Cumpston Sarjeant

CONSULTING ACTUARIES

Economic Losses: An Actuarial Perspective

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Overview

- Interaction between legal and actuarial fields
- Topics for discussions
  - Dependency losses for wrongful death
  - Superannuation losses
  - Cost of fund management
  - Sexual abuse claims

Dependency losses for wrongful death

- The basic principle of dependency losses is to compensate the household for loss of direct financial support of the deceased
- This is usually conducted with reference to the household as a whole, and then apportioned among individual beneficiaries
- In most cases, total household losses are calculated by determining total household income and deducting the deceased’s own personal expenditure

Dependency losses for wrongful death – Old table

- The standard reference for consumption ~~dependency~~ percentages was Table 9.1 in the 4th edition of Luntz's "*Assessment of Damages for Personal Injury and Death*"

Number of children	Spouse	Child	Total	
0	65.6%		65.6%	34.4%
1	43.8%	28.1%	71.9%	28.1%
2	34.4%	20.8%	76.0%	24.0%
3	28.9%	16.7%	79.0%	21.0%
4	25.1%	14.0%	81.1%	
5	22.3%	12.1%	82.8%	

Dependency losses for wrongful death – New table

- The new reference for consumption percentages is Table 10.1 in the 5th edition of "*Assessment of Damages for Personal Injury and Death*"

Weekly household income		0 children	1 child	2 children	3 children
1st Decile	$339	N/A	N/A	N/A	N/A
2nd Decile	$590	N/A	N/A	N/A	N/A
3rd Decile	$823	25.1%	N/A	N/A	N/A
4th Decile	$1,101	23.0%	18.9%	16.1%	14.2%
5th Decile	$1,429	21.9%	18.0%	15.4%	13.5%
6th Decile	$1,792	21.3%	17.5%	14.9%	13.1%
7th Decile	$2,204	19.8%	16.2%	13.8%	12.1%
8th Decile	$2,758	17.7%	14.5%	12.4%	10.8%
9th Decile	$3,559	17.4%	14.2%	12.1%	10.7%
10th Decile	$6,295	15.0%	12.3%	10.5%	9.2%
All	**$2,086**	**19.2%**	**15.8%**	**13.4%**	**11.8%**
Old table		34.4%	28.1%	24.0%	21.0%

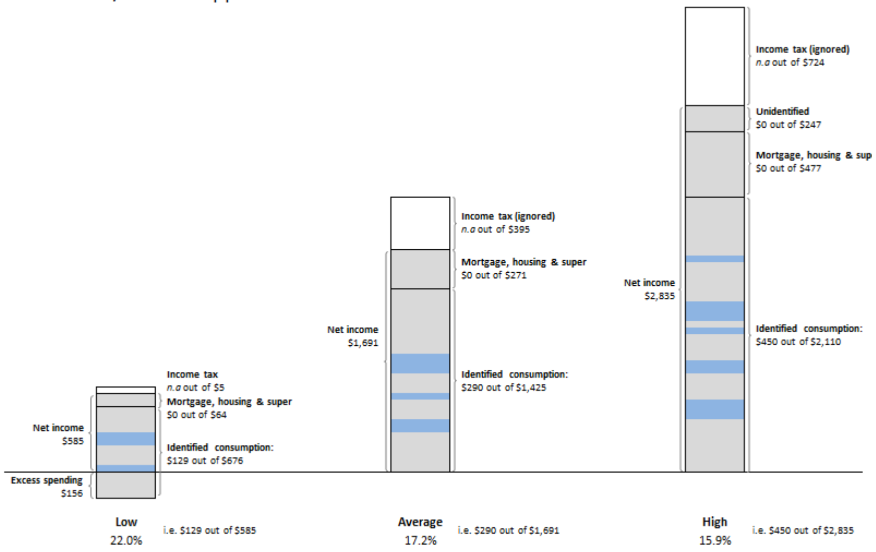
Dependency losses for wrongful death – Discussion

