

## **Tasmanian Economic Regulator**

---

### **Motor Accidents Insurance Board Pricing Investigation 2013**

**April 2013**

© Finitly Consulting Pty Limited 2013



8 April 2013

Mr Glenn Appleyard  
Chairman  
Tasmanian Economic Regulator  
GPO Box 770  
HOBART TAS 7001

Dear Mr Appleyard

### **Motor Accidents Insurance Board Pricing Investigation 2013**

We are pleased to present our final report on a number of aspects of the pricing review for the Motor Accidents Insurance Board pricing investigation.

Yours sincerely



Gillian Harrex



Aaron Cutter

**Fellows of the Institute of Actuaries of Australia**



## Motor Accidents Insurance Board Pricing Investigation 2013

---

<b>Part I</b>	<b>Executive Summary</b>	<b>i</b>
<b>Part II</b>	<b>Detailed Findings</b>	<b>1</b>
1	Introduction	1
2	Considerations for Solvency and Profit	4
3	Solvency	9
4	Insurance Profit Margin	16
5	Superimposed Inflation	19
6	Investment Return Margin	23
7	Other observations	27
8	Reliances and Limitations	28
<b>Part III</b>	<b>Appendices</b>	<b>30</b>
A	Sources of Information	30
B	MAIB's Historical Financial Performance	31
C	MAIB Governance Framework	36



## Part I Executive Summary

---

### 1 Introduction

The Minister for Finance has requested that the Tasmanian Economic Regulator (the Regulator) conduct an investigation (the Pricing Investigation) into the Motor Accidents Insurance Board's (MAIB's) pricing policies. The Pricing Investigation covers the four year period from 1 December 2013 to 30 November 2017. This will be the sixth pricing investigation carried out by the relevant Tasmanian Regulator, with previous pricing investigations having been carried out by the Government Prices Oversight Commission (GPOC). The previous pricing investigation, prepared by GPOC, was conducted in 2009 and covered the four year period from 1 December 2009 to 30 November 2013.

To assist with the Pricing Investigation the Regulator commissioned Finity Consulting Pty Limited (Finity) to prepare this report. This is the first such review commissioned by the Regulator. We understand that this report may be made publicly available.

The scope of work required in this report is to include a review of MAIB's insurance profit margin, MAIB's financial targets (such as solvency and risk margins) and also the superimposed inflation and investment return assumptions in MAIB's premium pricing.

### 2 Considerations for Solvency and Profit

The level of solvency and profit for MAIB to target are a function of MAIB's and Government's risk tolerances and preferred average dividend. Capital in excess of a minimum defined solvency outcome (and, to a much lesser extent, profit) provides a financial buffer against adverse outcomes.

In our view it is not possible to determine an 'optimal' solvency framework and profit for MAIB. However, it is possible to determine acceptable settings that balance the needs of Government, Tasmanian motorists and claimants.

In general, lower solvency and lower profit margins equate to higher risk. One of the risks associated with lower solvency and profit is that premiums may need to increase, potentially significantly, in future to remediate an unfavourable financial position.

On the other hand, higher solvency and profit lead to higher premiums and potentially an "inefficient" use of financial resources. A higher solvency margin ties up capital that might be better deployed elsewhere for the state.



Setting solvency and profit targets generally considers the following:

- Measurement of capital and definition of a 'poor' solvency position
- 'Risk tolerances' associated with capital level
- Preferred level of dividend or return on capital
- Risk tolerance to premium increases (or other remedial actions such as expenditure cuts or benefit changes)
- Acceptable time horizon to recover from a 'poor' solvency position.

### 3 Summary of Findings

#### Solvency

While not unreasonable, MAIB's solvency target of 20% is 25% (with a mid-point of 22.5%) is a narrow range, particularly when viewed in the context of reported solvency over the last five years or so. Even excluding the extreme events related to the GFC MAIB's solvency might be expected to exhibit annual fluctuations by more than +/- 2.5% quite often.

MAIB has estimated that the GFC impacted solvency by 20-25% and that therefore, a target of 22.5% for solvency is in the right order. In our view, the GFC might be considered to be a one in 100 year event. Therefore, MAIB's observed risk tolerance could be inferred to be one of a remote (1%) chance of falling below 0% solvency from their target.

We agree that having regard to the chance of falling below 0% solvency is a reasonable starting point to establish an appropriate solvency target and range. However, in our view, there needs to be a stronger link between MAIB's and Government's specifically thought out risk tolerances in setting the appropriate range.

It would be beneficial for MAIB and Government to undertake an exercise to determine their risk tolerance to falling below certain solvency levels (a 'poor outcome') and their tolerance to the time required to recover from a poor solvency outcome. This exercise should have regard to MAIB's specific circumstances and not to APRA capital standards.

Given the information available to us we believe that setting the solvency range with reference to a lower probability (for example one in 25 year chance of falling below 0%) will result in a solvency target mid-point lower than 22.5% but a much broader acceptable range than +/-2.5%.

We believe that a 75% probability of sufficiency for the risk margin is appropriate for MAIB and that the 20% risk margin adopted may well provide a greater level of sufficiency than the 75<sup>th</sup> percentile. We suggest that a risk margin review based on the

MAIB's own claims be undertaken to confirm the risk margin at the 75<sup>th</sup> probability of sufficiency.

## Profit Margin

MAIB's projected profit margin of 10% to 13.5% generates a return on capital of between 7% and 8% after tax which appears reasonable for a Government insurer. This return on capital is materially lower than in the private sector where insurers would typically target a return on capital in the order of 10% to 15% (after tax). In this context MAIB's return on capital appears reasonable for a Government insurer.

In our experience Government CTP insurers typically target profit margins in the range 6% to 12%.

## Superimposed Inflation

The rate of superimposed inflation adopted in MAIB's break-even premium is:

- Future care claims 0.00% p.a.
- Common law claims 0.75% p.a.
- Scheduled benefits 1.50% p.a.

These assumptions are consistent with MAIB's claims experience and in line with ranges we have observed in other jurisdictions (aside from Future Care). We are satisfied that the superimposed inflation rate assumptions are reasonable.

## Investment Return Margin

In our opinion, the discount rates adopted by MAIB for valuing outstanding claims and for setting premiums are appropriate. MAIB incorporate a 'risk free' discount rate to value outstanding claims and discounts future claims costs at an anticipated investment return to set premiums. The anticipated investment return is consistent with the expected long run future average return associated with their strategic asset allocation.

The "real rate of return" is the difference between claim cost inflation and the investment return. In the context of MAIB the real rate of return has historically been considered as the assumed rate of return above Tasmanian Average Weekly Ordinary Times Earnings (Tas AWOTE).

The assumed rate of Tas AWOTE determined by MAIB's actuaries is 3.6% p.a. which is based on independent economic forecasts. This assumption appears reasonable.

The assumed real rate of return in the MAIB submission is 3% which represents a 1% reduction on the real rate of return assumed in the previous Pricing Investigation. Our recent discussions with fund managers and asset consultants suggest that this reduction is not out of line with market expectations, which have reduced somewhat over the past

4 years. We are satisfied that the selection of a 3% p.a. real rate of return is not unreasonable for MAIB.

## Other Observations

### *Fair Work Australia (FWA) Decision*

A FWA decision was handed down in February 2012 which provides for increases in the award rates for providers of care. These increases are significant in total and will increase carers' salaries over and above wage inflation over the next 6 years. In considering the potential impact of this decision on MAIB and MAIB's actuary, Taylor Fry, have assumed that the rates of care paid by MAIB relative to the award rates will be maintained into the future – so for example if MAIB currently pay 110% of the minimum award they will continue to pay 110% into the future. In our view, the approach adopted by MAIB is reasonable.

### *Hospital Bed Day Rate*

We understand that MAIB is currently in discussions with the Department of Health and Human Services (DHHS) regarding a possible increase to the “bed day rate” paid by MAIB. These discussions have been ongoing for some time and we understand that at this point in time no firm commitment as to either the quantum or likely timing of any increase has been established.

At this review, MAIB has included a “pre-cautionary” allowance for a doubling of the hospital bed day rate. Hospital costs currently represent around 35% of Scheduled Benefits (which in turn are around 30% of total claim costs) and so an increase of this magnitude has a measurable impact on the expected cost of claims.

While it is reasonable for MAIB to allow for a potential increase in the future, given the uncertainties surrounding the quantum and timing it may be that any increase to premiums could be deferred until further details are known. If this approach were taken, the Regulator would need to commit to a potential ‘special’ MAIB premium increase if the bed day rates increases were unable to be absorbed in maximum overall increases in premiums otherwise allowed by the Regulator.

## **4 Reliances and Limitations**

Our reliances and limitations are an important part of this report and are shown in Section 8.



## Part II Detailed Findings

---

### 1 Introduction

The Minister for Finance has requested that the Tasmanian Economic Regulator (the Regulator) conduct an investigation (the Pricing Investigation) into the Motor Accidents Insurance Board's (MAIB's) pricing policies. The Pricing Investigation covers the four year period from 1 December 2013 to 30 November 2017. This will be the sixth pricing investigation carried out by the relevant Tasmanian Regulator, with previous pricing investigations having been carried out by the Government Prices Oversight Commission (GPOC). The previous pricing investigation, prepared by GPOC, was conducted in 2009 and covered the four year period from 1 December 2009 to 30 November 2013.

To assist with the Pricing Investigation the Regulator commissioned Finity Consulting Pty Limited (Finity) to prepare this report. This is the first such review commissioned by the Regulator. We understand that this report may be made publicly available.

#### 1.1 Background to MAIB

The MAIB scheme provides funding for payments to all persons injured in motor vehicle accidents involving Tasmanian-registered vehicles. The MAIB is a state government run enterprise and the scheme provides benefits on a no fault basis with common law access.

