dec 2018 - Nov 2019	10.8%	6.3%	13.4%	7.0%
Dec 2019 - Nov 2020	11.6%	6.5%	14.2%	7.3%
Dec 2020 - Nov 2021	12.5%	6.7%	15.0%	7.6%

Under Scenario 1, the long-term profit inherent in each year’s premium is expected to increase gradually from 10.5% to 12.5%. The reason for the increasing returns is that premium inflation is expected to exceed actual inflation and any impact of superimposed inflation is more than offset by reducing claim frequency.

This translates to an after-tax return on target capital of approximately 6.2% to 6.7% and is below the 7.7% return which was calculated as part of the 2013 submission. The reasons for the difference to the 2013 submission are:

- Lower profit margin (10.5% vs 13.5%);
- Higher target funding ratio (132.5% vs 122.5%); and
- Lower valuation discount rate (4.10% vs 4.48%).

Under Scenario 2, indexing the 2017-18 premiums not only increases the premium for that year but flows onto higher premiums for all future years. This results in the expected profit margin being about 2.5% higher in each year and the ROC being 0.8% higher.

#### 8.4.3 Premium indexation recommendation

It is recommended that Scenario 1 be adopted, as follows:

- no premium indexation in 2017-18; and
- the maximum allowable indexation for the period 1 December 2018 to 30 November 2021 be in line with Australian AWOTE.

This option is forecast to produce a profit margin of 10.5% for 2017-18 (which is close to the 10% target) with the profit margin expected to increase towards 13% by 2020-21, mainly as a result of reductions in projected claim frequency. If vehicle growth was to slow to 1.25% p.a. then the projected reductions in claim frequency would be smaller and the profit margin would be expected to remain close to 10.5% over the next four years.

The MAIB's current funding ratio is the mid-point of its target range and under this option is forecast to remain at that level over the four-year period to 2020-21.

Scenario 1 provides the flexibility to increase premiums to meet claims inflation. As evidenced by experience, MAIB has not indexed premiums unnecessarily and allowing a maximum rate of indexation at the rate of AWOTE may not translate to actual increases at this level. This flexibility also provides for potential threats to premium rates from less than expected reductions to claim frequency and higher than expected impact on care costs from the full roll out of the NDIS.

#### 8.4.4 Potential changes to scheme access that would affect future premiums

There are some potential changes that could occur over the next four years that relate to access to the scheme. No allowance has been made for any of these changes, but the Regulator should be aware of them. They include:

##### A National Heavy Vehicle Scheme

Although it is not currently anticipated, heavy vehicles could have their MA insurance provided by a central authority rather than from each state which would reduce premium income by 4%, and result in a smaller number of vehicles over which to spread expenses.

##### Expansion of the National Injury Insurance Scheme ("NIIS")

While Section 3.4 outlines a small expansion in terms of access to the scheme, should the NIIS expand to include all accidents then many of the current exclusions may no longer be applicable. If this were to occur and the MAIB was required to fund any additional claims that involved a motor vehicle, but which are currently excluded from the Scheme, then the MAIB would seek to re-open the pricing submission with the Regulator as any such change would likely result in material change to the costs of claims.

## 8.5 Profit margin sensitivities

The 2017-18 profit margin of 10.5% is the best estimate based on currently available information. However, a number of uncertainties exist, the most important of which are shown in Appendix F.4.

The findings of this analysis show that:

- The costs of Scheduled Benefits, Common Law and expenses are known with a high degree of certainty and are not expected to have a significant impact on the profit margin unless multiple optimistic or pessimistic scenarios occur concurrently. There is generally more scope for pessimistic outcomes if experience were to return to levels observed several years ago, whereas the optimistic scenarios are typically based on more recent experience which is closer to the adopted breakeven assumptions.
- The profit margin is highly sensitive to changes in Future Care experience and investment returns. Each of the scenarios tested alters the profit margin by about  $\pm 6\%$ , and while Future Care numbers will be known within a few years, the cost of these claims and ultimate investment performance for this premium year will not be well known for several years. A real investment return of 1.3% p.a. would result in a nil profit margin and even lower returns would mean that the premium charged would be below the breakeven level.

Of the scenarios tested, no single scenario is expected to exceed the total best estimate of the profit margin. However, should multiple pessimistic scenarios occur then the premium charged may not meet the cost of claims and expenses.

## 9 VEHICLE CLASS RELATIVITIES

To date the submission has addressed the overall level of collected premiums. This section discusses the pricing structure. In multiple vehicle accidents, the costs are allocated (where possible) based on the level of fault of each vehicle. This is discussed further in Appendix J.2. This is consistent with the Regulator’s view as described in section 6.5.1.1 of the 2013 report.

### 9.1 Pricing changes since the 2013 review

Following the 2013 Regulatory review there was a 7.4% reduction to most vehicle classes with a further 7.5% reduction in 2016-17 and no change in 2014-15 and 2015-16. The 2016-17 premiums for all classes are shown in Appendix A and the history of premiums for Class 1 vehicles since 2000-01 is in Appendix I.

The Regulator recommended changes to the relativities for some vehicle classes in the 2013 review. These have largely been implemented and relativities for all other classes have remained unchanged since December 2013. Class 6 is the only class where the recommendation has not been fully applied as, following a decision of the Government, there was no increase in the relativity in 2015-16. A summary of relativity changes is shown in Table 9.1.

**Table 9.1 Changes to vehicle class relativities and actual premiums charged**

Vehicle Class	TER proposed 2016-17 relativity	Actual 2016-17 relativity	2012-13 premium	2016-17 premium	Change over four years
<b>4,5,20 (Motorcycles)</b>	1.51	1.51	\$442	\$445	\$3
<b>6 (Taxi &amp; chauffeured cars)</b>	3.50	3.40	\$1062	\$1001	-\$61
<b>16 (Medium passenger)</b>	1.35	1.34	\$543	\$395	-\$148
<b>18 (Off-road &amp; recreational)</b>	0.75	0.76	\$204	\$222	\$18

Medium passenger vehicles was the only class to have premium reductions in excess of those applied to Class 1 vehicles. Motorcycles and off-road & recreational vehicles were the only classes to experience increases in premiums over the last four years, but, in both cases, the increases were lower than AWOTE indexation. Reductions in the Class 1 (base) premium more than offset increases to the premium relativity for taxis, with the actual premium paid by taxis reducing over the past four years.

### 9.2 Proposed changes to vehicle class relativities

Class 1 and 2 vehicles both have premiums of \$294 and make-up over 80% of all registered vehicles. The expected average premium collected in 2016-17 is \$276.57 with the difference attributable to:

- 25% of Class 1 and 2 motorists receiving a 20% pensioner (and other concession) discount; and
- The average premium for Classes 3-22 being \$258, which includes several very low risk classes.

The proposed relativities, with supporting analysis for all vehicle classes are shown in Appendix K. The recommended relativities were influenced by the existing relativities, analysis of experience, previous recommendations, comments made by the Regulator, and premium relativities in other states. The classes for which a change is proposed are outlined in the following table.

**Table 9.2 Proposed changes to vehicle class relativities**

Class	Proposed relativity *	Proposed change in relativity
Motorcycles (Classes 4, 5 and 20)	1.70	Increase of 0.19
Taxi or Chauffeured Hire Cars (Class 6)	3.50	Increase of 0.10
Motor Trade Plate (Class 14)	1.00	Decrease of 0.06
Farm Tractor (Class 15)	0.30	Decrease of 0.08
Medium Passenger Vehicles (Class 16)	1.25	Decrease of 0.09
Small Motorcycle (Class 17)	0.60	Increase of 0.10
Off Road and Recreational Vehicle (Class 18)	1.00	Increase of 0.24
Special interest vehicles (Class 22)	0.25	Decrease of 0.07

\*For some classes the proposed relativity changes may be phased in over the next four years.

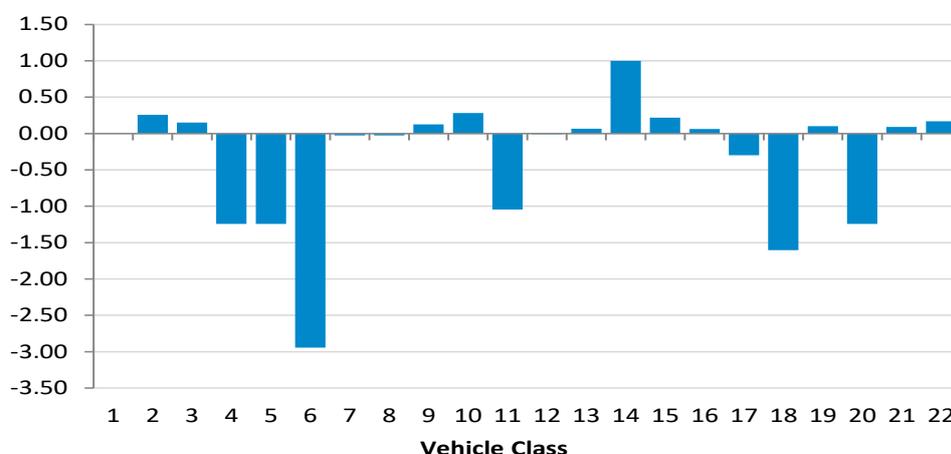
Over the next four years MAIB intends to investigate options relating to Class 2 (Light Goods) vehicles as the experience with Class 2 has been favourable compared to the premiums charged. However, there are practical issues in distinguishing some vehicles between Classes 1 and 2 and any reduction in the Class 2 premium may result in higher premiums for other classes. No changes to vehicle classifications are recommended.

### 9.3 Level of cross-subsidies

Cross subsidies can be intentional for policy reasons or inadvertent. There are several cross-subsidies in the MAIB’s premiums most of which are the result of the premium relativities responding slowly to changes in claims experience with a preference being shown for premium stability.

Figure 9.1 shows the difference between the adopted relativity and a purely experience based relativity. Over time the adopted relativities are moving closer to the observed experience, but without making large step changes to premiums this shift might occur over a prolonged period. Currently, there are six classes where the difference between the observed and adopted relativities is more than 1, which means in theory they are being undercharged by at least the equivalent of the Class 1 vehicle premium.

**Figure 9.1 Difference between adopted and experience based vehicle class relativities**



## 10 PREMIUM DESIGN

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The terms of reference require the MAIB submission to comment on a range of premium issues:

- The number of vehicle classes;
- The treatment of ride-sourcing services;
- Discounts; and
- Periodic premium loadings.

### 10.1 Number of vehicle classes

The number of classes in other states varies significantly and many are further segmented by region. In Tasmania, there are 22 vehicle classes, the third lowest in Australia (after NT and WA), whereas after accounting for regional prices NSW has 165 premium classes. On average in Tasmania, there are 23,000 vehicles per class, which is similar to the number in NSW and SA and higher than in the ACT and NT.

However, 90% of vehicles fall into just five premium classes and therefore in terms of premium sufficiency it is vital that these are priced correctly with the other classes having a relatively minor impact. Despite many classes containing relatively few numbers, any rationalisation at this point is likely to cause significant disruption to some motor vehicle owners for very limited benefit and no overall gain for the Scheme.

Previous reviews have considered the number of motorcycle classes and whether they should be rationalised given that three of them are charged the same premium. For motorcycles, NSW has five classes Victoria, SA and ACT have four classes while WA, Queensland and NT have only one. In states and territories with multiple classes there is no consistency as to the engine sizes that fall under each vehicle class, but in most jurisdictions each class is charged a different premium, except for ACT.

Consolidating Classes 4, 5 and 20 would have no current impact for those motorcyclists but it would restrict MAIB's ability to charge different premiums at a later date. Experience over the past eight years has been reasonably similar across the three classes however prior to this there were large differences in experience. Once classes are consolidated it would not be possible to compare experience between them. Aside from simplifying the system, having fewer classes provides minimal other benefits.

With the large differences between experience and premium relativities, even if future experience diverged between the classes, it is unlikely different premiums will be charged, but consolidation removes this option.

#### Recommendation

MAIB recommends no changes to the number of premium classes. Tasmania has a similar number of classes to other Australian jurisdictions and while a reduction in the number of classes would have limited impact on premiums, having fewer classes would make it harder to detect changes in trends within these aggregated classes. It could cause some disruptions with limited benefits for motorists and could restrict MAIB's ability to charge different premiums in the future which could lead to unknown cross-subsidies.

Further details are provided in Appendix E.2.

## 10.2 Ride-sourcing services

Under the terms of reference, the MAIB has been requested to comment on the appropriateness of creating a new premium class for ride-sourcing vehicles. Three options have been considered:

### 1. Remain as Class 1 vehicles

As discussed in section 3.4.1, in 2016 the *Taxi and Hire Vehicles Act* was amended to effectively allow ride-sourcing vehicles to be classified as Class 1 vehicles. This is the simplest option and provides the cheapest premiums to ride-sourcing operators (“RSOs”). It does however provide an explicit advantage to RSOs over traditional taxis and could result in them not paying a premium commensurate with their level of risk. There is little doubt that if the status quo remains, there will be pressure from the taxi lobby to also only pay a Class 1 premium. This would mean further under-payment of premiums compared to their claims experience, but such a change would cost MAIB \$0.5m annually which is less than 0.3% of total premiums.

### 2. Create a new premium class

Creating a new premium class at present is problematic as:

- There is no data upon which to set the premium relativity;
- There is no mechanism to verify that ride-sourcing vehicles are being registered to the new class;
- The usage of ride-sourcing vehicles is likely to change during the year; and
- There are some drivers who will only participate in ride-sourcing services for a short period.

If separate 2017-18 premiums for RSOs were to be charged, a likely range would be 1.5 to 2 times the Class 1 premium (based on the risk being somewhere between Class 1 and a taxi). Having a smaller increase would not make it worth changing and a higher relativity would be speculative. The lack of claims data for ride-sourcing drivers combined with a preference for premium stability over time is a significant issue.

### 3. Further analysis and a data driven premium

There are currently about 650 taxis in Tasmania but it is not clear how many people provide ride-sourcing services. This makes it difficult to quantify the size of the potential impact if many taxis change to ride-sourcing services and pay much lower premiums, now and into the future.

Currently there is no data being provided to regulators about ride-sourcing vehicle activities. Before any changes could be made, the MAIB would require all RSOs to provide (auditable) data on which vehicles are providing ride-sourcing services, when they are being used for this purpose and the number of kilometres driven per year. Currently, RSOs have no obligation to provide any data to the Government. This information could be used to understand what proportion of ride-sourcing vehicles are being operated like a taxi service and how their claims experience compares against other Class 1 Vehicles and against Class 6 vehicles.

If there are a sufficiently large number of RSOs who drive a high number of kilometres then it would be worth conducting further analysis as to whether this translated to higher claims costs. This would need to be extrapolated to allow for the ride-sourcing market to grow and mature over coming years.

If it was projected that there will be large number of ride-sourcing drivers operating very much like taxis and with high claims experience, it might be possible to create a new class. MAIB would then recommend if a single premium should be charged for this class or whether a distance based premium may be possible.

## Ride-sourcing services recommendation

It is currently recommended not to create a new vehicle class for RSOs. Without capturing additional information, allowing ride-sourcing vehicles to remain as a Class 1 vehicle is the most pragmatic solution and allows a new industry to develop. This is our preferred option for the next four years.

The creation of a new premium class needs to be evidence based and until such evidence is available, it is preferable not to create a new premium class, especially if it locks MAIB into premiums which do not align with the class's level of actual risk. However, some flexibility is suggested, particularly if additional data becomes available from ride-sourcing operators and this supported a material change in premiums prior to 30 November 2021, or as part of MAIB's next regulatory submission. Therefore, the key operational step to considering a new class is an agreement to obtain auditable and sufficient data from ride-sourcing operators.

### 10.3 Pensioner discounts

A discount of 20% is provided to pensioners. Discounts are available to:

- Recipients of a pension or allowance issued by Centrelink or the Department of Veterans Affairs;
- Health care card holders; and
- Members of the Transport Access Scheme.

Over the past four years, the number of vehicles with a pensioner discount has increased from 98,000 to 105,000, which is consistent with the overall growth in Class 1 and 2 registrations. Since 2012, the proportion of Class 1 and 2 vehicles receiving a discount has remained steady at 25% although this might increase as more baby boomers become eligible for discounts over coming years. Across the whole fleet, 21% of registrations receive a pensioner discount.

Table 10.1 compares the relative experience of pensioners to non-pensioners. It demonstrates that despite receiving a 20% discount, pensioners have a higher cost than non-pensioners.

**Table 10.1 Comparison of pensioner vs non-pensioner relativities**

Experience for Class 1 & 2 vehicles	Non-Pensioner	Pensioner	Relativity: Pensioner vs Non-Pensioner
Claim Frequency (per 1000 vehicles)	4.54	7.71	1.70
Average claim size	\$26,974	\$16,924	0.63
Cost per vehicle (excluding Future Care)	\$89	\$130	1.46
Cost per vehicle (including Future Care)	\$122	\$130	1.07
Cost per vehicle: 2012 review	\$99	\$176	1.77

Excluding Future Care claims, over the past four years the cost per vehicle for pensioners is 46% higher than for non-pensioners. The higher cost per vehicle is caused by higher claim frequency, which is consistent with the experience from the previous review (77% higher for pensioners).

Since there have been no pensioners with a Future Care claim over the past four years, the cost per vehicle for pensioners becomes 7% higher than for non-pensioners when all costs are included. However, just one Future Care claim for pensioners could change this result significantly. The much lower Future Care experience for pensioners may stem from older drivers being less likely to drive in a manner that would cause a catastrophic injury and/or if they were catastrophically injured their costs would be lower than an average Future Care claim.

In total the discounts given to pensioners are worth \$6.2m annually. These are funded by all vehicle classes, which increases premiums for non-pensioners by \$12.55 for Classes 1 and 2, and \$11 on average for other classes. This is deemed equitable as all motorists share in the social benefits of allowing people on pensions to better afford their car registration, rather than reflecting that pensioners are lower risk drivers. Victoria continues to provide a discount of 50% to a broad group of pensioners despite similar analysis suggesting the discount represents a cross-subsidy.

#### Pensioner discount recommendation

The MAIB does not propose any changes to the entitlement to, or quantum of, premium discounts.

### 10.4 Periodic Registrations

Periodic registrations were introduced for all vehicles with effect from 1 December 2001. A surcharge is applied to the periodic registrations to cover forgone investment income and the additional collection costs. The impact of periodic registrations is therefore revenue neutral for the MAIB.

The proportion of vehicles renewing periodically had been increasing steadily for Class 1 and 2 vehicles but has plateaued at 35%. From 2013, there was a large increase in the proportion of quarterly heavy vehicle renewals with a reduction in yearly and six monthly registrations.

The cost of foregone investment income and additional collection costs represent 3.2% of an average annual premium for half-yearly policies and 7.3% for quarterly policies. The reductions in premiums over the past four years with no change in the collection costs means that these calculated loadings have increased as a percentage since the 2013 review.

At present, quarterly policies are only available for heavy vehicles, and because of the premium relativity for this class, on a standalone basis the quarterly loading for heavy vehicles would be closer to 5%. However, there is the possibility of an extension of quarterly payments to other classes, including Class 1, which could have a significant impact on MAIB costs. Until certainty is provided on the future of broader periodic payments, the current surcharges should remain.

#### Recommendation

The MAIB recommends that the current surcharge of 3% for half yearly registrations and 6% for quarterly registrations remain. This provides the option to charge a more appropriate loading should quarterly registrations be offered to other vehicle classes aside from heavy vehicles.

## 11 FINANCIAL VIABILITY

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The financial viability of the MAIB depends on:

- Charging sound premiums at least equal to the estimated cost of claims and expenses;
- Sound claims management abilities, particularly in the areas of Future Care and Common Law;
- Supporting accident prevention initiatives;
- An effective investment strategy;
- An appropriate capital policy that recognises the variability of the business; and
- An appropriate dividend policy.

In this section, the MAIB's capital policy and its projected financial position under different premium options is discussed. In accordance with the GBE Act the rate of return that the MAIB is expected to earn is also analysed. Further background to setting and measuring the MAIB's financial viability is provided in Appendix L.

### 11.1 Capital Policy: Target funding range

The MAIB holds an appropriate level of capital for good governance and sound financial management. The MAIB's Board has determined that the consequences of insufficient capital are undesirable for all stakeholders. A capital adequacy target has been established to provide the MAIB with financial sustainability, maximising the probability of meeting Government expectations and pricing stability.

The MAIB has adopted the 'funding ratio' as its measure of capital adequacy, which is the ratio of assets (less deferred dividends and tax) to claim-related liabilities. A funding level of 100% means that the Scheme's funding assets are equal to its insurance liabilities.

A target funding range of 120% to 145% was adopted in 2014 (replacing the previous range of 120% to 125%). The wider range recognises the degree to which changes occur in investment returns (given the high weighting to growth assets) and outstanding claims liabilities (mostly through changes in bond yields). The previous range was considered too narrow; meaning it was very easy for the scheme's funding ratio to go outside the target range even under normal operating conditions.

The analysis used to determine the new funding range indicated that starting at a 120% funding level there was a less than 15% probability of falling to a 100% funding level in five years' time. It also showed that if the scheme's funding was at the midpoint of the range, there was approximately two-thirds chance that it would remain within the target range after five years. The target funding range has changed over time with generally higher levels of capital sought. This reflects the fact that making up for any deficit via premium increases has become progressively more difficult over time, as the liabilities have increased significantly as a multiple of the annual premium.

The Australian Prudential Regulation Authority (APRA) sets minimum capital requirements for private sector insurers. Although the MAIB is not governed by APRA, the MAIB's capital policy represents an appropriate compromise between the requirements of a private insurer and that of a government monopoly insurer.

The long-term nature of the MAIB's liabilities, combined with investment assets in excess of \$1.5 billion and a minimum funding ratio target of 120%, means that if the funding ratio dropped below this threshold, the MAIB would have several years during which it would be able to restore its financial position without affecting its ability to pay claims. Being a compulsory monopoly insurer, adopting APRA's framework would not bring any additional benefits and may require a further increase in the minimum target funding level. Additional information is provided in Appendix M.

## 11.2 Projected financial position

This section provides a summary of projected returns on capital for the MAIB under the two indexation scenarios described in Section 4.2. These projections combine the future business projections with the existing financial position of the MAIB and the run-off of the existing claim liabilities. As such, they are an amalgamation of the profitability of past, current, and projected future premiums and investment returns.

Detailed financial statement projections are included in Appendix N.

### 11.2.1 Forecast return on capital

Table 11.1 shows the Scheme's after tax returns on actual and target capital (the returns in Section 8.4.2 relate to a single year's business only). The return on Target Capital enables a comparison between years, as it removes the effects of capital being above or below the target. Since the target capital is currently slightly lower than the MAIB's actual capital, the target returns will tend to be higher.