- New table is considered simpler, more accurate, and superior to previous tables, with distinction made for family size and household income decile and results in higher damages
- *Norris v Routley [2016] NSWCA 367* attempted its inclusion, but was unsuccessful as it was inappropriate to be introduced on appeal
- Can expect to see these tables used in future cases

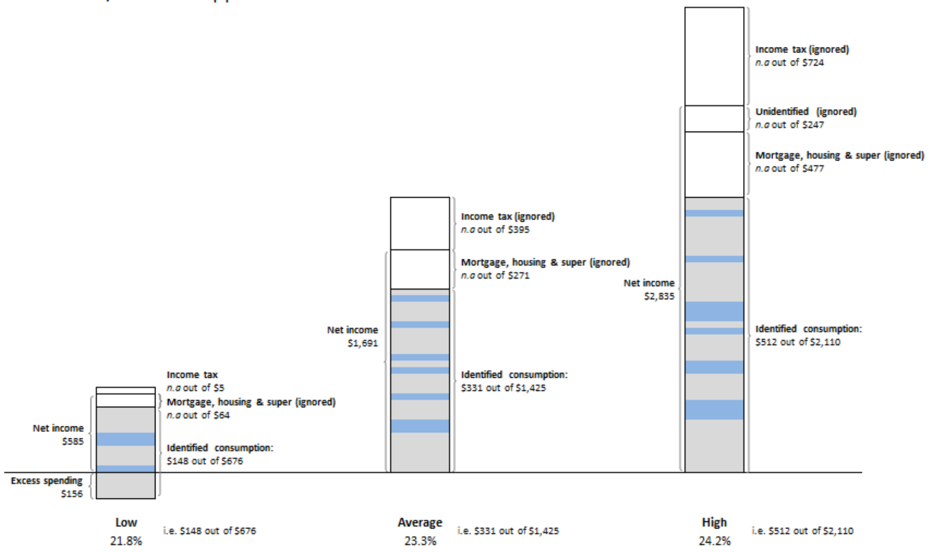
Dependency losses for wrongful death – Objections

- Not all forensic accountants are in agreement and some prefer the original methodology with appropriate updating

Vincents / Cumsar approach



TIA / Forensis approach



Dependency losses for wrongful death – Conclusion

- In my opinion, the 5th edition Table is preferred for evaluating dependency losses
  - Simpler, and can be applied to single and double income households
  - Provide for higher losses than the 4th edition tables
  - More support (i.e. international studies, published literature and across forensic accountants)

Superannuation losses

- Superannuation is an important employee benefits, and an area of particular expertise for actuaries
- For most employees, superannuation is provided on a defined contribution basis under the *Superannuation Guarantee (Administration) Act 1992*
- Currently, mandated superannuation contributions are 9.5% of superable salary, legislated to increase to 12% from 1 July 2025

Superannuation losses – Methodology

- Percentage based method ("**Jongen method**")
  - Value the employer contributions had the claimant kept working
  - Loss comprises the sum of lost contributions, established via a "relevant percentage" of gross earnings
  - *Jongen v CSR Ltd [1992] Aust Torts Reps 81-192 (WA SC)*
- Accumulation method ("**Cremona method**")
  - Value the loss of anticipated benefits the employee might have enjoyed
  - Loss comprises the sum of lost contributions, *and also the forgone value of interest* that would have accumulated in the fund
  - *RTA v Cremona [2001] NSWCA 338*

Superannuation losses – Methodology

- Percentage based method ("**Jongen method**")
  - Much simpler approach
  - Does not require actuarial evidence

- Accumulation method ("**Cremona method**")
  - ~~Yields the highest values for superannuation losses~~
  - ...but this is no longer true in current economy
  - Mathematically and fundamentally wrong (i.e. interest is not "lost")

