

12th Accident Compensation Seminar 2009 Rising to the Challenge

Melbourne 22nd – 24th November 2009



Institute of Actuaries of Australia



Funding Accident Compensation Schemes – the Distraction of Volatility and How to Avoid it

Peter Hardy, Lisa Simpson and Chris Latham



Some Recent Public Comments

MAIB premiums to rise

Posted Wed Jun 3, 2009 1:15pm AEST

The Tasmanian Government Prices Oversight Commission is recommending an increase in third party insurance premiums.

Commissioner Glenn Appleyard has released a Draft Report on its investigation into the pricing policies of the Motor Accidents Insurance Board.

It suggests an average increase of 3.5 per cent.

Mr Appleyard says premiums have not increased since 2004 but the global financial crisis has challenged MAIB's solvency and profitability.

The draft report is open for public comment until July 26.

<http://www.abc.net.au/news/stories/2009/06/03/2588131.htm>



Some Recent Public Comments II

TAC Annual Report 2008/09 page 13 and 83

“The TAC’s funding ratio was 81.3%. While this is outside the preferred range of 100 - 120%, a periodic drop outside of this range is expected from time to time.”

“The TAC will seek to continually aim towards the target funding ratio of 110% over rolling five-year periods. Where funding ratio fell below 100%, it is expected that dividend payments to Government would cease. Where funding ratio exceeded 120%, ‘special’ dividends may be payable in addition to the ordinary dividend, or other options such as increasing benefits or reducing premiums may be considered.”

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1. Introduction
2. Limitations of current funding measures
3. Criteria to measure and manage funding
4. Alternative measures of funding
5. Alternative funding methodologies



Background

“Public Schemes”

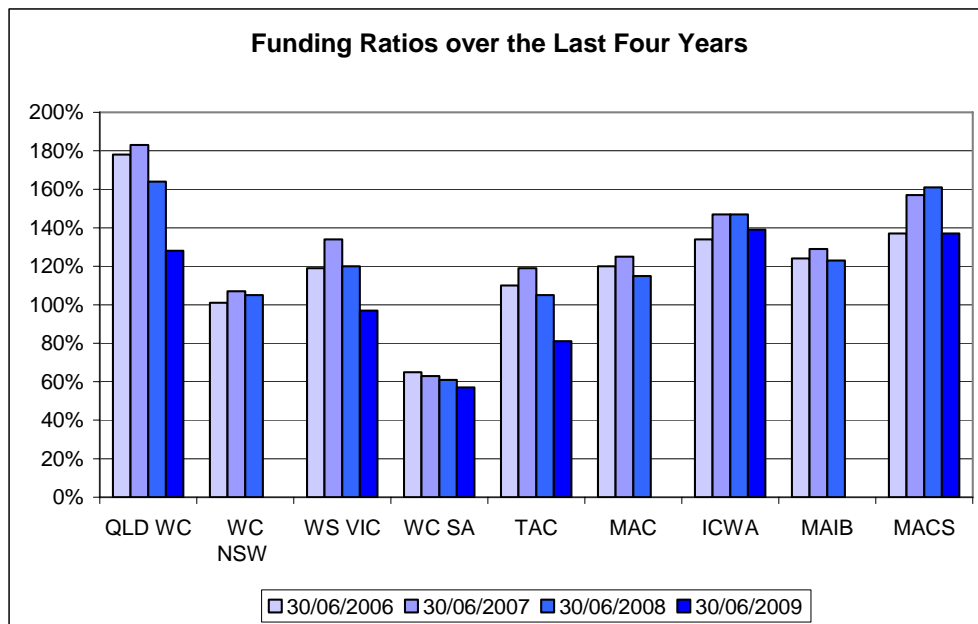
Our paper is concerned with Australian publicly underwritten accident compensation schemes (“Public Schemes”), including CTP and workers compensation.

What is Funding?