**Table 11.1** Forecast after-tax profit as a % of actual and target capital

Year end 30 June	Scenario 1		Scenario 2	
	Actual Capital	Target Capital	Actual Capital	Target Capital
	% p.a.	% p.a.		
2009	-5.0%	-5.2%		
2010	30.5%	23.1%		
2011	18.5%	15.9%		
2012	-10.6%	-7.1%		
2013	47.6%	38.2%		
2014	28.9%	27.7%		
2015	21.7%	20.8%		
2016	15.2%	13.7%		
2017	26.7%	26.0%	26.7%	26.0%
2018	8.2%	8.4%	8.4%	8.7%
2019	8.0%	8.3%	8.4%	8.8%
2020	8.5%	8.8%	8.9%	9.3%
2021	8.7%	9.1%	9.2%	9.6%

The main conclusions to be drawn from Table 11.1 are:

- The compound average return on capital from 2009 to 2016 was 16.8%, with strong investment performance and favourable claim experience including liability reductions for older accidents.
- Indexing premiums from 2017-18 (Scenario 2) increases the return on capital by about 0.4% p.a. (and 0.5% p.a. using target capital) compared to not indexing 2017-18 premiums (Scenario 1).
- The variation between the expected and actual investment return will be a key factor affecting whether profitability is above or below the projected level. The volatility of past investment returns may be expected to continue in future, with resultant fluctuations in future year's returns on capital.

The returns on capital in Table 11.1 are heavily influenced by past premiums, their level of profitability and the MAIB's actual investment returns. Short term premium increases have a limited impact on these returns on capital. In terms of assessing the merits of a single premium year, the expected return on capital, shown in Section 8.4.2, is a more appropriate measure. The results from Table 11.1 should be used as a supplement in terms of understanding the wider implications of decisions to the Scheme as a whole.

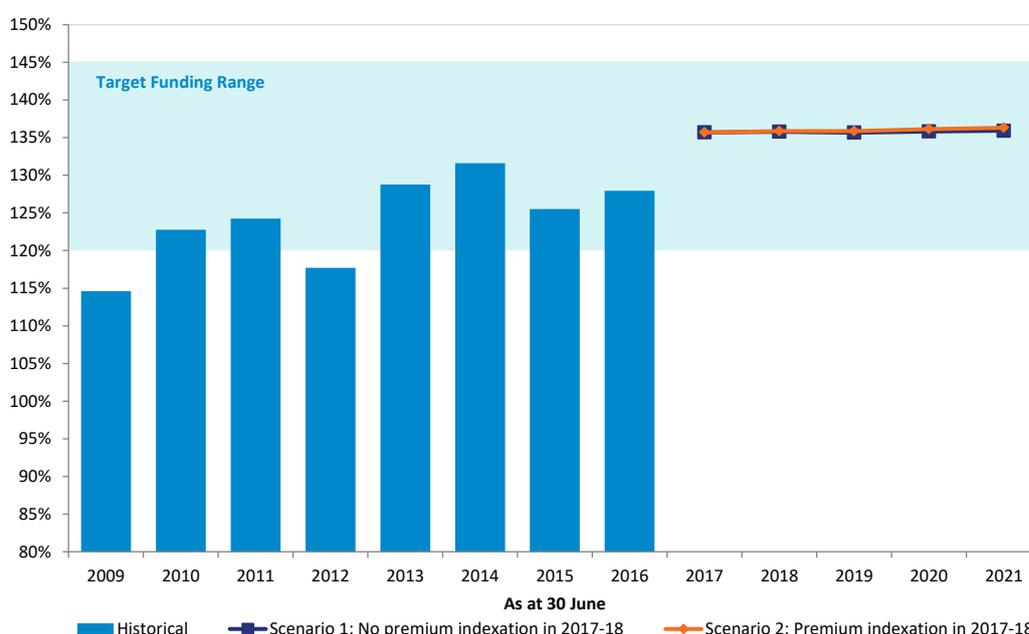
### 11.2.2 Forecast capital position

Since 2000 the MAIB has maintained a funding ratio above 100% and since exceeding 115% in 2004, the only time it has dropped below this level was in 2009.

At June 2016, the funding ratio was 128%, just below the midpoint of the target range. From June to December 2016 the MAIB has had strong investment returns and, when combined with higher bond yields (which reduce the present value of the outstanding claims liabilities), MAIB's forecast funding ratio at 30 June 2017 is projected to be 136%. This is consistent with investment market volatility being the key driver of changes in funding over the short term. However, as shown in Figure 6.2, over the long term, investment performance tends to smooth out short term market volatility and ultimately, changes in the funding ratio will be predominantly driven by claims experience and premium rates.

The chart below shows the projected funding ratio under the two premium scenarios.

Figure 11.1 Forecast funding ratio



Under both scenarios, the premium increases are lower than the assumed rate of increase in claims costs, but this is offset by projected reductions in claim frequency. Further, the funding ratio is projected to remain flat, increasing by less than 0.5% over the next four years. However, several risks to MAIB's capital position remain, with the largest over the next four years relating to investment returns and bond yields. Investment returns are also one of the largest risks to adequacy of the premium, and if returns are just 1% p.a. lower than expected, this will reduce the profit margin from 10.5% to 5.0%.

The forecast funding level is not very responsive to changes in premium and an extra year of indexation adds less than an extra \$4m p.a. or a total of \$13m over the four years to 2021 (approximately 10% of one year's premium). This compares to assets used in the funding ratio calculation of \$1.4bn and outstanding claims and unearned premium liabilities of \$1.0bn. This also demonstrates why funding deficits through premium increases can be problematic, and therefore, why an appropriate funding ratio needs to be maintained. As noted in the Regulator's 2013 report, unless the MAIB requires additional profits to restore its capital position, the profit margin should remain at normal levels.

## 12 APPENDICES

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## APPENDIX A PRICING SCHEDULE AT 1 DECEMBER 2016

Class	Description of Vehicle	Annual Premiums (inc of GST, but excluding \$20 Duty)
1	<b>Motor Car-</b> A motor vehicle constructed principally for the carriage of persons, including a campervan, and not included in any other class.....	294.00
	PENSIONERS.....	235.00
2	<b>Light Goods Vehicle -</b> A motor vehicle constructed principally for the carriage of goods, and with a gross vehicle mass not exceeding 4.5 tonnes.....	294.00
	PENSIONERS.....	235.00
3	<b>Heavy Goods Vehicle -</b> A motor vehicle (including a special purpose vehicle) constructed principally for the carriage of goods, and with a gross vehicle mass exceeding 4.5 tonnes .....	465.00
4	<b>Medium Motorcycle -</b> A motorcycle with an engine capacity which exceeds 125 cc but does not exceed 250 cc.....	445.00
5	<b>Large Motorcycle -</b> A motorcycle with an engine capacity which exceeds 700 cc.....	445.00
6	<b>Taxi or Chauffeured Hire Car -</b> A public passenger vehicle (luxury hire car or taxi) subject to the <i>Taxi &amp; Luxury Car Industries Act 2008</i>	1001.00
7	<b>Large Passenger Vehicle -</b> A public passenger vehicle used for the carriage of more than 16 passengers or equipped to draw one or more trailers for a like purpose.....	760.00
8	<b>Hire and Drive Vehicle -</b> A passenger carrying motor vehicle which is hired out for reward without the services of a driver.....	760.00
9	<b>Caravan, Horse Float, Plant and Machinery (Non self-propelled) -</b> Any caravan, horse float or plant and machinery with an unladen mass exceeding half a tonne, which is designed to be drawn by a motor vehicle (excluding any trailer) .....	39.00
10	<b>Heavy Trailer -</b> A trailer, the unladen mass of which exceeds half a tonne and not included in Class 9.....	86.00
11	<b>Mobile Crane -</b> A mobile crane (excluding a tow truck).....	311.00
12	<b>Restricted Registration Vehicles, including Farm Motor Cycles -</b> Off-road and restricted registration vehicles not otherwise provided for in Classes 15 or 18, including ride on lawn mowers capable of exceeding 10 kph.....	41.00
13	<b>Plant and Machinery (Self-Propelled) -</b> A tractor (other than a farm tractor), road roller, motor street flusher, tar sprayer, tar roller, motor eductor, street sweeper, excavator, traction engine, road grader, fork lift truck, motor end loader, traxcavator, trench digger, bulldozer, earth moving machine or any similar kind of vehicle not otherwise specified in this class .....	111.00
14	<b>Motor Trade Plate -</b> A motor vehicle used under the authority of a trade plate issued under the <i>Vehicle and Traffic Act 1999</i> ..	311.00
15	<b>Farm Tractor -</b> A tractor used for agricultural purposes only (whether registered or not).....	111.00
16	<b>Medium Passenger Vehicle -</b> A public passenger vehicle, other than a taxi or chauffeured hire car, used for the carriage of no more than 16 passengers or equipped to draw one or more trailers for a like purpose.....	395.00
17	<b>Small Motorcycle -</b> A motorcycle with an engine capacity which does not exceed 125 cc.....	147.00
18	<b>Off Road and Recreational Vehicles -</b> A trail bike, mini-bike, all terrain vehicle (ATV), dune buggy or any other off-road or recreational vehicle either covered by restricted registration or not required to be registered.....	222.00
19	<b>Short Term Unregistered Vehicle -</b> A vehicle that is subject to a short-term unregistered vehicle permit.....	29.00
20	<b>Medium Large Motorcycle -</b> A motorcycle with an engine capacity which exceeds 250 cc but does not exceed 700 cc.....	445.00
21	<b>Vintage Motor Vehicle or Street Rod -</b> A vehicle that is registered as a vintage motor vehicle or street rod .....	29.00
22	<b>Special Interest Vehicles</b> A special interest vehicle as defined under the <i>Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000</i> .....	95.00

## A.1 Pensioner Discount

The Government Prices Oversight (MAIB Premiums) Order 2013 specifies that the pensioner discount is available to the following:

- a) a pensioner
- b) a person who has a severe disability
- c) a parent or guardian of a person who has a severe disability and has not attained the age of 16 years.

The maximum premium payable in respect of one class 1 or class 2 motor vehicle of an eligible pensioner is 80% of the premium that would otherwise be payable. The maximum premium payable in respect of any other class 1 or 2 vehicle of the eligible pensioner is the same as if the registered operator were not an eligible pensioner.

For these purposes, a "pensioner" is defined as a person—

- a) who is in receipt of one of the following pensions, allowances or supplements payable under the *Social Security Act 1991* of the Commonwealth:
  - (i) age pension
  - (ii) carer pension
  - (iii) disability support pension
  - (iv) widow B pension
  - (v) wife pension
  - (vi) mature age allowance
  - (vii) mature age partner allowance
  - (viii) newstart allowance
  - (ix) widow allowance
  - (x) sole parent pension
  - (xi) a disability wage supplement
- b) who is in receipt of one of the following pensions under the *Veterans' Entitlements Act 1986* of the Commonwealth:
  - (i) disability pension
  - (ii) totally and permanently incapacitated pension
  - (iii) war widow or widower's pension
  - (iv) service pension
- c) who is a holder of a health care card issued in accordance with the *Social Security Act 1991* of the Commonwealth.
- d) who is a member of the Transport Access Scheme (TAS)

## APPENDIX B GENERAL INSURANCE – OPERATIONS

From a financial perspective, the operations of a General Insurance company can be considered as comprising two parts, the *insurance* operations and the *investment* operations. The main tasks performed for each of these two parts are summarised in Table B.1.

**Table B.1 Types of activities performed by insurance and investment operations**

Insurance operations	Investment operations
Set and collect premiums	Determine investment strategy
Accept and pay claims	Manage investment assets
Manage providers and fee rates	
Manage risks	
Most other administrative tasks	



**Profitability and financial sustainability**

This section provides an overview of the financial operations of a General Insurance company such as the MAIB. It outlines:

- The general principles used in setting premiums;
- How insurers manage costs and risks;
- The importance of investment income; and
- The profitability and financial sustainability measures used by insurers.

### B.1 Insurance Operations: Premium setting

As shown in Table B.1 there are several functions that are performed as part of the insurance operations. Setting premiums is one of the most crucial decisions made by management and even more so for long tail insurance as it takes several years between the time that the premium is set and when its sufficiency will be well known.

This section, is focussed on how insurers set and manage their revenue which is generated through premium income.

Sound insurance practice is to charge a premium which allows for:

- **The expected cost of claims** arising from incidents occurring during the period for which the insurance applies, discounted to allow for future investment earnings on the premium;
- **Expenses** relating to assessing the risk associated with a policy prior to providing insurance, collecting premiums, assessing and paying claims, and general overheads;
- A target **profit margin**; and
- An appropriate **rating of risk** across different policyholders.

Figure B.1 Determining a sound premium

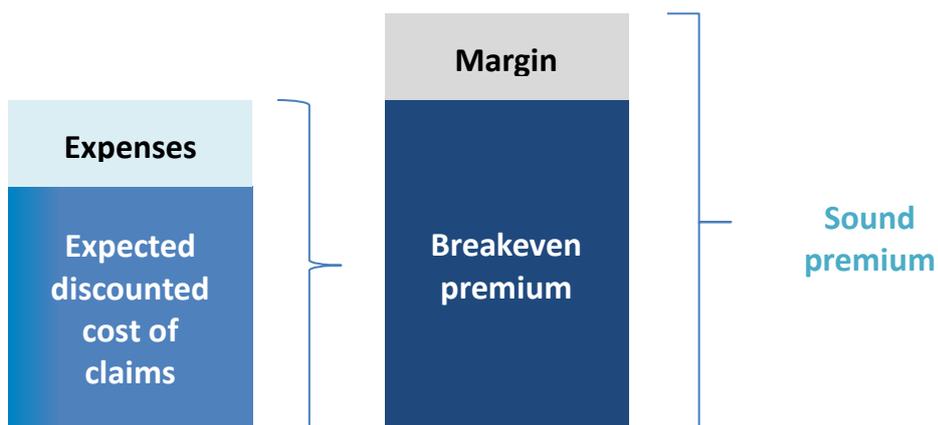


Figure B.1 provides an illustration of how these components are combined to determine a sound premium. The “breakeven premium” is calculated as the amount required to cover the cost of claims as well as the cost of administering MAIB’s operations.

Given the uncertainty associated with estimating the cost of claims and investment returns it is prudent to allow for a profit margin in addition to the breakeven premium which reduces the risk of MAIB being unable to pay claims.

### B.1.1 Expected discounted cost of claims

The expected discounted cost of claims represents the amount of money required to be collected to pay claim costs. It recognises that there will be a delay between the time the premium is received and when claim payments are made, and that during this time the insurer can invest the premium.

The cost of claims is usually determined based on assumptions regarding the expected claim frequency and average claim size where the average claim size allows for:

- expected future cost escalation including inflation; and
- anticipated investment earnings that will be received prior to claim payments being made.

The assumed investment earnings rate used to set premiums is determined by the insurer’s Board with a lower bound usually being the rate available on government bonds and the upper bound being the target investment rate based on the insurer’s investment strategy. This is discussed further in Appendix B.2. The higher the assumed investment rate the lower the premium that the insurer can charge. Using the target investment return in estimating the discounted cost of claims helps to maintain lower premiums. Adopting a lower investment return would increase the breakeven premium and hence mostly likely increase in the actual premiums charged.

### B.1.2 Expenses

The premium collected also must fund all of the scheme’s outgoings. Aside from claim costs this includes all claims management and administrative expenses as well as all the safety and other community initiatives funded by the insurer.

### B.1.3 Profit margin

If actual claims costs, expenses and investment experience eventuates as per the assumptions used in the calculation of the breakeven premium then the “insurance operations” will naturally breakeven – i.e. no profit or loss will result. The only profit generated will be as a result of investment income on shareholders’ funds.

There is a level of risk associated with providing insurance. As a reward for taking this risk, shareholders require a greater return than that which can be achieved by investing in risk-free or lower risk investments. This can be achieved by including an explicit loading on the breakeven premium, with the intention that this amount will not be required to meet claims costs or expenses and will eventually emerge as profit. For public sector insurers, if they operated without a profit margin then there would be a 50% chance that the cost of claims will exceed the premium charged. In addition, there is a risk that investment returns will be lower than expected, further increasing the risk that the premium collected will be inadequate to meet the cost of claims and expenses. Therefore, it is prudent to add a margin to cover these risks.

The appropriate level of target profit included in the premium will depend on the overall rate of return on capital required and the level of capital held by the insurer. If an insurer is under capitalised then the underwriting profit will provide a relatively larger return on capital than if the insurer has capital at target or higher levels.

For most public sector MA insurers, given that the insurance is compulsory and that the schemes are monopolies, there is an additional ability to avoid unnecessary volatility in premiums which is not available in other insurance markets. This often means that the profit margin is an outworking of the premium charged rather than an input loading. When the implied profit loading gets above a target range then premiums are reduced and when it drops too low then premiums may increase. Otherwise premiums in public sector MA schemes tend to remain unchanged or are indexed with inflation.

#### B.1.4 Risk rating

Risk rating refers to the practice of price differentiation for certain groups based on characteristics of that group. Certain characteristics are identified as generally being associated with lower than average claims costs. Groups exhibiting those characteristics are therefore considered a better risk and charged a relatively lower premium. Conversely, groups exhibiting characteristics identified as being associated with higher than average claims costs will tend to be considered as inferior risks, and will be charged a relatively higher premium. For example, in comprehensive (property) motor vehicle insurance, younger drivers are often assessed as high risk and charged a higher premium.

The extent of price differentiation is strongly influenced by practical considerations such as:

- **Size of the group** - the need to have groups that are large enough to provide a reliable indication of claims experience must be balanced against the risk that the group will be less homogeneous;
- **Social acceptability** - for example, in Australia price differentiation for general insurance products based on social demographics would most likely not be considered acceptable;
- **Objective, clearly definable groups** - for example, classification based on driving ability as good, medium and poor is impractical unless linked to such quantitative measures as “points” accrued as result of traffic infringements; and
- **Administrative simplicity** - an excessive number of rating groups may cause processing problems.

The MAIB’s risk rating structure is discussed in Appendix J.

## B.2 Insurance Operations: Managing costs and risks

Once an insurer has collected the premium, a core function of the insurance operations is to manage costs within the amount collected. This involves making sure that claimants receive their entitled benefits in a cost-effective manner and that the insurer is not exposed to risks which might jeopardise their financial sustainability.

### B.2.1 Claims management

The cost of paying claims together with the resources required to manage this process are generally the largest source of outgoings for an insurer. Insurers are often viewed as having 'deep pockets' and hence better placed than most claimants to provide restitution when a loss occurs. Therefore, the first step towards a successful claims management framework is establishing appropriate procedures to accept valid claims.

Claim acceptance for the MAIB is driven by:

- Where a vehicle is registered and the status of the registration;
- Where the vehicle was being driven at the time of accident;
- Who was driving the vehicle at the time of accident;
- The activity the vehicle was involved in at the time of accident;
- Whether certain laws were being broken at the time of accident; and
- Whether other insurance also covers the claim.

Once a claim has been accepted insurers must pay the amounts as stipulated under the contract. This may involve direct financial payment to the claimant, or other persons who have suffered a loss. Alternatively, the insurer may fund the provision of services to the claimant. MAIB pays both types of benefit with financial entitlements provided through Common Law damages and service provider funding paid via no-fault periodic benefits.

### B.2.2 Provider management

Where an insurer funds the provision of services, doing so in a cost-effective way is crucial to ensuring that claim costs do not exceed the discounted claims cost allowance included in the premium. Insurers try to use their size and buying power to obtain lower costs for services. This may also mean that they create fee structures that are not otherwise available and to implement quality assurance processes.

### B.2.3 Managing risks

The nature of providing insurance means that some risks are not within the control of the insurer. This may result in more claims or more severe claims than had been allowed for in the premium. To some extent this can be managed within the profit margin allowance but other events could place the insurer at significant financial risk and hence there is a need to manage these risks.

Risks associated with claim costs are generally managed via reinsurance policies but there are also other risks such as fraud or operational risks which are managed via strong internal processes and audits.

### B.2.4 Other administrative tasks

Aside from paying and managing claims, insurers also must fund marketing and community activities as well as IT, regulatory compliance and premium collection expenses. These are overseen by management and a Board who provide governance and strategic direction.

## B.3 Investment Operations

### B.3.1 Investment strategy

Investment income is a key factor affecting premium levels, profitability and the financial viability of an MA insurer.

The quality and nature of the assets held will be a function of the insurer's investment strategy. An investment strategy will consider such issues as:

- The likely returns to be achieved on the assets;

- The need for diversification to reduce the risk of poor returns;
- The security or risk of capital loss associated with particular assets; and
- The characteristics of the insurance provided, which may impact on such things as:
  - The need for liquidity in assets; and
  - The need for inflationary growth in asset values.

Most insurers invest in relatively mainstream assets such as high rated fixed interest securities, cash, listed equities, listed trusts and commercial property. The proportion of higher risk, higher return assets such as equities and property will vary depending on the type(s) of insurance written by the insurers and the insurer's attitude to the balance between risk and return.

### B.3.2 Managing investment assets

Once the investment strategy is set, the execution of the strategy is performed by specialist investment managers. This function can be internal to the insurer but MAIB and many other insurers outsource this function.

## B.4 Profitability and financial sustainability

### B.4.1 Profitability

Actual profit arises from the following areas:

- Any explicit loading for profit included in the premium;
- Investment return on shareholders' funds; and
- Differences between the actual experience in the areas of claims costs, expenses and investment income and that assumed in the calculation of premiums.

Actual profitability in respect of premiums charged for a period of insurance can only be fully known after the last claim payment has been made. In the case of the MAIB, this will not be for many years after the premium was written. For example, Future Care payments in respect of a young seriously injured person may continue for more than 50 years.

For "long tail" insurance, profit in respect of a twelve-month period can therefore only be an **estimate**. The claims expense in the period is **measured** for the purpose of the insurer's profit and loss account as the sum of:

- Claims payments in the period; plus
- The change in the outstanding claims liability over the period.

For long-tail insurance the outstanding claims liability will be many times larger than the annual claims expense and therefore relatively small movements in the outstanding claims liability can have a large impact of annual profit. For example, MAIB's outstanding claims liabilities are seven times larger than budgeted annual claims expense and therefore a 1% movement in the liabilities will have a 7% impact on the claims expense which is a significant driver of the overall profitability.

It is possible for **actual profit** (as determined with hindsight) to eventuate at the level anticipated in the calculation of premium. In the period before actual profit can be recognised however, it is possible that **measured profit** may fluctuate considerably from year to year.

The concept of measured (temporary) profit and that of actual (permanent) profit needs to be considered when interpreting insurance profitability from published accounts.

#### B.4.2 Returns to shareholders

The rate of return expected by shareholders will be determined by market returns achievable in other companies with a similar level of risk.

Dividend policy cannot be considered independently from premium levels, capital requirements and profitability. An appropriate dividend policy for an insurer will need to consider:

- The source of profit arising in any year and the extent to which calculated profit is a reflection of actual (permanent) profit or measured (temporary) profit;
- The extent to which retained profits may be required to build capital to adequate levels; and
- The potential for volatility of profit and the outlook for the future.

#### B.4.3 Financial viability and scheme solvency

Financial viability is referred to in the insurance industry as “solvency”. A solvent insurer is one which maintains capital at a level considered to be adequate by regulators (APRA in respect of private insurers) or by stakeholders (in the case of public sector insurers).