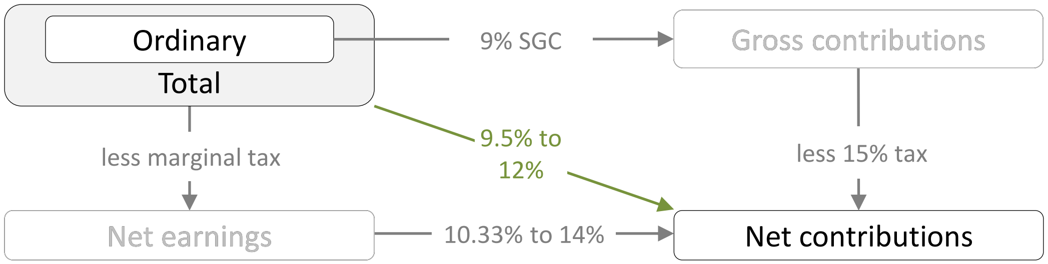
Superannuation losses – Prescribed legislation

	Workers Comp	Transport Accident	Civil Liability
ACT			
NSW			
NT			
QLD			
SA	Nil?		
TAS			
VIC			
WA			

Equivalent to "relevant percentage"

"Relevant percentage"

- Combination of shortcomings and preclusions in the Cremona method warrants the use of a percentage based method
  - Percentage of gross ordinary earnings less 15% tax (*Jongen*)
  - ‘Rule of thumb’ percentage of earnings
  - Percentage of total earnings (*Najdovski v Crnoljlovic [2008] NSWCA 175)*



Superannuation losses – Conclusion

- In my opinion, the *Najdovski* method (i.e. the relevant percentage of gross earnings) is preferred for evaluating superannuation losses
  - Consistency and validity across all jurisdictions
  - Provides maximal losses, often exceeding Cremona calculations in the current economic environment
  - More robust *and* higher losses than most current "rule of thumb" approaches

Costs of fund management

- The basic principle of fund management is to compensate the claimant for the management of their lump sum
- Damages for funds management are only awarded where the claimant's incapacity to manage their own funds was caused by the defendant
- Calculated with reference to evidence of fee rates (from public and private trustees) and almost exclusively by forensic accountants and actuaries

Costs of fund management – Comparison figures

Initial fund ($m)	Duration of management 5	10	15	20	40	60	80
NSW Trustee & Guardian (current)							
0.5	$22,000	$39,000	$55,000	$70,000	$122,000	$171,000	$223,000
1.0	$41,000	$76,000	$107,000	$137,000	$240,000	$326,000	$395,000
2.5	$83,000	$152,000	$211,000	$263,000	$417,000	$518,000	$596,000
5.0	$121,000	$220,000	$306,000	$379,000	$594,000	$735,000	$845,000
10.0	$184,000	$336,000	$467,000	$581,000	$914,000	$1,138,000	$1,311,000
NSW Trustee & Guardian (proposed)							
0.5	$25,000	$45,000	$64,000	$82,000	$146,000	$211,000	$284,000
1.0	$47,000	$88,000	$125,000	$160,000	$290,000	$418,000	$564,000
2.5	$113,000	$210,000	$299,000	$379,000	$640,000	$838,000	$1,005,000
5.0	$181,000	$335,000	$469,000	$588,000	$955,000	$1,223,000	$1,452,000
10.0	$280,000	$519,000	$727,000	$911,000	$1,473,000	$1,887,000	$2,242,000
Perpetual Trustees							
0.5	$35,000	$64,000	$91,000	$117,000	$213,000	$309,000	$406,000
1.0	$62,000	$113,000	$159,000	$201,000	$347,000	$475,000	$603,000
2.5	$124,000	$220,000	$305,000	$383,000	$639,000	$845,000	$1,034,000
5.0	$209,000	$363,000	$498,000	$618,000	$1,001,000	$1,300,000	$1,573,000
10.0	$327,000	$578,000	$802,000	$1,000,000	$1,633,000	$2,128,000	$2,577,000
National Australia Trustees (NSW, VIC and QLD)							
0.5	$32,000	$53,000	$71,000	$88,000	$149,000	$207,000	$273,000
1.0	$54,000	$91,000	$125,000	$157,000	$266,000	$365,000	$470,000
2.5	$108,000	$191,000	$266,000	$334,000	$560,000	$744,000	$911,000
5.0	$177,000	$320,000	$447,000	$561,000	$925,000	$1,212,000	$1,474,000
10.0	$297,000	$542,000	$760,000	$955,000	$1,581,000	$2,074,000	$2,523,000