The liabilities of MAIB are very long term in nature, with benefits potentially paid for the life of catastrophically injured claimants. The long term nature of the fund presents particular challenges as changes in experience can potentially affect many past accident years. Financial results can be volatile from year to year also because of the leveraged effect of changes in underlying economic conditions.

Since the previous pricing investigation MAIB's solvency has recovered from around 15% in 2008/09 to 26% at June 2011 but then dropped to 19% at June 2012. This is slightly below the target range and reflects the downturn in the investment markets and low bond yields in 2011/12.

For the Pricing Investigation, the Regulator has received a submission from MAIB which provides an overview of the MAIB operating environment and also provides an analysis of premium.

Appendix B of this report includes further information about the financial performance and portfolio experience of MAIB.



## 1.2 Scope

Our advice to the regulator is required to address the following matters:

- Insurance Profit Margin
  - ▶ The appropriate insurance profit to determine the average premium for a government owned compulsory third party (CTP) insurer.
- Financial Targets
  - ▶ Targets for a government owned CTP insurer including solvency rates, prudential risk margin on outstanding liabilities and liability adequacy test level.
- Superimposed Inflation
  - ▶ The rates of superimposed inflation above Average Weekly Ordinary Time Earnings (AWOTE) for claims inflation.
- Investment Return Margin
  - ▶ Investment return margin methodology and level.

While we appreciate the importance of each of these matters individually they are, by their nature, intertwined and cannot be completely considered in isolation from one another. For example, any requirement to pay dividends may have an impact on target solvency and profit, the rate of investment return adopted for premium setting can also impact solvency, particularly in times where the assumed investment rate differs substantially from the rate required to be used to estimate the discounted value of liabilities.

There is invariably no 'optimal' set of financial strategies. Each option tends to favour one set of stakeholders over another. Understanding these trade-offs is an important consideration and is vital to communicate. We have therefore taken a holistic view when considering these in the context of the MAIB operating environment.

## 1.3 Information

The sources of information we relied upon for this review are documented in Appendix A.

## 1.4 Financial Objectives of MAIB

The financial objectives of MAIB are a key element in determining appropriate insurance profit margin, solvency targets, investment return margins and risk margin assumptions that are recommended.



The key financial objectives of the MAIB are:

- Achieve 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
- Maintenance of solvency at 20%-25% of outstanding claims
- Outstanding claims reserved to at least a 75% probability of sufficiency
- Payment of dividends of 50% of after tax profit averaged over the last 5 years.

MAIB's financial objectives should be considered in the context of the governance structure under which it operates. The key pieces of legislation that govern MAIB include:

- The Motor Accidents (Liabilities and Compensation) Act 1973
- The Government Business Enterprises Act 1995
- The Economic Regulator Act 2009.

Details of the framework can be found in Appendix B.

The nature of benefits paid, including likely duration plus the extent to which claims cost, have been, and are expected to be, controlled are key elements in determining appropriate superimposed inflation assumptions. In the past, claims costs growth has been maintained at a modest margin above wages inflation. Over the long term this compares favourably to most other jurisdictions in Australia.



## 2 Considerations for Solvency and Profit

In this Section, we set out some general thoughts for the consideration of solvency, profit and capital. In subsequent sections we make a number of specific observations in relation to MAIB's framework and premium submission.

### 2.1 Context

The level of solvency and profit for MAIB to target are a function of MAIB's and Government's risk tolerances and preferred average dividend. Dividends affect target solvency and so it is possible that dividend policy and payment of dividend could drive solvency below preferred levels. Capital in excess of a minimum defined solvency outcome (and, to a much lesser extent, profit) provides a financial buffer against adverse outcomes. Profit in premium is the key determinant of MAIB's ability to sustain dividends to Government at their preferred level over time.

In our view it is not possible to determine an 'optimal' solvency framework and profit for MAIB. However, it is possible to determine acceptable settings that balance the needs of Government, Tasmanian motorists and claimants.

In general, lower solvency and lower profit margins equate to higher risk. One of the risks associated with lower solvency and profit is that premiums may need to increase, potentially significantly, in future to remediate an unfavourable financial position.

On the other hand, higher solvency and profit lead to higher premiums and an "inefficient" use of financial resources. A higher level of solvency margin ties up capital that might be better deployed to fund critical infrastructure for the state.

Setting solvency and profit targets generally considers the following:

- Measurement of capital and definition of a 'poor' solvency position
- 'Risk tolerances' associated with capital level
- Preferred level of dividend or return on capital
- Risk tolerance to premium increases (or other remedial actions such as expenditure cuts or benefit changes)
- Acceptable time horizon to recover from a 'poor' solvency position.

### 2.2 Measurement of Profit and Capital

Profit measurement is uncontroversial in terms of how it must be calculated in annual accounts and for APRA authorised insurers. Both APRA and Accounting Standards stipulate how to value assets and liabilities and therefore the absolute level of the net assets at any given point in time.

We do not propose that MAIB adopt an alternative approach to measuring profit or solvency that departs from generally accepted principles.

However, for schemes such as MAIB, measuring solvency at a “point in time” arguably understates financial health. This is because accounting standards require the measurement of liabilities using a “risk free” discount rate, while we know that MAIB expect to earn significantly greater investment returns than the risk free rate over time.

A definition of ‘poor solvency’ position may wish to take into account this additional expected investment return and also that the measurement of outstanding claims in the solvency calculation includes a risk margin. In some schemes this is referred to “economic” position rather than the “accounting position” – i.e. there is a recognition of the expected long term economic position of the entity (so liabilities are discounted at the expected long term earning rate), rather than relying on the “point in time” position required by accounting standards.

In our view, a solvency level of 0% is a sensible level to consider as ‘poor’. There is a significant natural risk aversion to falling below zero net assets which creates a strong financial discipline to manage to. However, we note that solvency below zero at a point in time is not of itself a significant issue (what is important is that breaching this point triggers discussion of corrective action or conscious decision that corrective action is not required). In our view a solvency level of 0% represents a point at which a ‘reasonable stakeholder’ would make an ‘adequate’ finding in the context of financial and reputational risk.

The question then really becomes what target above 0% is acceptable for a government insurer?

### Issues specific to government insurers

It is not a requirement or necessarily efficient for government insurers to operate with capital at a level that is required by a similar APRA authorised general insurer. Therefore, most government owned schemes do not use the APRA framework as it relates to capital, but apply benchmark solvency measures around the absolute level of net assets. Most schemes do, however, adopt a minimum Solvency Ratio of 0% (i.e. assets equalling liabilities). Notable exceptions are the three Victoria Government Insurers. We would see a target level of capital at the APRA level as being at the “high end” of capital that might reasonably be targeted by a government insurer.

In our view, this approach is reasonable as it balances the interests of key stakeholders without necessarily tying up large levels of capital in a government owned insurer. It is also generally helpful if the framework as well as providing a minimum level of solvency provides some guidance about the appropriate range.



There are a number of reasons why we believe a government insurer can operate at a lower level of capitalisation than an APRA insurer, including:

- If solvency falls below a target level, or even becomes negative, the government insurer is still able to remain in business and fund the deficit “post event”
- Unlike private insurers government insurers can continue in business whilst technically insolvent
- A captive client base means government insurers can increase premiums without fear of losing business
- Many of the liabilities are very ‘long tail’ and are not going to be paid in the short term. Liquidity is not generally an issue for government insurers and there is time to ‘recover’ from any poor performance – it is possible to have a longer time ‘horizon’
- Most stakeholders do not wish to see an over capitalised entity
  - ▶ policyholders (motorists), for example, would often prefer to see any excess capital returned to them by way of lower premiums
  - ▶ government could make use of excess funding elsewhere.

We note that most schemes adopt APRA minimum risk margins (i.e. 75% probability of sufficiency) which are included in the solvency calculation for the net outstanding claims liability.

### APRA Solvency Framework

Historically, the APRA framework for private sector insurers has been relatively straightforward and therefore practical for government insurers to benchmark against their solvency requirements. However, with effect from 1 January 2013 APRA changed its solvency requirements for private sector insurers which introduced a materially more complex framework than what previously existed. It is also generally expected that the revised APRA framework will result in materially higher levels of ‘minimum capital’ for APRA regulated insurers. As a consequence of these changes private sector insurers have reviewed their ongoing capital frameworks.

As a government owned entity MAIB is not subject to APRA regulation. However, we note that MAIB’s policies have regard to the APRA MCR and that it has been recommended to MAIB that the current solvency target should be maintained at the upper end of 20% to 25% in view of uncertainty surrounding the solvency levels of APRA authorised insurers following the recent regulatory changes. For the reasons given above, we do not see the changes to the APRA framework as necessarily implying any immediate need for MAIB to change its capital framework.



## **2.3 Solvency Risk Tolerance**

Whatever point of solvency is decided on as one to avoid breaching, best practice is to understand from Government and MAIB (Board and management) what probability of falling below that level is acceptable. For example, the target solvency will be very different if Government and MAIB are comfortable with a 1 in 10 chance compared to a 1 in 200 chance of breaching the solvency threshold.

Analysis can be undertaken to estimate the probabilities of falling below a specific solvency threshold from various initial solvency levels.

## **2.4 Preferred Dividend**

The level of profit in premium required is directly impacted by the dividend expected. It is easiest to establish the appropriate profit in premium if dividend policies or expectations are framed in terms of a proportion of premium or a return on capital.

For MAIB, the level of profit in premium will have only a small effect when considering solvency volatility and the risk of solvency falling. However, there will be some relationship between dividend amounts, dividend policy and solvency risk. For example current MAIB dividend policy will allow payment in a loss making year, thus increasing the risk that a lower solvency target will be breached. Again, we see this as low risk in comparison to underlying scheme volatility outcomes.