“There are various ways of expressing the funding position of a scheme. The simplest measure is a ratio of assets to liabilities. Other funding measures relate either assets or net assets to a target or minimum capital level. “ p.21



Recent Public Scheme Funding Levels



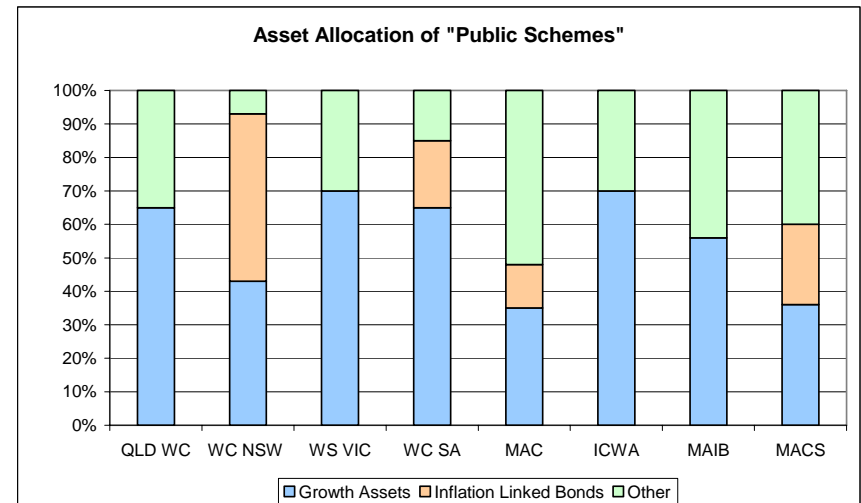
- Funding levels have generally been strong
- GFC has impacted funding levels in recent years
- Funding measures can be volatile



Characteristics of “Public Schemes” (relevant to funding)

Public Schemes are:

- Monopolistic
- Compulsory
- Some have government guarantees
- Have long term claim cash flows
- Subject to AASB 1023
- Have a high proportion of growth assets (see right)





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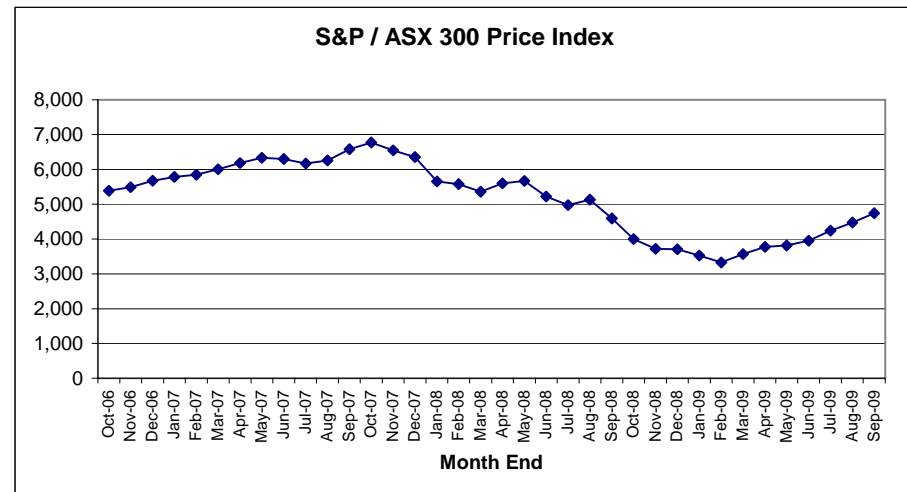


Key Asset Side Considerations

A high proportion of growth assets...

...that are volatile in the short term....

... and that recover in the medium term



Period	Percentage decline	Months to reach bottom	Months to recover to previous high	Percentage gain one year after bottom
Nov 1968 – May 1970	-36%	18	22	44%
Jan 1973 – Oct 1974	-48%	21	70	38%
Nov 1980 – Aug 1982	-27%	21	3	58%
Aug 1987 – Dec 1987	-34%	3	20	21%
Jul 1990 – Oct 1990	-20%	3	4	29%
Mar 2000- July 2002	-45%	28	58	24%

