



Investment & Financial Services Association Ltd

Discussion Paper

The role of calculators in educating investors.

9th March 2006

Feedback on this discussion paper and approach taken to the assumptions listed is invited from both IFSA members and other interested parties. We would be pleased to accept your feedback in writing to Emma Grainge by Friday 28th April 2006.

INTRODUCTION

Well-designed calculators can play an important role in assisting consumers to make informed financial decisions without charge or obligation. This discussion paper is designed to reflect the views of IFSA members who develop and support calculators that are available directly to consumers by any medium.

In line with IFSA's response to ASIC's consultation paper "Assumptions for Online Calculators Discussion Paper" [September 2005], this discussion paper applies to all calculators designed for use directly by consumers, with or without the aid of a qualified financial planner or authorised representative.

This paper has been produced having given regard to a significant amount of reference material. Please see the attached [Attachment 1] bibliography for the full list of documents considered.

This discussion paper applies to all consumer calculators which can be defined by the following sentence, treating them as general advice tools if they adhere to the subsequent criteria:

Calculator means any questionnaire or calculation tool provided for use by consumers in any medium. They are tools designed to enable consumers to better understand their need [or otherwise] for a particular product or class of product and how that might suit their needs. This tool will provide them with information to enable them to come to an informed view with regards to a type of product or class of product.

All the above calculators are regarded as 'general advice' calculators if they meet the following Principles.

IFSA's Principles for Calculators

- a. the provider of the calculator is not able to identify the user from the user's use of the calculator or the information the user deploys and/or enters to the calculator while they are using it. However it is appropriate that the provider will be able to track how a user uses the calculator to obtain aggregated intelligence about the effectiveness of the calculator; and
- b. the user does not pay the provider of the calculator for the use of the calculator; and
- c. the calculator is accompanied by a clear:
 - I. statement about the purpose of the calculator; and
 - II. statement that the calculator is not intended to advertise or promote any class of financial product or particular financial product either of the provider of the calculator or any related entity, and
 - III. warning about the limitations of the calculator including that the provider of the calculator does not know all of the user's particular objectives, financial situation and needs; and
 - IV. warning that while the 'default assumptions' are considered reasonable by the calculator provider for most circumstances, the default assumptions do not provide any guarantee in relation to any illustrated amounts the calculator derives. This is because the calculator does not know all the user's particular objectives, financial situation and needs; and
 - V. suggestion that the user consider getting advice from a qualified adviser before making any decision about a financial product; and
- d. the user is able to alter key default assumptions to the extent that these assumptions can reasonably be expected to change; and
- e. the calculator should include a warning to the user that by not using the 'default assumptions' the user may produce unrealistic and misleading results; and
- f. the output of the calculator should be readily capable of being recorded by the user electronically or printed by the user; and
- g. if all other principals are adhered to, providers of the calculator are able to offer a prompt which, when positively agreed with, will enable the user to view information on relevant products offered by the provider.

This discussion paper does not address calculators used by licensed financial planners and otherwise not available to the consumer. This is because calculators provided to planners are tools designed to assist them in the provision of professional services to their consumers and have regard to a consumer's particular financial objectives, financial situation and needs.

Assumptions

To enhance the consumer benefit of calculators, IFSA proposes a consistent approach to the use of assumptions in a number of areas. This consistency of approach should

- Help users gain a better understanding of their financial needs. That is, to assess their need for life and disability insurance, for superannuation accumulation, for retirement incomes and for investment to help achieve future goals.
- Help users understand the broad types of features available with different types of financial products and classes of products. For example, the various investment options available and related risks and volatility. The general features that are available with life and disability insurance products.

- Help users better understand the factors which will have an effect on the performance and returns of their long term investments.
- Help users gain an appreciation of their tolerance to investment risk.
- All things being equal, enable users to obtain 'like' results, based on consistent inputs, from each IFSA member's calculator, with the only points of difference being those which are related to user, product or provider specific.
- Ensure that calculators are used to their maximum educative benefit.