## **2.5 Premium Volatility and tolerance to expenses and benefit cuts**

MAIB has only limited options to recover solvency from a poor to a preferred state. Increasing premiums is one lever to recover (although it is a very insensitive lever). However, if the time horizon over which solvency may be recovered is long enough, premium increases maybe an option.

Specific dividend holidays (even in profit making years) can deliver a boost to solvency and therefore, the Government's tolerance to zero dividend must be a consideration.

At an extreme, legislative reforms may be required and Government risk tolerance to this eventuality must also be appreciated.

## **2.6 Time horizon for recovery**

If solvency dips below an acceptable level, it is important to understand the sensitivities to the length of time it might take to recover. The tolerance to continued poor solvency might be low and at odds with stated risk tolerances to premium volatility or benefit cuts.

In order to agree solvency and profit targets, indicative or absolute answers to risk preferences associated with solvency volatility, dividend amounts, premium volatility, benefit restructure and the time horizon acceptable for restitution are very helpful.

In the remainder of this report we consider the above aspects of solvency and profit and specifically how they relate to MAIB and the proposed premium structure beyond 1 December 2013.



### 3 Solvency

This section considers what an appropriate target Solvency Ratio might be for MAIB, giving consideration to both the framework around the minimum level of net assets to hold, the appropriate risk margin and its associated probability of sufficiency. We have included, where appropriate, comparisons to other jurisdictions around Australia and New Zealand.

A key measure of the MAIB’s financial performance is its

*Solvency Ratio<sup>1</sup> : the ratio of the adjusted net assets to the net outstanding claim liabilities.*

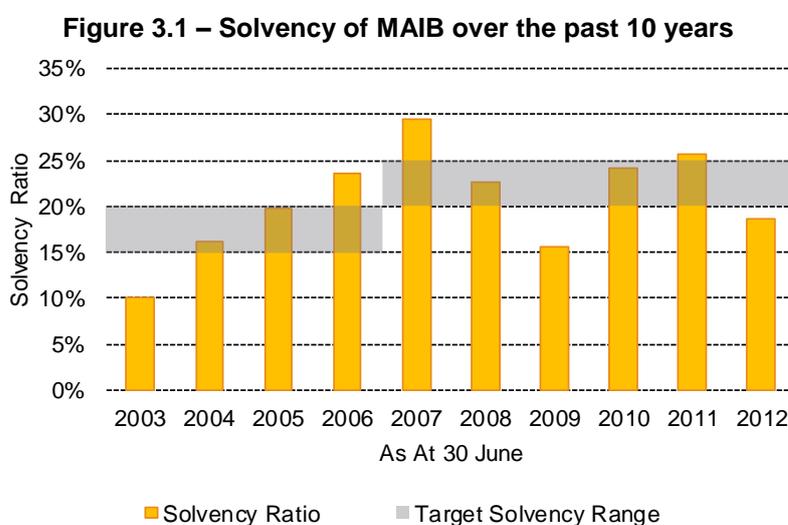
The adjusted net assets in this measure are the net assets reported in the annual accounts reduced by the dividends calculated but not yet paid.

A Solvency Ratio greater than 0% implies that assets available to meet claims exceed the liability for outstanding claims. The net outstanding claim liability includes a risk margin which provides a higher probability of sufficiency to MAIB that the claim reserves will cover the payments falling due.

MAIB has for many years had a target solvency range of 20% to 25% of outstanding claims.

#### 3.1 Historical Solvency

The Solvency Ratio at 30 June 2012 was 18.6% (25.7% at 30 June 2011). This was below the target range of 20% to 25%. The reduction during the 2011/12 year was due to poor investment returns and low claims discount rates which increased the claims liability.

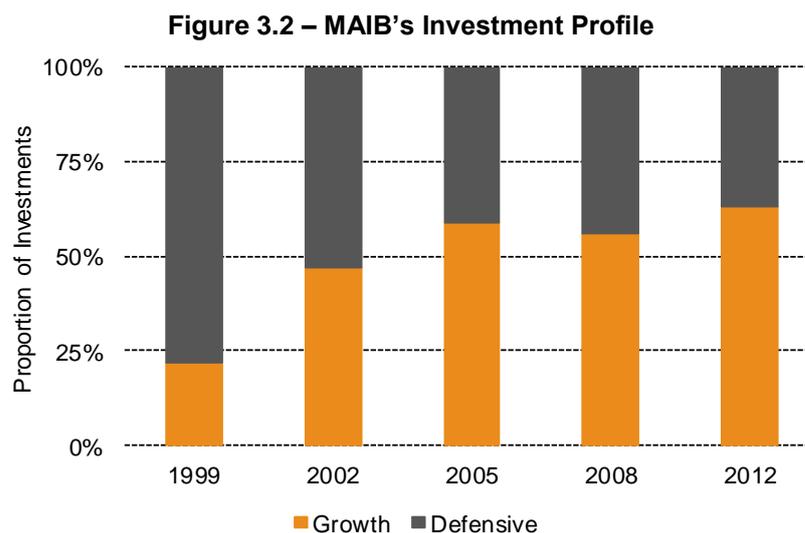


<sup>1</sup> We use the term Solvency Ratio which is consistent with the MAIB corporate plan however this is also described as the solvency level in the MAIB Annual Report and the solvency margin in the MAIB Submission. They are all descriptions of the same financial measure.

From 2004 to 2008 scheme solvency was strong and within or exceeding the target range. In 2008 and 2009 the solvency was impacted by the Global Financial Crisis (GFC). Low investment returns impacted asset values and low risk free discount rates increased the discounted value of claims liabilities.

### 3.2 Solvency Framework

MAIB target a Solvency Ratio within the range of 20% to 25%. This target was increased from a range of 15% to 20% during a solvency review in 2006/07, in response to a shift in MAIB's investment allocation towards growth assets. The change in MAIB's investment profile is shown in Figure 3.2 below.



The move to a higher Solvency Ratio target was logical in the context of a shift away from defensive assets since the capital is held in “more risky” investments.

The mid-point of MAIB's Solvency Ratio range is 22.5%. Following on from our discussion in Section 2.2 this is relatively high but not unreasonable in the context of the risk faced by MAIB including past shocks to solvency. However, there may be merit in increasing the breadth of the Solvency Ratio range to be more consistent with expected future and past actual ‘business as usual’ annual volatility.

In addition to its “primary and published” target solvency range of 20% to 25% the MAIB Corporate Plan documents a secondary capital measurement of 75% to 85% Minimum Capital Requirement (MCR) which is an amount set by APRA for private insurers. This secondary target was established in 2005/06 and was estimated to be around half of the average MCR of private sector insurers. While it may be interesting to benchmark capital to that required of an APRA authorised insurer, we do not believe the results are directly relevant to setting a capital target for MAIB.

In our view, there may be some benefit in MAIB specifically considering its Risk Appetite or Risk Tolerance. Development of a statement around this may enable MAIB to clearly

articulate its attitude to risk, and particularly its tolerance to falling below full funding, or recovering to full funding.

### Other Jurisdictions

The solvency frameworks and targets for other non-APRA regulated entities are shown in Table 3.1 below.

**Table 3.1 – Solvency Frameworks**

Entity	Minimum Solvency	Solvency Range <sup>1</sup>
TAS (MAIB)	sufficient reserves to cover 120% of all outstanding claims	20% to 25%
VIC (TAC)	sufficient reserves to cover 100% of all outstanding claims	-20% to 20%
SA (MAC)	sufficient reserves to cover [total liabilities + 10% of outstanding claims and premium liability provisions + 10% of equity and property investments] (equivalent to around 114% of outstanding claims). Board target of 108% of this amount	
WA (MVPI)	Policy is to ensure "full funding". Target of 125% of outstanding claims	
NT (TIO MAC)	sufficient reserves to cover 135% of all outstanding claims	
NZ (ACC MV)	sufficient reserves to cover 100% of all outstanding claims. Target of 116%	0% to 40%

<sup>1</sup> VIC and NZ usually express their range in terms of a "Funding Ratio" which is a measure of total assets divided by outstanding claims. We have expressed this as a Solvency Ratio here for comparison with MAIB.

The MAIB's minimum solvency target is comparable to other non-APRA regulated schemes.

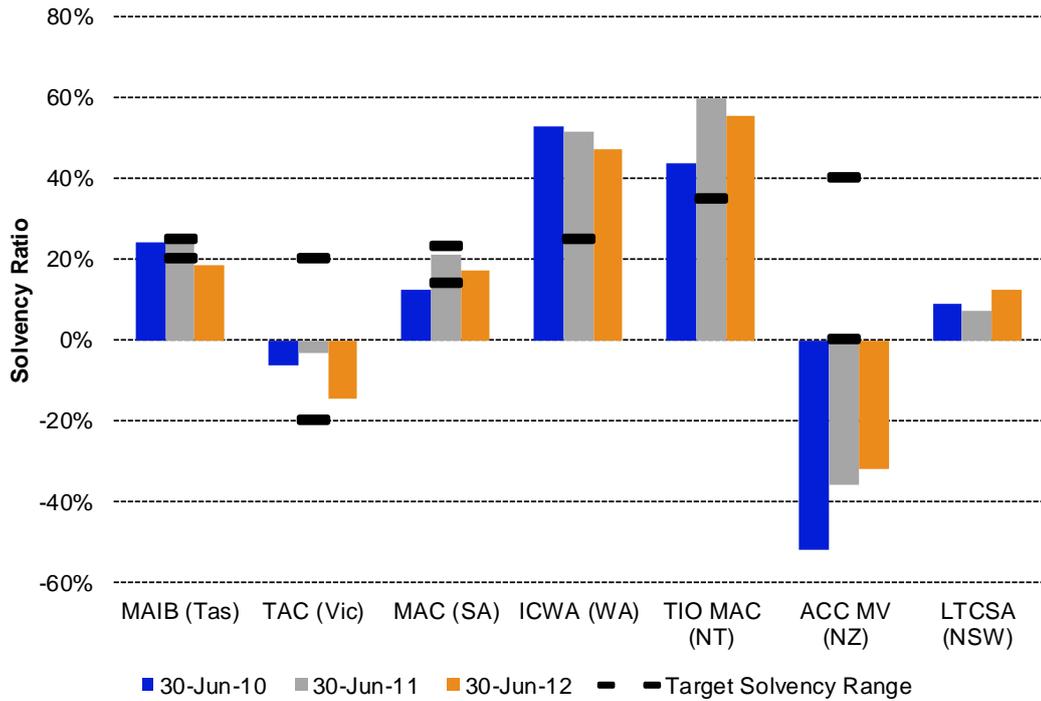
However, the solvency range adopted by MAIB is quite narrow (5%) compared to the ranges of other schemes such as the TAC (40%) and the ACC MV in New Zealand (40%). Over the last ten years the MAIB Solvency has fluctuated between 10% and 30% and has only been within the target range four out of the ten years. However, we would view this observed volatility in MAIB Solvency as normal.

