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Level of cover: How much is enough? *Part 1: term life*

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In the first issue of our three part strategy series we discuss calculating appropriate levels of personal insurance cover, specifically here for term life.

Personal insurance advice is ultimately the recommendation to purchase, retain or even discard certain risk products appropriate to the client's needs and objectives and with that comes the need to recommend appropriate levels of insurance cover.

The role of a financial adviser in relation to a client's personal insurance cover is to ensure that the client, from a financial perspective, is returned to a situation that is as close as possible to that which existed before the occurrence of an insurable event. This is not always an easy process. There are many variables and certain assumptions that need to be made. The beneficiaries of a life insurance policy – be they the life insured, his or her dependants or other parties – should not be better off than before the insurable event (the concept of betterment), but neither should they be worse off. Advisers need to work very closely with clients in determining their current situation, their future requirements and the contingencies that need to be put in place to maintain their or their family's lifestyle following an unforeseen event.

Under current legislation, an adviser must provide appropriate advice after determining the client's relevant personal circumstances and making reasonable inquiries in relation to those personal circumstances, and after giving reasonable consideration and conducting reasonable investigation of the relevant subject matter (Section 945A of the Corporations Act 2001 – Requirement to have a reasonable basis for the advice).

In this article we will look at quantifying the levels of personal insurance cover – both for each life risk product and the products in combination – to achieve the goal of reasonable and appropriate advice. As such, it is vital to complete a thorough needs analysis of the client's situation and make further investigations of the client's needs and objectives before recommending the level of cover.

So how much insurance cover is enough? There is no definitive answer or, in fact, definitive method. From an advice perspective, any method that provides the client with an adequate level of cover – and can be demonstrated – is appropriate. From an underwriting perspective, it is the amount of cover that is deemed reasonable in view of the life

insured's financial circumstances. Certainly, various insurance calculators provided to advisers by licensees are useful tools; however, they should not be used indiscriminately without a thorough investigation of the client's needs and therefore must be flexible enough for the adviser to tailor the recommendation to suit the client's requirements.

We will look at the different methodologies used in calculating levels of cover and their rationale. Historically, there have been a number of calculation methods for the sum insured. Here are the major ones.

Multiple of income

This was a popular method long before the Financial Services Reform Act (FSRA). It assumes that a client's needs can be met by applying a generic formula, such as a set multiple of 10, 15 or 20 times the client's income (for term life cover), without further analysis of the client's situation.

Example

Let's assume Blair earns \$60,000 per annum. Twenty times this amount is \$1.2 million and would be Blair's sum insured. If Blair dies, and this lump sum is invested in a traditionally conservative investment such as a bank term deposit, and if the investment provides an annual income stream of 5 percent (after expenses), it would produce an amount equal to Blair's current income (\$60,000) in perpetuity, without having to draw down on the original capital.

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This sounds like a good idea, but is actually quite simplistic. It does not take into account the rate of inflation and the fact that the investment return would not be constant every year. Assuming the investment return is constant at 5 percent, but the rate of inflation is 3 percent per year, the \$60,000 return would be worth about \$46,000 after 10 years, so Blair's dependants would have to draw down on the principal investment, which would eventually run out.

The multiple of income method is also supported by insurers' underwriting guidelines for calculating cover for specific life insurance products, depending on the age of the life insured.

Human Life Value method

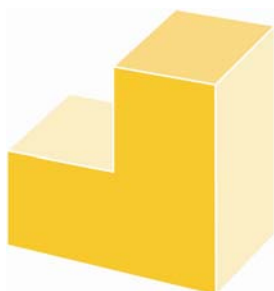
This method is based on the economic value of human life measured by the capitalised monetary value of future earnings and is largely based on the writings of Dr Solomon S. Huebner in the 1920s. This concept is not limited to the life insurance industry, and was used by the US courts to establish compensation for the September 11 terrorist attack victims. It is purely an income-based method. The amount that a family would need to maintain the same standard of living after the loss of a breadwinner would equate to that person's value to the family.

Example

Take the example of Kylie, aged 35, who plans to retire at age 55, and has an annual salary of \$55,000. Of this amount, 20 percent covers her personal living expenses and 80 percent (\$44,000) contributes to her family's lifestyle. She also runs the household and it would cost an additional \$20,000 per annum to replace her with a housekeeper. Kylie's total value to her family is calculated by adding the \$44,000 and the \$20,000, so her total value to the family would be \$64,000.

