

# **Financial compensation - inconsistencies, absurdities, and bad judgments**

Corey Plover and Hugh Sarjeant



*This paper has been written for presentation at the 2010 national conference of the Australian Lawyers Alliance, 21-23 October. Corey and Hugh are directors of Cumpston Sarjeant Pty Ltd, Melbourne.*

*More detail on these topics can be found on our website (<http://www.cumsar.com.au>).*

## **Abstract**

The assessment of financial loss sustained by an injured party has been an evolving process and is controlled in part by legislation, in part by judgments, and in remainder by a collection of industry practices.

The authors have concern that components of estimating loss contain inconsistencies and inappropriate assumptions. Consequentially, adherence to any principle of indemnity is, at best, by accident.

This paper examines the current range of financial calculations made in respect of those who have suffered financial loss and illustrates how the calculations deviate from the fundamental principles of indemnity. It covers the following issues:

- Discount rates - what little consistency was provided by the judgment of *Todorovic v Waller* has largely disappeared, with each state now prescribing a diverse range of statutory discount rates that systematically lead to under-compensation of claimants
- Superannuation - some jurisdictions contain restrictions that apply in respect of superannuation benefits, limiting such compensation to inadequate amounts whereas other jurisdictions have the capacity to overstate superannuation losses if valuation parameters are chosen inaccurately.
- Fund management - the methods put forward for estimating the cost of funds management provide a particularly relevant example of recent judgments that appear in defiance of existing economic loss practices
- Vicissitudes - with the odd exception, allowances for vicissitudes continue to be made at levels that are unjustifiable by Australian statistics
- Penalty Interest - where accumulations with interest are involved the guidelines seem either imprecise, or are at odds with the basis of financial mathematics.

For each issue, discussions are provided as to the scope within the current legislative framework to evaluate more accurate assessments of loss.

We are grateful to Andrew Morrison, Andrew Stone, Richard Faulks and Richard Cumpston for their helpful comments and hope that this publication will raise awareness of the common causes of undercompensation for claimants. We encourage feedback from the reader as to how we can help participate in actions that seek to return such calculations to sound principles.

## Issue 1 - Discount rates

This section examines a fundamental driver of lump sum economic losses; the discount rate. There is evidence that current discount rates prescribed under the relevant Acts lead to systematic understatement of the awards needed for indemnity, particularly in the case of long term or catastrophic injured claimants.

### Background

- 1.1 The use of a lump sum in settlement of claims is well established, and with good reason. It provides timely closure to both parties, promotes rehabilitation to the plaintiff and relief of any future claims to the defendant.
- 1.2 The discount rate is intended to represent the *real rate of return on money* and is used to convert future payment streams to an amount which, if invested at the date of calculation, can fund economic losses from income returns and capital drawdowns.
- 1.3 This concept was addressed in detail by the High Court in *Todorovic v Waller*<sup>1</sup> in which it was decided that a 3% discount rate should be prescribed in the interests of uniformity. In arriving at this decision, a number of statements were made that are highly consistent with actuarial and economic principles. Namely:
  - (i) that uncertainty should not lead to indecision<sup>2</sup>
  - (ii) that the discount rate is equivalent to income plus capital returns<sup>3</sup>
  - (iii) that the discount rate is based on a low or no risk portfolio<sup>4</sup>
  - (iv) that the discount rate is net of wage inflation and tax<sup>5</sup>
- 1.4 Legislation in all states and in the Northern Territory have since modified the discount rate decision in *Todorovic v Waller*. Some have done so for all accident types, others for some types only or have different rates for different circumstances.

**Table 1 - Current statutory discount rates**

State	Name of Instrument	Discount rate
NSW	Workers Compensation Act 1987	5%: s.151J(2)(b)
	Motor Accidents Compensation Act 1999	5%: s.127(2)(b)
	Civil Liability Act 2002	5%: s.14(2)(b)
NT	Motor Accidents (Compensation) Act	6%: s.13 & 4(1)
	Personal Injuries (Liabilities and Damages) Act 2002	5%: s.22(2)(b)
QLD	Supreme Court Act 1995	5%: s.16(1)
	Civil Liability Act 2003	5%: s.57(2)
SA	Workers Rehab. and Comp. (General) Regulations 1999	3%+: s.13(1)
	Civil Liability Act 2003	5%: s.55 & s.3

1 *Todorovic v Waller* [1981] HCA 72; (1981) 150 CLR 402 (16 December 1981)

2 *ibid*, Gibbs, C.J and Wilson J at [8]