Further, we understand from discussions with MAIB that moving outside the solvency range is not currently a trigger for any immediate action, implying that the 'target' or 'normal operating' range may actually be somewhat wider in practice. In this context, we would suggest it may be beneficial for MAIB to review its solvency range.

Solvency Ratios for the past three years and associated target ranges (using the same definition of Solvency Ratio as that adopted by MAIB) of other relevant entities are shown in Figure 3.3.



Figure 3.3 – Solvency Ratios as at 30 June 2012



For other schemes we have calculated the Solvency Ratio as Net Assets as % of Outstanding Claim Liabilities. We have not attempted to adjust for any definitional differences. ACC includes only post 1999 accident years



Figure 3.3 shows that while MAIB was below their target range at 30 June 2012 their solvency was higher than several other government CTP schemes. In addition, the volatility of MAIB's Solvency Ratio over the past three years is consistent with other Australian jurisdictions.

### 3.3 Dividend Policy

The net assets in the Solvency Ratio measure are the net assets reported in the annual accounts reduced by the dividends calculated but not yet paid. The dividend in a year is 50% of average annual after tax profits and losses over the current and four preceding years.

In our view, the current dividend policy for MAIB represents a sensible compromise between the requirement of the Government for dividends and the need to recognise short term volatility impacts in the balance sheet due to external forces (predominantly investment market conditions).

#### Other Jurisdictions

Dividend policy for government insurers varies around the country, with some states not requiring a dividend, while others require a dividend based on profit from Insurance Operations (i.e. excluding investment fluctuations).

### 3.4 Risk Margins

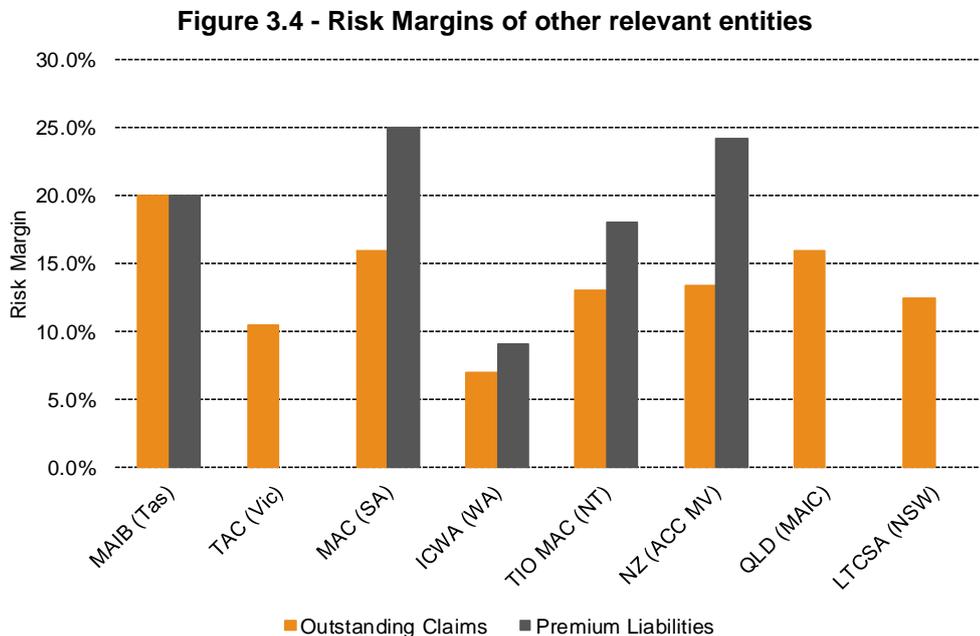
The net outstanding claims liability in the Solvency Ratio calculation includes a "risk margin" which is an additional margin on top of the actuarial central estimate of expected future payments and claims handling expenses. MAIB currently use a risk margin of 20% which is intended to provide "at least" a 75% probability of sufficiency.

The use of a risk margin at a 75% probability of sufficiency is a benchmark that is widely adopted in Australia across APRA regulated insurers, other government backed CTP schemes and other government insurers. In layman's terms this is akin to saying there is a 3 in 4 chance of the provision proving to be adequate. Similarly an 80% probability of sufficiency is akin to saying that in 4 years out of 5 the provision will at least be adequate. We are of the view that use of risk margins at the 75% probability of sufficiency is a sensible target for MAIB.

It is our understanding that the risk margins adopted for the MAIB liabilities have been set after a benchmarking exercise to other similar schemes rather than on analysis of the historical variability of MAIB's own claims. Further, we note that the risk margins adopted by MAIB have not been reviewed in detail for some years. Given the size of MAIB's liabilities, we would generally expect to see regular (say every 3 years or so) analysis of MAIB's risk margins based on its own experience, which could result in risk margins different to those currently adopted, for a given level of sufficiency.

## Other Jurisdictions

The risk margins of other relevant entities are shown Figure 3.4 below. The majority of the CTP schemes adopt a “probability of sufficiency” (PoS) of 75%. The SA MAC scheme adopts an 80% PoS and the NSW LTCSA scheme do not state their PoS.



Also, the risk margin associated with an insurer’s premium liabilities is generally higher than that of the outstanding claims for the same probability of sufficiency. The reason for this is the greater uncertainty of events surrounding future claims that have not yet occurred.

## 3.5 Liability Adequacy Test (LAT)

The LAT is required under the Australian Accounting Standard AASB 1023 and compares:

- the discounted value of the expected future claims costs, plus an allowance for expenses and a prudential margin, that will be incurred after the balance date arising from policies issued prior to the balance date; and
- the unearned premium reserve (UPR) net of deferred acquisition costs (DAC).

The approach used to the estimation of the LAT by MAIB is consistent with good practice and appropriate to the nature of MAIB’s risks.

## 3.6 Summary

### Solvency Target

While not unreasonable, MAIB’s solvency target of 20% is 25% (with a mid-point of 22.5%) is a narrow range, particularly when viewed in the context of reported solvency

over the last five years or so. Even excluding the extreme events related to the GFC MAIB's solvency might be expected to exhibit annual fluctuations by more than +/- 2.5% quite often.

However while from both the documentation we have reviewed, and our discussions with MAIB, there is a clear appreciation of the desire to remain above "full funding" (i.e. for assets to remain greater than liabilities) this policy is not particularly well articulated and it is not apparent what the 'tolerance' of MAIB is to being outside its stated solvency target range.

We agree that having regard to the chance of falling below 0% solvency is a reasonable starting point to establish an appropriate solvency target and range. However, in our view, there needs to be a stronger link between MAIB's and Government's specifically thought out risk tolerances in setting the appropriate range.

It would be beneficial for MAIB and Government to undertake an exercise to determine their risk tolerance to falling below certain solvency levels (a 'poor outcome') and their tolerance to the time required to recover from a poor solvency outcome. This exercise should have regard to MAIB's specific circumstances and not to APRA capital standards.

Given the information available to us we believe that setting the solvency range with reference to a lower probability (for example one in 25 year chance of falling below 0%) will result in a solvency target mid-point lower than 22.5% but a much broader acceptable range than +/-2.5%.

### Dividend Policy

In our view, the current dividend policy for MAIB represents a sensible compromise between the requirement of the Government for dividends and the need to recognise short term volatility impacts in the balance sheet due to external forces (predominantly investment market conditions).

### Risk Margins

We believe that a 75% probability of sufficiency for the risk margin is appropriate for MAIB and that the 20% risk margin adopted may well provide a greater level of sufficiency than the 75<sup>th</sup> percentile. We suggest that a risk margin review based on the MAIB's own claims be undertaken to confirm the risk margin at the 75<sup>th</sup> probability of sufficiency.



## 4 Insurance Profit Margin

The insurance profit margin is the component added to the break even premium which results in the actual premium charged. MAIB's projected profit margin of 10% to 13.5% generates a return on capital of between 7% and 8%. This ROC appears reasonable for a Government insurer.

The break even premium includes claim costs and the expenses required to manage providing the claim payments. The profit margin provides for a suitable rate of return to be earned on the capital supporting the business.

The insurance profit margin balances a need for solvency and support for dividends whilst maintaining tension on premium levels. Profit margins are also important in maintaining a level of comfort that MAIB in their ability to recover from a poor financial result without increasing premiums further.

Under the GBE Act, MAIB links their profit margin to a return on capital concept. However, we are not aware of any other state owned insurer any longer relating their profit margin to a return on capital concept (for example, previously the Transport Accident Commission in Victoria had reported their target profit as an equivalent return on notional capital. Rather they now target a margin in premium in a range which is determined by and communicated to TAC by the Minister).

The return on capital of a business is the profit divided by the total capital. The profit margin target is calculated with reference to a return on capital target which we understand for MAIB is 7.5%. While the return on capital target of 7.5% is not documented in the GBE Act we understand that Treasury has held this expectation for MAIB for a reasonable number of years.