Finally, the required annual income of \$64,000 is the amount required in today's dollars. We need to convert this figure by taking into account a realistic return on lump-sum investment and to account for inflation and other factors. We therefore use a real rate of return, which is the annual percentage return realised on an investment, adjusted for inflation and other impacts. This expresses the nominal interest rate in real terms, which maintains the purchasing power of a capital amount constant over time. We will use a conservative real rate of return of 4 percent for illustration purposes, though this return should be agreed with the client. The assumption is that the capital is drawn down over the required time frame.

The formula to calculate the required lump sum is based on the annual payment of a regular annuity over a given number of years, and is expressed in the following Microsoft Excel



The formula to calculate the required lump sum is based on the annual payment of a regular annuity

formula:

$$1.04 * (1 - (1.04)^{-20}) / 0.04$$

All occurrences of 4 in the above formula refer to the real rate of return (discount rate), and the number 20 refers to the number of years the income is required. The resulting factor is then multiplied by the annual income required. The above formula produces a factor of 14.1339393987664, which is multiplied by \$64,000 to produce a lump sum of \$904,572.

So this is the amount of term life insurance required for Kylie according to the Human Life Value method. The retirement age assumes Kylie's contribution to running the household ends at age 55; this time frame can be extended if required.

This method can be further expanded by providing a growth factor, which would depend on the occupation of the life insured and the potential for the future growth of income. For instance, a medical practitioner studying to be a specialist would likely have a large increase in income once completing his or her studies. The limitation of this method is that it does not take into account that there may be a specific capital need upon the death of the income earner, such as the repayment of debt, funeral expenses, and the like.

Total Needs method

This is also known as the Capital/Income or the Needs Analysis method, and looks at two areas of clients' needs: capital and income needs. This method is also the method used in most calculators used by AFSL holders. The capital need is the lump sum required by the client (or estate) at death or as a result of permanent disability and critical illness. In the case of death, this would be amounts required for funeral and final expenses, debt repayment (or reduction), an emergency fund, an education fund, any bequests or legacies, and so on. We will look at term life cover in detail and how the levels of cover can be quantified with respect to the individual needs and objectives of clients.

Term life cover

Death may have different consequences for different situations and people. This is indisputably a time of grief and emotional turmoil for family and friends. From a financial perspective, it is likely that a single person with no dependants may have minimal requirements in this area, whilst a married couple, particularly a couple with dependent children, will probably have significant needs.

Debt repayment

Most clients with dependants will look at clearing or at least reducing non-deductible debt. Australia has a high level of mortgage debt, a situation which is of course exacerbated during times of high interest rates, and mortgage stress has become a common term.

Elimination of debt, for most people, equates to peace of mind and, of course, reduces the requirement for future income. Repaying a debt also takes away the need to make assumptions and account for variables. When a debt has been repaid, the adviser (and client) does not need to

consider variables such as interest rates and inflation for this amount. Once the debt is gone it is one less headache to worry about.

Types of debt

- **Home mortgage:** This is usually the largest liability burden for a family or a married couple. Its repayment will reduce the amount needed for living expenses, and will take away a major headache for the surviving spouse or partner
- **Other debt:** Deductible debt, such as loans for investment properties, is not generally included in the debt repayment equation. However, there may be instances where this is necessary as directed by the client. There may also be occasions where a mortgage on a holiday home needs to be considered
- **Personal loans:** These are often taken to purchase motor vehicles, holidays and other purposes, and can be up to \$80,000 on an unsecured basis. As for home mortgages, it may be preferable to pay these out on death
- **Credit cards and lines of credit:** These facilities may be cleared monthly or used as an emergency facility. If there is a permanent monthly debit balance on these facilities, it may be better to clear these upon death

Although it may be desirable, from the client's perspective, to discharge a mortgage, it may not be the most practical solution. Caution should be applied to the amount of cover for a non-income producing spouse or partner. It is possible that the major income earner may still be able to service the debt or part of the debt if the homemaker dies or suffers total and permanent disablement. It is prudent to establish the following with clients: will the major income earner cease work if the non-income producer suffers an insurable event or would he or she employ a housekeeper, carer or nanny and continue to work? This may be a more viable and affordable option from a risk management perspective. The other issue is underwriting approval for the total liquidation of debt. Most insurers limit the amount of cover available to a non-income producing partner, which may present a problem with large mortgages. It may be worthwhile considering these maximums when discussing debt repayment with the client. For couples with no dependants whose income earning capacity is equal or approximate, it is reasonable to cover debt on a 50/50 basis.