Out of scope

- Calculators designed for use by licensed financial planners.
- Calculators which do not meet the criteria outlined.
- Capital needs based life insurance calculators.
- Business life insurance calculators.
- Calculators which are not covered by the categorisations below.

The following points have been discussed by IFSA members and, unless otherwise stated, it is suggested they should apply to all product calculators or investment risk profilers, including superannuation investments, non super investments and life insurance products.

INVESTMENT CALCULATORS – Super (accumulation phase and income stream products) and non-super

Use of Current Dollar Values:

Over time, inflation will reduce the buying power of money. Because industry participants want to give consumers some idea of what their investment may be at current dollar values at the end of the specified term (when the calculator's prime purpose is to project a future investment or superannuation accumulation amount), the outcome of the calculator should take inflation into account and should convert the future projected amount into current dollar values.

Measures of inflation:

IFSA believes there should be a single measure of inflation by which the providers of calculators can deflate results so that they are represented in current dollar values.

To ensure consistency between providers and that the rates of wage and prices growth are continually kept up to date, members should source both these figures from a central source [yet to be determined]. Members are encouraged to monitor this source for any changes to acceptable figures and update their calculators accordingly.

IFSA hopes to work with ASIC, ASFA, the Institute of Actuaries and the Government Actuaries in the development of a process for calculating and updating the appropriate measure of inflation.

Fees and charges:

1. Management costs

Consistent with Regulations made early 2005 in relation to the disclosure of management costs, the calculator should present a result net of Indirect Cost Ratio (ICR) related fees and charges – percentage based management costs. Should we call it "indirect management cost"?

As a starting point however, the management cost field should be left as blank, however this field should be a mandatory field, ensuring the user was unable to progress through the calculator without considering the level of fees they will incur. This section should feature warnings within a drop down box which will help the user understand that it is unrealistic to expect not to be charged any management cost, this should also signpost them to ascertain the management cost from the PDS for any particular product.

Where the calculator relates to a specific product, it may be appropriate for the calculator to have the management cost for that product as the default for the management cost field.

2. Contribution Fees

Not all funds charge a contribution fee. For those that do, the fees will generally be negotiable by the member through a financial adviser. It is appropriate that the contribution fee value should be blank. This is not a mandatory field.

Where the calculator relates to a specific product, it may be appropriate for the contribution fee for that product to be the default for that field.

3. Dollar based fees and charges

Calculators should have provision for incorporating the impact of any dollar based fees or charges. Given that there is no uniform dollar based fee charged by funds, the default assumption for this field should also be left blank. This is not a mandatory field.

4. All Fees and Charges

Providers of calculators should encourage users to consider the charges they will incur by the fund through the use of flags or warnings.

Fees and charges are as likely in some cases to decrease as they are in others to increase. For that reason it is not appropriate to apply inflation to either the \$ based, or the percentage based fees and charges.

Users of the calculator should be warned that fees and charges may change over the life time of their investment and this will have an impact on their investment return.

Estimated Earnings Rate:

It is important to the industry that calculators serve to educate users about the factors affecting investment performance and the returns that are reasonable to expect.

The rate of return that a user will actually experience if they invest in any given vehicle or product, will be determined not only by the investment strategy they chose but a range of other macro and micro-economic factors which the provider of the calculator is unable to foresee - future investment returns, future rates of inflation, future interest rates and any potential change in personal circumstances.

It is the concern of many in the industry that users of calculators too often accept the default rate given, moving through the calculator without stopping to consider whether this rate can be related to their investment option or given circumstances. Such behaviour, regardless of the warnings given within supporting documentation, is likely to lead to the user believing that the result of the calculator might be something they can realistically expect to receive. IFSA would welcome any research which sheds light on how users go through existing calculators and how they interpret the results.

It is vital for future consumer confidence in the industry, that users of calculators understand that the output of the calculation is not a promise of benefit.