In the private sector, APRA has defined minimum capital requirements which reflect the risk profile of the insurer. Any insurer falling below the minimum standard is subject to investigation and potential closure. For public sector insurers, the issue of adequate capital is less clear and this is discussed further in Appendix M. However, typically public sector insurers have a target level of capital that is lower than would be required by a private insurer underwriting the same risks.

#### B.4.4 Taxation

The MAIB is a Body Corporate under the provisions of the GBE Act, and is not required to pay Commonwealth Government income tax. Under that Act, however, tax equivalent and capital gains tax equivalent payments are payable under the National Tax Equivalent Regime.

##### *The New Tax System (Goods and Services Tax) Act 1999 - “TNTS/GST”*

The introduction of TNTS/GST from 1 July 2000 means that the MAIB can claim an Input Tax Credit (“ITC”) in respect of the GST payable on non-settlement costs (for example investigation, defendant legal, medical reports) where the supply is made to the MAIB. The ability to claim an ITC is affected only by the date of supply (on or after 1/7/2000).

MAIB is also able to claim a decreasing adjustment mechanism (“DAM”) on settlement costs in respect of claims arising from incidents after 30 June 2000. The amount of the DAM depends on the accident date:

- Accidents 1/7/2000 to 30/6/2003 - DAM is equal to 1/11th of the settlement cost.
- Accidents on or after 1/7/2003 - DAM is equal to approximately 69% of 1/11th of the settlement cost. Federal legislation provides for the MAIB to adopt the global decreasing adjustment methodology and the reduction to 69% is the result of applying that methodology.

Claim payments are analysed inclusive of GST and projected payment cash flows gross of GST as this reflects the actual flow of cash and the apparent cost of services. Therefore, all model assumptions (payments per claim incurred for Scheduled Benefits and average settlement costs for Common Law) are GST inclusive. The gross outstanding claims liability is then reduced by the expected GST-related recoveries from ITCs and the DAMs.

## APPENDIX C LEGISLATIVE AND OPERATING ENVIRONMENT

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This section summarises the current legislation and associated issues relevant to the MAIB's operations. There have been no other substantial changes to the MAIB's operating environment and hence the section provides historical context to MAIB's operating environment.

### C.1 *The Motor Accidents (Liabilities and Compensation) Act 1973* ("MA Act")

The MA Act established the MAIB to administer the funding and payment of compensation for persons injured in motor accidents. Since its inception, MAIB's role has expanded from simply managing claims to a more pro-active role relating to care and rehabilitation and in funding initiatives to reduce the number of road accidents.

### C.2 *National Competition Policy*

The package of National Competition Policy Reforms endorsed by COAG has given rise to a significant change in the MAIB's operating environment since 1995.

The main objective of these reforms is to remove any competitive advantage that government businesses may enjoy over private sector counterparts as a result of their public-sector ownership.

In addition, the National Competition Policy Reforms required each participating government to review, and where possible, reform all legislation restricting competition by the year 2000. The legislative review process in respect of the MAIB was completed in 1997 and the recommendation to retain the MAIB as a monopoly provider of MA insurance in Tasmania was accepted by successive Tasmanian Governments.

Resulting legislation enacted to achieve these reforms is described below.

#### C.2.1 *The Government Business Enterprises Act 1995* – ("GBE" Act)

Section 7(1) of the GBE Act sets out the principal objectives of GBEs as follows:

"(a) to perform its functions and exercise its powers so as to be a successful business by –

- (i) operating in accordance with sound commercial practice and as efficiently as possible;
- (ii) achieving a sustainable commercial rate of return that maximises value for the State in accordance with its corporate plan and having regard to the economic and social objectives of the State;

(b) to perform on behalf of the State its community service obligations in an efficient and effective manner; and

(c) to perform any other objectives specified in the Portfolio Act."

#### C.2.2 *The Economic Regulator Act 2009* ("ER Act")

The ER Act established the Tasmanian Economic Regulator ("the Regulator") as a mechanism for independent pricing oversight. This role was previously conducted by the Government Prices Oversight Commission ("GPOC"). Maximum premiums for the four years commencing 1 December 2013 were set after the Government's consideration of the Regulator's 2013 report.

The ER Act was amended in 2015 which restructured the Regulator from a three-person panel to a single person. None of the other changes to the Act materially affect MAIB.

## C.3 Update on national initiatives raised in the 2013 submission

### C.3.1 National Injury Insurance Scheme (“NIIS”)

The MAIB’s existing entitlements meant that in most cases for motor injuries Tasmania already met minimum benchmarks required under the NIIS. In other states, such as Queensland, South Australia and Western Australia new schemes have been established to provide support for catastrophically injured motorists. From 1 July 2016, all states and territories have universal no-fault support for care and treatment needs of catastrophically injured motorists.

As described in Section 3.4 there has been a small extension as to who MAIB covers as a result of the NIIS. However, several exclusions remain which means that MAIB does not insure all catastrophically injured motorists.

### C.3.2 National Heavy Vehicle Regulator

The National Heavy Vehicle Regulator (NHVR) administers one set of laws for heavy vehicles under the Heavy Vehicle National Law (HVNL), delivering a comprehensive range of services under a consistent regulatory framework. The national law commenced on 10 February 2014 and applies in the ACT, NSW, Queensland, South Australia, Tasmania and Victoria.

The NHVR is responsible for:

- National Heavy Vehicle Accreditation Scheme management and accreditations;
- Performance-Based Standards Scheme vehicle design and access approvals;
- Heavy vehicle access permit applications;
- Heavy vehicle standards modifications and exemption permits;
- A national driver work diary and risk classification system for advanced fatigue management;
- One set of national notices;
- One set of national fees for NHVR services; and
- One set of national penalties.

At this stage, there remains no proposal to harmonise the current MA arrangements into a unified system across Australia for heavy vehicles. However, the timing and mechanism for payment of premiums is still being debated and may change in the future. One possibility is that the jurisdiction of vehicle’s MA insurance does not change until the next renewal even if during the intervening period the jurisdiction in which a vehicle is registered changes.

## C.4 Relevant Comparisons

### C.4.1 Pricing

The operations of other Australian MA insurers are most relevant for comparisons of pricing levels and structure. MA insurance is not a generic product, which makes comparison of pricing levels difficult. Each Australian jurisdiction has different compensation arrangements for persons injured in motor accidents. The type and level of compensation provided are key determinants of the cost. In addition, because MA insurance is compulsory, State and Territory Governments exert varying degrees of control over the level of premiums charged to motorists even where these premiums are provided in the private sector.

### C.4.2 General Insurance Environment

The financial operations of the MAIB can be compared with those of private sector general insurance companies and other Australian MA insurers. Once again, care is needed in making these comparisons as financial operations differ with the type(s) of insurance provided.

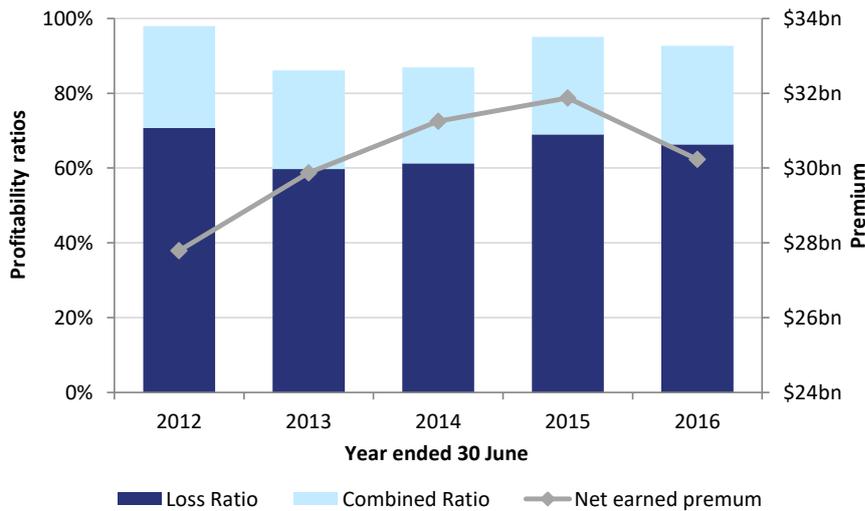
Profitability of the general insurance industry has improved over the last four years with the overall industry loss ratio reducing by 5.6% for 2013-2016 compared with 2009-2012. Despite some large weather events over the past four years, the main reasons for the improvement in profitability are:

- Low claims inflation;
- Reductions in claim frequency; and
- Reserve releases from prior underwriting years.

Figure C.1 provides a summary of the industry’s performance over the past five years with the key features being:

- A large drop in loss ratio in 2013 and 2014 but this has increased over the past two years and was 66% for 2016;
- Expense rates have remained steady at 26%; and
- Net earned premium had been growing but reduced by 5% in 2016. This was due to insurers ceding more business to reinsurers with gross written premiums increasing by 4% during 2016.

**Figure C.1 Industry Performance (source: APRA Quarterly General Insurance Performance)**



## APPENDIX D MOTOR ACCIDENTS INSURANCE IN AUSTRALIA

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This Appendix provides:

- An introduction to the characteristics of MA insurance;
- An overview of MA insurance in Australia, highlighting key differences in arrangements; and
- An overview of the benefits/compensation provided to persons injured in motor accidents in Tasmania.

### D.1 Characteristics of Motor Accidents Insurance

MA insurance has certain features which distinguish it from other forms of insurance and which impact on the pricing and general financial operations of the organisations providing the insurance. These features include:

- the compulsory nature of the insurance;
- the importance of investment income in determining the cost of the insurance; and
- greater variability (risk) associated with providing MA insurance than many other types of insurance.

#### D.1.1 Variability (risk)

Insurance is the business of transferring variability (or risk) from the insured to the insurer. By grouping risks, the costs become less variable and more predictable than had they remained with the individual. Different types of insurance contribute different levels of variability (risk) to the financial operations of the insurer.

Variability in financial operations arises because of the inherent variability of claim costs from one period to another, the need to estimate claims costs and potential future investment income in the calculation of premium required and for the purposes of establishing outstanding claim liabilities. The greater the uncertainty of these costs the greater the risk to the financial operations of the insurer.

MA insurance, together with other liability classes such as Workers' Compensation, Medical Indemnity, Professional Indemnity and Public Liability are considered to be more variable classes of insurance. This is due to the longer-term nature of the claim payment process, referred to as "long tail" insurance.

Claim payments may extend for many years after the initial premium is received. During that time, factors may operate to impact on the eventual cost of that claim. These factors include such things as the level of income earned by the insurer on the invested premium, changing court precedents, medical developments, general inflationary forces etc. The longer the period until final payment, the greater the chance that the initial premium may prove to be either inadequate or excessive.

### D.2 Overview of Motor Accidents Insurance in Australia

Each State and Territory in Australia has its own MA insurance arrangements. The product is not generic, with the main differences arising in the areas of:

- Private or public sector operation;
- Eligibility for compensation:
  - No-Fault: compensation is provided to any person injured in an accident regardless of level of "fault" in causing the accident;
  - Fault or Common Law: compensation is provided only to those who can demonstrate the fault of a third party;
  - a mix of No-Fault and Common Law.

- The form and level of compensation provided;
- Procedures, dispute resolution processes etc; and
- The cost of the insurance (the premiums).

Since the previous review and the introduction of the NIS minimum benchmarks, separate catastrophic injury schemes exist alongside the main MA schemes in NSW, SA and Queensland. In WA, there are separate funds for catastrophic and other CTP claims but both are administered by the Insurance Commission. The separate catastrophic injury schemes generally only provide medical treatment and assistance with economic loss and other forms of compensatory loss provided by the main MA scheme. This means that for the small number of catastrophically injured motorists they will often have to access two schemes.

The addition of the new catastrophic injury schemes has significantly complicated the picture in terms of the available benefits available across each scheme. Further details of changes in scheme design are provided in Appendix E.

Each of the public-sector schemes operates as a monopoly with private sector insurers providing cover in NSW, Queensland, ACT and SA. In the private-sector schemes, there are currently multiple insurers in each jurisdiction, although this has not always been the case.

### D.3 MAIB's compensation arrangements

A brief description of MAIB's compensation arrangements is provided below, followed by a comparison with the arrangements in other Australian jurisdictions.

#### D.3.1 No-Fault benefits

No-Fault compensation includes:

- The cost of Future Care, medical, hospital, rehabilitation treatments etc required by the injured parties;
- A disability allowance as a partial replacement of lost earnings; and
- Death and funeral benefits in the case of fatalities.

Once the MAIB has assessed eligibility, No-Fault compensation can be readily provided as there is no requirement to prove liability.

Certain maximum dollar amounts or time periods are applied to the compensation provided for most claimants. For more severely injured persons requiring at least two hours per day of daily care the Future Care component is designed to assist the individual in maintaining a reasonable quality of life into the future. The Future Care, medical, hospital and rehabilitation payments made to these claimants are not subject to any maximums.

No-Fault compensation is paid as needed. This often involves more than one payment to or on behalf of a claimant.

#### D.3.2 Common Law

Common Law arrangements provide for additional compensation where liability can be established against a third party. The Common Law system provides for awards of damages in respect of loss of earnings, non-economic loss (i.e. pain and suffering), future medical costs and legal costs in favour of the injured party.

Other than establishment of liability there are no eligibility conditions restricting who may sue for damages. The damages are largely unlimited, with the following exceptions:

- There is a \$4,000 threshold for access to general damages, with a sliding scale between \$4,000 and \$20,000 (these amounts are indexed); and
- The average earnings figure used in the calculation of future economic loss may not exceed three times Average Weekly Earnings.

Damages are valued allowing for the future effects of inflation, investment return and tax. This is done by applying a prescribed interest rate to the expected future damages.

### D.3.3 Future Care

In the case of seriously injured persons entitled to Future Care, may involve regular payments for the remainder of their lifetime. Injured motorists requiring at least two hours a day of “daily care” for an indefinite period are referred to as Future Care claimants. The Future Care liability comprises:

- Care costs: Attendant care, sleepover and accommodation fees; and
- Non-care costs: Ambulance, hospital, medical, treatment, equipment, home and vehicle modifications and travel.

### D.3.4 Interaction between No-Fault and Common Law compensation

There is often a period of several years between the accident and when a Common Law settlement is made. The delay is usually a result of requiring injuries to stabilise before damages are awarded and the requirement to establish liability. In the meantime, No-Fault compensation is available, subject to legislative limitations.

Payment of Common Law damages is by way of a lump sum settlement, following which entitlements to No-Fault compensation ceases (except Future Care benefits). Future Care costs are provided under the No-Fault arrangements. However, except in special circumstances, liability for Future Care is not extinguished by a settlement at Common Law. There have been a small number of Common Law settlements where liability for Future Care has been extinguished by mutual agreement. In all cases the Future Care liabilities were small relative to the average Future Care claimant and the claimant barely met the Future Care requirement of two hours of care per day.

## APPENDIX E COMPARISON OF AUSTRALIAN MOTOR ACCIDENT SCHEMES

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### E.1 Benefits

This appendix summarises the compensation provided under each of the state MA schemes. Key points of difference are summarised below.

#### E.1.1 No-Fault benefits

No-Fault benefits are available for all claims regardless of the injured person's role in the accident in Tasmania, Victoria, the Northern Territory (NT) and to a limited extent in NSW. The key difference between the schemes being:

- **Contributions by claimants:** There is no dollar excess on medical and rehabilitation costs for both the Tasmanian and the NT schemes, whereas Victoria applies an excess per family.
- **Limits of Treatment benefits:** The No-Fault compensation provided in Tasmania is subject to fixed dollar limits (maximum of \$500,000) for all claimants except those requiring "daily care". In Victoria and the NT, medical and rehabilitation costs are limited to a "reasonable" amount where "reasonable" is determined by the scheme. In NSW No-Fault benefits are capped at \$5,000.
- **Limits on income replacement:** An income replacement benefit is payable in each of the No-Fault schemes. Both Tasmania and Victoria pay 80% of earnings, with Tasmania capped at three times AWE compared to \$1,250 in Victoria. The payment in the NT is for loss of earning capacity, and is set at a fixed amount of 85% of NT AWE, reduced where there is capacity for work. The income replacement benefit in Tasmania is limited to a period of 2 years, or 5 years if unfit for any work. Limits also apply in Victoria except for the most seriously injured claimants.

Following the introduction of the NIIS all states and territories now have no-fault entitlement to unlimited treatment and support for catastrophically injured motorists.

#### E.1.2 Common Law Benefits

Apart from the Northern Territory, all schemes provide some access to Common Law benefits.

Tasmania has no restrictions on who is eligible to sue for Common Law compensation (subject to the underlying requirement that fault can be established against a third party). With the exception of a relatively low threshold for general damages and a relatively high limit on earnings used in the calculation of economic loss, no other limits apply.

The interest rate used to determine the lump sum present value of future damages is 5% for MAIB common law claims. The rates vary by state and most states adopt either a 5% or 6% interest rate with a higher interest rate reducing the lump sum.

### E.2 Vehicle Classes

The number of classes in other states varies significantly and many are further segmented by region within the state or territory. In Tasmania, there are 22 vehicle classes. A comparison of the number of classes is shown in Table E.1.

**Table E.1 Number of vehicle classes by jurisdiction**

State / Territory	Number of classes	Number of regional zones	Total premium classes	Average number of vehicles per class ('000s)
Tasmania	22	1	22	23
Victoria	29	3	87	53
NSW	33	5	165	32
WA	19	1	19	147
Queensland	25	1	25	157
SA	26	2	52	29
ACT	26	1	26	12
NT	11	1	11	16

Using 22 vehicle classes for setting premiums is the third lowest in Australia (after NT and WA). Further in many states premiums are set separately by region which means that in NSW for example there are 165 premium classes. Tasmanian premiums do not vary by region given the size of the population and on average there are 23,000 vehicles in each premium class which is similar to the number in NSW and SA and higher than in ACT and NT.

As shown in Table E.2, from a scheme perspective 90% of vehicles fall into just five premium classes and therefore in terms of premium sufficiency it is vital that these are priced correctly.

**Table E.2 Tasmanian premium class sizes**

Number of vehicles in each class	Number of classes	% of Total Vehicles	% of Total Premiums (after discounts)
Less than 2,500	10	2%	3%
2,500 to 10,000	7	8%	9%
10,000 to 100,000	3	8%	5%
More than 100,000	2	82%	83%

For the 17 smallest classes the premiums charged need to be fair to reduce cross-subsidies. For example, of the ten classes with fewer than 2,500 vehicles, premiums range from \$29 to \$1,001 (excluding duty). However, any rationalisation at this point is likely to cause disruption for very limited benefit – there could be a wide range of vehicle owners facing major individual premium changes (negative or positive) with no overall significant gain to either the owners, or the Scheme.

In previous reviews, there has been discussion regarding the number of motorcycle classes and whether they should be rationalised given that three of them are charged the same premium. This issue has been re-examined and is discussed below.

#### Number of motorcycle classes

There are currently four motorcycle vehicle classes, three of which are charged the same premiums, and there is no uniformity across different Australian jurisdictions.

**Table E.3 Motorcycle classes across Australia**

State / Territory	Motorcycle premium classes		
	Number of classes	Number of premiums	Maximum vs Minimum motorcycle premiums
Tasmania	4	2	3.0
Victoria	4	4	7.2
NSW	5	5	7.3
WA	1	1	N/A
Queensland	1	1	N/A
SA	4	4	2.8
ACT	4	2	4.9
NT	1	1	N/A

For motorcycles, NSW has five classes Victoria, SA and ACT have four classes while WA, Queensland and NT have only one. In states with multiple classes there is no consistency as to the engine sizes that fall under each vehicle class, but in most states with multiple classes each class is charged a different premium, except for ACT.

Consolidating Classes 4, 5 and 20 would have no impact for motorcyclists as they are charged the same premium but it would restrict MAIB's ability to charge different premiums at a later date. Experience over the past eight years has been reasonably similar across the three classes however prior to this there were large differences in experience. Once classes are consolidated it would not be possible to compare experience between them. Aside from simplifying the system by having fewer classes there are minimal other benefits from such a reduction.

The large differences between experience and premium relativities mean that even if experience diverged between the classes in the future, it seems unlikely that different premiums will be charged, but consolidation removes this option.

## E.3 Developments in other Australian MA schemes 2013 - 2016

Key developments in each of the schemes over the past four years are summarised below.

### NSW

- Claim frequency has increased by 30% over the past four years which has translated to a similar increase in premiums. This has put pressure on premium affordability.
- In 2013 proposed scheme reforms, which were to change the scheme to a no-fault basis with defined benefits were abandoned.
- Similar reforms were again proposed in 2016 with the aims of faster compensation, a higher proportion of premiums going to people injured and reducing fraud. This was expected to reduce premiums. Although not abandoned, these reforms have stalled with only restrictions on legal fees for minor injuries implemented to date.
- The regulatory body overseeing the scheme changed in the second half of 2015, with the MAA abolished and its functions combined with those of workers' compensation and home building compensation in the new State Insurance Regulatory Authority (SIRA).
- Zurich exited the NSW CTP market in 2016, leaving six insurers in the market.
- The funding ratio of the Lifetime Care and Support Authority has increased to 150% excluding risk margins and 131% after risk margins.

### Victoria

- The TAC's funding ratio has increased from 71% at June 2012 to 81% at June 2016. This is at the bottom of their target funding range.
- Claim frequency (claims per 1000 registered vehicles) has continued to fall from 3.77 in 2012 to 3.66 in 2016.
- The TAC recorded an actuarial release (change in claims cost excluding changes to economic assumptions) in three of the past four years.
- There has been an increase in common law resolutions, from 945 in 2012 to 1,263 in 2016.
- Increases to the TAC premium remained pegged to CPI inflation.
- Road infrastructure, road safety marketing and trauma project expenditure totalled \$127m in 2016.

### South Australia

- Major scheme changes were introduced from 1 July 2013 with the aims of improving affordability, increasing the focus on optimal recovery and to provide better care and support for the catastrophically injured. The changes increased thresholds and introduced limits on legal costs for minor claims and economic loss, as well as introducing no-fault benefits for children under the age of 16. The reforms led to an average reduction in premiums of around \$96 (20%).
- Motor Accident Injury Assessment Scheme (MAIAS) was established to provide independent and reliable medical evidence in assessing entitlement to compensation.
- The impact of the reforms has seen claim frequency reduce from 4.2 (claims per 1000 vehicles) to 2.8 in 2016. So far average claim sizes have remained steady in real terms.
- MAC continues to manage the run-off of all CTP liabilities accrued up 30 June 2015 as well as the state's road safety program.
- In 2015-16, the Motor Accident Commission (MAC) achieved a funding ratio of 137% and an actuarial release of \$200m.
- From 1 July 2016, MAC ceased to provide insurance and was replaced by four private sector insurers. The initial number of insurers is set for the first three years before the scheme transitions to a fully competitive market.
- Lifetime Support Scheme was introduced on 1 July 2014, with \$41.5m in transitional funding provided by MAC. It has been receiving approximately 15 claims per year.