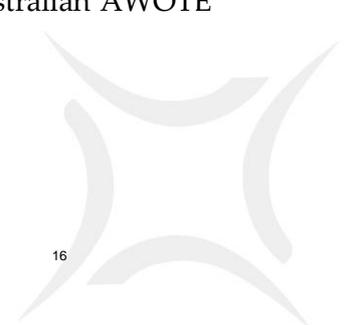
### 4.1 Profit Margin – MAIB Submission

Based on the pricing assumptions presented in the MAIB submission the implied profit margin is 10%. This includes an assumption of a 3% per annum 'real' rate of return over the longer term.

The real rate of return (the difference between the assumed future investment returns and claims inflation) was reduced to 3% in this submission (from 4% at 2009) on the advice of MAIB's asset consultant. This is discussed further in Section 6.

The MAIB Submission provides two scenarios for future premiums from 1 December 2013 to 1 December 2017 which results in different profit margins.

- Scenario 1 : premium increase is based on annual increases in Australian AWOTE results in a profit margin of 13.5% whereas



- Scenario 2: premium increase is based on CPI until 2015 and then AWOTE thereafter. This results in a lower profit margin between 10% and 13% (i.e. closer to the target margin of 10%).

The MAIB Submission has recommended Scenario 1 (i.e. annual increases in line with AWOTE) to allow for some flexibility in increasing premiums in future years noting the following potential risks to future financial performance:

- Claim frequency improvements are uncertain
- Uncertainty around the NIIS which is expected to increase MAIB costs
- Uncertainty around increases in hospital rates, ambulance and future care costs which have been captured in the claim costs.

## 4.2 Benchmarks

In our experience Government CTP insurers in Australia typically target a margin in premium of between 6% and 12%. These profit margins are not always disclosed publicly. These insurers are generally long tail (much longer than private market CTP insurers) and factor in fully the investment return of the assets backing the business.

Private sector insurers of CTP also target profit margins in that order, and even though they hold more capital to back the business we estimate these insurance margins generate ROC in the order of 10% to 15% after tax.

MAIB's projected profit margin of between 11% and 13.5% generates ROC of between 7.1% and 7.7% after tax which sits below the lower end of our estimated range targeted by the private sector.

The November 2012 paper "Profit Margins in Regulated General Insurance Markets" by the Actuaries Institute profit margins working party presents a framework for establishing profit margins in regulated markets. The paper describes a "fair price" of a regulated product as "*one that provides a sufficient, but not excessive, return to the capital provider*". The principle of the discussion is that an entity's return on capital should be comparable with an entity with similar risks while maintaining sufficiency to attract capital. MAIB having a target return on capital lower than private sector CTP insurers would be consistent with this principle.

## 4.3 Summary

Under a Government monopoly scheme such as MAIB it is common to recognise "up front" the benefit of higher than risk free investment returns. This upfront recognition results in lower average premiums for motorists, however the government is, in effect, bearing some of this risk, as ultimately the government would be required to support MAIB in the event of it becoming insolvent. In return for taking on this risk, it is reasonable for the government to achieve some level of return.

The current target level of profit in premiums is intended to achieve a return on capital of around 7% after tax. This is materially lower than in the private sector, where insurers would typically target a return on capital in the order of 10% to 15% (after tax). In our view, the target profit of around 10% is reasonable.



## 5 Superimposed Inflation

Superimposed inflation (SI) is the term used to capture growth in claims costs that exceeds a suitable standard measure of inflation, such as AWOTE in the context of MAIB.

### 5.1 MAIB Superimposed Inflation

We have had the opportunity to review the four most recent superimposed inflation investigations that MAIB has commissioned by their actuaries, Taylor Fry Consulting. These investigations were carried out at March 2013, April 2012, March 2010 and June 2007.

Taylor Fry varied their approach to these investigations which was intentionally undertaken to provide confidence in their superimposed inflation observations and subsequent recommendations. These approaches are summarised below:

- March 2013 and March 2010 – Fitted exponential trend lines to the estimate of ultimate average claim sizes for each benefit type.
- April 2012 – Examination of the historical incurred costs (historical payments plus inflated and undiscounted estimates of outstanding claim liabilities) for individual accident half years.
- June 2007 – Examination of past Payment Per Claim Incurred and Payment Per Claim Finalised patterns for Scheduled Benefits and Common Law; Past annual payments for individual Future Care claims.

Each of these reviews recommended the following superimposed inflation assumptions:

- Future care claims 0.00% p.a.
- Common law claims 0.75% p.a.
- Scheduled benefits 1.50% p.a.

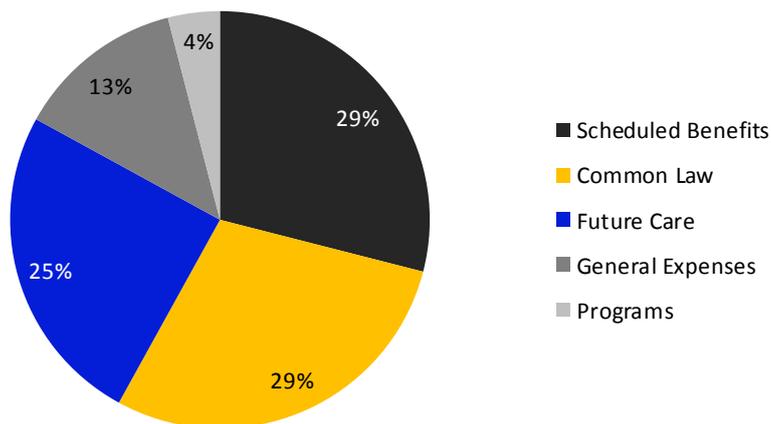
These assumptions are consistent with the MAIB Submission.

### 5.2 Benefit Types

The claim cost components of MAIB's break even premium are shown in Figure 5.1 below.



**Figure 5.1 – Claim Cost Components**



While the benefit types (excluding expenses and programs) make up similar proportions of the break even premium the mean terms are quite different. The discounted mean term of scheduled benefits is 4.4 years, Common Law 2.7 years and Future Care benefits 20.5 years.

The observations made in the Taylor Fry superimposed inflation investigations are summarised by benefit type below.

### Scheduled Benefits

In the March 2013 investigation the fitted trend line on the average claim size experience from 1995 to 2013 showed an annual growth rate of 1.2% p.a. Excluding the 2012 and 2013 years (which are largely estimates and also heavily impacted by the hospital rate increase discussed in Section 7) the fitted trend line has an annual growth rate of 0.8% p.a. Including the 2012 and 2013 years and fitting a trend line from 2009 to 2013 indicate a growth rate of 5% p.a.

In the April 2012 investigation, no trend was apparent in the incurred costs for each accident half year from 2001. Since the incurred costs already included a superimposed inflation assumption of 1.5% the lack of trend indicated that the allowance for superimposed inflation was appropriate.

The selected scheduled benefits assumption of 1.5% p.a. has therefore been held unchanged from previous assumptions keeping in mind the past experience and also the expected increase in hospital rates.

### Common Law

In the March 2013 investigation the average claim size experience was examined over the period from 1995 to 2013 which showed an annual growth rate of 0.3%. It was noted that the proportion of non-nil finalised claims decreased significantly during this period so a

trend line was fitted to average non-nil claim sizes only which showed an annual growth rate of 2.5%. In addition to the change in proportion of non-nil claims the number of common law claims has been decreasing. An examination into the mix of common law claims resulted in Taylor Fry concluding that the increase in average settlement size above inflation was due to a change in mix and that the superimposed inflation assumption of 0.75% remained appropriate.

In the April 2012 investigation, although there was considerable variability, no trend was apparent in the incurred costs for each accident half year from 1997. Since the incurred costs included a superimposed inflation assumption of 0.75% this lack of trend indicated that the 0.75% per annum allowance for superimposed inflation was appropriate.

### Future Care

The number of individual future care claims is very low and therefore analysis of superimposed inflation is difficult for this benefit type. In addition, future care claims have a considerably longer mean term than scheduled benefits or common law claims. This means that an examination of historical average claim sizes includes a considerable amount of estimation.

In the March 2013 investigation, Taylor Fry observed that the fitted trend line in average claim sizes from 1995 to 2010 has an annual growth rate of 2.7%. However, excluding the 2008 to 2010 period the annual growth rate is 0%.

The April 2012 investigation showed no trends apparent in the accident half year incurred costs.

The FWA decision which is discussed in Section 7 is considered a specific “burst” of superimposed inflation which Taylor Fry has explicitly modelled. In this respect, a superimposed inflation assumption of 0% has been selected as reasonable.

## 5.3 Superimposed Inflation in Other Jurisdictions

Superimposed inflation in the privately underwritten jurisdictions has emerged in bouts and has affected the settlement sizes in economic loss, non-economic loss, future care and legal costs. Our own analysis indicates recent superimposed inflation in the NSW and Queensland jurisdictions in the order of 3% per annum.



Several schemes indicate the level of superimposed inflation in annual reports and other public documents. The following summarises this public information.

**Table 5.1 – Reported Superimposed Inflation**

Government CTP Scheme	SI assumption at June 2012
TAC (Vic)	0.25%
ICWA (WA)	3.70%
NZ (ACC MV)	Ranges from 2% to 6.6% based on benefit type and payment term
LTCSA (NSW)	0%

In our experience, typical ranges for superimposed inflation in Government schemes are:

- 1% to 2% per annum for Future Care (noting that specific ‘life event’ increases in care packages are factored in to the liability before SI is added on in many instances)
- 1% to 5% per annum for medical related services

Superimposed inflation for Common Law and economic loss varies considerably between jurisdictions.