An example of where consumer expectations have been mismanaged through the use of prescriptive 'projection rates', is the situation with endowments in the UK.

In order to ensure that users of calculators do not see the result as a promise of benefit and to maximise a calculator's educative impact, it is suggested that best practice be for all calculators have a blank earnings rate field.

Such a field must be a mandatory field ensuring the user does not progress through the calculator without considering what return would be reasonable in their circumstances. It is best practice for calculators to host a drop down box in the proximity of the estimated earnings rate field which provides independent information on historic earnings rates which will help the user 'to understand what rates of return/earnings rate might be appropriate'.

It would be appropriate for the suggested earnings rates to be based on the last ten or 20 years returns for any given investment strategy/asset class. The rate will therefore take into account at least one economic cycle.

IFSA would like work with ASIC, ASFA and the Institute of Actuaries to develop such a guide. Similar information is already available within the guidance notes for the ASIC Managed Funds and Superannuation calculators.

Crediting the earnings:

The calculator should work on the basis that earnings are credited to the fund at least once a year. Some companies may wish to use a more frequent rate of crediting the fund, but this should only be inline with the administrative capabilities within the fund/s they offer and the actual experience the consumer will have should they chose such a fund.

The frequency and timing of crediting should be made available to users within the assumptions wording. It is acknowledged that the frequency of crediting earnings to the fund will have an impact on the result a user will get from the calculator. However some of the administrative capabilities of companies do vary and it is only right that companies provide results that reflect the experience a consumer would have with the relevant fund offered by the provider. IFSA has also calculated the impact of the frequency of crediting earnings on funds over 5, 10, 20, 30 and 40 years. We believe the impact is marginal and therefore not an area where consistency is necessary.

Assuming an earnings rate of 7% pa (nominal), an opening balance of \$5,000 and annual contributions of \$5,000 (made once per year), we get the following account balances:

	Earnings credited yearly	Earnings credited quarterly	Earnings credited monthly
5 years	\$37,779.21	\$38,008.33	\$38,061.63
10 years	\$83,753.75	\$84,707.79	\$84,930.63
20 years	\$238,674.31	\$244,250.70	\$245,564.14
30 years	\$543,426.48	\$563,591.36	\$568,383.09
40 years	\$1,142,920.14	\$1,202,782.79	\$1,217,139.87

Taxation:

To take tax into account in a meaningful way will require further questions to be asked of the user, having said that, ignoring tax has the potential to overstate the result considerably, and

position Managed Funds as better than Superannuation (where it is best practice for taxation to be taken into account).

At this stage it is appropriate for the provider of the calculator to decide whether or not to offer the user the option for the result to take into account the users tax position.

Where results are generated on a before tax basis it is appropriate to encourage to consider the effects of taxation on the effective rates of investment return.

Where results are generated on an after tax basis it is appropriate for the provider to determine the approach used so long as it is reasonable, the assumptions are clearly disclosed and the user is warned that the outcome may not reflect their personal tax situation.

SUPERANNUATION SPECIFIC – accumulation phase only

Employer contribution rate:

The default assumption should be that employer contributions are made at the rate of 9%, the current value of the super guarantee. Providers may choose to indicate that SG contributions only have to be made up to the level of maximum quarterly earnings base.

As per the principles listed at the beginning of this document, the user should be able to increase the rate of contributions to reflect salary sacrifice or additional employer contributions.

Personal contributions:

Calculators should enable customers to include personal contributions (undeducted or deducted or both). The calculator should also let the user know that they may be eligible for the Government's co-contribution. At this stage it is not required for calculators to factor in the level of co-contribution.

Timing of personal contributions:

As a minimum, contributions should be assumed to be credited at least once per year. However some providers might wish to offer consumers options for more frequent contributions i.e. Monthly, Quarterly.

Effect of insurance premiums in conjunction with super accumulation:

Because not all members pay insurance, and the value of the cover bought will differ for each user, the default assumption for insurance premiums paid should be zero. This will ensure the user understands that the premiums paid are deducted from their account.