3 *ibid*, Gibbs, C.J and Wilson J at [10], Stephen J at [25] and Aitkin J at [6]

4 *ibid*, Gibbs, C.J and Wilson J at [11] and Stephen J at [25]

5 *ibid*, Gibbs, C.J and Wilson J at [23] and Brennan J at [39]

**Table 1 - Current statutory discount rates (cont'd)**

State	Name of Instrument	Discount rate
TAS	Civil Liability Act 2002	5%: s.28A(a)
	Common Law (Miscellaneous Actions) Act 1986	7%: s.4(1)(e)
	(repealed by Civil Liability Amendment Act 2005)	3%
VIC	Accident Compensation Act 1985	6%: s.134AB(32)
	Transport Accident Act 1986	6%: s.93(13)
	Wrongs Acts 1958	5%: s.28I(2)(b)
WA	Law Reform (Miscellaneous Provisions) Act 1941	6%: s.5(1)(e)

- 1.5 As before, these discount rates acknowledge that a plaintiff awarded a lump sum gains control of that money straight away, allowing the plaintiff to invest the money and fund their losses from capital and income.

### Inconsistency with legal principles and financial mathematics

- 1.6 The presence of different discount rates highlights an inherent inconsistency as investment opportunities, long term inflationary pressures and taxation regimes are equivalent regardless of the state or cause of injury. There is no economic justification for the diverse range of statutory discount rates between states.
- 1.7 An increase in discount rates achieves an effect that is contrary to the intent of compensation schemes; namely it denies indemnity for the most seriously and catastrophically injured who have longer termed economic losses.
- 1.8 In an attempt to broadly replicate the 3% discount rate derived in *Todorovic v Waller* and reproduce with current assumptions we note the reconciliation below.

**Table 2 - Replication of *Todorovic v Waller***

	1981	2010
Long term government bond rate	13.00%	5.33%
plus bond premium	3.00%	1.40%
Long term "market" bond rate	16.00%	6.73%
less allowance for taxation	23%	21%
After-tax investment rate	12.32%	5.32%
less long-term inflation rate	-10.00%	-2.62%
<b>Net, after tax investment rate</b>	<b>2.32%</b>	<b>2.70%</b>

- 1.10 The analysis above is also consistent with the recommended after-tax discount rates of the Australian Government Actuary (2-4%<sup>6</sup>), the Final Report of the Review of the Law of Negligence (the Ipp Report) (3%<sup>7</sup>) and the Inquiry into Personal Injury Compensation (3%<sup>8</sup>).

In the United Kingdom, the prescribed discount rate is 2.5% while the NSW Lifetime Care & Support Scheme, a fund specifically designed to provide treatment, rehabilitation and care services for severely injured motor accidents claimants, makes an actuarial funding assumption equivalent to a rate of 2%<sup>9</sup>.

- 1.11 In summary, there is no justification for a prescribed discount rate above 3%.

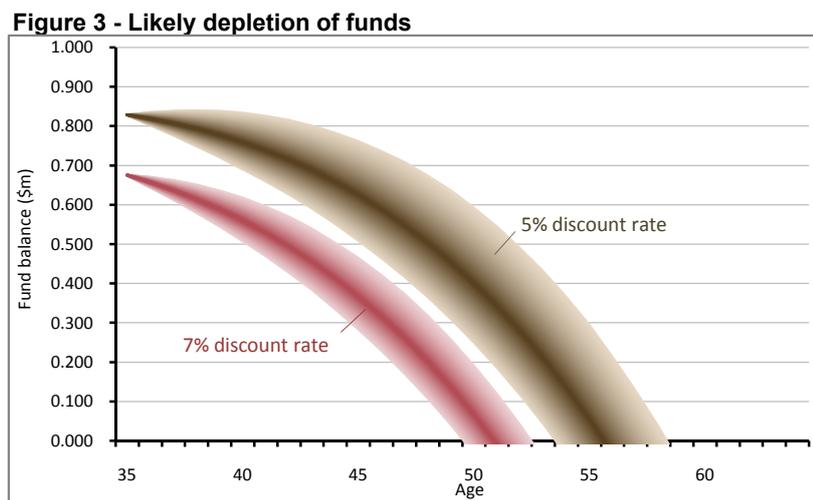
6 Final Report of the Review of the Law of Negligence (September 2002), paragraph 13.106

7 *ibid*, Recommendation 53 (paragraphs 13.96-13.109)

8 Inquiry into Personal Injury Compensation Law, Recommendation 10 - 12

## Implications and suggestions

- 1.12 Consider the case of a 35 year old, average Australian worker, totally incapacitated as a result of a Workplace injury. Current assessment of future losses is 20-35% lower than what would be required for indemnity<sup>10</sup>.
- 1.13 Under "prudent" investment, current awards for earnings losses are expected to run out sometime around age 55 (around age 51 for Tasmanian awards), well short of the intended but-for retirement at age 65.