Initial fund ($m)	Duration of management 5	10	15	20	40	60	80
ipac Securities							
0.5	$48,000	$80,000	$108,000	$134,000	$221,000	$309,000	$406,000
1.0	$64,000	$112,000	$154,000	$194,000	$328,000	$448,000	$574,000
2.5	$114,000	$202,000	$282,000	$355,000	$606,000	$827,000	$1,052,000
5.0	$189,000	$350,000	$495,000	$625,000	$1,066,000	$1,454,000	$1,781,000
10.0	$335,000	$606,000	$853,000	$1,065,000	$1,711,000	$2,148,000	$2,484,000
Trust Company							
0.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1.0	$99,000	$170,000	$229,000	$278,000	$408,000	$485,000	$564,000
2.5	$115,000	$201,000	$274,000	$336,000	$529,000	$692,000	$861,000
5.0	$164,000	$298,000	$417,000	$523,000	$869,000	$1,163,000	$1,454,000
10.0	$290,000	$537,000	$758,000	$959,000	$1,623,000	$2,179,000	$2,715,000
Public Trustees (WA)							
0.5	$52,000	$94,000	$130,000	$163,000	$285,000	$402,000	$529,000
1.0	$71,000	$128,000	$182,000	$230,000	$395,000	$546,000	$709,000
2.5	$122,000	$226,000	$318,000	$402,000	$680,000	$906,000	$1,122,000
5.0	$196,000	$358,000	$504,000	$634,000	$1,053,000	$1,391,000	$1,708,000
10.0	$319,000	$591,000	$832,000	$1,048,000	$1,744,000	$2,303,000	$2,825,000
Public Trustees (ACT)							
0.5	$30,000	$53,000	$73,000	$93,000	$164,000	$235,000	$317,000
1.0	$57,000	$99,000	$137,000	$174,000	$306,000	$437,000	$586,000
2.5	$137,000	$237,000	$330,000	$416,000	$732,000	$1,044,000	$1,395,000
5.0	$271,000	$468,000	$650,000	$821,000	$1,443,000	$2,056,000	$2,743,000
10.0	$538,000	$929,000	$1,290,000	$1,629,000	$2,865,000	$4,079,000	$5,438,000

Costs of fund management - History

Treonne Wholesale Meats Pty Ltd v Shaheen (1988) 12 NSWLR 522

Fund management calculated as the “probable difference between the expenditure likely to be incurred by a person who is unable to manage their affairs…and the expenses which would be incurred by a plaintiff whose intelligence is unimpaired”

GIO of NSW v Rosniak (1992) 27 NSWLR 665

Damages established directly from the management costs properly incurred; not from the cost differential between the plaintiff and an unimpaired individual.

The whole of the fund (excluding out-of-pocket expenses to be deducted directly from the verdict itself) is available to be expended.

In order to enable a calculation to be performed, a “fiction of uniform drawings” is assumed and an arbitrary rate of return of 5% for net investment earnings was assumed even though such parameters are indeterminable in reality.

This determine the progression of the fund to zero over the individual's anticipated life, which enables the calculation of a stream of management fees, which are then discounted to present values at the statutory discount rate.

Fund management on fund management rejected on the grounds of “unwarranted double counting”.