While no two schemes exhibit exactly the same timing, quantum, duration and drivers of bouts of superimposed inflation, it is unusual to have zero on future care liabilities. However, the claims inflation experience of MAIB supports this assumption.

## 5.4 Summary

The rate of superimposed inflation adopted in MAIB’s break-even premium is consistent with their claims experience, in line with ranges we have observed in other jurisdictions (aside from Future Care) and therefore appears reasonable.



## 6 Investment Return Margin

In our opinion, the discount rates adopted by MAIB for valuing outstanding claims and for setting premiums are appropriate. MAIB incorporate a 'risk free' discount rate to value outstanding claims and discounts future claims costs at an anticipated investment return to set premiums. The anticipated investment return is consistent with the expected long run future average return associated with their strategic asset allocation.

### 6.1 Introduction

MAIB are required to use expected future rates of return in the estimation of both outstanding claims and future premiums.

Accounting standards specify that "risk free" discount rates should be used for determining outstanding claims and MAIB's approach to this is considered below.

However, in determining premiums there is considerably more flexibility regarding the choice of investment return. Using a "risk free" rate does not recognise that an insurer might expect to earn a higher rate of return over the life of the claims. Using a "long term" rate consistent with expected investment return passes these higher returns back to the motorists in the form of lower premiums.

### 6.2 Discount Rate used for Outstanding Claims

The outstanding claim liabilities are inflated and then discounted back to present value using "risk free" discount rates. Australian Government Bond rates are typically available to use to set risk free rates for around ten years. However, another assumption is required to discount long term payments falling due after the end of observable bond yields. It is usual to adopt a "gap" above the assumed inflation rates and fix this gap for the long term payments beyond ten years.

The MAIB Submission has specified a gap of 2.0% p.a. Along with the long term rate of Tasmanian AWOTE of 3.6% the outstanding claim liabilities are discounted at 5.6% p.a. This approach for discounting long duration liabilities is one of the accepted approaches for estimating inflation and discount rates at durations where it is not possible to directly observe market returns or forecasts.

The assumptions proposed by MAIB for this investigation and the assumptions approved by GPOC in the previous premium investigation are shown in Table 6.1.

**Table 6.1 – MAIB Discount Rate Assumptions**

Pricing Investigation	Tas AWOTE	Long Term GAP	Asset Margin	Real Rate of Return	Investment Return Margin	Outstanding Claims Discount Rate beyond 10 years
2013	3.60%	2%	1%	3%	6.60%	5.60%
2009	3.50%	2%	2%	4%	7.50%	5.50%

The methodology described in the MAIB Submission is appropriate.

### 6.3 Discount Rate used for Premium Rates

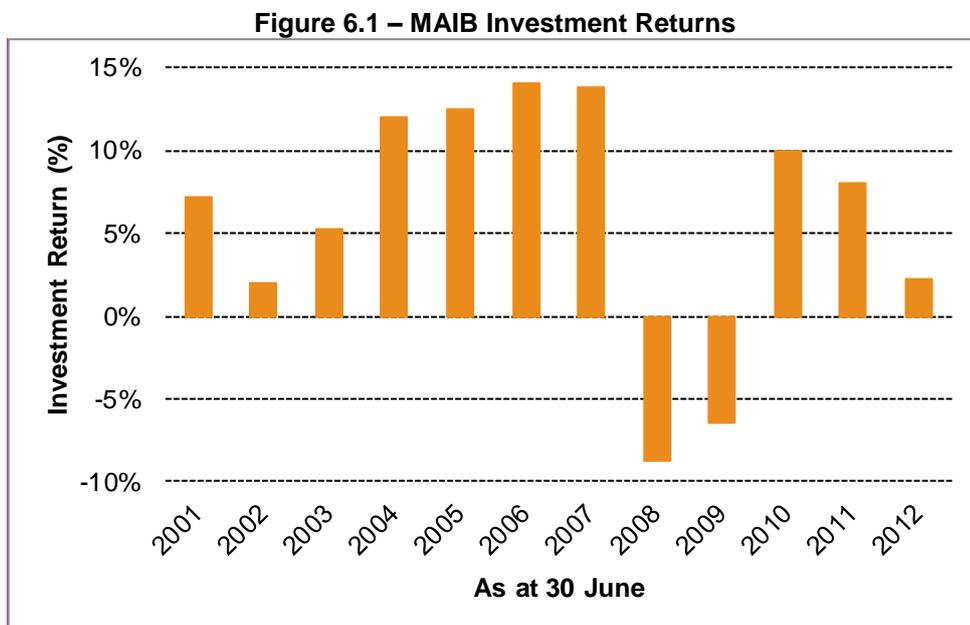
We support an approach to premium setting for schemes like MAIB, where best estimates of each premium component, is used to build up to the total premium required. That is there should be no conscious conservatism introduced in the claims, expenses or investment return assumptions and that any margin above the best estimate is explicitly shown. MAIB adopt this approach. In particular, MAIB adopt a discount rate for the break-even premium (BEP) equivalent to the expected real investment return above AWOTE, for their portfolio of assets, as advised by their investment consultant.

The BEP is the present value of expected future payments discounted back to present time using an assumption of investment earnings on the premium collected. As discussed above, there is considerably more flexibility regarding what discount rate can be used in establishing premium rates compared to the value of outstanding claims liabilities.

MAIB adopt a rate of return that, based on the advice of its investment consultant, Towers Watson, is expected to reflect the expected long term real return above AWOTE of its portfolio, taking into account its long term benchmark asset allocations.

The rate of investment return adopted in calculating the break-even premium in the MAIB Submission is 6.6% p.a. being 3.0% above future expected AWOTE (compacted to 7.5% nominal or 4.0% above AWOTE at the 2009 Pricing Investigation).

The historical investment returns for MAIB are shown in Figure 6.1 below.



The average return since 2001 (following a strategic move towards growth assets) has been 6% per annum (1.5% above Tasmanian AWOTE over this period). Returns have been somewhat volatile year to year. However, this appears well understood by MAIB. For example, the poor investment returns following the GFC and then during the economic downturn over 2011/12 resulted from MAIB's high exposure to the equity market. MAIB management and Board considered poor financial results of these periods in the context of market volatility and in each case have appropriately waited for markets to improve.

### Real Rate of Return

The "real rate of return" is the difference between claim cost inflation and the investment return. In the context of MAIB the real rate of return has historically been considered as the assumed rate of return above Tasmanian Average Weekly Ordinary Times Earnings (Tas AWOTE).

The assumed rate of Tas AWOTE determined by MAIB's actuaries is 3.6% p.a. which is based on independent economic forecasts. This assumption appears reasonable.

At the time of the previous Submission, the assumed real rate of return was 4% p.a. and therefore the assumption of 3% in the 2013 Submission represents a reduction of 1% p.a. Our recent discussions with fund managers and asset consultants suggest that this reduction is not out of line with market expectations, which have reduced somewhat over the past 4 years. We are satisfied that the selection of a 3% p.a. real rate of return is not unreasonable for MAIB.

## 6.4 Benchmarks

It is difficult to compare long term expected returns in isolation from the allocation of the exposure to growth assets. The investment return assumptions available for other relevant schemes are shown in Table 6.2 below.

**Table 6.2 – Investment Return Assumptions of Other Relevant Schemes**

Scheme	Asset Allocation		Stated Long Term Investment Rate Assumption	Long Term Assumed Investment Rate <sup>1</sup>	Margin over AWE <sup>2</sup>
	Growth	Defensive			
MAIB (Tas)	63%	37%	Tas AWOTE + 3.0%	6.60%	3.00%
TAC (Vic)	70%	30%	CPI over rolling 5 year periods + 5%	7.50%	3.50%
MAC (SA)	42%	58%	AWE + 3%	6% - 7%	3.00%
ICWA (WA)	68%	32%	CPI over rolling 7 year periods + 3.5%	6.40%	2.00%
NZ (ACC MV)	42%	58%	AWE + 3%	6.50%	3.00%

<sup>1</sup> investment return expected over the term of the liabilities

<sup>2</sup> TAC (Vic) and ICWA (WA) estimated assuming 1.5% margin between CPI and Wage Inflation

Other CTP schemes in Australia and New Zealand are currently assuming similar real rates of return. In particular, ICWA, MAIB and TAC each have growth allocations above

60% and assume real rates of return over wage inflation of 2.0%, 3.0% and 3.5% p.a. respectively. MAIB sits comfortably within that range.

## 6.5 Summary

The sources of information used by MAIB to set investment return assumptions are appropriate. The methodology adopted for discounting outstanding claim liabilities and for relevant components of break-even premium is appropriate.

The rate of investment return used in setting premiums appears reasonable with our knowledge of rates used in other Australian jurisdictions with significant allocation to growth assets in their investment portfolio.



## 7 Other observations

In preparing this review we have had a number of discussions with the Regulator and MAIB staff regarding:

- The inclusion of the impact of the “Fair Work Australia” (FWA) decision in relation to carers costs
- The inclusion of an allowance for the potential doubling of the Hospital Bed Day rate

### FWA Decision

A FWA decision was handed down in February 2012 which provides for increases in the award rates for providers of care. These increases are significant in total and will increase carers’ salaries over and above wage inflation over the next 6 years. In considering the potential impact of this decision on MAIB, MAIB’s actuary, Taylor Fry, has assumed that the rates of care paid by MAIB relative to the award rates will be maintained into the future – so for example if MAIB currently pay 110% of the minimum award they will continue to pay 110% into the future. In our view, the approach adopted by MAIB is reasonable.

### Hospital Bed Day Rate

We understand that MAIB is currently in discussions with the Department of Health (DH) regarding a possible increase to the “bed day rate” paid by MAIB. These discussions have been ongoing for some time and we understand that at this point in time no firm commitment as to either the quantum or likely timing of any increase has been established.