## Queensland

- Claim numbers have been relatively stable over the past four years which combined with vehicle growth has resulted in claim frequency reductions.
- Market share has been relatively stable since the consolidation of Suncorp brands into one licence and the exit of NRMA in 2014. Suncorp has nearly half the market share.
- The National Injury Insurance Scheme Queensland (NIISQ) was introduced from 1 July 2016 to provide support to catastrophically injured people on a no-fault basis. This is funded from an additional levy resulting in an initial net increase of \$32 per vehicle.
- Insurer profit made up approximately 25% of premiums in the five years to 30 June 2016 compared to the 8% assumed by MAIC.
- Until the introduction of the NIISQ levy, average Class 1 premium had been relatively stable over the past four years.
- MAIC initiated a scheme review in 2016 focussing on affordability, competition, coverage and technological change. Currently submissions have been made but as yet no recommendations have been released.

## Northern Territory

- Changes to legislation came into effect on 1 July 2014, which reduced benefits under certain circumstances such as drink driving and not wearing a seat belt.
- On 1 January 2015, the NT Government sold the Insurance and Banking business of the TIO to Allianz Insurance Australia, whilst retaining ownership of the Motor Accidents (Compensation) Scheme. Claims and fund management functions were outsourced to Allianz for a 10-year period. The Motor Accidents (Compensation) Commission (MACC) was established to oversee the scheme and commenced operations on 1 January 2015.
- To meet the NIIS minimum benchmarks, in 2015 the 32 hours per week cap on the hours of care funded by the scheme was removed for all claims.
- The scheme's funding ratio at June 2016 was 122%.

## Western Australia

- From 1 July 2016, no-fault catastrophic injury cover commenced with a forecast of an extra 44 claimants at fault claimants that previously were uninsured, which increased Class 1 premiums by \$99.
- WA CTP premiums have remained the most affordable in the country (relative to wages) and the Third Party Insurance Fund recorded a funding ratio of 137% in 2015-16 which is above the 135% target.
- Claims inflation, particularly due to medical, rehabilitation and care services cost increases, remains an ongoing concern for the scheme.

## ACT

- Suncorp entered the market in 2014 which has resulted in premium reductions, but NRMA still has over 75% of market share.
- Despite these reductions, ACT continues to have the highest premiums.
- Claim frequency has remained relatively steady over the past four years but average claim sizes have been increasing.

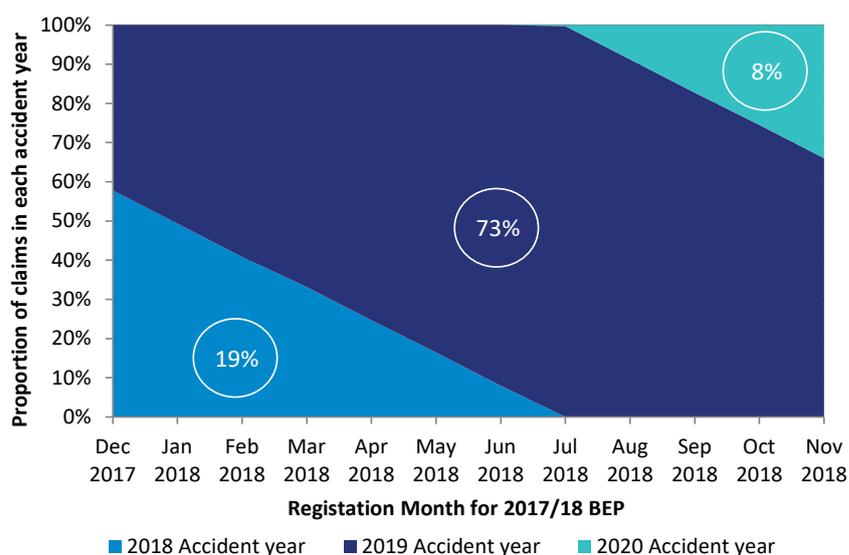
## APPENDIX F SUMMARY OF THE 2017-18 BREAKEVEN PREMIUM

The breakeven premium is based on a series of assumptions which are intended to be a likely estimate of costs, with no bias towards under or over estimation. These assumptions form a base for considering future premium requirements. However, the maximum premium increases may take account of other factors, such as volatility of costs.

The 2017-18 premium year covers all registrations from 1 December 2017 to 30 November 2018. This means that these policies will cover accidents from 1 December 2017 to 30 November 2019 (i.e. one year after the last registration date).

Accident years are defined as years ended 30 June, so that a claim occurring in 30 November 2019 will belong to the 2020 accident year. This means that the 2017-18 **premium year** will generate claims that span the 2018 to 2020 **accident years** as shown in Figure F.1.

Figure F.1 Proportion of claim costs in each accident year by registration month



The majority (73%) of claim costs for the **2017-18 premium year** relate to the **2019 accident year**. In calculating the breakeven premium analysis, a proportion of each accident quarter is assigned to the 2017-18 premium year. In this submission, the projected assumptions relating to the 2019 accident year provide a very close guide as to the basis used to set the 2017-18 breakeven premium.

### F.1 General cost drivers

General determinants of MAIB's insurance costs are as follows:

- Claim numbers and average claim size for each payment type;
- Expenses associated with the MAIB's operations; and
- Rates of claim inflation and investment return – the former increases claims costs, whilst the latter reduces the amount of premium required to be collected upfront.

## F.2 Calculation of the 2017-18 breakeven premium

The main assumptions and components of the breakeven premium are derived by considering the trends and outlook for key cost drivers. These are shown Table F.1 in the table below.

**Table F.1 Components of breakeven premium**

Component	Assumption	2017-18 underwriting year	
		\$ million	\$ per vehicle
<b>Registered Vehicles</b>	533,389		
<b>Future Care Claim Costs</b>			
Number of claims	6.0		
Discounted average claim size (\$m)	4.432		
Allowance for DAM's / ITCs	-8.3%	24.4	45.70
<b>Common Law Claims Costs</b>			
Number of claims	286		
Proportion receiving Damages	85%		
Discounted average claim size (\$m)	0.159		
Allowance for DAM's / ITCs	-6.3%	36.0	67.57
<b>Schedule Benefit Claims Costs</b>			
Number of claims	2,824		
Discounted average claim size (\$m)	0.014		
Allowance for DAM's / ITCs	-6.3%	37.3	69.87
<b>Sub-Total Claim Costs</b>		<b>97.7</b>	<b>183.14</b>
<b>Expenses</b>			
General & Admin		6.7	12.53
Collection Fees		3.0	5.69
Reinsurance		6.3	11.74
<b>Sub-Total Expenses</b>		<b>16.0</b>	<b>29.95</b>
<b>Road safety initiatives</b>			
Road safety & SES		4.3	7.97
Injury Prevention & MAIB Foundation		1.0	1.79
<b>Sub-Total Road safety initiatives</b>		<b>5.2</b>	<b>9.77</b>
<b>Total</b>		<b>118.9</b>	<b>222.86</b>

### F.3 Reconciliation of 2013-14 and 2017-18 breakeven premium assumptions

The breakeven premium for 2013-14 was \$258.25 per vehicle compared to \$222.86 for 2017-18. Table F.2 compares the assumptions between these two amounts.

**Table F.2 Change from 2013-14 to 2017-18 breakeven premium assumptions**

Component	Assumptions		Cost per vehicle for		Change	
	2013-14	2017-18	2013-14	2017-18	\$	% of 2013-14 BEP
<b>Registered Vehicles</b>	483,923	533,389				
<b>Future Care Claim Costs</b>						
Number of claims	8.0	6.0				
Discounted average claim size (\$m)	4.076	4.432				
Allowance for DAM's / ITCs	-6.3%	-8.3%	63.16	45.70	-17.46	-6.8%
<b>Common Law Claims Costs</b>						
Number of claims	812	286				
Proportion receiving Damages	35%	85%				
Discounted average claim size (\$m)	0.138	0.159				
Allowance for DAM's / ITCs	-6.3%	-6.3%	75.73	67.57	-8.16	-3.2%
<b>Schedule Benefit Claims Costs</b>						
Number of claims	2,846	2,824				
Discounted average claim size (\$m)	13,736	14,080				
Allowance for DAM's / ITCs	-6.3%	-6.3%	75.73	69.87	-5.85	-2.3%
<b>Sub-Total Claim Costs</b>			<b>214.62</b>	<b>183.14</b>	<b>-31.5</b>	<b>-12.2%</b>
<b>Expenses</b>						
General & Admin			13.91	12.53	-1.38	-0.5%
Collection Fees			5.99	5.69	-0.31	-0.1%
Reinsurance			13.41	11.74	-1.67	-0.6%
<b>Sub-Total Expenses</b>			<b>33.31</b>	<b>29.95</b>	<b>-3.36</b>	<b>-1.3%</b>
<b>Road safety initiatives</b>						
Road safety & SES			7.82	7.97	0.16	0.1%
Injury Prevention & MAIB Foundation			2.50	1.79	-0.71	-0.3%
<b>Sub-Total Road safety initiatives</b>			<b>10.32</b>	<b>9.77</b>	<b>-0.55</b>	<b>-0.2%</b>
<b>Total</b>			<b>258.25</b>	<b>222.86</b>	<b>-35.39</b>	<b>-13.7%</b>

## F.4 Sensitivity to assumption changes

The table below gives an indication of the impact on the calculated profit margin of changes to the assumptions regarding the key cost drivers.

**Table F.3 Sensitivity analysis of breakeven premium assumptions to the profit margin**

Components	Change in profit margin per vehicle and profit margin %			
	Optimistic		Pessimistic	
<b>Scheduled Benefits claim costs</b>				
Base: 2,824 claims	<u>2,700 claims</u>		<u>3,000 claims</u>	
	\$3.07	1.2%	-\$4.35	-1.7%
Base: \$14K average claim size	<u>\$13K avg size</u>		<u>\$15K avg size</u>	
	\$4.96	2.0%	-\$4.96	-2.0%
<b>Common Law claim costs</b>				
Base: 242 non-nil settlements	<u>215 settlements</u>		<u>300 settlements</u>	
	\$5.16	2.1%	-\$10.87	-4.4%
Base: \$138K average settlement size	<u>\$130K avg size</u>		<u>\$185K avg size</u>	
	\$2.53	1.0%	-\$15.73	-6.3%
<b>Future Care Claims costs</b>				
Base: 6 claims	<u>4 claims</u>		<u>8 claims</u>	
	\$15.23	6.1%	-\$15.23	-6.1%
Base: \$4.4m average claim size	<u>\$3.0m avg size</u>		<u>\$6.0m avg size</u>	
	\$14.76	5.9%	-\$16.17	-6.5%
<b>Superimposed Inflation</b>				
Base: SB & CL = 1.5% p.a. FC =0% p.a.	<u>No Superimposed</u>		<u>SB &amp; CL = 1.5% p.a. FC =1% p.a.</u>	
	\$8.71	3.5%	-\$10.92	-4.4%
<b>Expense Allowance</b>				
Base: \$16.0m	<u>\$15m p.a.</u>		<u>\$18m p.a.</u>	
	\$1.83	0.7%	-\$3.79	-1.5%
<b>Real Investment Return</b>				
Base: 3% p.a.	<u>4.0% p.a</u>		<u>2.0% p.a</u>	
	11.21	4.5%	-13.78	-5.5%

Note that the individual sensitivities shown in the table are not additive as interactions would occur if various changes in assumptions were combined. Moreover, it has been observed in other schemes that some of these changes to assumptions would probably work in opposite directions (e.g. more claims often means a lower average claim size), thereby mitigating some of the risks.

A discussion of the derivation of each of the optimistic and pessimistic assumptions is provided below.

#### F.4.1 Scheduled Benefits

The base claim numbers of 2,824 is based on recent experience. A pessimistic view would be an increase back to the level observed in 2009-10, whereas an optimistic view is set close to the 2016 year. Over the past six years claim numbers have been within a narrow range and therefore are unlikely by themselves to pose a large risk to the breakeven premium.

The base assumption for the average claim size is in line with the experience of recent years plus an allowance for hospital bed day-rate increases. The optimistic view incorporates a reduction of \$1,000 (8%) in the average claim size, whilst the pessimistic view has the average size deteriorating by \$1,000.

#### F.4.2 Common Law

The base scenario is for 242 claims to receive a damages settlement. A pessimistic view would be an increase close to the 297 observed in 2008-09 while an optimistic view would be to set experience close to the 2013-14 level of 212.

With regards to the average claim size, the pessimistic scenario is based on the 2009-10 year which is a high cost year and the optimistic scenario of \$130,000 is similar to the 2013-14 year which is a low cost year.

#### F.4.3 Future Care

Past numbers of Future Care claims (including allowance for IBNR claims) have varied between 4 and 14. The second highest year had 8 claims, which has been used as the pessimistic scenario.

The age of Future Care participants and nature of the injuries means that the average claim size for Future Care is volatile. In addition, improving medical technology may lead to greater independence (which will tend to reduce care costs) or to requests for more expensive restorative treatments (which will tend to increase costs). Increases or decreases of 33% above or below those assumed are quite possible. The risk of the pessimistic scenario occurring is partly mitigated by the reinsurance program.

#### F.4.4 Superimposed inflation

The estimated breakeven premium includes allowance for superimposed inflation at different rates for different benefit types. This is based on analysis over many years, most recently in September 2016. No allowance has been made for superimposed inflation for Future Care claims as analysis shows that current allowances for superimposed inflation produce no apparent trends towards over/under-estimation of liabilities. On this basis, there were no changes to the superimposed inflation assumptions.

The optimistic assumption requires MAIB being able to manage Future Care costs in line with inflation. The pessimistic assumption corresponds to an allowance of 1% p.a. for Future Care costs. This might arise as benefits are paid over a very long period and there is exposure to above-inflationary growth both through broadening of the benefits covered and through claimants accessing more complex and costly services.

Further, our general experience is that medical payments (in particular) are prone to exhibit bursts of superimposed inflation. The allowance for superimposed inflation is designed to cater for increased claims costs that cannot be directly attributed to any specific source. The MAIB has included specific adjustments for the increase in care costs due to the FWA decision and the increase in hospital rates. However, ordinarily such increases might be considered bursts of superimposed inflation. Offsetting the risk of superimposed inflation is the risk of reductions in life expectancy for Future Care claims, with a higher number of deaths in recent years than has been expected.

When making recommendations as to the maximum premium increases, the MAIB believes it is appropriate for the Regulator to consider the potential for the re-emergence of superimposed inflation on Future Care costs and higher levels of superimposed inflation on Common Law settlements.

#### F.4.5 General administration expense allowance

The base assumption of \$16.0m is consistent with the expense assumptions incorporated in the MAIB Corporate Plan. An optimistic view of \$15m would be close to the 2015-16 cost whereas the pessimistic scenario of \$18.0m could arise through higher reinsurance premiums and wage inflation.

#### F.4.6 Investment return

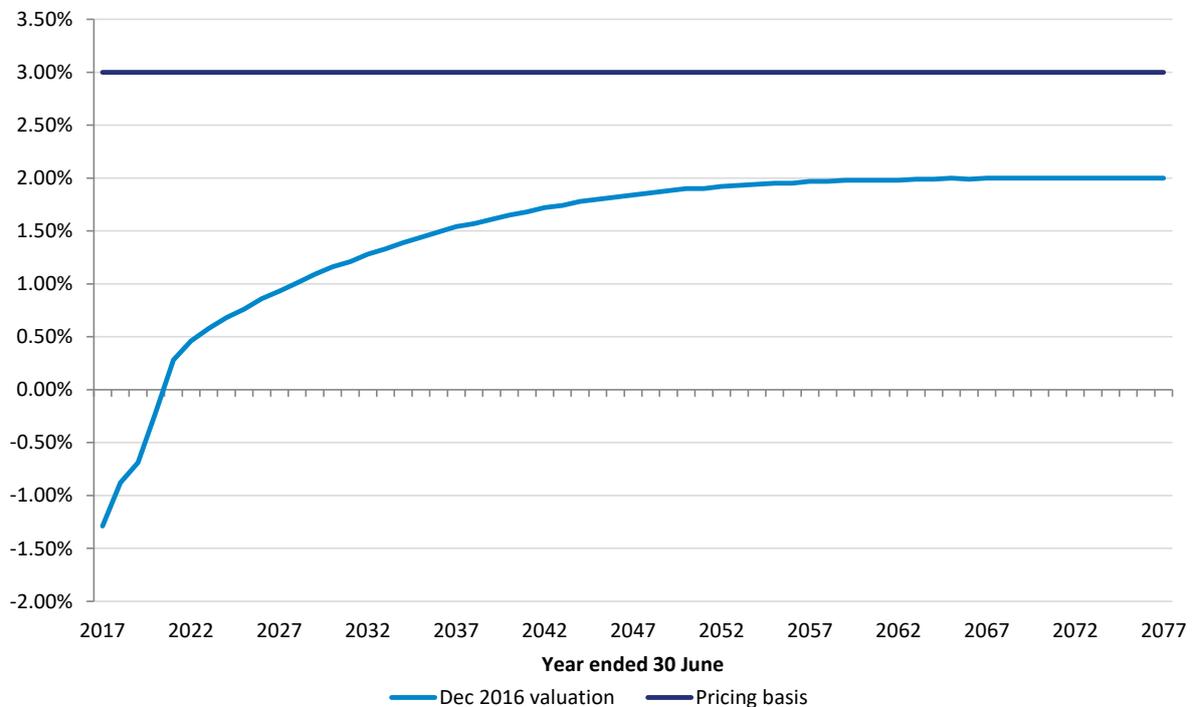
A real rate of return in the range of 2% p.a. to 4% p.a. is considered possible and adopting either end of the range would change the profit margin by -\$11.21 to \$13.78. A real investment return of 1.3% p.a. would fully absorb the profit margin.

#### Profit margin using risk free investment returns

The valuation of outstanding claims liabilities as at 31 December 2016 uses a series of discount rates based on the risk-free yields available at the valuation date.

The MAIB’s liabilities have payments beyond the maturity of the longest dated bonds, and the amount of issued long dated bonds is often limited. This means that market observed yields are supplemented with a forecast long term interest rate of 6% in 50 years’ time. This compares to the projected long term AWOTE assumption of 4% and implies a real return of 2% between wage inflation and risk free returns.

Figure F.2 Assumed real rates of return



The target real investment earning rate assumed in the breakeven premium calculation of 3.0% p.a. incorporates a margin above the risk-free rate used for the valuation of outstanding claims liabilities. This margin is the difference between the two lines in Figure F.2. This is considered appropriate as the MAIB’s

investment philosophy is to maintain a portfolio of assets which has significant exposure to growth assets, with an expectation that earnings will exceed the yields available on a risk-free basis.

The real investment return if the MAIB was to invest in 'risk free' Commonwealth Government bonds is only 0.54% p.a. This is low compared to historical levels. The estimated average breakeven premium using this basis required for 2017-18 is \$268, which is \$45 higher than the breakeven premium calculated using a 3% real return and would result in a profit margin of -8%.

## APPENDIX G BREAKEVEN PREMIUM CLAIM COSTS

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### G.1 Common Law claims

As part of its process for managing claims, the MAIB flags as a Common Law claim any claim considered to have the potential to give rise to the issuance of a writ. Over a period of around 18 months the MAIB reclassifies the claim status as more information on the nature of the incident and claim becomes known. This has the effect of reducing the number of Common Law claims from the initial intimated levels.

This process has historically resulted in approximately 35% of these potential claims ultimately receiving a damages amount. This has led to a change in the definition of what is included as a common law claim, so that a common law claim is now a claim that meets **at least one** of the following criteria:

- Solicitor appointment;
- Damages payment: These arise mostly from interstate insurers seeking reimbursements. There is a small number arising from motorists receiving a settlement without a solicitor; or
- Damages case estimate on the claim more than one year after accident.

Under this new definition Common Law claims represent approximately 10% of General claims with 85% expected to receive a damages settlement.

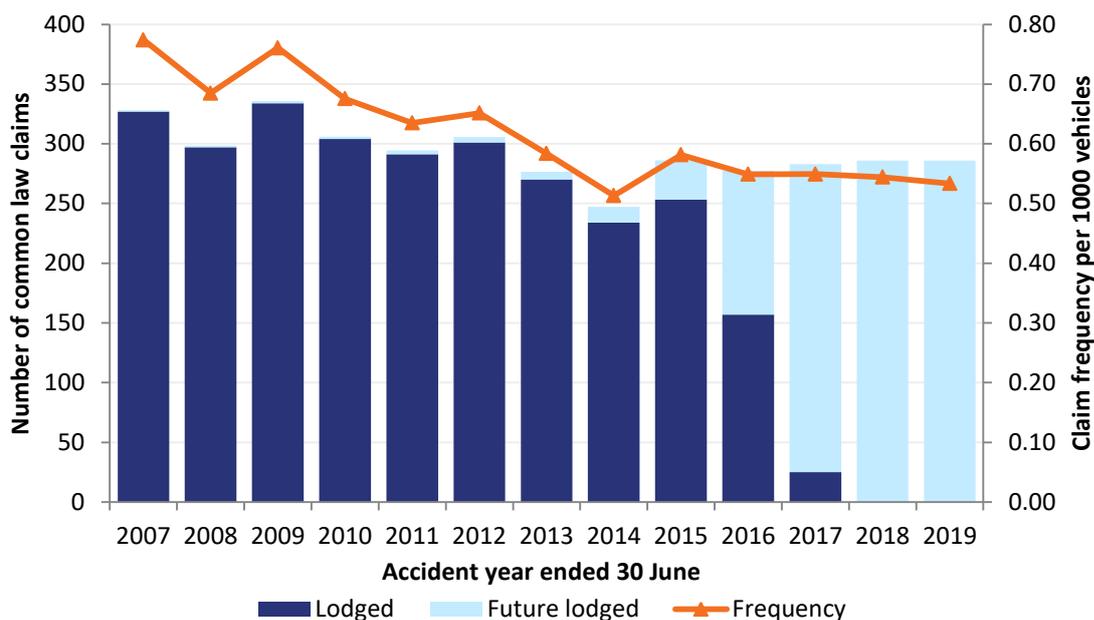
The projection of Common Law experience takes into account:

- The ultimate number of Common Law claims - a lead indicator of Common Law claim frequency with approximately 75% of claims known within one year of accident and 88% within two years.
- The rate at which this common law claims are settled.
- The average size of settled claims, together with the level of other common law costs (primarily legal and other investigation costs) for all claims including those that do not receive a damages settlement.

#### G.1.1 Common Law claims and claim frequency

Figure G.1 shows the number of claims lodged to 31 December 2016 and the future number of Common Law claims for each accident year. It also shows this as a frequency per 1,000 registered vehicles.

Figure G.1 Common Law claim numbers and frequency



The ultimate number of Common Law claims is known with a high degree of certainty for the 2014 and earlier accident years with only a small number of claims yet to be lodged. The chart shows that the number of claims has been relatively stable from 2007 to 2013 with 2014 being an unusually low year. When set against an increasing number of registered vehicles this has resulted in a 29% reduction in claim frequency for the ten years to 2017. The number of Common Law claims for future accident years is projected to remain at current levels, which implies that claim frequency will continue to reduce into the future.

The reduction in Common Law claim frequency is consistent with the reduction in General Claims (as shown in Appendix G.3.1). This is attributable to a range of factors including the impact of road safety policies and accident prevention activities (including those funded by the MAIB).