Source: Standard & Poor's, Bloomberg, DRI's; Index: S&P 500



Key Liability Side Considerations

- Implicit margin:
Use of risk free discount rate

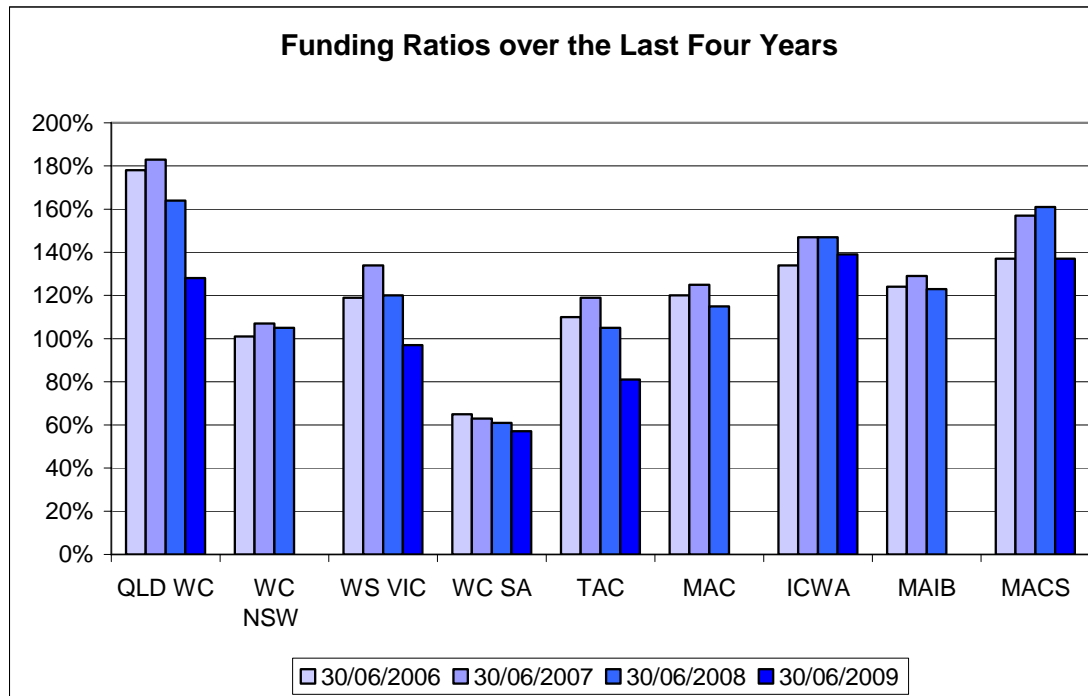
Investment Return Expectation above "Risk Free"	Mean Term of Liabilities		
	3 years	5 years	10 years
0.5% p.a.	1%	2%	4%
1.0% p.a.	3%	5%	9%
1.5% p.a.	4%	7%	13%

- Explicit margin:
Requirement for risk margins

Scheme	Risk Margin	Probability of Sufficiency
QLD WorkCover	12.7%	80%
WorkCover NSW	13.0%	75%
WorkSafe Victoria	8.5%	75%
WorkCover SA	5.2%	65%
TAC	7.5%	75%
MAC	16.0%	80%
ICWA	7.0%	75%
MAIB	20.0%	75%
MACS	13.1%	75%



What Does a 100% Funding Level Mean?



... and what is the appropriate response?



Funding Methodology

What is the “correct” response to a drop in funding levels?

- increase premium rates
- wait out volatility in investment markets
- implement scheme design changes
- reduce expenses

How do schemes move back to their target funding ranges?

- limited disclosures in annual reports
- how are target funding ranges established in the first place?
- what timeframes to restore funding to target ranges
- is there a pre-defined strategy

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Criteria to Measure and Manage Funding

Measurement of funding:

- Robust
- Decision useful
- Ease of calculation
- Public / political perception
- Stability

Management of funding:

- Minimise intergenerational cross subsidy
- Appropriately responsive to risk
- Reflect Board risk tolerance
- Time horizon
- Stability of premium rates
- Dividend policy
- Element of fluidity