- 1.14 One method of counteracting the chronic inadequacy of such awards is to ensure that career progressions are incorporated into earnings scenarios. Such progressions lead to a more accurate assessment of loss and one which is nearer to indemnity.

Such increases could be established with reference to:

- Award rates and the attainment of higher pay grades in accordance with industry
- Natural progression in average earnings by age. The progression in real earnings implied by ABS statistics between ages 20 and 40 is about 3% per annum<sup>11</sup>
- Current rates of pay of "comparable" senior colleagues

## Conclusions

1.14 In summary:

- current statutory rates systemically and significantly overstate the discount rate implied by the principles of *Todorovic v Waller*
- it is extremely unlikely that Common Law awards will indemnify the individual for the intended duration of compensation, with funds projected to be depleted well prior to but-for injury retirement
- incorporation of career progression and earnings advancement (in real dollar values) results in assessed lump sums that are more likely to achieve indemnity.

<sup>10</sup> 30 year multiplier at 3% is 1,038.0 compared to 5% and 7% multipliers of 822.0 and 669.9 respectively

<sup>11</sup> Australian Bureau of Statistics, publication 6310.0, Table 4

## Issue 2 - Superannuation

This section examines the award for superannuation losses and how the simplistic methods of some jurisdictions lead to undercompensation. Those methods are also increasingly being applied in other jurisdictions, not by mandate but by possibly oversight.

### Background

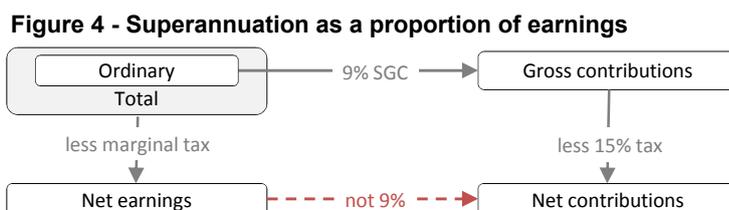
- 2.1 The Superannuation Guarantee Act (1992) was introduced to provide a long-term, tax effective savings vehicle for retirement. Consequently, in addition to earnings losses, claimants lose superannuation contributions that would have been funded by the employer.
- 2.2 Since 2002, the SGC rate has been 9% of gross ordinary earnings and in recent federal budgets, an eventual increase to 12% has been proposed. Superannuation losses therefore represent a substantial component of economic losses.
- 2.3 Motor vehicle and civil liability legislation in New South Wales, Queensland, South Australia and Tasmania limit superannuation losses to a percentage of earnings losses<sup>12</sup>. Workers' compensation legislation in New South Wales also has the same effect<sup>13</sup>.
- 2.4 In jurisdictions where superannuation losses are not limited, there are two prevailing methods of calculation based on the following decisions:
  - (i) *Jongen v CSL Ltd*<sup>14</sup> where losses are established with reference to the present value of the stream of net contributions made by the employer
  - (ii) *RTA v Cremona*<sup>15</sup> where losses are established with reference to the present value of the net retirement lump sum available to the employee.

That is, the former attempts to value the cashflows going *into* the superannuation fund and the latter attempts the value the cashflows coming *out* of the superannuation fund.

- 2.5 The general practice for establishing such superannuation losses is to employ the Jongen method unless actuarial evidence is present to enable the Cremona method to be applied<sup>16,17</sup>. Alternatively, Western Australia allows interest to be awarded on past superannuation directly, without reference to the Cremona method.

### Inconsistency with legal principles and financial mathematics

- 2.6 The limits that are present in the various Civil Liability Acts incorrectly assume that superannuation is subject to the same tax regime as earnings. They also fail to address the distinction between total and ordinary earnings.



12 Civil Liability Act 2002 (NSW), s.15C; Civil Liability Act 2003 (QLD), s.56; Civil Liability Act 2003 (SA), s.56; Civil Liability Act 2002 (TAS) s.25

13 Workers Compensation Act 1987 (NSW), s.174(9)(b4) includes SGC as part of wages directly

14 *Jongen v CSR Ltd* [1992] Aust Torts Reps 81-192 (WA SC)

15 *RTA v Cremona* [2001] NSWCA 338 (16 November 2001)

16 *Nolan v Hamersley Iron Pty Ltd* [2000] WASCA 304 (25 October 2000), Ipp J at [41-42]

17 *RTA v Cremona*, Sheller JA at [81-95]

- 2.7 The Jongen method is consistent with principles of indemnity as it assumes the individual can invest the damages in the same or alternative superannuation fund and achieve an identical retirement benefit as would have been available, but for the accident.