It is difficult to compare experience between jurisdictions because of differences in scheme design. In Victoria which has the most comparable scheme to MAIB, there has been a significant increase in common law claims over the same period. However, in Victoria common law benefits are only available to people with a 'serious injury' whereas in Tasmania there is no such threshold which again means that caution is advised when comparing experience.

### Premium assumptions

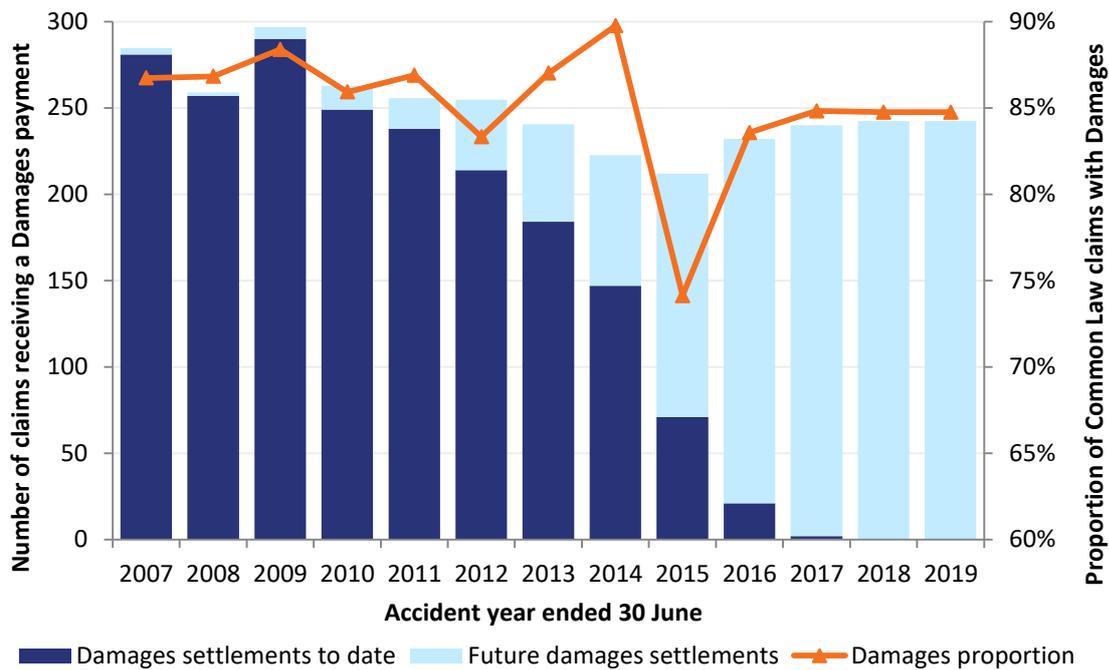
As a result of the experience over the past ten years projected claim numbers are no longer set as a frequency with reference to the number of registered vehicles, but rather have been set in absolute terms. Were there to be a rapid increase in the number of vehicles or were claims numbers to start to track vehicle numbers then this approach will be revisited.

The breakeven premium assumes that there will be 286 Common Law claims which equates to a claim frequency for 2017-18 of 0.54 claims per thousand vehicles.

### G.1.2 Claims Receiving a Damages Settlement

The chart below shows the number and proportion of Common Law claims that are projected to receive a damages payment.

Figure G.2 Damages settlement



Similar to the number of Common Law claims, the number of claims receiving a damages settlement is relatively stable. Further, when this is measured as a proportion of Common Law claims it falls within a range of 74% to 90%. The 2014 accident year stands out as an unusual year with the highest proportion but a low number of claims with damages. Contrastingly, 2015 is a low year both in terms of the number and proportion of claims receiving damages

Because of the time it takes from lodgement to settlement, there is a higher portion of future settlements compared to future lodgements.

### Premium assumptions

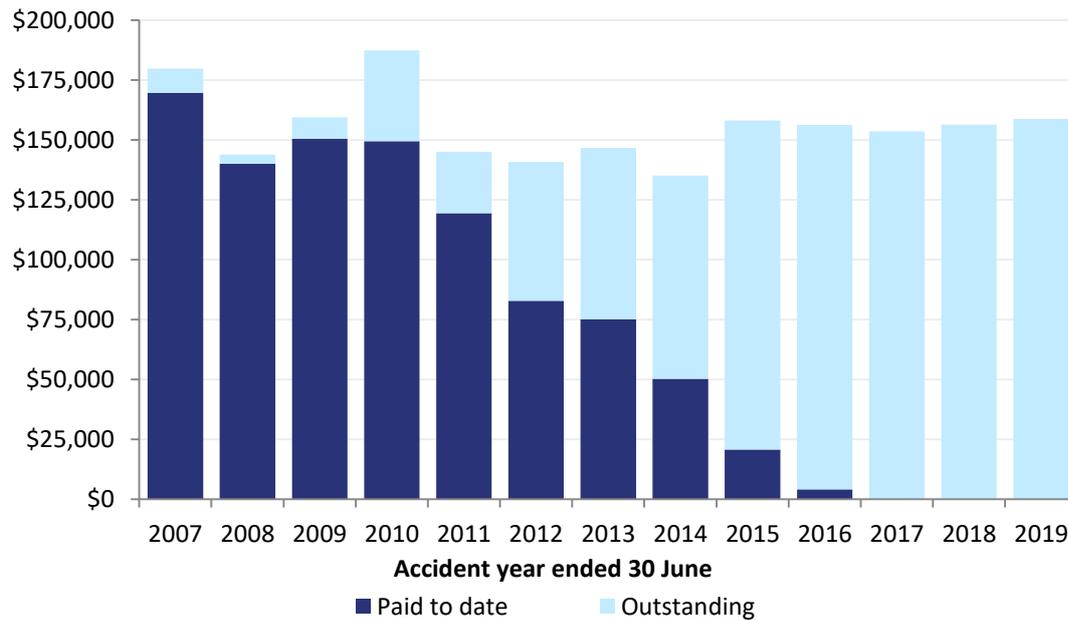
The estimated proportion of Common Law lodgements ultimately receiving a damages payment has averaged 85% in the period 2007 to 2015, which has been used to set the breakeven premium. This results in 242 non-nil settlements which is the ultimate driver of Common Law costs to MAIB.

### G.1.3 Common Law average claim size

The chart below shows the average estimated Common Law claim size (including superimposed inflation) by accident year. To allow for a fair comparison of costs over time, the average size is measured on a consistent basis to that used in the breakeven premium, with all costs measured in December 2016 values and then inflated and discounted to May 2018.

The average claim size comprises damages and legal & other costs. These relate to settlements to date which have mostly been paid and future settlements.

Figure G.3 Common Law average claim size



For recent accident years, only a small portion of the cost has been paid, the majority is outstanding and can only be estimated. For older accident years, such as 2010, very high cost claims can often take many years to settle as in many cases they involve injured children.

#### Premium assumptions

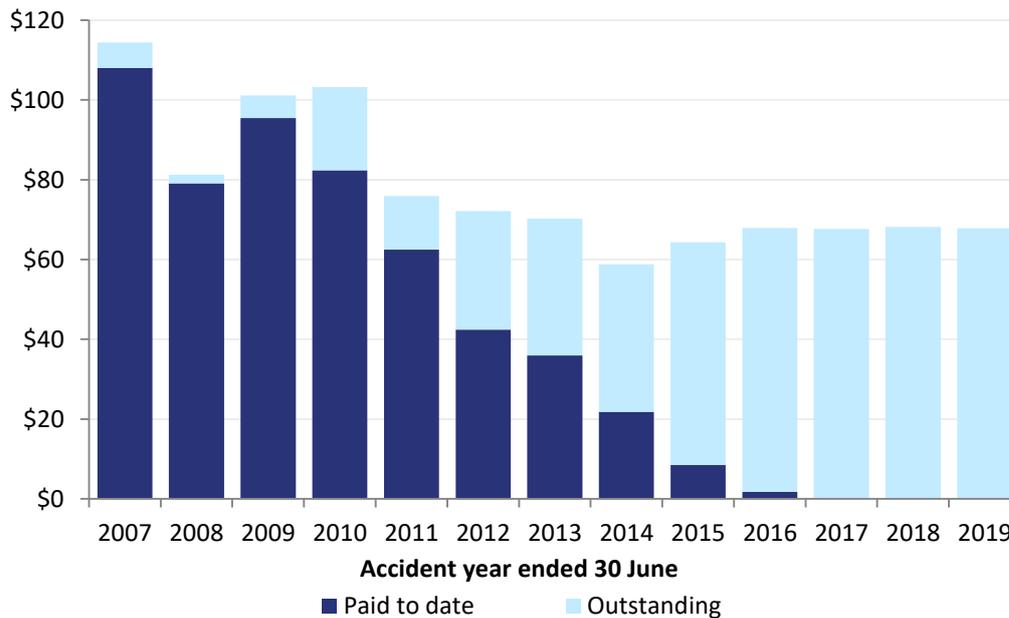
As shown in Figure G.3 there can be the occasional very high cost year which needs to be factored into the average size when setting the breakeven premium. The assumed average Common Law claim size, including both damages and legal and other costs, is \$159,000 which is consistent with the average experience for the 2007 to 2013 accident periods.

A common trend in MA insurance is the tendency for claim payments to increase at a rate faster than general community inflation. This is referred to as superimposed inflation. As described in Section 5.2 there is an allowance of Common Law costs to increase by 1.5% p.a. more than inflation.

#### G.1.4 Common Law average cost per vehicle

The analysis of frequency, proportion of non-nil claims and average size can be combined to show the trend in the average cost of Common Law claims per registered vehicle. The costs have been inflated and discounted to the middle of the year.

**Figure G.4 Average estimated Common Law cost per registered vehicle**



As shown in Figure G.4. Common Law costs per vehicle have been reducing mainly as a result of fewer claims. It is important to note that the outstanding costs (shown as the lighter shaded area) still comprise a significant portion of the costs for the 2012 and later accident years. This also provides a guide as to the level of uncertainty in the estimated cost per vehicle as the actual amounts paid are yet to be finalised.

The cost per vehicle of common law costs has reduced from around \$100 in the period 2007 to 2010 to \$75 in 2011 with further reductions thereafter. The adopted allowance in the 2017-18 breakeven premium is \$67.57. This is \$8.16 lower than the estimate from the 2013-14 breakeven premium.

Should the declining trend observed up to the 2014 year continue then there would be scope for further reductions in the breakeven premium. At this stage, there is too much uncertainty surrounding the costs of the 2014 and later accident periods to be confident to allow this trend to continue into the future.

## G.2 Future Care claims

Injured motorists requiring at least two hours a day of “daily care” for an indefinite period are referred to as Future Care claimants. The Future Care liability comprises:

- Care costs: Attendant care, sleepover and accommodation fees; and
- Non-care costs: Ambulance, hospital, medical, treatment, equipment, home and vehicle modifications and travel.

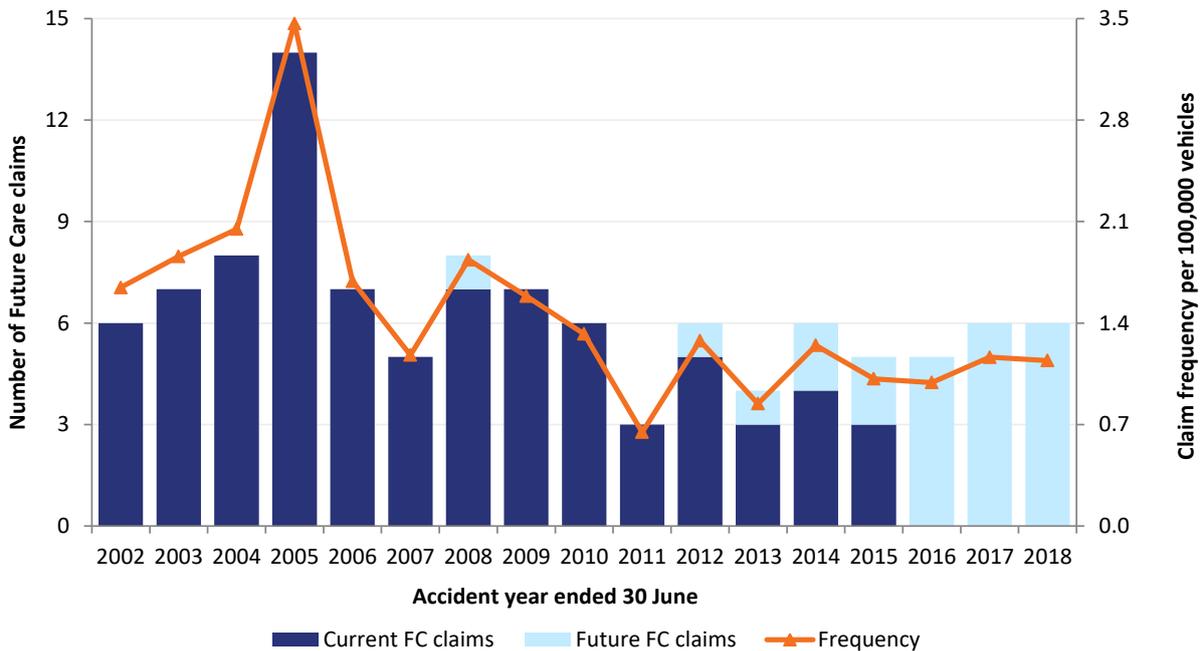
All other costs which are not classified within MAIB’s ambulance, hospital and medical categories are treated as Scheduled Benefits or Common Law costs even if they relate to a Future Care claim. MAIB annually reviews the future lifetime care and non-care needs of each Future Care claim, allowing for changes over time based on each individual’s circumstances.

Given the small number of Future Care claims which occur each year and the very long term nature of MAIB’s support a longer-term view of experience is generally required to assess trends in Future Care experience compared to Common Law and Scheduled Benefits.

### G.2.1 Number of Future Care claims

The chart below shows the estimated number of Future Care claims arising in each accident year, together with the implied claim frequency.

Figure G.5 Future Care claim numbers and claim frequency



The number of Future Care claims has fluctuated between 3 and 14 claims per accident year. This may change depending on the numbers of IBNR claims eventually reported for more recent years. For the 2010 and later accident years, claims have peaked at 6. MAIB also monitors claims likely to eventually qualify as a Future Care claim and an allowance for these is included in the projections (for example in 2008).

## Premium assumptions

Prior to 2007, the projection of Future Care claim numbers was based on an estimate of 11 claims incurred each year. This has gradually been reduced to the current assumption of six claims incurred per year.

It is expected that 3 of the 6 claims each year will be known within two years of accident. These are also often the most expensive claims as those claimants with the most severe injuries are the easiest to identify as Future Care claims.

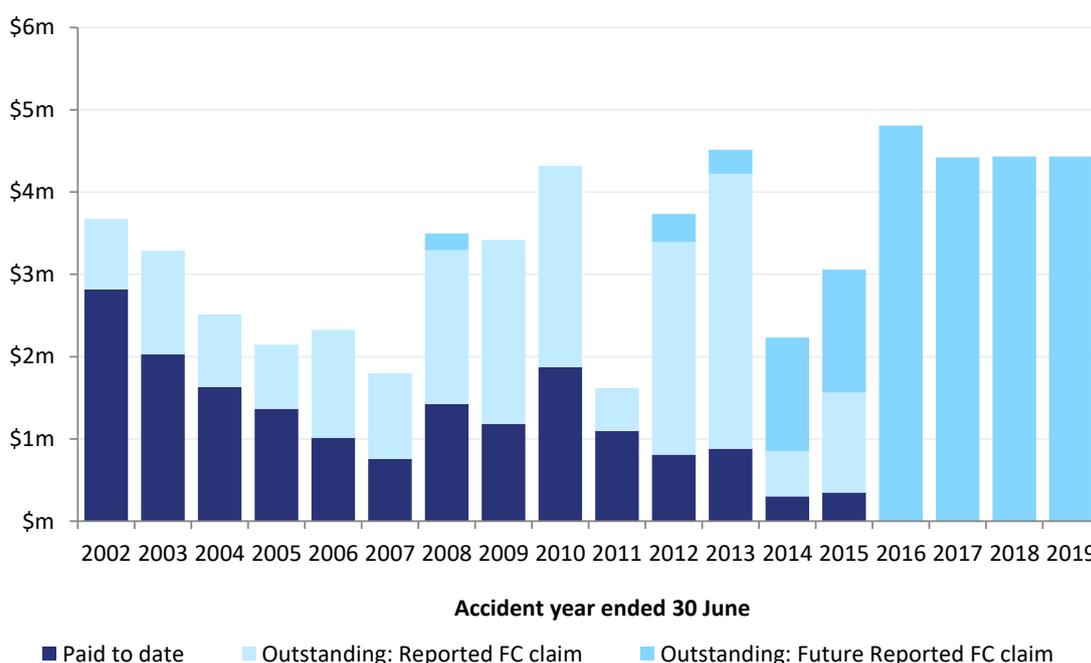
### G.2.2 Average Future Care claim size

Future Care claim payments are made for as long as a claimant requires “daily care”, often for life. The cost of Future Care claims is therefore heavily dependent on the age of the claimant and the nature and severity of injuries incurred.

The cost of Future Care claims can only be estimated and is highly uncertain. Many factors can contribute to future cost increases for these claims, including deterioration in a claimant’s health, ageing of parental carers, and technological advances.

The chart below shows the past average discounted estimated cost per Future Care claim. The amounts are gross of GST and of reinsurance recoveries.

**Figure G.6 Future Care estimated average claim size**



Only a small portion of Future Care costs have been paid to date. Most the cost is estimated, even for older accident years. For the 2014 and later accident years, the majority of the cost relates to the allowance for future reported Future Care claims.

The estimated average claims cost is highly variable, reflecting the relatively small number of claims in each year, and the widely differing prognoses and care needs of the individuals involved. For example, the younger and more severely injured claims are expected to cost approximately \$10m whereas as older or less severely injured claims might cost \$1m.

## Premium assumptions

Up to the 2013 accident year there is a general increase in the average cost per claim which aligns with the reduction in Future Care claim numbers. This implies that it is the relatively less severely injured claims that are no longer becoming Future Care claims.

Therefore, the adopted average claims size of \$4.432m is set at the upper end of recent experience. As shown in Figure G.7 this provides an average cost per vehicle that is lower than the 2010 and earlier accident years but which is higher than the very low cost for more recent years.

### G.2.3 Fair Work Australia Decision

Fair Work Australia (“FWA”) awarded significant increases to carers in a decision handed down on 1 February 2012. The increases ranged from 19% for Level 2 to 41% for Level 8 carers and were to be applied in nine equal steps on 1 December each year, commencing in 2012 and finishing in 2020. In addition, FWA awarded cumulative annual loadings of 1% per annum over the first four years of the implementation period. The weighted average increase was 24% above CPI, spread over the nine years.

As discussed in Section 5.2, this has resulted in the hourly attendant care rates paid by MAIB increasing by an additional \$0.98 p.a. over CPI indexation. The calculated breakeven premium includes an allowance for this increase in Future Care costs.

### G.2.4 Reinsurance recoveries

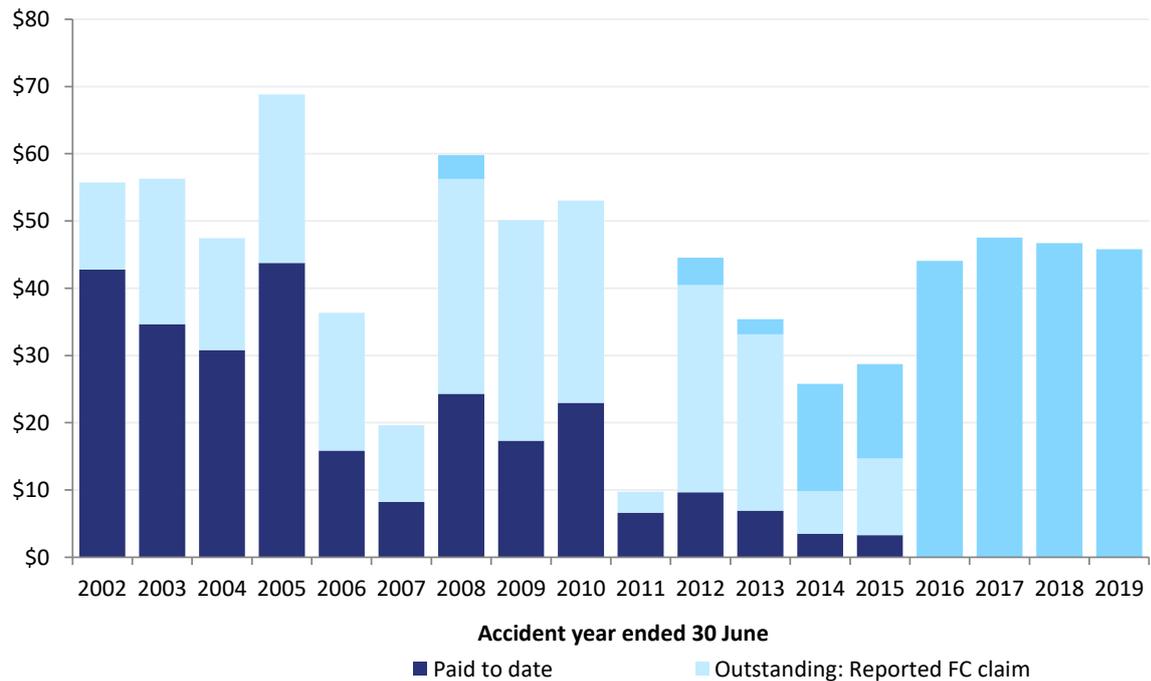
MAIB has had excess of loss reinsurance treaties covering its liabilities for most years since 1978-79. These contracts are assessed annually and provide “per event” cover for losses at levels that may vary from year to year. For 2016-17 the reinsurance contracts covered events in excess of \$7.5m.

Reinsurance recoveries have been variable and few recoveries have been made in relation to recent years’ claims.

### G.2.5 Cost per vehicle

The adopted Future Care claims cost per vehicle of \$45.70 represents a 6.8% reduction from the 2013-14 breakeven premium. This reduction is due to favourable recent experience with an average cost per vehicle of \$29 for 2011 to 2014. However, given the small number of claims reported and the variability in claim sizes the adopted cost also gives weight to longer term experience with the cost from 2002 to 2010 averaging \$50.