At this review, MAIB has included a “pre-cautionary” allowance for a doubling of the hospital bed day rate. Hospital costs currently represent around 35% of Scheduled Benefits (which in turn are around 30% of total claim costs) and so an increase of this magnitude has a measurable impact on the expected cost of claims.

While it is reasonable for MAIB to allow for a potential increase in the future, given the uncertainties surrounding the quantum and timing it may be that any increase to premiums could be deferred until further details are known. If this approach were taken, the Regulator would need to commit to a potential ‘special’ MAIB premium increase if the bed day rates increases were unable to be absorbed in maximum overall increases in premiums otherwise allowed by the Regulator.



## **8 Reliances and Limitations**

### **8.1 This Report**

This report is being provided for the sole use of the Tasmanian Economic Regulator for the purpose stated in Section 1 of this report. It is not intended, nor necessarily suitable, for any other purpose. This report should only be relied on by the Regulator for the purpose for which it is intended.

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

Inclusion of the report in any financial statement, prospectus, proxy statement, offering circular or other similar document, in full text or otherwise, or any oral report issued by the Regulator or by members of the Office of the Tasmanian Economic Regulator is expressly prohibited without Finity's prior written consent.

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

The report should be considered as a whole. The underlying exhibits and appendices contained in our report are an integral part of this report and should be considered in order to place our report in its appropriate context. We have prepared this report in conformity with its intended use by persons technically competent in insurance financial matters. Judgements as to the conclusions drawn in this report should be made only after considering the report in its entirety.

We remain available to answer any questions which may arise regarding our report and conclusions. We assume that users of this report will seek such explanation and/or amplification of any portion of the report that is not clear.

### **8.2 Uncertainty**

This report contains forecasts of the future financial position of the MAIB going forward. The financial position of the MAIB is dependent on a number of individual financial estimates, each containing uncertainty as to their ultimate outcome. These include, but are not necessarily limited to, estimates of future claims liabilities, premium volumes, loss ratios and investment returns.

There is additional uncertainty associated with estimates due to projecting financial outcomes, not just as at the most recent balance date, but also into the future. Hence, for example, estimates of loss outcomes are in respect of policies which have not yet been written and in respect of claims which have not yet occurred.

We note the projections make no allowance for any extraordinary changes to the legal, social or economic environment that might affect future premium volumes, the extent of coverage given by policies issued, the cost, frequency or future reporting of claims or the future course of investment markets.

### **8.3 Data and Other Information**

In developing this report Finity has relied extensively on historical data and other quantitative and qualitative information provided by, or on behalf of the Regulator. While we have reviewed the data and information for reasonableness and consistency, we have not undertaken a full audit or independent verification of the data. The accuracy of our comments, conclusions and results are dependent upon the accuracy of the underlying data and other quantitative and qualitative information received; therefore, any material discrepancies discovered in this information should be reported to us and, if warranted, the report amended accordingly.

This report and the results, opinions and conclusions herein contained are presented as at the date of the report set out in the covering letter and are based on information supplied in the MAIB submission as at 25 February 2013. They may be rendered inaccurate by developments after these dates.



## Part III Appendices

---

### A Sources of Information

- MAIB Submission to the Regulator dated 21 February 2013
- Discussions with representatives of the following organisations:
  - ▶ The Regulator
  - ▶ MAIB
  - ▶ MAIB Actuary Taylor Fry Consulting
  - ▶ Department of Infrastructure, Energy and Resources
  - ▶ Department of Treasury
- Superimposed Inflation advice from Taylor Fry as at
  - ▶ March 2013
  - ▶ April 2012
  - ▶ March 2010
  - ▶ June 2007
- MAIB Corporate Plan June 2012
- Correspondence between MAIB and the Department of Health and Human Services regarding hospital service fees
- Taylor Fry letter detailing the costings including for the Fair Work Australia Act

## B MAIB's Historical Financial Performance

In this section we discuss the financial performance and portfolio experience of MAIB.

The MAIB Submission highlighted the following key features of recent experience:

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

- *continued growth in the number of registered vehicles;*
- *continuation of the trend to improved frequency of Common Law and Scheduled Benefits claims;*
- *continued high numbers of settlements of Common Law claims, resulting in a reduction in open claim numbers;*
- *lower than projected number of Future Care claims, due to lower than expected number of claims recognised as Future Care and a large number of exits;*
- *only one premium increase since the previous GPOC review, as a result of these favourable claim trends;*
- *high investment returns in 2009/10 and 2010/11, but a low return in 2011/12; and*
- *initial strong improvement in Scheme solvency after a significant reduction due to the GFC, followed by deterioration in the latest year as a result of the current economic turmoil."*

### B.1 Financial Performance

MAIB has advised they target 7.5% return on capital (ROC) after tax and also pay dividends to Government equivalent to 50% of net profit after tax (NPAT) on average.

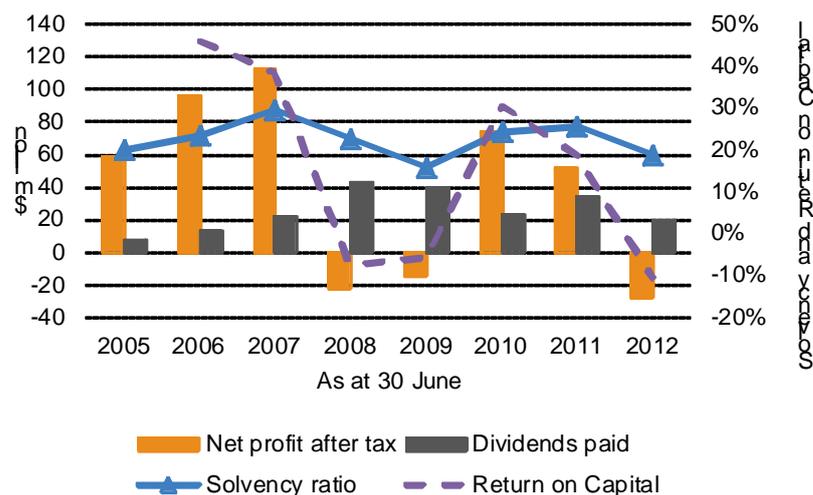
The financial performance of MAIB over the past eight years has been variable, driven in large part by volatile investment markets and prevailing economic conditions. The 2009/10 and 2010/11 financial years were relatively strong while the 2007/08, 2008/09 and 2011/12 were relatively poor.

However, on average, the recent past financial results have produced outcomes consistent with financial strategy settings expectations. Over the last eight years dividends have averaged \$25 million, slightly over half of the average profit over the period. After tax return on capital has averaged 16%, above the guidance issued by Treasury for Government Business Enterprises (GBEs).

Key financials are shown in Figure B.1 below for the period 2004/05 to 2011/12.



**Figure B.1 - Historical Financial Performance of MAIB**



Over the past eight years MAIB’s solvency margin has been generally within or above the current target range of 20% to 25%. MAIB’s solvency dropped to 15.5% at 30 June 2009 due to poor investment performance (GFC related). Government bond yields at 30 June 2009 were very low by historical standards and resulted in a corresponding reduction in claims discount rates which increase the claims liabilities. A poor investment return environment and low discount rates in 2011/2012 have again resulted in a fall in the solvency margin to 18.6% at 30 June 2012 which is slightly below the target range.

MAIB pay dividends of 50% of after tax profits and losses averaged over the current and four preceding years. This dividend policy results in lower volatility dividends compared to a payout ratio linked solely to a single year’s profit result. Having regard to the largest drivers of profit volatility (investment return and the changing discount rates impact on liabilities) the averaging approach appears sensible as it smooths dividends through market cycles. Dividends linked to a single year’s profit payout ratio would result in a less volatile solvency outcome.

Over the eight years between 2005 and 2012:

- NPAT has averaged \$41 million (ranging from -\$28 million to +\$113 million)
- Dividends have averaged \$25 million (with a range of \$7 to \$43 million)
- Solvency has averaged 22.5% (ranging from 16% to 30%).

Dividend payout ratio has been in the order of 50% of NPAT on average (as you would expect) but much less volatile than NPAT year to year. Average solvency has been right in the middle of the target range.

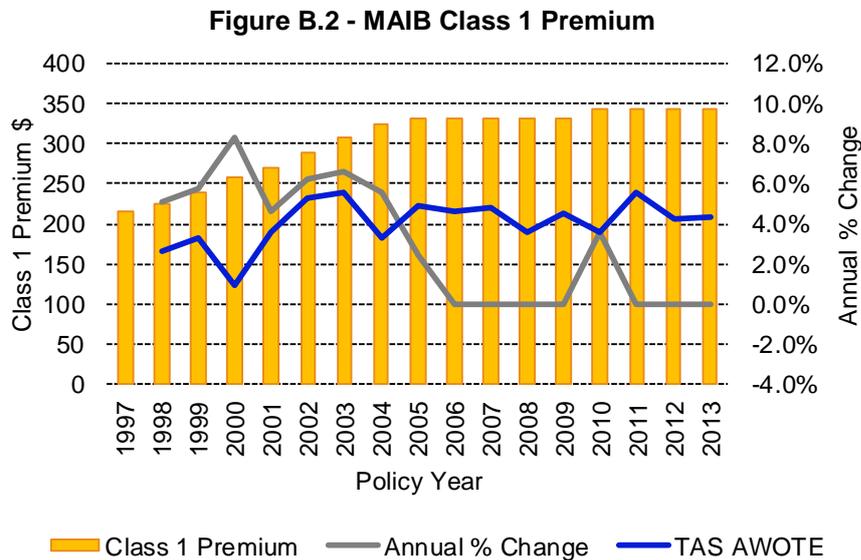


Return on capital (ROC) over the period has averaged 16%.

Based on these results, the current financial settings appear to deliver achievable outcomes consistent with expectations.

## B.2 Historical Premiums

The historical break even premium for MAIB Class 1 vehicles is shown in Figure B.2.