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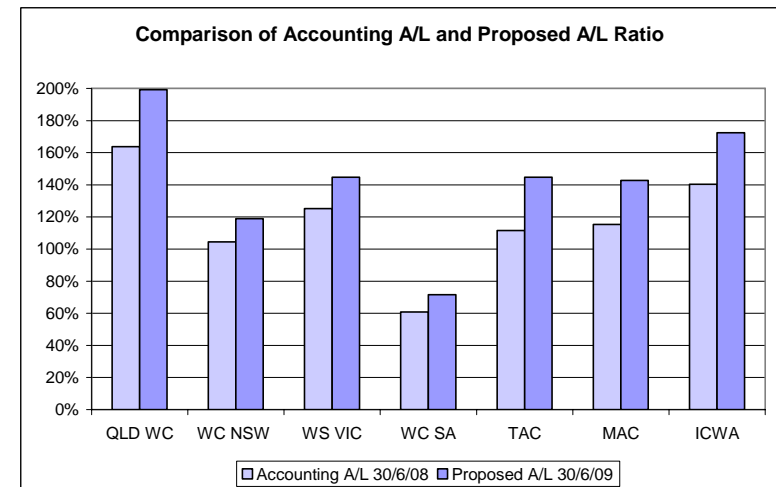
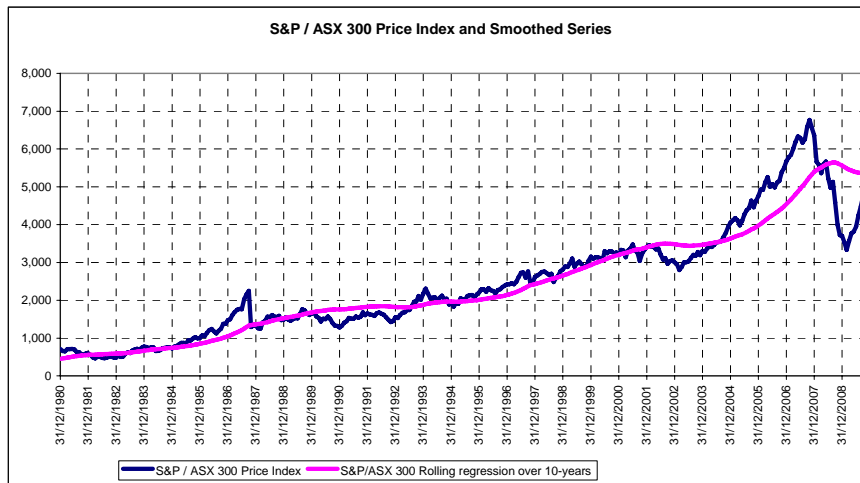
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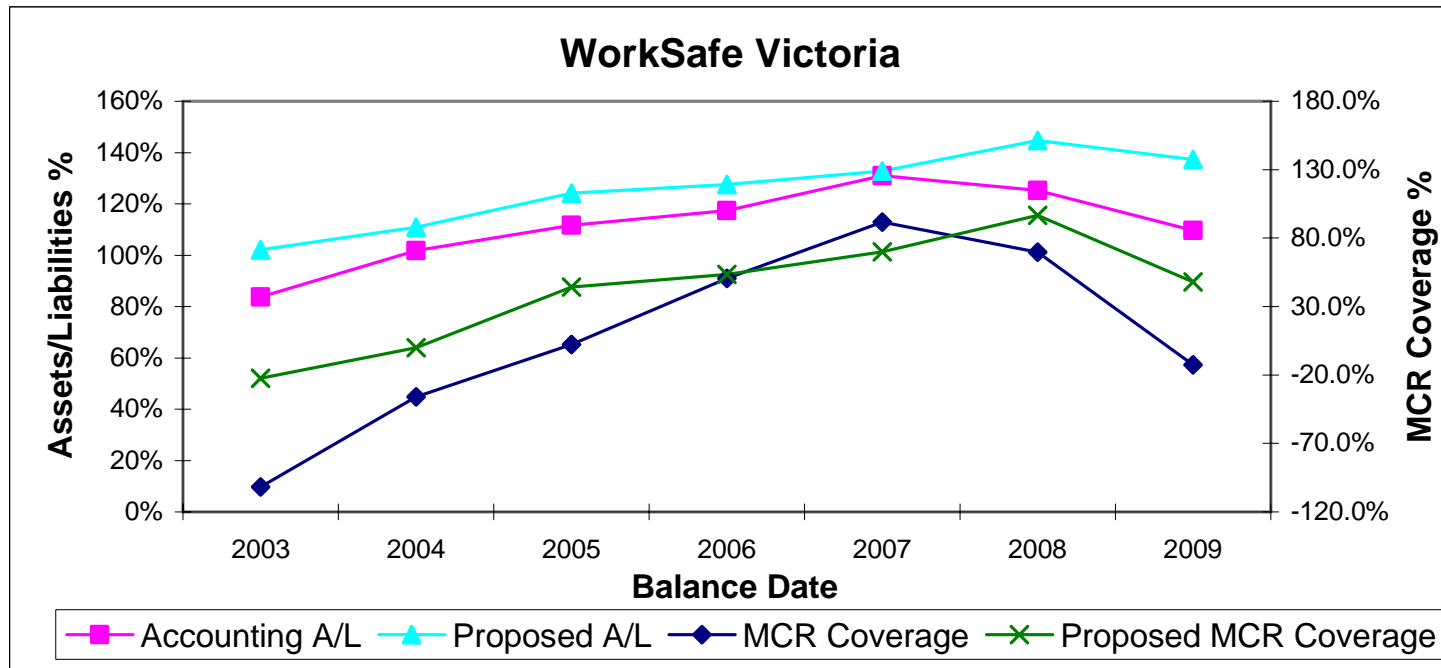
Alternative Measures of Funding