Costs of fund management - History

Diamond v Simpson (No 1) [2003] NSWCA 67

Physical disability alone is insufficient to claim an award for fund management.

Willett v Futcher [2003] QSC 036

Willett & Anor v Futcher [2004] QCA 30

Disallowed certain fund management fees (investment management fees) after deeming their purpose was not compensatory in nature, but rather a means of maximising returns on investments.

In essence, this ruling parallels that of *Treonne Wholesale Meats Pty Ltd v Shaheen*

Willett v Futcher [2005] HCA 47

Damages are established with reference to costs “properly incurred” and no distinction between investment advice and other services should be drawn.

In essence, this ruling parallels *GIO v Rosniak*'s overruling of *Treonne*

Buckman v M & K Napier Constructions Pty Limited [2005] NSWSC 546

Disallowed fund management on fund management due to a perceived incongruity between the inexact calculation of damages generally and the exactitude of a iterative calculation.

Costs of fund management - History

Rottenbury by his tutor Wren v Rottenbury [2007] NSWSC 215

"In calculating the present value of the cost of fund management one does not take into account as a separate item the fact that the fund will earn income."

In essence, this ruling precludes fund management on fund income

Lewis v Bundrock & Anor [2008] QSC 189

Disallowed fund management on fund management due to "a never-ending series of calculations [that] would never reach zero".

Cited two judgments allowing for an adjustment to fund management on the grounds of tax deductibility (*Curry v Aughey* and *Robinson v Beatty*) but ultimately disallowed any such adjustment with reference to *Todorovic v Waller.*

Waller v McGrath & Anor [2009] QSC 158

Adopted a "straight line amortisation" approach, but was somewhat contradictory as the accepted submission states "it is appropriate to use 5% as the after tax return as that is the figure mandated by legislation".

Costs of fund management - History

Gray v Richards [2011] NSWSC 877

Dismissed the “straight line amortisation” methods as incorrect and allowed for investment income at the statutory discount rate.

Allowed fund management on fund management after critically examining, and dismissing, all prior arguments of *GIO v Rosniak*, *Buckman v Napier* and *Lewis v Bundrock*.

Richards v Gray [2013] NSWCA 402

Allowance for fund management on fund income was disallowed, due to the impression that the potential costs of managing fund income were covered by the discount rate and that the cost of managing the income generated by the fund is not an integral part of loss consequent upon injury.

Allowance for fund management on fund management was disallowed, seemingly as a matter of policy.

Costs of fund management - History

Gray v Richards [2014] HCA 40

Allowance for fund management on fund management was reinstated declaring such costs to be an integral part of that cost that can be calculated and which should be compensated as they are a consequence of the appellant's injury.

Hulanicki bhnf Hulanicki v Walton [2014] ACTSC 17

Not unreasonable to impose on the defendant the extra cost of the Public Trustee, compared to Perpetual Trustees.

An issue of compensability of income commission arose (in respect of the preclusion of fund management of income), but was mediated away via a midpoint average of divergent calculations

Sinnamon v Maher & Anor [2016] QSC 51

Allows the full cost of all Superannuation Platform fees, irrespective of whether they constitute investment maximisation or provide tax advantages.

Costs of fund management - History

Casey v Pel-Air Aviation Pty Ltd [2016] NSWSC 212

Found that the award of damages could not justly rest on the more expensive manager, simply because of claimant's preference, and that in the absence of evidentiary basis for the more expensive option, fund management defaulted to the NSW Trustee & Guardian

Pel-Air Aviation Pty Ltd v Casey [2017] NSWCA 32

That in the absence of any evidence to suggest a fund manager is "unreasonable", there is a strong prima facie case for recoverability at private trustee rates.

Williams v Hoang [2019] ACTSC 144

The Court decided that cost was not the sole deciding factor and that the paramount consideration was the best interests of the plaintiff.