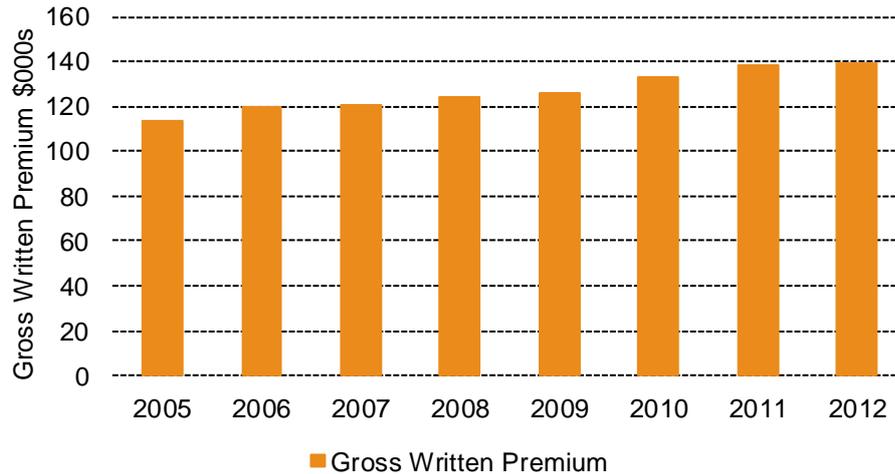
The chart above shows that over the last eight years there has been only one increase in premiums, with the overall increase materially less than the movement in Tasmanian AWOTE over this period.

The relevant regulator at each Pricing Investigation recommended a change in premium with reference to AWOTE but this change has varied considerably depending on particular circumstances each year. For example the recommended change in premium for 2000 was AWOTE plus 7.5% incorporating a 5% allowance for TNS/GST. No change in premium at 2007 and 2008 was attributed to lower claim frequency, favourable common law settlement rates and cost reductions in future care claims.

The chart below shows the premium pool collected in each year from 2005 to 2012.



**Figure B.3 – Premium Pool**  
Gross Written Premium



Improving claims experience has meant that premium increases could be kept to well below AWOTE increases. Moreover, even with very low premium increases, hindsight profit for each of these years is higher than initially anticipated.

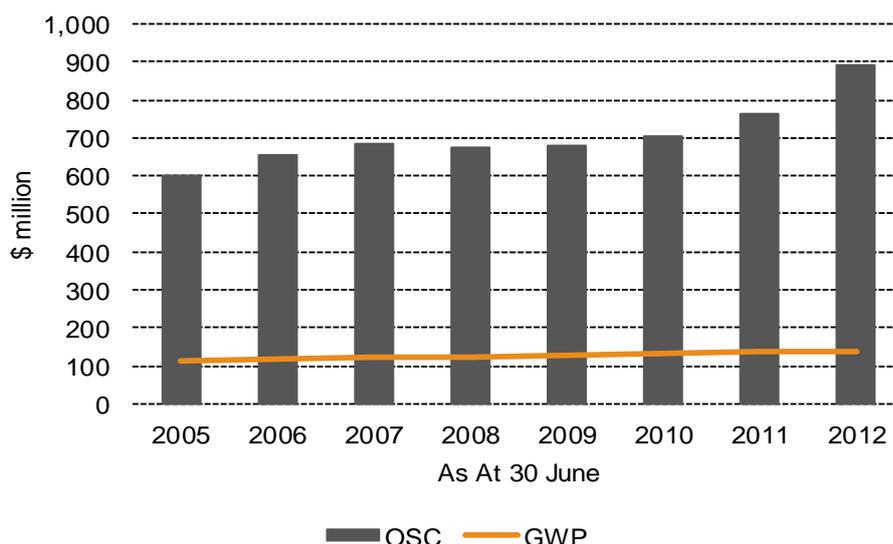
At this submission the premium increases have assumed to be in line with Australian AWOTE rather than Tasmanian AWOTE which is typically 0.25%-0.5% higher. Claim costs are assumed using Tasmanian AWOTE.

**B.3 Claims Dynamics**

The long term nature of the MAIB scheme means that the outstanding claims liability in the balance sheet is much greater than the annual premium pool. This is illustrated in Figure B.4 which shows the gross written premium compared to the outstanding claim liabilities for the past eight years.



**Figure B.4 – Premium versus Claim Liabilities**



For MAIB the gross written premium is about 20% of the outstanding claims liability. Any profit in the premium is therefore a very small proportion of the outstanding claims liability.

The sensitivity of the profit and equity to movements in the discounting and inflation rates are shown in the MAIB annual report 2012. We have reproduced some of these sensitivities in Table B.1.

**Table B.1 – Sensitivities of OSC assumptions from MAIB Annual Report 2012**

	NPAT \$ millions	Equity \$ millions
As At 30 June 2012	-28	240
Inflation increase by 0.5%	-77	192
Inflation decrease by 0.5%	14	283
Discount rate increased by 0.5% all durations	14	282
Discount rate decreased by 0.5% all durations	-77	192
Long term discount rate increased by 0.5%	-10	258
Long term discount rate decreased by 0.5%	-48	221

The sensitivity of the balance sheet to discount rate movements and investment return is much greater compared to profit and very much greater compared to any movement in profit margin.

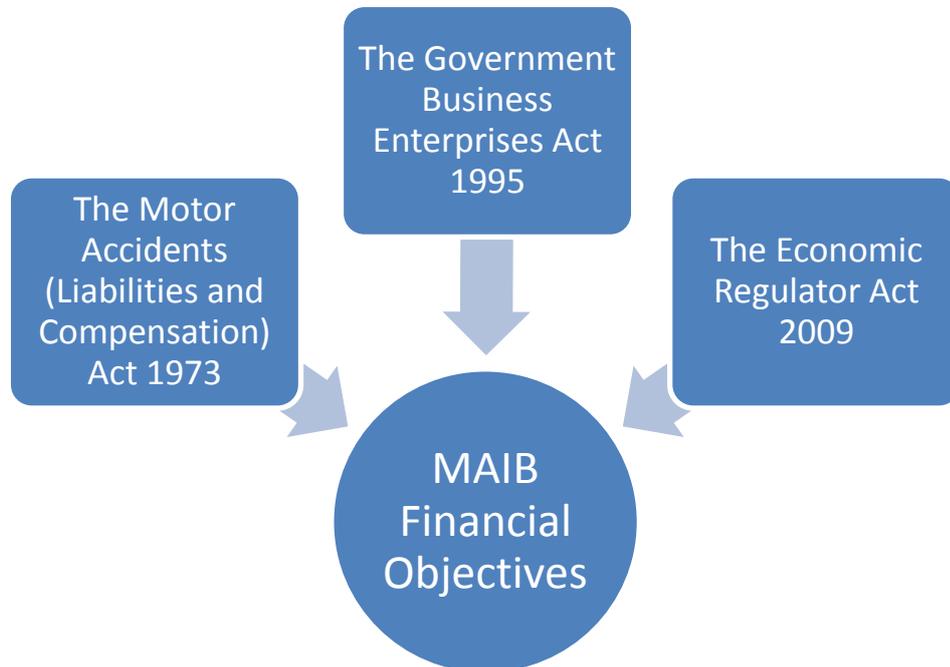
This illustrates that profit is a very poor lever to rectify solvency as discussed in Section 2.



## C MAIB Governance Framework

The governance of MAIB is illustrated in Figure C.1

**Figure C.1 - Governance of MAIB**



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

The MAIB was established by the Motor Accidents (Liabilities and Compensation) Act 1973 (“MA Act”) and this Act outlines that its objectives are to:

- provide for the payment of compensation in respect of personal injury resulting from a motor accident; and
- allow the contribution of funds to programs designed to reduce the incidence of motor accidents in Tasmania and to enable better care and treatment for persons injured as a result of motor accident.

### C.2 Government Business Enterprises (GBE) Act 1995

Part 2, Section 7 of the GBE Act states that two principle objectives of a Government Business Enterprise (e.g. MAIB) are to:

- Operate in accordance with sound commercial practice and as efficiently as possible
- Achieve 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.

## MAIB Corporate Plan

In accordance with the GBE Act MAIB must prepare a corporate plan each financial year. The financial performance objectives are made in consultation with the Portfolio Minister and the Treasurer and must be consistent with the ministerial charter for government business enterprises.

The Financial Management Objective stated in the MAIB Corporate Plan at June 2012 are to ensure that a balance exists between premium income, the cost of claims (including a prudential margin) and the requirement to achieve a sustainable commercial rate of return that maximises value for the State.

The desired outcomes are maintaining solvency within a target range of 20% - 25%, "Sustainable financial viability" and "Affordable premiums."

### C.3 The Economic Regulator (ER) Act 2009

The ER Act established THE REGULATOR as an independent body to oversee the pricing policies of monopoly government bodies such as MAIB.

The ER Act Section 25 specifies the Terms of Reference under which THE REGULATOR investigates MAIB's pricing policies. Section 31 includes the following matters:

- any interstate or international benchmarks for prices, costs, revenues and return on assets in bodies supplying a service similar to the monopoly service;
- the need to protect consumers from the adverse effects of the exercise of monopoly power by a monopoly provider in relation to prices, pricing policies and standards of service in respect of the supply of the monopoly service;
- if appropriate, the need for a reasonable return (including the payment of dividends) on the assets of a monopoly provider;
- the need for efficiency in the supply of the monopoly service for the purpose of benefiting the public interest through a reduction in the cost of supplying the monopoly service;
- the effects of inflation;
- the need for the monopoly provider to be financially viable;
- the impact on pricing policies of any borrowing, capital, dividend and tax equivalent obligations of the monopoly provider, including obligations to renew or increase assets;
- any ministerial charter that applies to the monopoly provider.