However, in light of the high discount rates enforced by legislation, such losses calculated under the Jongen method are *20-35% lower* than would be required to achieve indemnity.

- 2.8 The Cremona method is flawed in principle because it capitalises investment benefits of superannuation at a higher rate than implied by the discount rate. While this may seem reasonable (superannuation is a more effective investment vehicle than typical managed funds) it erroneously assumes that the individual has lost access to their superannuation fund as an investment option.

However, while the principles might be flawed, the losses calculated under the Cremona method result in figures that more accurately reflect the true incurred losses.

- 2.9 No calculation method is allowed that accurately calculates superannuation losses of defined benefit schemes. Such schemes rely critically on the projected retirement salary of an individual and are explicitly invalidated by the current legal framework.

### Implications and suggestions

- 2.10 The incorrect treatment of taxation that is implied by the limits in the Civil Liability Acts causes superannuation losses to be understated by *almost 9%*.

If proposed increases to SGC rates are ratified without being reflected in the Civil Liability Act, such superannuation losses may be understated by a further *11%*.

- 2.11 Under a discount rate of 3%, both the Jongen method and a modified Cremona method<sup>18</sup> would provide equal and accurate indemnity to claimants.

- 2.12 Under current statutory discount rates, it is the Cremona method alone that retains the capacity to indemnify claimants, by assuming accumulation rates that are *2-3% higher* than the discount rate. Such accumulation rates are supportable by economic evidence.

In fact, super losses calculated under the Cremona method are, to the authors' knowledge the only current example of a loss component that achieves indemnity for the claimant.

- 2.13 Many defined benefit schemes offer generous disability payouts, removing the need for any assessment of loss. In other cases, the most accurate assessment is likely to involve "rolling over" the benefits to an accumulation fund and proceeding on the regular basis.

### Conclusions

- 2.14 In summary:

- limits imposed by the Civil Liability Acts result in failure to compensate the individual for the tax advantages of superannuation
- in unrestricted jurisdictions, the Jongen method is more consistent in theory. However, the Cremona method alone retains the capacity to achieve indemnity in light of the current prescribed discount rates
- defined benefit losses are difficult to assess in the current legal framework

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<sup>18</sup> Cremona method, where the fund crediting rate is assumed to be equal to the discount rate

### Issue 3 - Fund management

This section examines the uplift for the cost of investment fees that seriously injury claimants are entitled to claim as part of the long-term management of their settlement. This is a relatively recent head of damage that has the potential for either sound principles to be established early, or for inaccurate judgments (such as those currently present in New South Wales) to further erode the compensation awarded to claimants.

#### Background

- 3.1 The use of lump sums in settlements necessitates the investment of those monies so that an individual may draw on capital and income to meet their future needs.
- 3.2 This issue was addressed by the High Court in *Nominal Defendant v Gardikiotis*<sup>19</sup> and *Willett v Futcher*<sup>20</sup> where it was clarified that:
  - (i) such damages are compensable only for people rendered incapable of managing their own affairs<sup>21</sup>
  - (ii) no distinction is made between "fund management" fees and "investment advice" fees<sup>22</sup>.
- 3.3 This issue was further addressed in the NSW Supreme Court in *Bacha v Pettersen*<sup>23</sup> and the Queensland Supreme Court in *Lewis v Bundrock & Anor*<sup>24</sup> which stated that tax deductibility is to be ignored as it is already implicit in the discount rate<sup>25</sup>.
- 3.4 A generally accepted framework for the valuation of fund management fees is to assume the fund will reduce to zero over the lifetime of investment (usually taken to be the life expectancy of the individual) and that resulting management fees are then discounted to present values at the statutory discount rate.
- 3.5 All the above statements and rulings are consistent with economic and actuarial principles although our previous comments regarding the overstatement of statutory discount rates still apply.