Figure G.7 Future Care cost per vehicle



### G.3 Scheduled Benefits claims

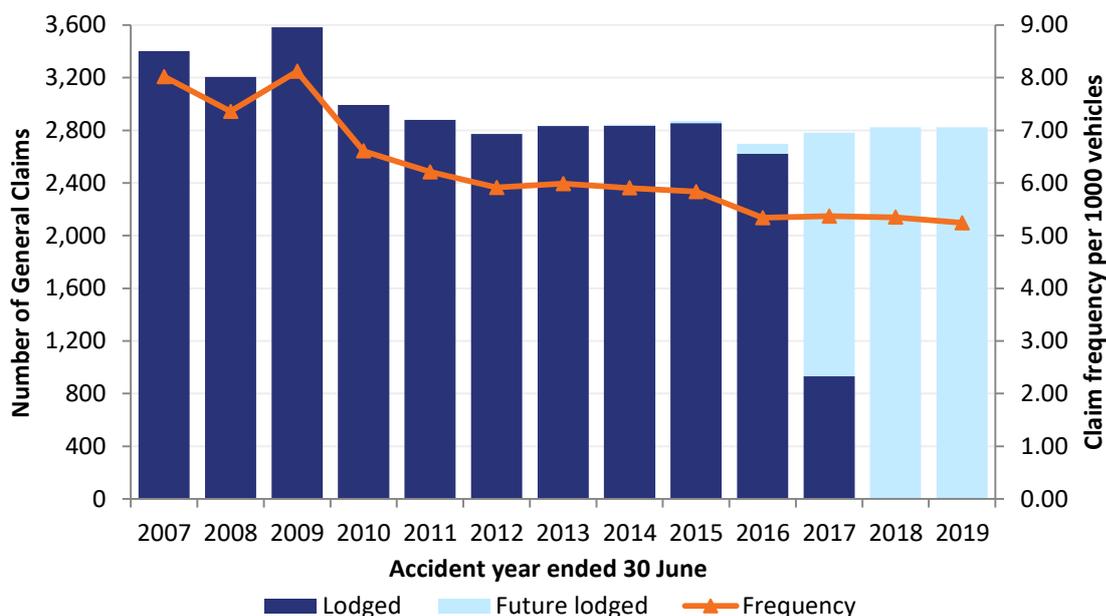
The cost of Scheduled Benefits is based on the number of General Claims reported, rather than just those receiving Scheduled Benefits. This provides a useful benchmark on the emerging claims volume, which is also a lead indicator of overall financial performance.

The number of General Claims reported will exceed the number that ultimately receive Scheduled Benefits, as many claims are either denied, ineligible, do not pursue a claim, or are settled directly at Common Law.

#### G.3.1 General claims

The chart below shows the historic number of General Claims per 1,000 registered vehicles, together with the claim frequency.

Figure G.8 General Claim numbers and frequency



There was a step change in the number of General Claims in 2010 and since then claim numbers have been within a very narrow range until 2016 where claim numbers fell to record lows. This experience has resulted in a gradual decline in claim frequency having reduced by 33% from 2007 to 2017.

This improvement is at a similar level to the improvement in Common Law claim frequency and is attributed to similar causes.

### Premium assumptions

Like Common Law, as a result of the experience over the past ten years, projected claim numbers are no longer set as a frequency with reference to the number of registered vehicles, but rather have been set in absolute terms. Were there to be a rapid increase in the number of vehicles or were claims numbers to start to track vehicle numbers then this approach will be revisited.

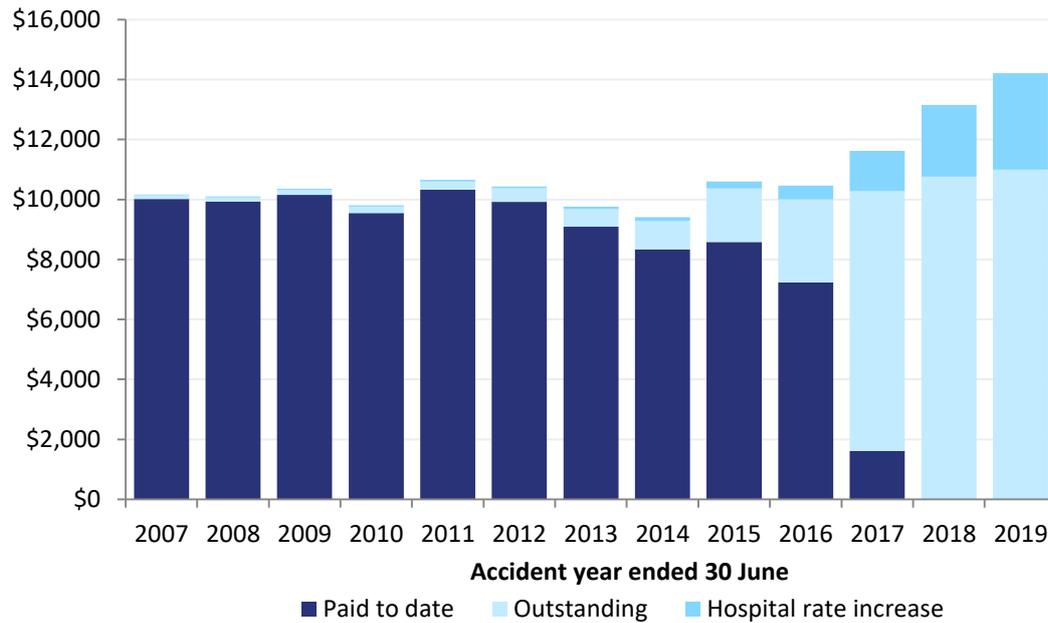
The breakeven premium assumes that there will be 2,824 claims which implies a claim frequency for 2017-18 of 5.4 per thousand vehicles.

### G.3.2 Scheduled Benefits average claim size

The chart below shows the average estimated Scheduled Benefit claim size (gross of GST) by accident year. To allow for a fair comparison of costs over time, the average size is measured on a consistent basis to that used in the breakeven premium with all costs measured in December 2016 values and then inflated and discounted to May 2018.

The chart shows costs split between amounts paid to date and future payments (including superimposed inflation), with the future payments further split to separately show the impact of hospital bed day rate increases.

**Figure G.9 Scheduled Benefits average estimated claim size**



The average cost per claim was close to \$10,000 for the 2007 to 2014 accident years. In 2015 there was a step increase in hospital and ambulance costs before the impact of the new hospital fee rates that are effective from 1 July 2016.

The agreed hospital fees increase discussed in Section 5.2 will be phased in over four years meaning that the average Scheduled Benefit claim size will also increase over this period. By 2019, hospital fee increases will add more than \$3,200 to the average cost of each claim.

Scheduled Benefits are paid quickly with a large proportion of costs relating to treatments immediately following the accident. This means that the average cost is known with a high degree of certainty relatively soon after accident, as shown by the small amount of outstanding payments for most accident years.

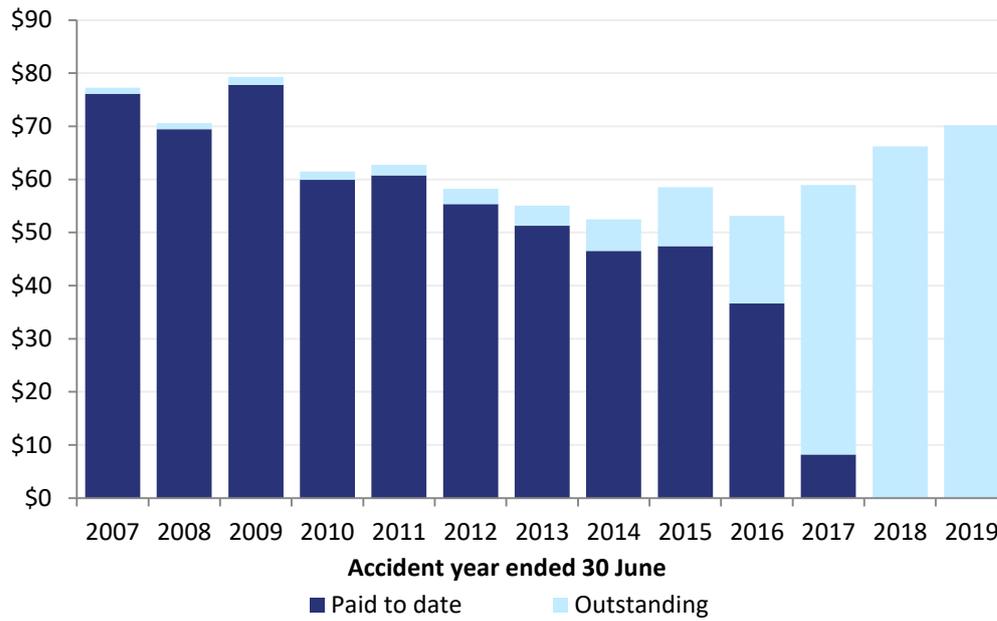
**Premium assumptions**

As discussed in Appendix F the 2017-18 premium year spans several accident years and that the average claim size assumed for Scheduled Benefits are close to the \$14,000 for the 2019 accident year.

**G.3.3 Scheduled Benefit average cost per vehicle**

The chart below shows the average Scheduled Benefit cost per registered vehicle in inflated and discounted values to 31 May 2018.

**Figure G.10 Average estimated Scheduled Benefit cost per registered vehicle**



The average cost per vehicle decreased from around \$80 to a low of \$53 in 2014. However, the impact of hospital rate increases will see the cost increase back to \$69.87, which is 2.3% lower than the 2013-14 breakeven premium estimate as shown in Table F.2.

## G.4 Superimposed Inflation

The term superimposed inflation is used to describe the growth in claims costs that is not explained by “normal” inflation (which in this case is represented by wage inflation) or other elements modelled explicitly. Sources of superimposed inflation include increased utilisation of more expensive services, and new precedents and heads of damage in common law awards.

Often superimposed inflation can occur as a step change (such as a large fee increase) but in other situations it does emerge more evenly (such as the FWA decision). Both types of superimposed inflation need to be allowed for when projecting the claim costs.

An allowance for superimposed inflation has been built into the outstanding claims liability valuations since December 2001. Recent investigations of the MAIB’s average claims costs has confirmed growth above inflation with the latest investigation completed in September 2016. Therefore, the superimposed inflation assumptions remain unchanged. The assumptions are shown in Table G.1.

**Table G.1 Superimposed inflation assumptions**

	Current assumptions	2013 submission
Scheduled Benefits	1.50%	1.50%
Common Law	1.50%	0.75%
Future Care	0.00%	0.00%

The liabilities reported in the financial accounts as at 30 June 2016 incorporate the above superimposed inflation rates.

Superimposed inflation has been included in the pricing assumptions for several reasons:

- Scheduled Benefits has twice seen superimposed inflation over the past twenty years. The first instance was in 2004 when the average claim size increased by 8%, and the second example is the recent increase in hospital and ambulance costs observed in 2015 together with the agreement to effectively double hospital bed day fees from July 2016.
- For Common Law average claim costs increased from settlements after 2007 which might be attributable to the reduction in the discount rate used to calculate settlements. There is a further source of potential superimposed inflation as a result of the 2014 decision in *Mercer v Allianz Australia Insurance Limited* which indicated that general damages awards in Tasmania were significantly lower compared to other Australian jurisdictions. This led to the increase in superimposed inflation since the 2013 submission.
- Future Care does not have a specific allowance for superimposed inflation. Instead superimposed inflation has been included to the extent that it is foreseeable in the expected support needs for Future Care claims and through an allowance for the FWA decision.

## APPENDIX H BREAKEVEN PREMIUM EXPENSES

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### H.1 General Administration Expenses

Comparing administration expenses between MA schemes is difficult because the level of general expenses varies with the type of compensation and the level of service provided. Without detailed investigations, high expense levels could indicate that a scheme is not operating efficiently, or this might mean lower case-loads which delivers better health outcomes, fewer disputes and more innovative claims management that reduces claim costs.

In particular, schemes where only Common Law compensation is provided could be expected to incur lower costs than those with both Common Law and No-Fault compensation. Common Law costs may also appear low as defendant legal costs, which are an “administrative” type cost required to provide Common Law benefits, are usually classified as a claim cost rather than an administrative cost.

The assumed level of General Administration Expenses in the breakeven premium is 5.1% of the premium or \$12.53. This is lower than the \$13.91 per from the 2013-14 breakeven premium. General administration expenses from 2018 are projected to increase roughly in line with AWOTE increases.

### H.2 Collection (Agency) Fees

Except for NSW, all MA schemes utilise the state registration authority to collect premiums. The collection fee charged to the MAIB by the Department of State Growth is currently \$4.20 per certificate. This is the same rate that was paid in 2013.

Care is required in interpreting the agency fee figure for the MAIB as more than one premium collection fee is incurred for vehicles that elect a periodic registration (although they are counted only once in the annual vehicle count). A surcharge, which is designed to be revenue neutral, is payable for periodic registrations to meet the cost of the additional collection fee and to reimburse the MAIB for foregone investment income (the loading is discussed in Section 10.4).

The 2017-18 breakeven premium includes an allowance for acquisition costs of \$3.0m which equates to \$5.69 per vehicle and represents a 4.7% reduction from the 2013-14 breakeven premium. This reduction is due to additional increases that were factored into budgeted costs as part of the 2013 review, with the actual cost per registration having remaining unchanged over the past four years.

### H.3 Reinsurance

The cost of reinsurance varies by the nature and extent of cover purchased. Reinsurance cover is defined by the amount of risk retained by the insurer and the amount of risk passed to the reinsurer.

The net cost of reinsurance for 2017-18 is estimated to be \$6.3m. For the purposes of forecasting, reinsurance premiums are forecast to increase at a constant rate per annum (on average) of 2.0% per vehicle. In practice, the reinsurance premiums are renegotiated annually based on several factors (such as risk appetite and factors that generally impact on insurance premiums at the time).

The periodic and long term nature of Future Care claims means that the nature of MAIB’s risks are quite different from many other risks covered by reinsurers, which can limit the availability of reinsurance. MAIB’s reinsurance premiums over the past four years have remained steady resulting in reductions in real terms. The ongoing reduction to Future Care claim frequency should help to mitigate the risk of large increases in the future.

## APPENDIX I HISTORICAL CLASS 1 PREMIUMS

The history of the premiums charged by the MAIB for private motor vehicles is shown below.

**Table I.1 Past MAIB premium increases for private cars**

Policy Year (Starting 1 Dec)	Class 1 Premium (includes GST but excludes stamp duty)	Change %	Maximum allowable increase (AWOTE %)	Increase above/(below) AWOTE
2000-01	\$271	4.6%	3.6%	1.0%
2001-02	\$288	6.3%	5.3%	1.0%
2002-03	\$307	6.6%	5.6%	1.0%
2003-04	\$324	5.5%	3.3%	2.2%
2004-05	\$332	2.5%	4.9%	-2.4%
2005-06	\$332	0.0%	4.6%	-4.6%
2006-07	\$332	0.0%	4.8%	-4.8%
2007-08	\$332	0.0%	3.6%	-3.6%
2008-09	\$332	0.0%	4.5%	-4.5%
2009-10	\$344	3.6%	3.6%	0%
2010-11	\$344	0.0%	5.6%	-5.6%
2011-12	\$344	0.0%	4.2%	-4.2%
2012-13	\$344	0.0%	4.3%	-4.3%
2013-14	\$318	-7.6%	5.1%	-12.7%
2014-15	\$318	0.0%	2.6%	-2.6%
2015-16	\$318	0.0%	2.4%	-2.4%
2016-17	\$294	-7.5%	1.9%	-9.5%

The following comments are made in relation to past premium increases:

- Price adjustments up to 2003-04 were required to meet the increase in costs as a result of the introduction of TNS/GST.
- The increase for 2004-05 was approximately half of the maximum allowable increase and over the subsequent eight years up to 2012-13 (last year before the previous TER review), premiums were unchanged in seven of those years with the only increase being in 2009-10.
- Since the previous TER review, there have been two large premium reductions, in 2013-14 and 2016-17. These reductions have resulted in a premium that is the lowest in Australia and which is lower than what was paid in 2002-03. This reflects ongoing reductions in claim frequency.

Note that the premiums shown in Table I.1 are for Class 1 vehicles. The premiums for several other vehicle types have changed at different rates.

## APPENDIX J PREMIUMS BY VEHICLE CLASS: METHODOLOGY

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### J.1 Background and terminology

The MAIB's pricing structure differentiates risks on the basis of vehicle type. Twenty-two vehicle classes are currently used in the pricing schedule (refer Appendix A). Class 1, Motor Cars, accounts for more than 60% of total vehicle registrations.

The relationships between the premium rates for different vehicles are referred to as premium relativities. The premium relativity for a class of vehicle represents the ratio of the premium payable for that class to the premium payable for Class 1 (Motor Cars).

Claims cost relativities represent the ratio of the claims cost per vehicle for a class of vehicle to the claims cost per vehicle for Class 1 (Motor Cars). As such, they are an indicator of relative risk. To minimise cross-subsidies it is desirable that the premium relativities reflect the claim cost relativities of each class.

The MAIB commissioned a review of the premium relativities considering the experience over the last 4 years. The investigation was completed in November 2016. The following sections detail the methodology and recommendations of that review.

### J.2 Cost allocation to vehicle classes

Motor accidents may involve more than one vehicle, with varying degrees of liability. The issue of allocation of costs between vehicles involved in an accident is a fundamental issue when determining reasonable premium relativities.

Costs may be allocated on several bases, including:

- **vulnerability** - costs are allocated to the vehicle the claimant occupied;
- **fault** – costs are allocated to vehicles according to the level of responsibility for the accident; or
- **involvement** - costs are shared equally between the vehicles involved.

As discussed in Section 9 using a **fault** based approach is viewed as being the most appropriate option when setting premiums.

### J.3 Measuring relative experience between vehicle classes

Once claim costs are allocated to vehicles the next step is to estimate the relative cost for different vehicle classes. The most recent premium relativity review combined the results of three methodologies:

1. **Pure fault basis:** allocating claim costs according to the degree of fault attributed to the vehicle class (based on MAIB's assessment of liability attached to each incident);
2. **Fault and Future Care spread basis:** allocating non-Future Care (non-FC) costs based on fault, and spreading Future Care (FC) costs over all classes in proportion to non-Future Care costs; and
3. **Component Analysis:** Separately analyses the relativities for Future Care and Non-Future Care costs and assigns a weighting of 25% relativities to Future Care and 75% to non-Future Care relativities.

#### J.3.1 Pure fault basis

This methodology involves apportionment of the cost of claims in proportion to each vehicle's assessed contribution to the accident.

The main advantage of this methodology is that the resulting premium relativities pass on the cost of compensation to those groups which are causing (or largely responsible for) the accidents.

The main disadvantage of this methodology is that allocation of fault is judgemental, and may be considered inappropriate for No-Fault benefits.

Fault based or Common Law benefits are most appropriately allocated in this manner. Even for these benefits however, it may be difficult to determine the proportion of fault for each vehicle.

### J.3.2 Fault and Future Care spread basis

A further factor that impacts all the above allocation methodologies is the potential distortion caused by large Future Care claims. A vehicle class with a small number of vehicles can have its experience relativity increase significantly by the occurrence of a single Future Care claim. There are very few of these claims each year, and there is an element of randomness about the occurrence or non-occurrence of a Future Care claim in the various vehicle classes.

In these circumstances, there is an argument that the cost of Future Care claims should be “spread” in some way among vehicle classes or analysed separately from other claims.

Under this basis, Future Care costs across vehicle classes are allocated to vehicle classes in proportion to the non-Future Care claim costs. This implicitly assumes that the non-Future Care claim costs are a better indicator of risk than other measures (such as vehicle numbers).

### J.3.3 Component Analysis

The component analysis is consistent with the estimated claim costs used in the breakeven premium calculations for the 2016-17 policy year, because the breakeven premium calculations were based on long-term average annual costs. There have been only 8 Future Care claims over the past four years which means that the last four years’ costs may provide a very different perspective than the assumed long-term average. It is therefore necessary to use a longer-term basis for measuring Future Care costs. The last four years’ non-Future Care costs, on the other hand are close to the long-term assumed costs. The component analysis is a method of combining a long-term view of Future Care costs with the last four years’ view of non-Future Care costs.

Another reason for considering the results of the component analysis is being able to monitor trends in the premium relativities over time, without the distortions that can occur when there is a Future Care claim.

### J.3.4 Adopted approach

The first two approaches have been used in previous premium relativity reviews whereas the component analysis is a new approach. The component approach is consistent with the breakeven premium calculations assigning 25% weight to Future Care relativities and 75% weight to non-Future Care costs which is broadly consistent with the claim cost split from the breakeven premium.

The selected historical experience relativities were then based on the average relativities from the three approaches. It highlights the fact that no single methodology of allocating claims costs can be defended as precisely correct, but that the results of several methods provides information about the possible range of relativities.

The selected claim experience relativities were then blended with the existing premium relativities, based on the size of each vehicle class and its credibility of its experience. This has provided the basis for recommended changes to the premium relativities.

The suggested changes to existing premium relativities take into account the cost allocation the underlying risk, including the experience from similar schemes with higher vehicle and claim volumes.

#### J.4 Collecting sufficient premiums

When vehicle relativities are changed, this will also impact the total amount of premiums collected. Depending on the final adopted premium relativities there may also need to be a change to the Class 1 premium. If the revised relativities are lower on average this means the Class 1 premium may need to increase to avoid under-collecting of premiums, whereas if there is an overall increase in the relativities there may be scope to reduce the Class 1 premium.

MAIB intends to take a pragmatic approach and only revise the Class 1 premium if the degree of under or over collection is material. Based on the proposed relativity changes the MAIB does not expect that the Class 1 premium will need to change as a result of this submission.

## APPENDIX K PREMIUMS BY VEHICLE CLASS: PROPOSED RELATIVITIES

The following table shows the current (2016-17) relativities and those which the MAIB proposes.

**Table K.1 Current and proposed vehicle class relativities**

Class Description	Current relativities	Proposed relativities	Change
1 Motor Car	1.00	1.00	
2 Light Goods Vehicle	1.00	1.00	
3 Heavy Goods Vehicle	1.58	1.58	
4 Medium Motorcycle	1.51	1.70	0.19
5 Large Motorcycle	1.51	1.70	0.19
6 Taxi or Chauffeured Hire Car	3.40	3.50	0.10
7 Large Passenger Vehicle	2.59	2.59	
8 Hire and Drive Vehicle	2.59	2.59	
9 Caravan	0.13	0.13	
10 Heavy Trailer	0.29	0.29	
11 Mobile Crane	1.06	1.06	
12 Restricted Registration	0.14	0.14	
13 Plant & Machinery	0.38	0.38	
14 Motor Trade Plate	1.06	1.00	-0.06
15 Farm Tractor	0.38	0.30	-0.08
16 Medium Passenger Vehicle	1.34	1.25	-0.09
17 Small Motorcycle	0.50	0.60	0.10
18 Off Road & Recreational	0.76	1.00	0.24
19 Short Term Permits	0.10	0.10	
20 Medium Large Motorcycle	1.51	1.70	0.19
21 Vintage or Street Rod	0.10	0.10	
22. Special Interest Vehicle	0.32	0.25	-0.07

The following sections outline the basis for the suggested vehicle class relativities. For some classes a comparison with interstate schemes has been shown. These comparisons are illustrative only as vehicle class definitions do not correspond exactly to those used in Tasmania, some relativities are from the 2015-16 premium year and in some states the premiums vary by insurer.