- Accounting Funding Ratio
- APRA Capital Standards
- Proposed - asset values smoothed and liability margins removed



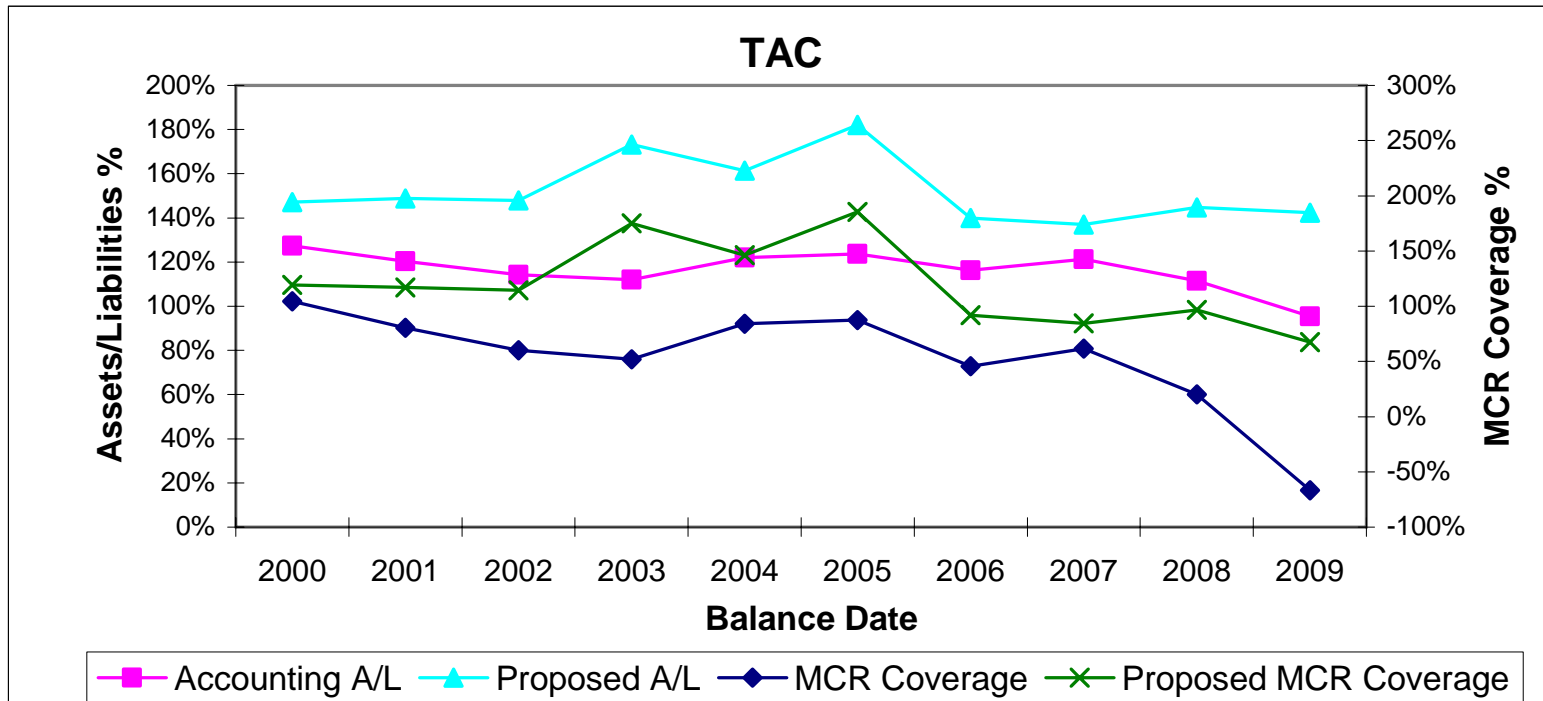


Measures of Funding – WorkSafe VIC



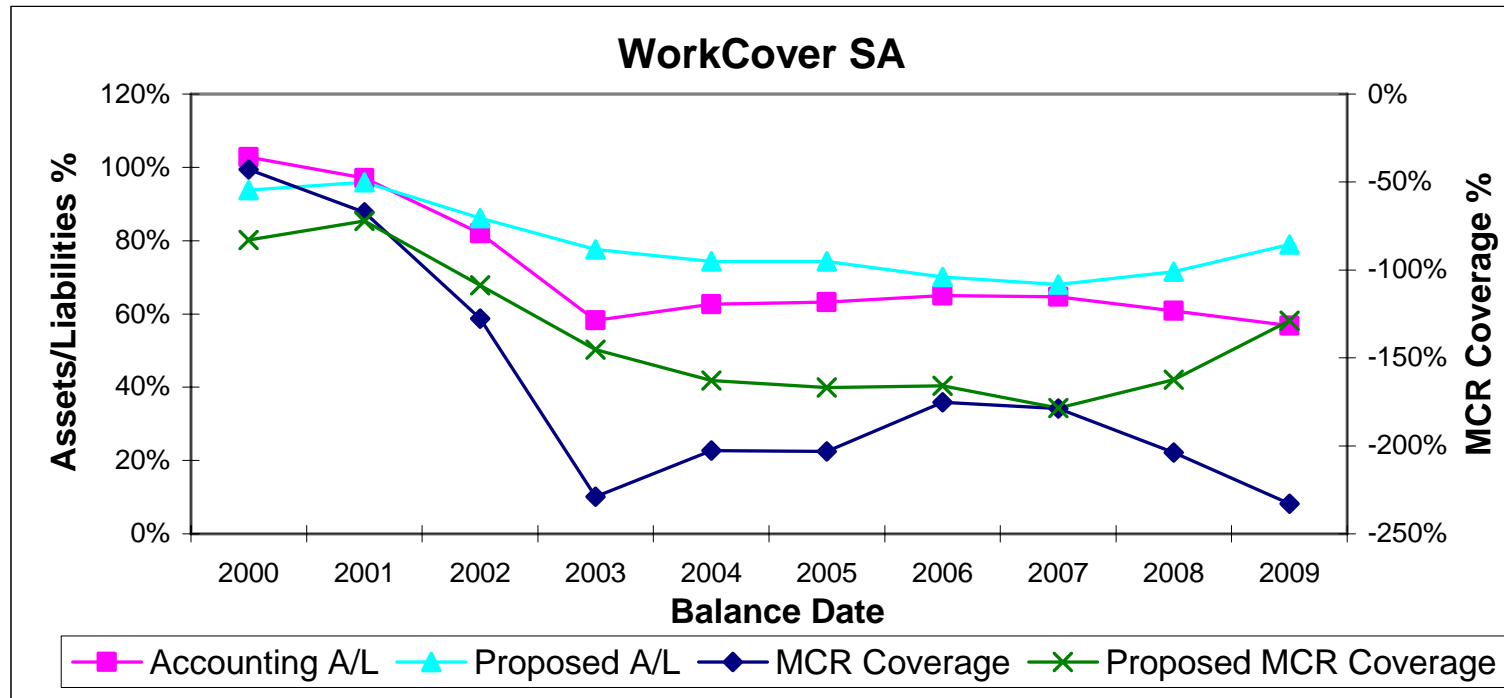


Measures of Funding - TAC





Measures of Funding – WorkCover SA





Qualitative Assessment of Funding Measures

Feature	Funding measures			
	Asset/ Liability	MCR	Proposed A/L	Proposed MCR
Robustness	H	H	H	H
Decision useful	L	M	H	H
Ease of calculation & transparency	H	M	M	L
Public/Political Perception	L	L	M	L
Stable	M	L	H	M

H – high M – medium L - low

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Alternative Funding Methodologies

Approach	Example	Strengths	Limitations
Point in Time	APRA MCR Accounting Ratios	Simple Can be entity specific Currently accepted by stakeholders	Short term view Does not model impact of dividend distribution Not helpful in determining response to funding
Dynamic Financial Analysis (DFA)	APRA Internal Model	Entity specific Distributional / probabilistic approach Can be calibrated to Board risk tolerance Can define appropriate time frame	Complex approach e.g. correlations Can lack transparency Assumptions based on past experience may not be appropriate
Proposed	Scenario analysis on existing budget process	Simple Entity specific Scenario analysis can easily compare options Can define appropriate time frame Use of existing scheme process	Does not give risk tolerance output Not a probabilistic approach