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19 *Nominal Defendant v Gardikiotis* [1996] HCA 53; (1996) 186 CLR 49 (24 April 1996)

20 *Willett v Futcher* [2005] HCA 47; 221 CLR 627; 221 ALR 16; 79 ALJR 1523 (7 September 2005)

21 *Nominal Defendant v Gardikiotis*, McHugh J at [6]

22 *Willett v Futcher* at [49]

23 *Vincent Bacha by his tutor Lila Bacha v Gina Therese Pettersen* [1994] (20 September 1994)

24 *Lewis (by his litigation guardian P Osborne) v Bundrock & Anor* [2008] QSC 189 (29 August 2008)

25 *ibid*, Martin J at [29]

## Inconsistency with legal principles and financial mathematics

- 3.6 In the NSW Supreme Court in *Rottenbury by his tutor Wren v Rottenbury*<sup>26</sup> it was decided that fund earnings were to be ignored and not reinvested<sup>27</sup>.

This decision is equivalent to applying a straight line reduction to the capital sum of the fund (see Figure 4 in section 3.10). This seems to be the default method of representing the fund balance in light of the uncertainties of future disbursements<sup>28</sup>.

- 3.7 Such a straight line depletion is at odds with the decision of *Todorovic v Waller* and actuarial principles, both of which assume that drawings comprise both capital and income reinvested at the discount rate<sup>29</sup>.

### December 2011 update

*In Gray v Richards [2011] NSWSC 877, the decision of Rottenbury v Rottenbury was examined and dismissed as incorrect (refer to paragraphs 56-61). Instead, Justice McCallum allowed for the future cost of managing investment income at the statutory rate of 5 per cent, which is consistent with Todorovic v Waller and actuarial principles.*

- 3.8 In the NSW Supreme Court in *Buckman v M and K Napier Constructions*<sup>30</sup> (and referenced by *Anthony Haywood v Collaroy Services Beach Club*<sup>31</sup>) it was decided that management fees are limited to those payable on the original capital sum and not uplifted by the additional amount eventually awarded<sup>32</sup>.
- 3.9 The justification for this decision was in light of the uncertainty of such calculations, which is at odds with *Todorovic v Waller* on two grounds:
- (i) uncertainty should not prevent an attempt being made to arrive at the estimate most likely to provide fair and reasonable compensation<sup>33</sup>
  - (ii) the prescription of a statutory discount rate is intended to remove any argument of future economic uncertainties.

### December 2011 update

*In Gray v Richards [2011] NSWSC 877, the decisions of Buckman v Napier and Haywood v Collaroy were examined and dismissed as incorrect (refer to paragraphs 30 & 35). Instead, Justice McCallum allowed for the future cost of managing the fund management component of damages*

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26 *Rottenbury by his tutor Wren v Rottenbury* [2007] NSWSC 215 (13 March 2007)

27 *ibid*, Hislop J at [53]

28 *Bacha v Pettersen* [1994] NSWSC (20 September 1994, unreported)

29 *Todorovic v Waller*, Aitkin J at [6] and also referred to in financial mathematics as an "amortisation schedule"

30 *Buckman v M and K Napier Constructions Pty Limited* [2005] NSWSC 546 (10 June 2005)

31 *Anthony Haywood v Collaroy Services Beach Club Limited* [2006] NSWSC 566 (16 June 2006)

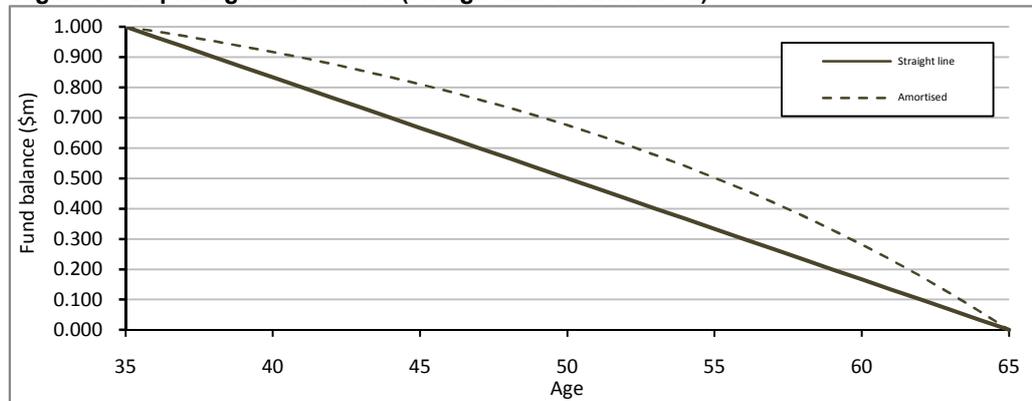
32 *Buckman v M and K Napier Constructions Pty Limited*, Burchett AJ at [13]

33 *Todorovic v Waller*, Gibbs, C.J and Wilson J at [8]

## Implications and suggestions

- 3.10 To be consistent with *Todorovic v Waller* the capital sum should be amortised, and not assumed to decline in a linear fashion, with drawings met partly from fund earnings. That is, such awards should include *fund management on earnings*. Otherwise, the award will be understated by about 15-20%.