Insurance premiums are as likely in some cases to decrease as they are in others to increase. For that reason it is not appropriate to apply inflation to the premium payable. Users of the calculator should be warned that premiums will change over the life time of their investment, dependent on the product they have bought and their individual exposure to insurance risk. This will have an impact on their total investment value at the end of the term the user selects.

A user warning should be included to highlight the need for caution when arranging insurance via superannuation as there the taxation of claim proceeds needs to be considered depending on the users personal circumstances.

Taxation:

Superannuation calculators should account for contributions and earnings tax.

Employer and salary sacrifice contributions should have the 15% tax rate applied.

For the earnings tax, it is suggested that all super calculators use the effective tax rate as suggested by ASIC on their website. Members are encouraged to monitor these sources for any changes to acceptable figures and update their calculators accordingly within six months of the change.

If providers of superannuation calculators choose not to take into account lump sum tax, they should alert the user to the fact that their end benefit may be subject to lump sum tax and that the rate will depend on their individual circumstances.

SUPERANNUTION SPECIFIC – income stream products only

Age of the user:

The age of the user of the calculator should be assumed to be at least 55 at the start of the income stream projection and therefore eligible to access their superannuation benefits.

Level of income:

For allocated pensions, the user should be allowed to select their annual income level between the minimum and maximum limits as prescribed by government.

Commencement of the income stream:

For simplicity, it should be assumed that the pension commences on 1 July.

Payments from the income stream:

It should be assumed that payments from the income stream are made at least once per year. However some providers might wish to offer consumers options for more frequent income payments i.e. Monthly, Quarterly.

Taxation:

To take tax into account in a meaningful way will require further questions to be asked of the user, having said that, ignoring tax has the potential to overstate the result considerably.

At this stage it is appropriate for the provider of the calculator to decide whether or not to offer the user the option for the result to take into account the users tax position.

Where results are generated on a before tax basis it is appropriate to encourage to consider the effects of taxation on the effective rates of investment return.

Where results are generated on an after tax basis it is appropriate for the provider to determine the approach used so long as it is reasonable, the assumptions are clearly disclosed and the user is warned that the outcome may not reflect their personal tax situation

LIFE INSURANCE

Calculators can be used to help consumers understand their need for life, disability and trauma insurance.

Insurance needs:

The need for insurance or the value of insurance required can be assessed in two ways and these depend on whether the lump sum paid will be used to:

- provide for capital needs – eg pay off debts [mortgage, loans, credit card balances, outstanding taxes, etc] pay funeral expenses, for the costs of illness and rehabilitation, etc or
- provide a capital sum which when invested would provide for the **income needs** for a surviving spouse, children and any other dependants.

The way to assess the sum insured required for capital needs [ie to repay debts etc] is normally clear cut and this discussion paper does not attempt to provide any lead on how these matters should be designed.

Assessing income needs is more complex and this guidance notes seeks to outline the considerations that need to be recognised and taken into account for calculators addressing income needs.

Life Expectancy:

Some illustrations attempt to assess the income needs of a surviving spouse until their life expectancy, and convert that amount back to a lump sum that should be purchased today to fit the need. Where such methods are deployed, the life expectancy calculations should be based on the latest Australian Life Tables produced by the Australian Government Actuary. These figures are updated every five years and at the time of writing this paper, the latest version was 2000 – 2002.

The calculator should include a warning that the illustration has been based of the present life expectancy of the beneficiary nominated, but that the life expectancy is an average and may or may not be appropriate for the beneficiary involved.

Estimated Earnings Rate: Investment of capital to provide income to the beneficiary of the policy.

When a calculator illustrates how investing the capital sum might lead to an income, it is envisaged that the calculator will adhere to the guidelines outlined above for all 'Investment Calculators'

Calculators may highlight that the investment strategy will have an impact on their income and their underlying capital and that most people considering this type of product choose an investment which is conservative in nature. A warning note should be included that draws this matter to the attention of the user.