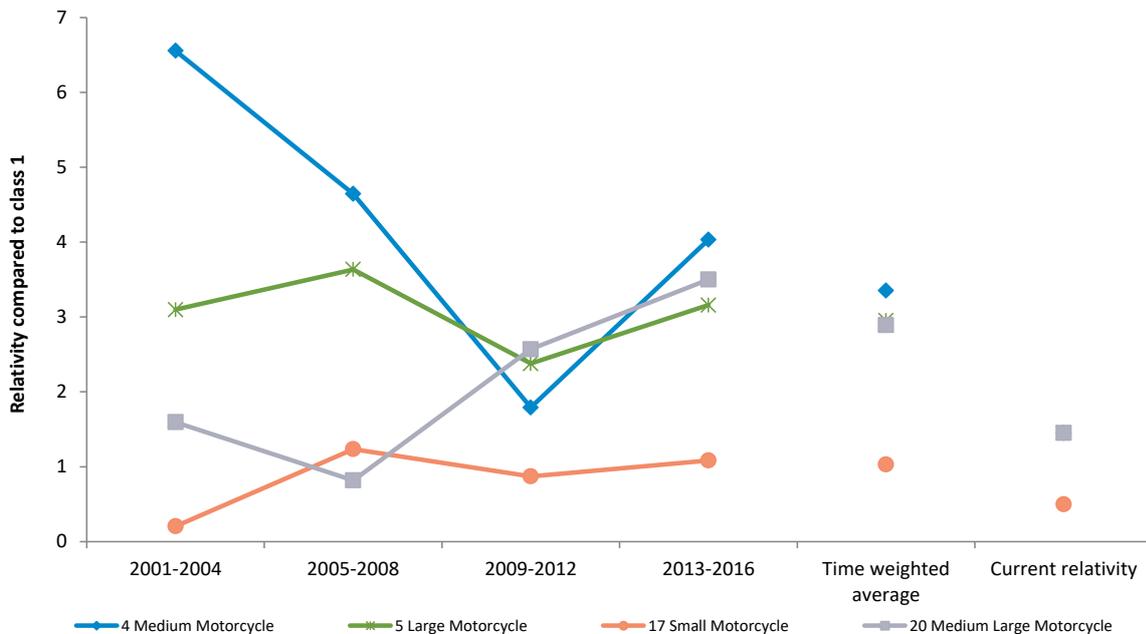
## K.1 Motorcycles (Classes 4, 5, 17 and 20)

Table K.2 Relativity analysis for motorcycle classes

Class Description	Claim experience relativity			Premium relativity	
	Fault	Fault and FC Spread	Component	Current	Suggested
4 Medium Motorcycle	3.16	4.09	2.83	1.51	1.70
5 Large Motorcycle	2.43	3.14	2.82	1.51	1.70
17 Small Motorcycle	0.84	1.08	0.77	0.50	0.60
20 Medium Large Motorcycle	2.75	3.56	2.55	1.51	1.70

Experience for all motorcycle classes continues to be much higher than the current premium relativity. Figure K.1 and Figure K.2 separately analyse the experience over the past 16 years for non-Future Care costs and Future Care costs.

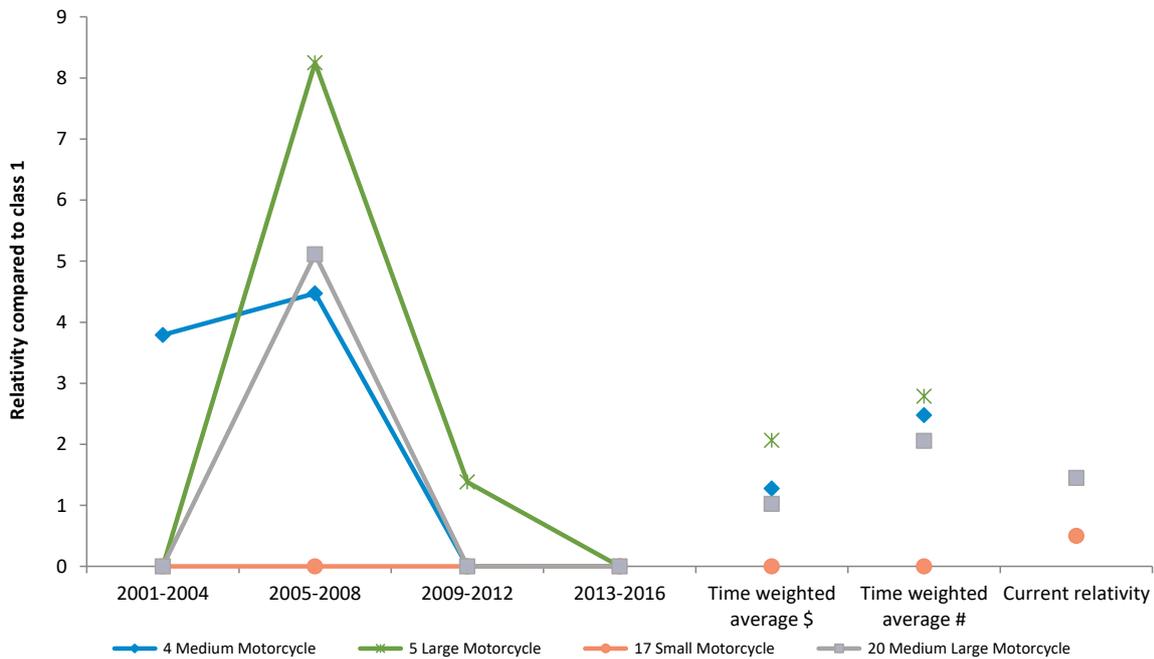
Figure K.1 Motorcycles: Non-Future Care relativities



Over the past eight years, experience for Classes 4, 5 and 20 have been similar and therefore it is reasonable to consider their combined experience. For these classes, the non-Future Care relativities are much higher than those in the current premium basis. This is mostly due to claim frequency which is approximately 2.6 times higher than Class 1 vehicles whereas average claim sizes are only 1.2 times the Class 1 average size.

Even though there are fewer than 2,000 Class 17 vehicles, non-Future Care experience is quite stable with a non-Future Care relativity of about 1.0.

Figure K.2 Motorcycles: Future Care relativities



Given the small number of Future Care claims, the experience is not too dissimilar for Classes 4, 5 and 20 and there have not been any Future Care claims from Class 17. This implies that there are some systemic changes occurring with three classes all having high experience from 2005-2008 and only one claim over the past eight years. This contrasts with the broader experience (shown in Figure K.1) where the drop in 2009-2012 was followed by an increase over the past four years.

For Classes 4, 5 and 20 the average relativity based on cost is between 1.0 and 2.1 with an average of 1.7. However, when looking at experience based on claim frequency only, the relativities are much higher with an average of 2.6. This may reflect that motorcycles are less likely to involve catastrophically injured children (who tend to have a higher lifetime cost).

Suggested relativities

There is a large difference between the experience based relativities and those currently being charged. It is not reasonable to increase premiums from current levels to those implied from claims experience in one step and it should be noted that MAIB has been gradually increasing the relativities over time.

In the 2013 TER report the premiums for motorcyclists were considered in detail and the reported concluded that higher premiums should be charged to reduce cross-subsidies from other motorists. This has occurred over the past four years but there remains scope for further increases. Therefore, there is a suggested increase in the relativity to 1.7.

## K.2 Passenger and Hire Vehicles (Classes 6, 7, 8, 16)

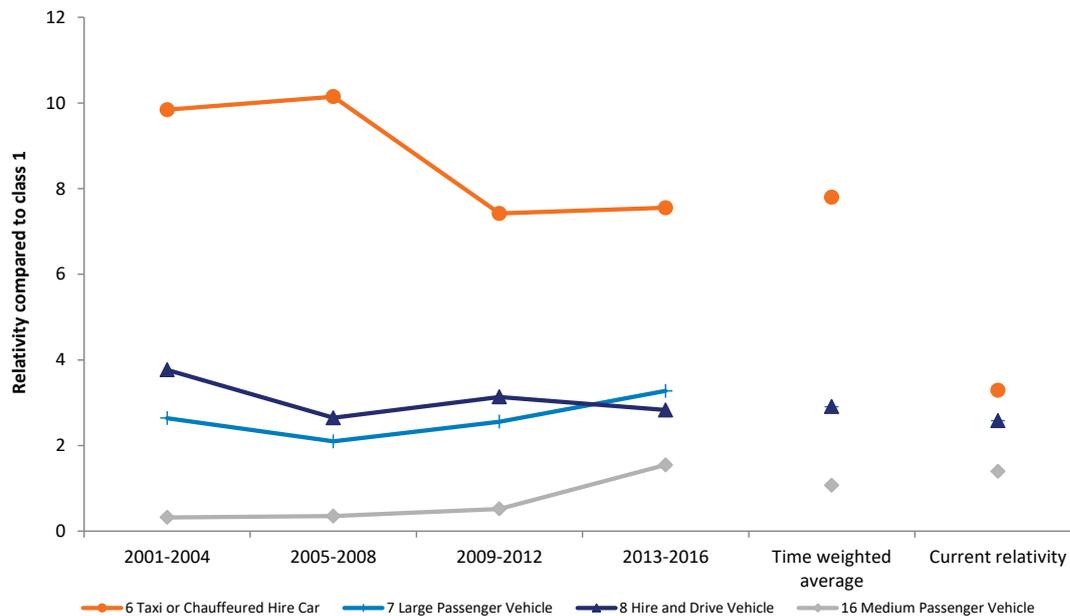
**Table K.3 Relativity analysis for passenger and hire vehicle classes**

Class Description	Claim experience relativity			Premium relativity	
	Fault	Fault and FC Spread	Component	Current	Suggested
6 Taxi or Chauffeured Hire Car	5.88	7.61	5.85	3.40	3.50
7 Large Passenger Vehicle	2.53	3.28	3.67	2.59	2.59
8 Hire and Drive Vehicle	2.19	2.83	2.37	2.59	2.59
16 Medium Passenger Vehicle	1.20	1.55	0.81	1.34	1.25

Despite increases in the premium relativity over the past four years, the experience for Class 6 vehicles remains much higher than the current premium relativity. However, since they comprise a relatively small part of the market, changes in premium relativities does not have a material impact on total collections.

Further, this sector is at risk should drivers become ride-sharing operators in which case they would pay a Class 1 premium and save more than \$700 annually. If all Class 6 vehicles paid a Class 1 premium the overall impact on the premium pool would be a reduction of less than \$0.5m.

**Figure K.3 Passenger and Hire Vehicles: Non-Future Care relativities**



Currently, the premium for Classes 7 and 8 are the same, but as shown in Figure K.3 costs for Class 7 have been increasing over the past twelve years whereas Class 8 has been more stable.

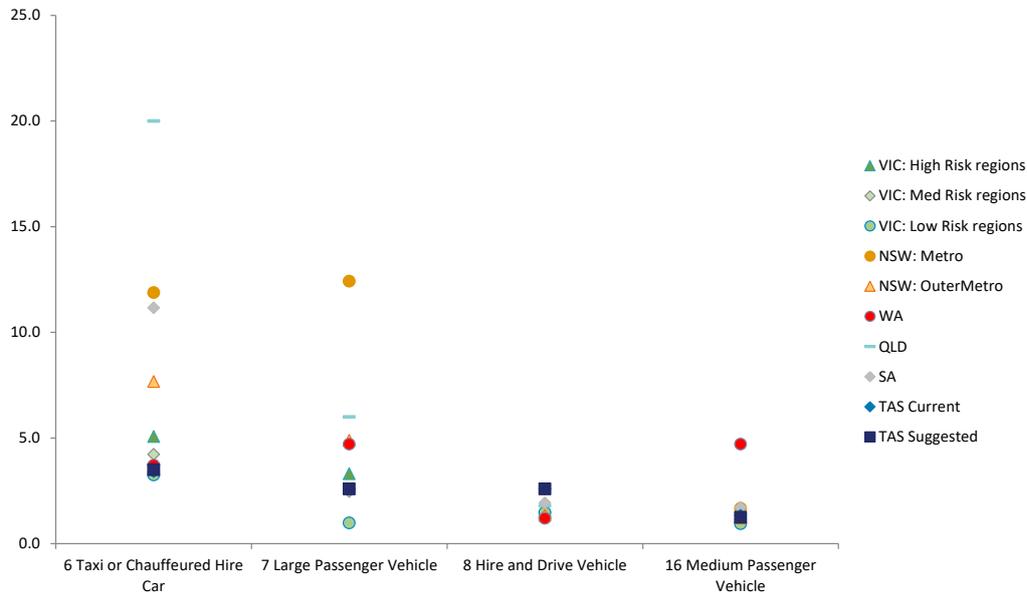
Similarly, Class 16 has also experienced a sharp rise over the past four years. This increase could be partly attributable to the reallocation of community vehicles with less than 10 seats to Class 1 and the inclusion of manned passenger vehicles with 10 or more seats. However, this is unlikely as the increase is due to one \$300,000 claim from 2013, with minimal claim costs in the following three years.

Over the past four years there have not been any Future Care claims for these classes, and only two over the past twelve years, both Class 7 claims.

### Interstate comparison

Figure K.4 shows that for Class 6 vehicles there is a very large relativity spread, with Tasmanian taxis having the second lowest relativity behind Low Risk Victorian regions and that in many places they are charged a relativity of five or more which is closer to the observed experience in Tasmania.

Figure K.4 Relativity comparison for passenger and hire vehicles



Tasmania has low relativities for medium and large passenger vehicles but a high cost for Hire vehicles.

### Suggested relativities

Since the 2013 review Class 6 premium relativities have increased to 3.4 for 2016-17. Based on recent experience this could be set higher but given that impact of ride-sourcing the recommended relativity is only proposed to increase to 3.5. This is also consistent with the relativity proposed by the Regulator in 2013.

In the 2013 TER report it was requested the MAIB investigate the different experience between taxis and Chauffeured Hire Cars (CHC). There are currently 624 registered Class 6 vehicles and only 20 of these are CHCs. This indicates that most CHCs have been registered in other classes and are not paying the higher premiums associated with taxis. With such a small number of CHCs in Class 6 it is not possible to credibly compare their experience to taxis, although none of these 20 vehicles were involved in an incident. Given the small number of CHCs the MAIB does not propose any changes to vehicle class definitions.

For Classes 7 and 8 there is no proposed change to the relativities, but should current trends continue there could possibly be grounds to recommend an increase for Class 7 at the next relativity review.

Despite the increase in non-Future Care costs over the past four years, a reduction in the relativity for Class 16 to 1.25 is recommended. This reflects longer term experience and that over the past 16 years there have not been any Future Care claims.

## K.3 Heavy work (Classes 3, 11, 13 and 15)

**Table K.4 Relativity analysis for heavy vehicle classes**

Class Description	Claim experience relativity			Premium relativity	
	Fault	Fault and FC Spread	Component	Current	Suggested
3 Heavy Goods Vehicle	1.25	1.62	1.42	1.58	1.58
11 Mobile Crane	0.00	0.00	6.32	1.06	1.06
13 Plant & Machinery	0.30	0.39	0.26	0.38	0.38
15 Farm Tractor	0.05	0.07	0.13	0.38	0.30

Experience for Classes 3 and 13 has been close to the current relativity whereas for Classes 11 and 15 it has been very favourable. However, there are not many vehicles in Classes 11 and 13 and a single large claim, as evidenced by a Future Care claim for Class 11 in 2008, can change this picture quickly. Across these classes, there have not been any Future Care claims over the past eight years with five during the previous eight years, mostly from Class 3.

### Suggested relativities

It is proposed that the relativities remain unchanged for Classes 3, 11 and 13 but Class 15 relativity be reduced to 0.30. This is still above the highest relativity over any of the four-year groupings (0.23 during 2009-2012) and therefore still has sufficient allowance for high cost claims. There are more than 6,000 farm tractors registered and there is a reasonable amount of experience to support a premium reduction.

## K.4 Caravans and Heavy Trailers (Classes 9 and 10)

**Table K.5 Relativity analysis for caravans and heavy trailers**

Class Description	Claim experience relativity			Premium relativity	
	Fault	Fault and FC Spread	Component	Current	Suggested
9 Caravan	0.00	0.00	0.01	0.13	0.13
10 Heavy Trailer	0.00	0.00	0.02	0.29	0.29

There have only been six claims, totalling \$10,000 across these classes over the past four years.

In the 2009 review, the Regulator suggested that the risk associated with trailers may be understated because the claim is assigned to the vehicle towing. The MAIB confirmed that the liability is usually only assigned to the trailer where the trailer was the only "motor vehicle" involved. However, the presence of a trailer is recorded in the incident report.

There is likely some understatement for these classes as trailers involved in an incident whilst attached to a vehicle are mostly allocated to the vehicle rather than to Classes 9 or 10 even if the trailer was the cause of the incident. This is material for these classes in isolation but is small in the context of the scheme.

### Suggested relativities

Given the potential understatement of costs it is difficult to quantify an appropriate premium. It is proposed that relativities remain unchanged but a reduction could also be justifiable.

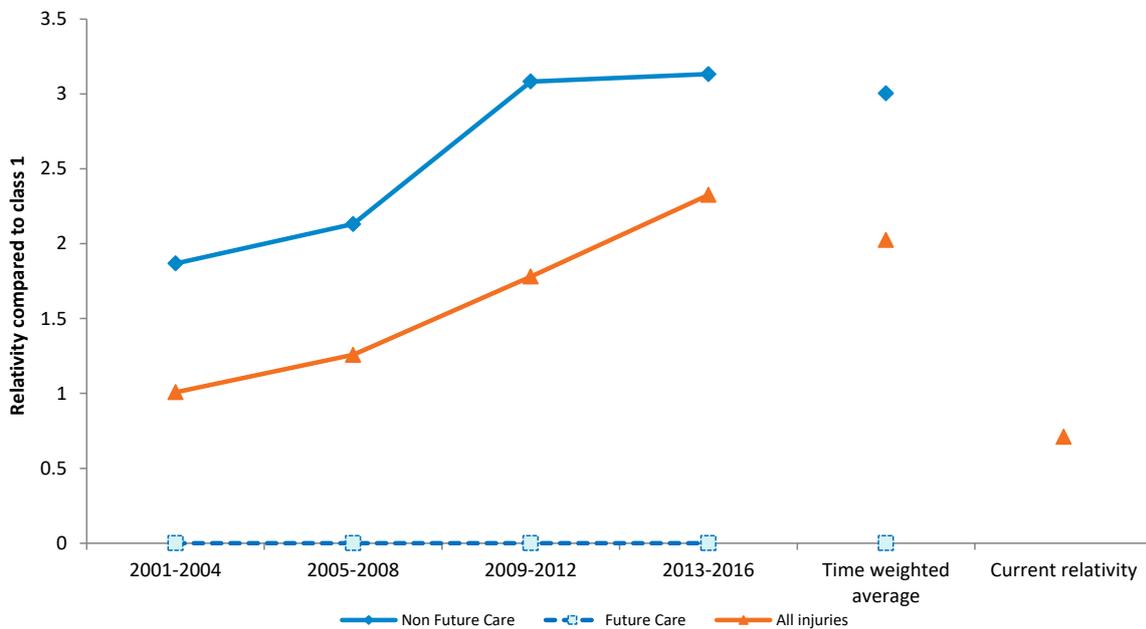
## K.5 Off-road & Recreational Vehicles (Class 18)

**Table K.6 Relativity analysis for off-road and recreational vehicles**

Class Description	Claim experience relativity			Premium relativity	
	Fault	Fault and FC Spread	Component	Current	Suggested
18 Off Road & Recreational	2.42	3.14	2.25	0.76	1.00

Off road and recreational vehicles are in a similar situation to motorcycles with the observed relativity well below the current premium relativity and MAIB has gradually been increasing their premium relativities. As shown in Figure K.5 non-Future Care experience for this class continues to increase with a relativity of 3.1 over the past four years. However, given that there were no Future Care claims, this resulted in an overall relativity of 2.42 over the past four years.

**Figure K.5 Off road and recreational vehicle relativities**



### Suggested relativities

The suggested motorcycle relativity is about half of the rate implied from the data, compared to about one-third for Off Road & Recreational vehicles. Given this significant subsidy the MAIB suggests increasing the Class 18 relativity to 1.0 so that the premium would be the same as for regular motor vehicles. This is consistent with the 2013 TER report recommendation, although the MAIB remains concerned that there is a significant (and potentially increasing) number of uninsured off-road and recreational vehicles.

## K.6 Other Vehicles (Classes 12, 14, 19, 21 and 22)

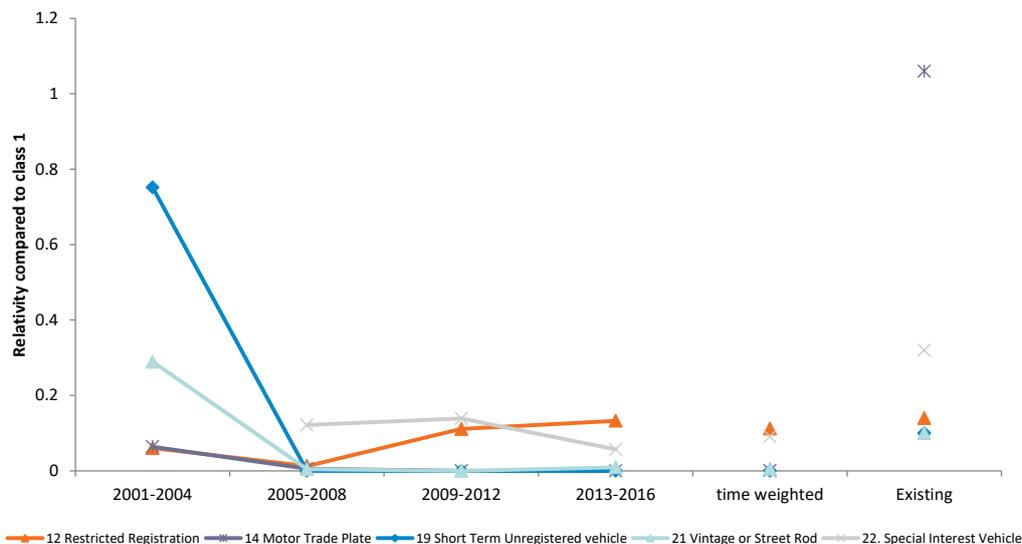
Table K.7 Relativity analysis for other vehicle classes

Class Description	Claim experience relativity			Premium relativity	
	Fault	Fault and FC Spread	Component	Current	Suggested
12 Restricted Registration	0.14	0.18	0.12	0.14	0.14
14 Motor Trade Plate	0.00	0.00	0.00	1.06	1.00
19 Short Term Unregistered vehicle	0.00	0.00	0.00	0.10	0.10
21 Vintage or Street Rod	0.01	0.01	0.01	0.10	0.10
22. Special Interest Vehicle	0.06	0.08	0.11	0.32	0.25

Over the past four years, experience for each of these classes has been close to or less than expected with experience for Classes 14 and 22 having been particularly favourable.

Since there have never been any Future Care claims for any of these classes, Figure K.6 shows the overall relativities without a single large claim distorting the experience. The chart shows that experience has been remarkably stable for these small cohorts over the past twelve years with experience being less than 0.2 over this period, following higher experience from 2001-2004.

Figure K.6 Relativity for all claims



### Suggested relativities

Given the small number of vehicles and limited claims experience the proposed relativity changes are quite minor. The reductions have been suggested considering experience over the longer term and not just related to the past four years.

It is proposed to reduce the Motor Trade Plates to 1 as these will mostly relate to Class 1 type vehicles. A reduction in special interest vehicles is also justified as the highest observed relativity for non-Future Care costs is 0.24, and the highest overall observed relativity is 0.14.