Figure 5 - Depleting fund balance (straight line vs amortised)



- 3.11 In order to indemnify the individual against costs that are incurred, the amount eventually awarded should itself be included in the fund and be subject to charges. That is, such awards should include *fund management on fund management*.

Contrary to recent decisions, this would not increase the magnitude of uncertainty present in the calculation since the underlying methodology and external variables are unchanged. If this calculation is not permitted, the amount awarded for fund management may be understated by a further 15-25%.

- 3.12 Excluding either of these components would mean that any award for fund management would be inadequate and a portion of the initial award would ultimately be expended on fees.

## Conclusions

- 3.13 In summary

- in order to retain consistency with *Todorovic v Waller*, it is critical that *fund management on earnings* be included in such awards
- in order to compensate the claimant against incurred costs, *fund management on fund management* should also be included; such inclusions are numerically feasible and do not increase the uncertainty of the calculation
- excluding either of these above components would lead to an inadequate award for fund management.

## Issue 4 - Vicissitudes

The section deals with reductions in respect of future contingencies. Although there is general agreement that such reductions need to be considered, there is no consistency in judgments nor have the authors uncovered any justification for the commonly applied 15% deduction.

### Background

- 4.1 Most economic loss assessments assume that earnings will continue until retirement. It is therefore necessary to allow for the "vicissitudes principle" to allow for the contingencies which would have, in all probability, reduced the capacity of the plaintiff to earn.
- 4.2 The major contingencies that are relevant are death, sickness, accident, unemployment and industrial disputes. These are offset somewhat by sick leave, compensation mechanisms, disability support pensions, and social security benefits
- 4.3 Typical deductions for vicissitudes in the various jurisdictions are shown below:

**Table 6 - Current range of deductions for vicissitudes**

Jurisdiction	Deduction for vicissitudes
Australian Capital Territory	15%
New South Wales	15%
Northern Territory	15%
Queensland	15% - 25%
South Australia	15% - 30%
Tasmania	10% - 15%
Victoria	15%
Western Australia	2% - 6%

### Inconsistency with legal principles and financial mathematics

- 4.4 The authors could find no justification for the prevailing 15% deduction. This figure seems to have emerged without any quantified assessment<sup>33</sup> and is higher than implied by analysis of Australian statistics<sup>34</sup>.

An "average case" for vicissitudes might be a 7% deduction and industry specific rates might vary between 4% and 10%<sup>34</sup>.

**Table 7 - Net deductions for vicissitudes implied by Australian statistics**

Contingency	Low (Managerial)	Average	High (Labourer)
Death	-1.6%	-1.6%	-1.6%
Sickness	-0.7%	-0.7%	-1.9%
Accident	-1.5%	-2.4%	-4.2%
Unemployment	-0.9%	-4.5%	-6.8%
Industrial disputes	-0.01%	-0.01%	-0.7%
Social security	0.6%	2.2%	5.3%
Total	-4.0%	-7.0%	-10.0%

33 Moran v McMahon (1985) 3 NSWLR 700 at 706 mentions the "inadequate debating of the conventional 15% deduction"

34 "Deductions for Vicissitudes", <http://www.cumsar.com.au/PDF/DeductionsForVicissitudes.pdf>

35 Fitzgerald v Goonan No. SCGRG-00-238 [2000] SASC 332 (3 November 2000)

4.5 Where the plaintiff is only partially incapacitated, it is common practice to apply deductions to net losses. However, such circumstances may warrant a curtailed despite injury retirement age, or a higher deduction for the "residual earnings" scenario to account for the greater incidence of unemployment and disability due to the now-existing injury<sup>35</sup>.

### Implications and suggestions

4.6 Relative to the "average case" implied by Australian statistics, the standard deductions for vicissitudes cause losses to be understated by *about 8%* on average.

4.7 Applying a greater deduction for vicissitudes for the "residual" scenario increases losses and gives the appearance of a positive or offsetting vicissitude.

**Table 8 - Effect of greater vicissitudes for "residual" earnings**

	Equal vicissitudes	Unequal vicissitudes
But for injury scenario	\$1,000,000 less 15% = \$850,000	\$1,000,000 less 15% = \$850,000
Residual scenario (assumed here to be 33% capacity)	\$330,000 less 15% = \$280,500	\$330,000 less 25% = \$247,500
Resulting loss	\$569,500	\$602,500

### Conclusions

4.8 In summary:

- in all jurisdictions except Western Australia, the prevailing deductions for vicissitudes are too severe and systemically overstate the "average" contingencies of life
- separate deductions for vicissitudes should be made to the "but-for injury" and any "residual" scenarios to reflect the greater incidence of unemployment and disability due to the now-existing injury.