Funeral and final expenses

Although these expenses will vary depending on the client, an amount of \$20,000 is deemed reasonable for this purpose. Funeral costs will generally amount to around \$10,000 and there may be additional costs associated with probate, travel and accommodation for family members, final accounting fees, etc.

Emergency funds

This is generally an amount set aside to cover short-term unforeseen expenses following death, to provide for this period of readjustment. This would vary according to the circumstances, but is typically based on 50 percent of the major income earner's income, after considering any available funds the client may have set aside anyway.

Education funding

This amount is again determined by the client, and is based on the client's requirements for private schooling and tertiary education for their children. The adviser can add real value here by getting full information from the client as regards approximate costs and objectives. Though unusual, it may well be that the clients do not intend all children to be put through private education, or it may be that the children will receive public schooling until high school or in the senior years of high school only. There are many permutations here. There are also many costs variables with private schooling, with some more expensive schools, particularly in the capital cities, with annual fees approaching \$20,000.

There are two ways to approach this issue:

1. Earmark an education fund with a separate lump sum for draw down, which then gets added to the client's capital need. The rationale for this is that this is a discrete fund, whereby the insurance proceeds can then be placed in a separate investment such as an insurance bond or managed fund. The clients may already have these investments in place.
2. Include the funds earmarked for children's education in the required income calculations. The premise here is that the education payments would have come out of the deceased income producer's earnings anyway. The drawback in this approach is that private school costs have recently outstripped inflation, whilst the required income calculation would be based on a constant inflation rate. The other drawback is that it does not take into account future increases in the earner's income. For this reason and the fact that the education expenses may be required many years in the future, the lump-sum method costing should err on the high side.

Capital gains and other taxes

There are no longer death duties in Australia; however there may be CGT (capital gains tax) payable on assets that are disposed of after death, as well as tax related to the income earned by the deceased in a financial year until date of death. It is prudent to provide for these taxes, particularly if the asset is to be passed on to a spouse or partner and intended to be sold. The same methodology should apply to any potential GST liability.

Superannuation taxes

A superannuation death benefit lump sum paid to a tax dependant (such as a spouse or a child under the age of 18) is paid tax free, regardless of the amount. If a super fund has claimed a tax deduction for all insurance premiums (which is likely) and a lump-sum benefit is paid to a non-tax dependant (such as an adult child not financially dependent on the deceased member), the benefit will have a taxable component consisting of a taxed and untaxed element. The maximum tax payable on the taxed element is 16.5 percent (including Medicare levy) and is up to 31.5 percent on the untaxed element. If the death benefit is paid to the estate and

thereafter passes to non-tax dependants, no Medicare levy is payable.

The adviser should discuss with the client the necessity to implement a binding death benefit nomination to ensure that the proceeds pass to the correct beneficiary.

Other capital items

Does the client want to provide a bequest (legacy) to a family member, unrelated party or even a charity? This can be funded through term life insurance and the details should be discussed with the client. There may be other items that need to be considered, such as the use of a company car by the deceased (either through a salary package or not). It is unlikely that dependants will have use of this vehicle after the life insured's death, in which case another car may have to be purchased and provided for through a lump sum.

Required income

This deals with a family's ongoing income needs upon the death of the breadwinner, an income-producing partner (if both spouses or partners are working), or the death of the 'breadmaker' (homemaker). There are a number of variables to consider, and a number of assumptions to make.

Death of the breadwinner

The impact on a family if the family's sole income earner is removed due to an untimely death is generally catastrophic. This is particularly so if there are dependent children, but there may also be a major impact if the surviving spouse has been performing home duties for most or all of his/her life.

The first issue to consider is that of minor children. What is the income required to maintain these children until at least age 18? For the income-producing life insured, this is usually based on 100 percent of the annual packaged salary, including FBT and superannuation contributions, minus repaid existing annualised liabilities per annum.

Example

Alan (aged 43) and Tanya Wise (aged 41) are a married couple with two children, Jane (aged 13) and Peter (aged 11). Alan's gross salary from his primary occupation is \$110,000 and his gross fringe benefits amount to \$10,000. His employer makes the mandatory superannuation contribution of 9 percent of Alan's take-home salary. Alan and Tanya would like to provide support for Jane and Peter until age 18 and would like to pay out their mortgage of \$160,000 (with monthly repayments of \$2,060) if either should die. (Note that the age to support dependent children is not always 18, but may be 21. It does not usually exceed this age, unless the child has a disability.)