## APPENDIX L MEASURING PROFITABILITY AND OTHER MAIB FINANCIAL POLICIES

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This Appendix covers any other considerations relating to the MAIB's profitability and financial position:

- Insurance liabilities;
- Measures of profitability; and
- The MAIB's financial and pricing policies.

### L.1 Insurance liabilities

The MAIB's funding level is measured relative to its insurance liabilities. This comprises the following components:

#### L.1.1 Outstanding claims liability

The outstanding claims liability shown in an insurer's balance sheet comprises:

- a central estimate of the outstanding claims liabilities which is designed to have no bias towards over- or under-estimation;
- an allowance for claims handling costs; and
- a risk margin, generally expressed as a percentage of the central estimate, which increases the likelihood that the liability will prove to be adequate.

APRA effectively requires private sector insurers to hold a risk margin which (as a minimum) is set to a level such that the total liability for outstanding claims has a 75% probability of adequacy.

The MAIB has for many years included a risk margin of 20% in the outstanding claims liability. This was reviewed in May 2016 and maintaining a 20% risk margin is still expected to provide for a probability of sufficiency of not less than 75%.

#### L.1.2 Unearned premium liability

The unearned premium liability represents the total premiums collected that provide cover for periods after the balance date. Since premiums are collected throughout the year, at any point in time there is just under six months of premiums which are unearned (as some policies are issued on quarterly or semi-annual basis).

#### L.1.3 Unexpired risk liability

A Liability Adequacy Test is required under AASB 1023 to determine the adequacy of the unearned premium liability to cover the present value of the expected future payments from claims (plus a risk margin) arising from that period of cover. Where the present value of expected future payments exceeds the unearned premium liability (net of deferred acquisition costs) then this deficiency must be held as an unexpired risk liability on the balance sheet. The Liability Adequacy Test at 30 June 2016 revealed a small deficiency of \$0.2m (after the writing back of deferred acquisition costs).

## L.2 Measures of profitability

### L.2.1 Profit margin

One measure of profitability is the profit margin, calculated as the profit in the premium divided by the written premium. The profit margin is used primarily for pricing purposes. It is the allowance for the profit margin that converts the estimated breakeven premium to the average premium to be charged.

### L.2.2 Return on capital ("ROC")

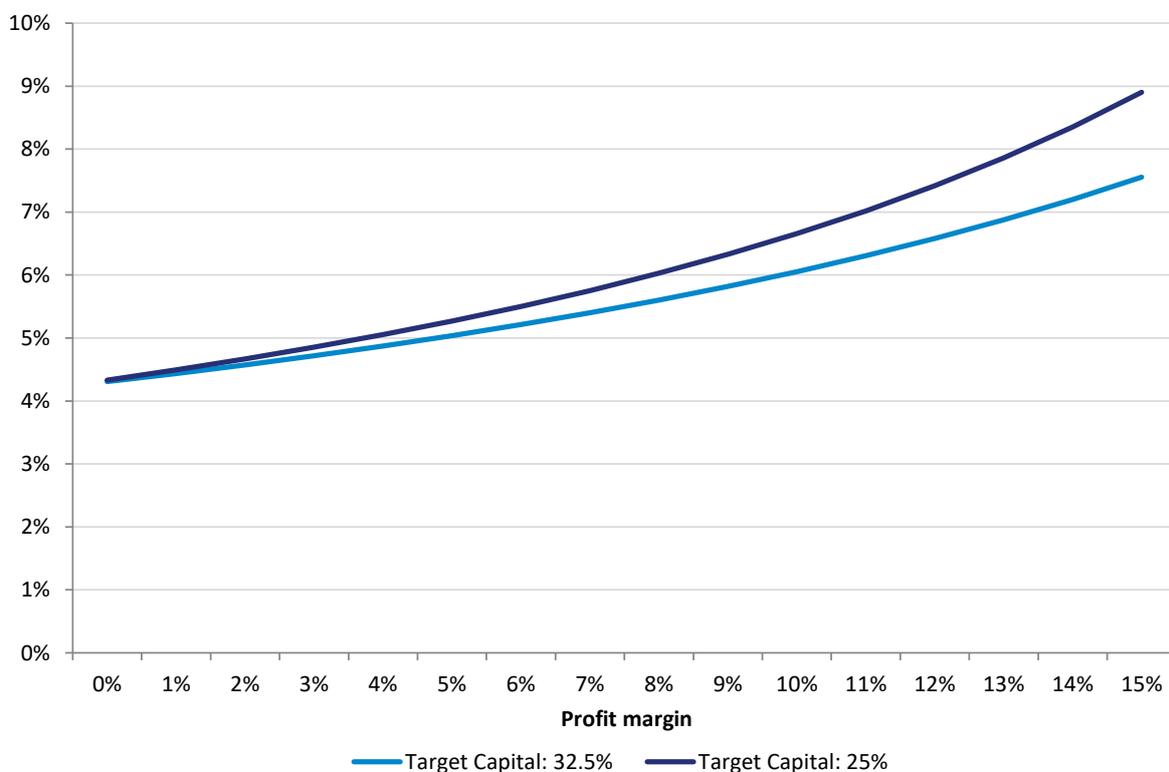
The after-tax ROC represents the effective rate of return achieved on the capital underlying the business. It is a preferred measure for assessing profitability for many insurers as it takes into account not only the amount of profit but also the level of investment (by its shareholder, the government) supporting the business and the investment earnings on that capital.

The ROC measure can be used in several ways:

- To report the profit emerging in a financial year, either for the whole Scheme, or for some part thereof (the latter requiring that capital be allocated to different segments of the Scheme); and
- To assess the underlying profitability of a year's business.

The pricing function of the ROC is linked to the profit margin. The higher the level of capital required, the greater the profit margin needed in premiums to support a particular target ROC. This is demonstrated in Figure L.1

Figure L.1 Return on capital for different profit margin allowances



## L.3 The MAIB's financial and pricing policies

The *GBE Act* requires that the MAIB targets a sustainable commercial rate of return. Appendix B describes the sources of profit for a general insurer and explains the need for a profit margin in the premium to reward shareholders for the risk associated with providing insurance.

From discussions with Treasury, the MAIB understands that the basis of this objective is as follows:

- Like the private sector, MAIB should maximise value for its owner (the Government); and
- The requirements for the MAIB to strive to achieve a commercial rate of return and for the return to be sustainable recognising the long-term nature of the MAIB's business.

### L.3.1 Target profit margin

The MAIB has established a target profit margin taking into account a range of factors, including:

- The requirements of the *GBE Act*;
- The previous assessment by the Regulator;
- The revenue shortfall between the theoretical premium collection and the actual amounts collected (see Appendix L.3.2);
- Target profit margins by other MA insurance underwriters; and
- Actuarial advice regarding a reasonable margin taking into account the volatility inherent in the business, and the returns required by shareholders.

The target profit margin required to produce a reasonable after-tax return on capital can be determined by modelling a single year's business, combining assumptions regarding the following:

- The breakeven premium;
- The target after-tax ROC;
- The target level of capital to support the business;
- A target level of capital of 32.5% has been assumed, based on the mid-point of the target range of 20% to 45%;
- The claim payment pattern, and future outstanding claims liabilities; and
- These have been calculated on assumptions which are consistent with the breakeven premium calculations. In addition, a 20% risk margin has been assumed to be added for reserving purposes.

### L.3.2 Allowing for revenue shortfalls

Historically there has been a difference between the premium collected and the "theoretical" collection if the schedule of premium rates is applied to the number of registered vehicles. This revenue shortfall can be attributed to several factors, including the following:

- A shift in the mix of vehicles (from one Class to another), or from non-pensioner status to pensioner status;
- Non-renewal of periodic registrations (the theoretical premium calculation assumes all registered vehicles pay a premium for twelve months, whether in one payment or in instalments). There may also be non-payment of a periodic registration, but subsequent payment of the next periodic amount;
- "Gaps" between periods of registration. An example is the sale of a self-drive hire car – the hire car company may cancel the registration when it divests itself of the vehicle and it may remain unregistered until purchased by a private owner through the used car market. A similar situation may arise on decommissioning of registrations for Government vehicles and subsequent sale into the private market; and
- Part-year registrations (for seasonal agricultural equipment, for example).

A 1% allowance for revenue shortfall has been maintained which is consistent with the conclusions from Section 5.2.4.1 of the 2013 TER report.

### L.3.3 Dividend policy – return to shareholders

In accordance with the *GBE Act*, the MAIB is required to remit dividends to the Tasmanian Government. Analysis and recommendations of different capital and dividend policies was prepared in the 2011 “Review of Capital Requirements Report”. The findings of this report helped form the MAIB’s current dividend policy which is as follows:

- 50%<sup>5</sup> of average after-tax profits and losses over the current and four preceding years is determined as a “profit” dividend; plus
- such special dividends as deemed appropriate.

Since dividends are based on the average of five years’ of profits and losses, under the current arrangements it is possible that the MAIB can pay a dividend in a year where a loss is made, or which causes solvency to fall below the target range.

Although MAIB pays a dividend equal to 50% of after tax profit, in 2014-15 its strong financial position allowed it to pay an additional special dividend of \$100m.

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<sup>5</sup> From 2014-15 to 2016-17 the MAIB’s dividend is 60% of after tax profits reverting back to 50% from 2017-18.

## APPENDIX M APRA PRUDENTIAL REQUIREMENTS

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### M.1 APRA prudential framework

In the private sector, APRA has defined minimum capital requirements which reflect the risk profile of the insurer. Any insurer falling below the minimum standard is subject to investigation and potential closure. In practice therefore, private sector insurers hold additional capital above the minimum required to provide a buffer to absorb some of the variability associated with the business without falling below the minimum.

From January 2013, APRA's new prescribed minimum capital requirements for Australian regulated general insurers came into force (with a minor revision for insurers in run-off issued in 2015). The new framework is designed to be more risk-sensitive and encourage better matching of assets with liabilities.

The key metric used in APRA's capital framework is that if an insurer was to start the year with capital at the minimum level that there would be a less than 1 in 200 chance that by the end of the year that insurer's assets would be insufficient to meet the central estimate of its insurance liabilities.

Insurers can elect to create an internal model that models their capital risk, but this needs to receive APRA approval. Most insurers follow APRA's prescribed minimum capital formula which considers risks related to:

- The riskiness of the types of insurance provided
- The maximum cost of a single event: For MAIB this would be equal to its reinsurance retention
- The asset allocation mix
- The concentration of assets
- Operational risks

### M.2 Applicability of the APRA requirements to the MAIB

#### M.2.1 Public vs private sector insurers

For public sector insurers, the issue of adequate capital is less clear than in the private sector. On the one hand, many public-sector insurers have an explicit or implicit government guarantee, and it may be argued that this removes the need for further capital. Having higher capital targets would also generally mean that to meet these targets schemes would be less capable of paying dividends to government.

On the other hand, some capital is desirable to provide a buffer against adverse experience. It may also be argued that operating without capital provides an unfair advantage to public sector insurers compared with private sector insurers. Thus, most public sector insurers have a target level of capital or solvency that has been agreed with stakeholders. However, this target level is often somewhat lower than would be required by a private insurer underwriting the same risks. This represents a practical compromise between the opposing arguments above.

#### M.2.2 Background to designing MAIB's capital policy

The MAIB is not required to comply with APRA standards, however, it is prudent that the MAIB should hold some level of capital in order to meet unforeseen increases in liabilities and to absorb fluctuations in the value of investments without resorting to large premium increases.

Prior to the 2013 changes in APRA capital requirements the MAIB's capital policy was more closely aligned to the APRA minimum capital requirement (MCR).

The MAIB's current capital policy was developed along the following lines:

- The APRA basis applies to private sector insurers operating in a commercial environment. This can be considered the highest capital basis that MAIB should adopt.
- The scheme operates as a monopoly government guaranteed scheme. In theory, this means that it can operate with a zero solvency margin (i.e. a funding ratio of 100% or less). This can be considered the lowest capital basis that the MAIB should adopt.

Nonetheless, the MAIB should hold some level of net assets for a variety of purposes:

- To meet unforeseen increases in liabilities (such as catastrophic claims, revaluation of common law claims following the setting of a new precedent, revision of all Future Care claims following establishment of new standards of care or as a result of medical advances) without resorting to large premium increases.
- To absorb any short-term mismatches between scheme costs and premiums as a result of changing trends. These can sometimes take several years to emerge, with the need to catch up several years of under-charging by the time the trends have been fully recognised.
- To absorb fluctuations in the value of investments, following share or bond market crashes;
- To provide additional reassurance to claimants that benefits are secure.
- To provide resources for strategic investments, such as development of Future Care facilities or Road Safety initiatives.

These factors taken together suggest that a reasonable level of capital for MAIB should be somewhere between zero and the level applying in the private sector.

### M.2.3 MAIB's prudential framework

In 2012 when MAIB changed its capital policy the APRA minimum capital target was converted to a funding target of 120% to 125%. As discussed in Section 11.1, this was subsequently revised to a 120% to 145% given further analysis of typical levels of volatility in investment and bond markets.

If at the start of the year, the MAIB's funding ratio was 120% which is the bottom of the target range then based on the 2014 simulation analysis used to set current target funding range then there is less than a 1 in 100 chance that by the end of the year that the funding ratio would drop below the central estimate of the insurance liabilities.

As noted in Section 4.2.2 of the 2013 TER report, while there is merit in referring to the APRA standards as a benchmark, they should not be adopted for the MAIB because as a centrally managed fund it has greater control over its prices and ability to fund unexpected drains on capital.

Further, the simplicity of the funding ratio measure, as opposed to the APRA requirements, makes it easy to measure the Scheme's capital position and to compare it against other schemes.

## APPENDIX N FINANCIAL PROJECTIONS

The following projections are based on the MAIB corporate plan and show the projected financial position under different premium scenarios.

### N.1 Scenario 1: Australian AWOTE increase on each 1 December from 2018 onwards

	2013	2014	2015	2016	2017	2018	2019	2020	2021
	\$000's								
<b>Operating Statement</b>									
Earned Premium	139,143	139,539	134,465	137,755	138,511	133,957	136,773	142,817	149,331
Reinsurance Premium	(5,923)	(6,025)	(5,840)	(5,809)	(5,855)	(6,083)	(6,513)	(6,775)	(7,049)
<b>Net Earned Premium</b>	<b>133,220</b>	<b>133,514</b>	<b>128,625</b>	<b>131,946</b>	<b>132,656</b>	<b>127,874</b>	<b>130,260</b>	<b>136,042</b>	<b>142,282</b>
Gross claims cost	(87,001)	(124,272)	(104,019)	(99,579)	(38,974)	(138,661)	(148,186)	(154,795)	(160,599)
Third party & reinsurance recoveries	3,514	4,767	3,696	7,377	2,923	2,390	2,472	2,431	2,378
Underwriting expenses	(2,644)	(2,631)	(2,798)	(2,805)	(2,941)	(2,960)	(3,049)	(3,141)	(3,235)
Unexpired risk expense	(1,331)	(912)	(912)	2,179	(1,337)	(2,254)	427	1,636	960
<b>Underwriting Result</b>	<b>45,758</b>	<b>10,466</b>	<b>24,592</b>	<b>39,118</b>	<b>92,327</b>	<b>(13,611)</b>	<b>(18,076)</b>	<b>(17,827)</b>	<b>(18,214)</b>
Administration expenses	(6,877)	(6,259)	(6,350)	(6,107)	(6,785)	(6,902)	(7,093)	(7,292)	(7,494)
Foundation	(680)	(55)	(585)	(689)	(880)	(900)	(1,000)	(1,000)	(1,100)
Road safety advisory council & SES	(3,785)	(3,791)	(3,843)	(3,974)	(4,105)	(4,215)	(4,343)	(4,471)	(4,600)
<b>Total Expenses</b>	<b>(11,342)</b>	<b>(10,105)</b>	<b>(10,778)</b>	<b>(10,770)</b>	<b>(11,770)</b>	<b>(12,017)</b>	<b>(12,436)</b>	<b>(12,763)</b>	<b>(13,194)</b>
Other income	460	587	491	1,063	500	515	530	545	561
Net Investment Income	172,891	170,994	122,888	65,854	105,799	83,042	85,453	89,122	93,328
<b>Operating Result before tax</b>	<b>207,767</b>	<b>171,942</b>	<b>137,193</b>	<b>95,265</b>	<b>186,856</b>	<b>57,929</b>	<b>55,471</b>	<b>59,077</b>	<b>62,481</b>
Tax Expense	(60,322)	(46,444)	(37,328)	(25,562)	(52,596)	(13,947)	(13,210)	(14,292)	(15,313)
<b>Operating Result after Tax</b>	<b>147,445</b>	<b>125,498</b>	<b>99,865</b>	<b>69,703</b>	<b>134,260</b>	<b>43,982</b>	<b>42,261</b>	<b>44,785</b>	<b>47,168</b>
Other Comprehensive Income	723	(315)	446	(1,151)	0	0	0	0	0
<b>Total Operating Result</b>	<b>148,168</b>	<b>125,183</b>	<b>100,311</b>	<b>68,552</b>	<b>134,260</b>	<b>43,982</b>	<b>42,261</b>	<b>44,785</b>	<b>47,168</b>
<b>Financial Position</b>									
Shareholders Funds	382,416	484,380	440,121	460,981	545,535	531,870	526,902	532,750	546,534
Gross Outstanding claims liability	901,916	952,683	976,499	1,005,466	969,049	1,018,697	1,069,995	1,121,084	1,173,141
Return on shareholders' funds	47.6%	28.9%	21.7%	15.2%	26.7%	8.2%	8.0%	8.5%	8.7%
Funding Ratio	128.8%	131.6%	125.5%	127.9%	135.7%	135.8%	135.7%	135.8%	135.9%

## N.2 Scenario 2: Australian AWOTE increase on each 1 December from 2017 onwards

	2013	2014	2015	2016	2017	2018	2019	2020	2021
	\$000's								
<b>Operating Statement</b>									
Earned Premium	139,143	139,539	134,465	137,755	138,511	134,723	139,962	146,296	152,986
Reinsurance Premium	(5,923)	(6,025)	(5,840)	(5,809)	(5,855)	(6,083)	(6,513)	(6,775)	(7,049)
Net Earned Premium	133,220	133,514	128,625	131,946	132,656	128,640	133,449	139,521	145,937
Gross claims cost	(87,001)	(124,272)	(104,019)	(99,579)	(38,974)	(138,661)	(148,186)	(154,795)	(160,599)
Third party & reinsurance recoveries	3,514	4,767	3,696	7,377	2,923	2,390	2,472	2,431	2,378
Underwriting expenses	(2,644)	(2,631)	(2,798)	(2,805)	(2,941)	(2,960)	(3,049)	(3,141)	(3,235)
Unexpired risk expense	(1,331)	(912)	(912)	2,179	(1,337)	(1,020)	692	1,703	1,032
<b>Underwriting Result</b>	<b>45,758</b>	<b>10,466</b>	<b>24,592</b>	<b>39,118</b>	<b>92,327</b>	<b>(11,611)</b>	<b>(14,622)</b>	<b>(14,281)</b>	<b>(14,487)</b>
Administration expenses	(6,877)	(6,259)	(6,350)	(6,107)	(6,785)	(6,902)	(7,093)	(7,292)	(7,494)
Foundation	(680)	(55)	(585)	(689)	(880)	(1,000)	(1,000)	(1,000)	(1,100)
Road safety advisory council & SES	(3,785)	(3,791)	(3,843)	(3,974)	(4,105)	(4,215)	(4,343)	(4,471)	(4,600)
<b>Total Expenses</b>	<b>(11,342)</b>	<b>(10,105)</b>	<b>(10,778)</b>	<b>(10,770)</b>	<b>(11,770)</b>	<b>(12,117)</b>	<b>(12,436)</b>	<b>(12,763)</b>	<b>(13,194)</b>
Other income	460	587	491	1,063	500	515	530	545	561
Net Investment Income	172,891	170,994	122,888	65,854	105,799	83,090	85,637	89,468	93,821
<b>Operating Result before tax</b>	<b>207,767</b>	<b>171,942</b>	<b>137,193</b>	<b>95,265</b>	<b>186,856</b>	<b>59,877</b>	<b>59,109</b>	<b>62,969</b>	<b>66,701</b>
Tax Expense	(60,322)	(46,444)	(37,328)	(25,562)	(52,596)	(14,532)	(14,301)	(15,459)	(16,579)
<b>Operating Result after Tax</b>	<b>147,445</b>	<b>125,498</b>	<b>99,865</b>	<b>69,703</b>	<b>134,260</b>	<b>45,345</b>	<b>44,808</b>	<b>47,510</b>	<b>50,122</b>
Other Comprehensive Income	723	(315)	446	(1,151)	0	0	0	0	0
<b>Total Operating Result</b>	<b>148,168</b>	<b>125,183</b>	<b>100,311</b>	<b>68,552</b>	<b>134,260</b>	<b>45,345</b>	<b>44,808</b>	<b>47,510</b>	<b>50,122</b>
<b>Financial Position</b>									
Shareholders Funds	382,416	484,380	440,121	460,981	545,535	533,233	530,676	538,858	554,932
Gross Outstanding claims liability	901,916	952,683	976,499	1,005,466	969,049	1,018,697	1,069,995	1,121,084	1,173,141
Return on shareholders' funds	47.6%	28.9%	21.7%	15.2%	26.7%	8.4%	8.4%	8.9%	9.2%
Funding Ratio	128.8%	131.6%	125.5%	127.9%	135.7%	135.9%	135.9%	136.1%	136.3%

## APPENDIX O COMPLIANCE WITH THE TERMS OF REFERENCE

The table below provides a correlation of information supplied in this MAIB submission against the matters to be addressed by the Regulator under the Terms of Reference.

**Table O.1 Cross index of Terms of Reference and MAIB submission information**

Terms of Reference	MAIB Submission Section/s
Review the Pricing Polices and the monopoly service of the MAIB.	Section 8 (& Sections 3-6)
The scope and intent of the <i>Motor Accidents (Liabilities and Compensation) Act 1973</i> .	Sections 1 and 2
Any cross-subsidies in pricing structure, especially different vehicle classes and the benefits/costs of retaining cross-subsidies (particularly consider class 6 and 16 and motorcycle classes).	Sections 9 and 10
Mechanisms to remove any cross-subsidies.	Sections 9 and 10
The appropriateness of the MAIB using current insurance industry prudential requirements as a benchmark to measure long term sustainability.	Section 11
MAIB funding of the Road Safety Advisory Council and Injury Prevention and Management Foundation.	Section 7
The appropriateness of current claim liability valuations.	Section 11 (& Sections 3-6)
The loading required on periodic premiums to ensure that there is no net impact on MAIB's revenue.	Section 10
The future classification of vehicles used to provide commercial ride-sourcing services, including the appropriateness of creating a new premiums class for such vehicles.	Section 10
Whether the current set of vehicle classes is appropriate given the actuarial estimates of claims made to the MAIB.	Sections 9 and 10
<b>Section 31 of the <i>Economic Regulator Act 2009</i> – general matters for the Regulator to consider in all monopoly provider investigations.</b>	<b>All sections, primarily Section 3</b>