## Issue 5 - Penalty interest

The section deals with the calculation of interest payable on past losses. While the magnitude of the calculations are broadly correct the methodology that is applied is haphazard and has scope for simplification.

### Background

5.1 All jurisdictions except Tasmania have legislation permitting the award of interest<sup>36</sup>. In Victoria, interest is only permitted from the date of writ but in all other jurisdictions, interest is awarded from the date when the cause of action arose.

5.2 Where such an award is applicable, the current principles are:<sup>37,38</sup>

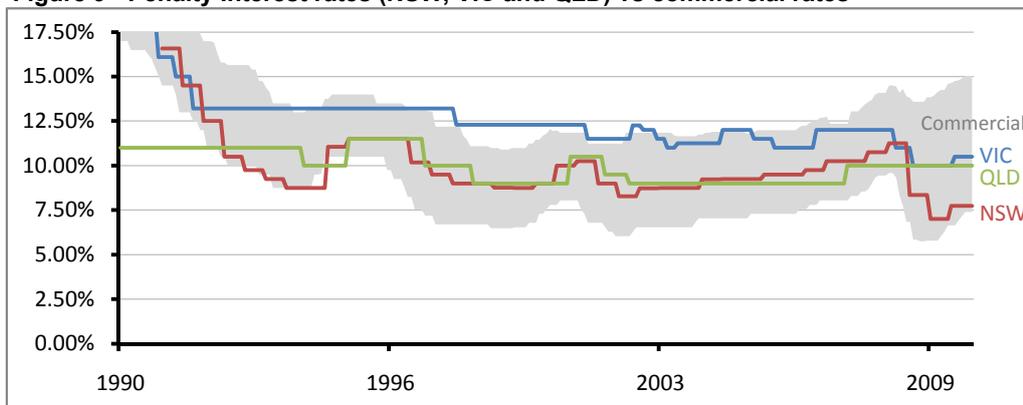
- (i) if the head of damage is assessed in values at the date of loss, the award should carry interest at a *nominal* rate. That is, the individual is compensated for being deprived of commercial investment opportunities.
- (ii) if the head of damage is assessed in values as at the date of judgment, the award should carry interest at a *real* rate. That is, one that excludes inflation and therefore only compensates the individual for being kept "out of the money".

5.3 Other particular restrictions include:

- (i) no interest is awarded on damages for which the plaintiff has received payments from a collateral source
- (ii) no interest is awarded on *Fox v Woods* damages as no detriment is felt until the benefits are repaid<sup>39</sup>
- (iii) no interest is awarded on interest (i.e. courts are not authorised to award compound interest)

5.4 Rates of interest vary under different circumstances but indicative rates for past pecuniary losses in New South Wales, Victoria and Queensland, as well as a range for commercial equivalents, are shown below:

**Figure 9 - Penalty Interest rates (NSW, VIC and QLD) vs commercial rates**



36 Judiciary Act 1903 (Cth), s.77MA; Federal Court of Australia Act 1976 (Cth), s.51A; Supreme Court Act 1970 (NSW), s.94 District Court Act 1973 (NSW), s.84A; Supreme Court Act 1986 (Vic), s.60; Supreme Court Act 1995 (Qld), s.47; Supreme Court Act 1935 (SA), s.30C; District Court Act 1991 (SA), s.39; Supreme Court Act 1935 (WA), s.32; Supreme Court Act 1933 (ACT), s.69; Magistrates Court (Civil Jurisdiction) Act 1982 (ACT), s.230; Supreme Court Act 1979 (NT), s.84.

37 MBP (SA) Pty Ltd v Gogic [1991] HCA 3; (1991) 171 CLR 657 (26 February 1991) at [7]

38 Grincelis v House [2000] HCA 42; 173 AJR 564; 201 CLR 321; 74 ALJR 1247 (3 August 2000) at [18] and [64]

39 Jackson v Reid (1993) Aust Torts Rep 81-213 (SA FC) at 62,124

## **Inconsistency with legal principles and financial mathematics**

- 5.5 The principles of penalty interest outlined in section 4.2 and 4.3(i) & (ii) are consistent with actuarial principles. That non-pecuniary losses attract any penalty interest at all might be seen as anomalous, but there is no mathematical basis to assess such punitive damages.
- 5.6 The authors are unaware of the legal basis for which compound interest is disallowed. Simple interest is an artificial and imperfect construct which has no relation to the way money is invested in the real world<sup>40</sup>.
- 5.7 Indemnity to plaintiffs would be more accurately met by calculation via compounded, floating, commercial rates of return (such as a standard variable lending rate)<sup>41</sup>.
- 5.8 From Figure 9, rates of interest are broadly within the range of commercial rates. While Victorian rates are about 25% higher than New South Wales and Queensland, this is offset by the fact that the period of pre-judgment interest in Victoria is restricted to the date of writ; an imperfect remedy that is unlikely to provide indemnity to the plaintiff.