Costs of fund management – Fees on fees

- The principles of Gray v Richards have created a situation where all valuations suffer from some numerical anomaly
- No unanimous agreement of the most suitable way to mitigate
- Discounted iterations ("Present Day" method)
  - Iteratively discounts & adds "fees on fees" to initial sum
- Undiscounted iteration ("Actual Day" method)
  - Iteratively adds "fees on fees" to initial sum, only discounting once at the end

Costs of fund management – Conclusion

- In my opinion, the "Actual Day" method, performed under the fund manager of choice, is preferred for evaluating costs of fund management
  - Exact methodology utilised in *Gray v Richards*
  - Avoidance of "default" rates of the NSW Trustee & Guardian
  - Consistent with *Pel Air v Casey* and *Williams v Hoang* which allows regulated fund manager fees to be reasonable by default
  - No reductions for tax deductibility, and inclusion of all investment related costs (superannuation trustees & MER/ICRs)

Costs of fund management – Web calculator

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Investment Management

In the judgement of Gray v Richards [2014] HCA 40, the High Court of Australia clarified the principles for awarding "fund management costs" (that is, administration and investment fees) to injured plaintiffs who are unable to manage their own affairs.

The calculator below estimates the legally recoverable costs of fund management in a manner consistent with this decision. Calculations are intended to be for **illustrative purposes only** and all fee parameters (including preset selections) are the user's responsibility to ensure they are suitable to an individual's circumstances.

Clicking the "Save and Preview" button below will provide an estimate free of charge and without any registration required. Signed actuarial reports can be requested from the preview screen and other queries (such as requests for costings for public or private managers not included in presets) can be directed to investmentmanagement@cumsar.com.au.

General Assumptions

Matter

Initial Fund

Duration years

Discount rate

Fee basis

Preset fee basis

Please select

ADD FEE

RESET | SAVE AND PREVIEW

Sexual abuse claims

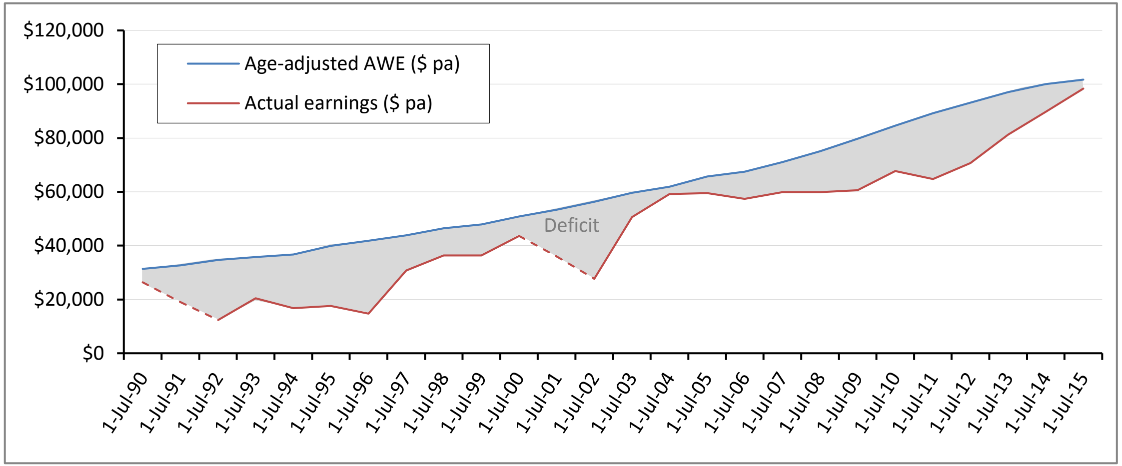
- Economic loss reports for sexual abuse victims focus on loss of earnings and superannuation
- Royal Commission into sexual abuse has caused many more requests for calculations since 2017
- Heavy reliance on legal instruction received