To calculate the required income to maintain dependants, we should first establish the salary package we are covering. In Alan's case, this is the total of his cash salary (\$110,000), fringe benefits (\$10,000) and employer super (\$9,900), which equals \$129,900. From this amount we should subtract the couple's annualised existing liabilities, which is \$24,720 (12 x \$2,060). This amounts to \$105,180, which is the annual

income required to maintain dependants (spouse and children).

Next, we need to determine how long this ongoing income is required. This would be 7 years, until the youngest dependant (Peter) is 18. Strictly speaking, this required income should change once Jane turns 18, but in practice would overcomplicate the methodology, particularly if multiple children were involved.

Finally, the required annual income of \$105,180 is the amount required in today's dollars, so will apply the formula used in the Human Life Value calculations, which produces a lump sum of \$656,548.

The second issue to consider that of the ongoing income required by the surviving spouse or partner after minor dependants have been provided for. This is usually based on a percentage of the deceased spouse's income as determined by the surviving spouse, for a specified time frame, generally until the deceased's normal retirement age (65).

In Alan and Tanya's example, assume that Tanya would require 50 percent of Alan's salary package until he would have turned 65 and after younger child Peter has turned 18. This is \$64,950 (\$129,900 x 50 percent) and will be required seven years in the future and for a period of 15 years (when Alan would have been 65). The Excel formula for this is

$$(1.04^{-7}) * 1.04 * (1 - (1.04)^{-15}) / 0.04$$

The above formula produces a factor of 8.78702309033797, which is multiplied by \$64,950 to produce a lump sum of \$570,717. In the above calculation, all instances of 4 refer to the real rate of return (4 percent), 7 refers to the number of years in the future, 1.04 is 1 plus the rate of return expressed as a decimal (1+0.4) and 15 is the number of years the income is required.

Required income could also include amounts necessary to maintain other dependants, such as disabled children or elderly parents. This ongoing income could be treated as a separate item and the time frame for providing this income could legitimately be the life expectancy of the child or parent.

Items to be subtracted from the recommended levels of cover

These commonly include existing life insurance cover and any superannuation (including term life cover in super) if the benefit will definitely pass to the spouse or partner (through self-ownership or nomination of beneficiary for non-super and a binding death benefit nomination for super); and any realisable (disposable) assets.

Realisable assets to be used on death

These are the assets that are nominated by the clients as realisable on death of the primary income producer, his or her partner or spouse or on the death of either. They commonly include business interests, investment properties, long-term managed funds, shares or other investments and collectables. Advisers should work on a net figure, so therefore should

subtract any potential tax on capital gains. It is worthwhile differentiating the above, as long-term disposable assets, from liquid assets – such as cash at bank, shares and managed funds – that the clients are willing to draw down before requiring financial assistance. The latter should also be included in the realisable assets section. A percentage of this amount can go towards determining the correct waiting period for income protection.

Example

Returning to the Wise family, let's assume that Alan has the following disposable assets:

Asset	Purchase price	Current value	Potential CGT*
Managed funds	\$60,000	\$120,000	\$6,975
Cash management	N/A	\$10,000	N/A
Shares	\$10,000	\$30,000	\$2,325
Total	\$70,000	\$160,000	\$9,300

* Potential CGT should be calculated on the worst-case scenario. Assuming asset has been owned for more than 12 months, and client died at the end of the financial year, putting him in the highest marginal tax bracket, CGT would be 23.25% of the difference between current value and cost price.

In addition, Alan has made a binding death benefit nomination with his super fund in favour of Tanya. His current superannuation balance is \$80,000. Therefore, the amount that is available to offset the recommended level of term life cover is as follows:

Disposable assets (\$160,000), minus CGT (\$9,300), plus superannuation (\$80,000) equals \$230,700.

The final term life recommendation for Alan will now look like this:

Asset	Purchase price
Requirements to repay liabilities	\$160,000
Funeral and final expenses	\$20,000
Required income to maintain dependants	\$656,548
Required income to provide for spouse	\$570,717
Total	\$1,407,265
Minus realisable assets	-\$230,700
Total term life requirement	\$1,176,565

Summary

Calculating the level of personal insurance cover for clients is not an exact science: any method that provides the client with adequate cover – and can be substantiated – is appropriate.

The Total Needs method, used by most calculators supplied by dealer groups, takes into account the client's capital needs immediately after death (e.g. debt repayment and education funding), as well as the ongoing income required by the family, generally until the deceased would have turned 65.

The client's total capital and income needs should be offset by lifestyle assets which would be disposed of after the death of the life insured, and would typically include items such as superannuation and investments in the client's name.

Important information

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