

Most retirement income calculators are misleading

Why? They ignore investment risk

Member	Investment strategy suggested by:		
	Conventional wisdom	Models that ignore investment risk ¹	Models that incorporate investment risk ²
20 year old	Higher allocation to growth	Highest growth	Agree
55 year old	Winding back growth	Highest growth!	Still in growth option
Retiring	Moderate to conservative	Highest growth!!!	Winding back growth

*"A person must not make a statement, or disseminate information, if:
 (a) the statement or information is false in a material particular or is materially misleading;
 (c)(ii) the person knows, or ought reasonably to have known, that the statement or information is false in a material particular or is materially misleading"*

Section 1041E of the Corporations Act
 (Applies when likely to induce financial decisions.)

Ignore investment risk at your peril

The superannuation industry understands that investment risk can have a material impact on superannuation accounts and retirement outcomes, thus should know that estimates that ignore investment risk are false in a material particular or misleading.

Most retirement income calculators are flawed...

Numerous superannuation fund websites have a retirement calculator that members can use to estimate their retirement income and presumably help member's understand their superannuation.

... because they do not account for investment risk.

However, these calculators ignore the well-known fact that investment volatility will create uncertainty in retirement income estimates.

Calculators that ignore investment risk may mislead members near or in retirement.

If a fund's calculator does not incorporate risk, then members nearing retirement will observe that retirement income estimates will be higher if they crank up the allocation to growth assets.

Surely this is misleading.

What may be appropriate for a 20 year old is unlikely to be so for a member near or in retirement. The risk/return trade-off is idiosyncratic.

¹ ASIC's MoneySmart calculator is used here as an example of a deterministic calculator.

² CV Solutions' engine is used as an example of a stochastic calculator that incorporates investment risk.

CV Solutions

This is lazy and unnecessary; stochastic calculators³ are available.

A **stochastic** calculation is one which incorporates the uncertain nature of future investment returns. It shows the distribution of retirement income levels.

If we revisit the example above using a stochastic calculation, we will be able to assess whether the 55 year old will have enough time for higher returning investment strategies to offset the higher volatility and produce a better, or worse, estimate of their retirement income.

CV Solutions' stochastic engine provides more useful results.

CV Solutions has developed a stochastic engine that displays, inter alia, the three way trade-off between (a) the level of retirement income, (b) how long it will last and (c) with what level of likelihood, for example:

The member has a good chance of receiving \$47,800 retirement income to age 90 or \$67,100 to age 80.

This is shown in a chart that enables the member to assess this three-way tradeoff:



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³ We are aware of a few other similar stochastic calculation systems used overseas, two developed by firms established by Nobel Laureates. All of these use Monte Carlo simulations which are very time consuming. In contrast, the CV Solutions engine uses a mathematical approach that can produce the above chart in a fraction of a second.