Sexual abuse claims – Actuarial involvement

- Long spanning past losses and (often) lack of both actual tax returns and statistical data for earnings
- Predating of *Todorovic v Waller* for discount rates
- Previous generation (defined benefit) superannuation schemes in place of SGC based losses
- Consideration of investment and/or penalty interest on past losses

Sexual abuse claims – Past earnings

- Past losses often supported with Average Weekly Earnings, with variation for age-based or occupational adjustments



Sexual abuse claims – Discount rate

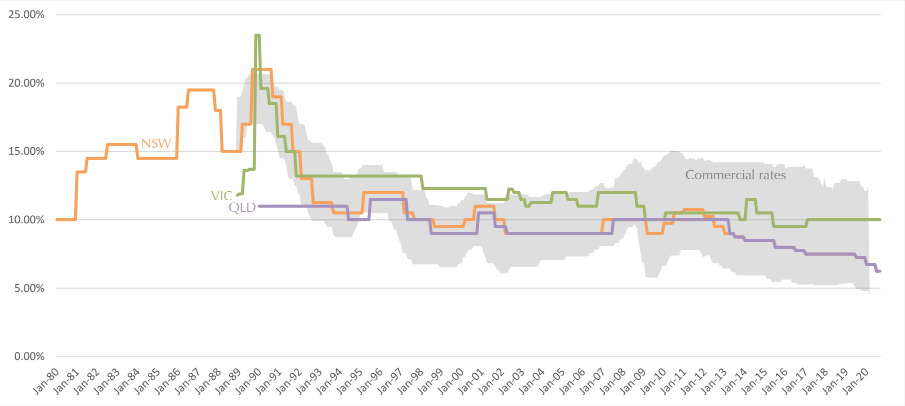
- High Court decision in Todorovic v Waller

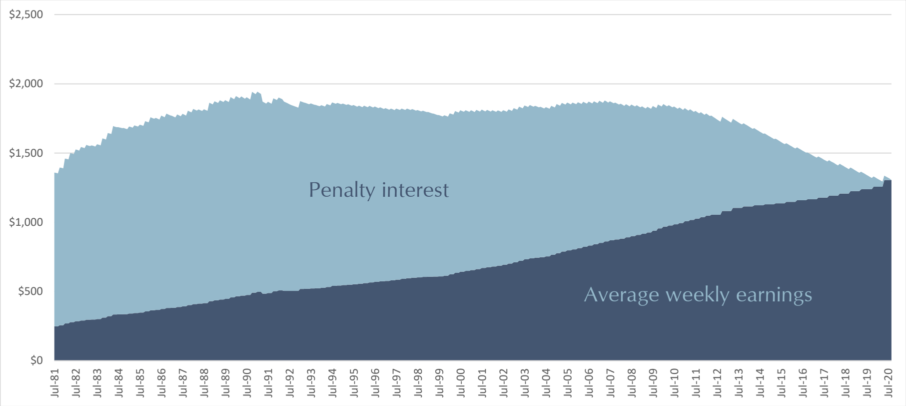
Component	1981	2020
Long term Government Bond rate	13.0%	1.8%
plus bond premium	3.0%	1.0%
Long term "market" bond rate	16.0%	2.8%
less allowance for tax	23%	24%
After-tax investment rate	12.3%	2.1%
less long term inflation rate	-10.0%	-1.5%
Net after-tax investment rate	2.3%	0.6%

- Discount rates from first principles can be as low as -0.3% (in line with UK rate of -0.25%) or up to 1 to 2% after consideration of growth assets.
- Yet the rate often applied in cases in Australia is 3% (or 5% under the *Wrongs Act* and *Civil Liability Acts*).

Sexual abuse claims – Interest on past losses

- Critical component in light of the long term nature of past losses
  - Penalty interest rates – Punitive rates, but calculated on simple interest
  - Personal savings – Compounded accumulation within savings accounts





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