## **Implications and suggestions**

- 5.9 A movement from simple interest to compound interest would, in itself, increase penalty interest awards by about 2.5% for every pre-judgment year after the first.
- 5.10 However, current rates seem to incorporate an additional "penalty" component that offsets the loss of "interest on interest". Consequently, the magnitude of current simple interest awards are arguably in line with compounded commercial rates.

## **Conclusions**

- 5.11 In summary:
- conceptually speaking, penalty interest should be calculated with respect to floating commercial rates of return, commencing from the date of the cause of action, and only on non-compensated, pecuniary losses.
  - notwithstanding this, current awards for interest are arguably correct in their magnitude and in line with compounded commercial rates due to the choice of penalty interest rates.

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40 See *Sempra Metals Limited v. Her Majesty's Commissioners of Inland Revenue and Anor* [2007] UKHL 34 at [33]-[34]

41 Knoll & Colon, "The Calculation of Prejudgment Interest", [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=732765](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=732765), p.8  
Referred to as the "coerced loan theory" and underscored by the notion that the defendant, by not immediately compensating the plaintiff, has in effect forced the plaintiff to make a loan (to the defendant or a third party). Accordingly, compensation requires that the court award interest at the rate the plaintiff would incur.

## Appendix A - List of issues and implications

This table lists the issues discussed in this paper and quantifies the approximate implications to economic losses of an average 35 year old Australian worker.

Source	Issue	Approx. implication
<b>Discount rates</b>		
Workers Compensation Act 1987 (NSW), s.151J(2)(b) Motor Accidents Comp. Act 1999 (NSW), s.127(2)(b) Civil Liability Act 2002 (NSW), s.14(2)(b) Personal Injuries (Liab. & Dam.) Act 2002 (NT), s.22(2)(b) Supreme Court Act 1995 (QLD), s.16(1) Civil Liability Act 2003 (QLD), s.57(2) Civil Liability Act 2003 (SA), s.55 & s.3 Wrongs Acts 1958 (VIC), s.281(2)(b)	Prescribed discount rate of 5% should be 3%	~\$235,000 ↑
Motor Accidents (Compensation) Act (NT), s.4(1) Accident Compensation Act 1985 (VIC), s.134AB(32) Transport Accident Act 1986 (VIC), s.93(13) Law Reform (Misc. Provisions) Act 1941 (QLD), s.5(1)(e)	Prescribed discount rate of 6% should be 3%	~\$325,000 ↑
Common Law (Misc. Actions) Act 1986 (TAS), s.4(1)(e) Civil Liability Act 2002 (TAS), s.28A(a)	Prescribed discount rate of 7% should be 3%	~\$400,000 ↑
<b>Superannuation</b>		
Civil Liability Act 2002 (NSW), s.14(2)(b) Civil Liability Act 2003 (QLD), s.57(2) Civil Liability Act 2003 (SA), s.55 & s.3 Civil Liability Act 2002 (TAS), s.28A(a)	Superannuation losses should be limited to a percentage of gross earnings, less 15% for tax	~\$5,000 - \$10,000 ↑
Jongen v CSR Ltd [1992] WA SC RTA v Cremona [2001] NSWCA	Under current discount rates, the <i>Cremona</i> method of calculating super losses is a more accurate assessment of indemnity	\$20,000 - \$40,000 ↑
<b>Fund management</b>		
Rottenbury v Rottenbury [2007] NSWSC, p.53	Earnings should be reinvested, leading to an amortising balance	~ \$30,000 ↑
Buckman v Napier Constructions [2005] NSWSC Haywood v Collaroy Services Beach Club [2006] NSWSC	Award for fund management should itself be included in the fund	~ \$40,000 ↑
<b>Viccisitudes</b>	Deduction for future vicissitudes should typically be 5 - 10%, not 15%	\$45,000 - \$90,000 ↑
<b>Penalty Interest</b>	Interest should be calculated on floating, commercial rates	\$0 - \$35,000 ↑