High levels of insurance:

Life insurance projections can result in very large suggested sums insured emerging depending on the parameters that the user selects. When large amounts [for example amounts exceeding \$1.5M] are illustrated, a user warning should be included that the amount suggested may not actually be available for purchase. The warning should add that the amount of insurance and whether it is available or not will depend on the users circumstances when they apply for insurance, and the life insurer's underwriting criteria.

Taxation:

Consistent with the guidance above for investment and superannuation calculators, any assessment of income needs should express that income amount in gross, before income

tax terms. There should be no attempt to express the income amount as net of tax as the users taxation circumstances are most unlikely to be adequately catered for with the types of calculators envisaged in this discussion paper. A warning note should be included that draws this matter to the attention of the user.

WARNINGS

Providers should use flags and warnings to alert the user of the calculator to the fact that altering some parameters can have a significant impact on the calculator’s results. The matters for which flags and warnings may be appropriate are as follows:

	Recommended Issues to be covered in user warnings on printed outputs or viewed to screen.
Current dollars	<ul style="list-style-type: none"> To alert the user to the fact that the results are presented in current dollars with a definition of what is meant by current dollars
Inflation	<ul style="list-style-type: none"> To highlight that the calculator has used the rates of inflation deemed appropriate by the industry and that this is consistent with all calculators used by IFSA members.
Fees and Charges	<ul style="list-style-type: none"> To highlight that the outcome of all investment calculators will be net of ICR related fees and charges If the user puts a 0% in the Management Cost field, they should be alerted to the fact that it is not realistic to expect not to be charged a Management Cost. To provide guidance on what rate of return/earnings it might be appropriate to use in the proximity of the estimated earnings rate field. To encourage users to consider the charges they will incur by the fund. Also that they might incur a fee from a financial planner if they chose to use one. To warn users that fees and charges may change over the lifetime of their investment and that this will have an impact on their investment return.
Investment returns	<ul style="list-style-type: none"> To provide guidance on what rate of return/earnings it might be appropriate to use in the proximity of the estimated earnings rate field. Earnings rates are only indicative and are not a promise of benefit. To alert the user to the fact that these are long-term rates and. To alert users to the risk reward trade off – the higher the return, over the same period, the higher the risk. To encourage users to consider the impact various investment strategies will have on their overall return. Users may wish to look at a PDS for various products or seek assistance from a financial adviser. To let the user know that past performance is no indicator of future performance. To let the user know how often it is assumed that earnings are credited to their account.
Non-super tax	<ul style="list-style-type: none"> To alert the user to the fact that investment returns are subject to tax and that this will depend on their individual circumstances. For more details they

	should consider seeking advice from a Licensed Financial Planner.
Super Tax	<ul style="list-style-type: none"> • To alert the user to the fact that their end benefit may be subject to lump sum tax and that that rate will depend on their individual circumstances. • To highlight that income stream calculators do not take into account an individual's tax position.
Superannuation Co-contributions	<ul style="list-style-type: none"> • To alert the user to the fact that depending on their level of income, they may be eligible for a Government co-contribution.
Insurance in conjunction with superannuation accumulation	<ul style="list-style-type: none"> • To alert the user to the valuable benefits that the insurance provides but inform that insurance premiums will affect their end benefit. • To alert the user to the fact that insurance premiums may change over the lifetime of their investment, depending on the product they bought and their exposure to risk. • To alert the user of the need to consider that tax may be payable on benefits.
Life insurance sum insured needs assessment	<ul style="list-style-type: none"> • To alert the user to the fact that illustration of an amount of sum insured does not mean that the insurer will be able to provide that amount of insurance, or provide any insurance at all. Availability of the insurance will depend on the life insurers underwriting standards being met. • That any assessment of income needs will be expressed in gross, before tax terms. • That any illustration is based on the present life expectancy rates. • That users should consider applying a conservative growth rate for their income generating investment.

Feedback on this discussion paper and approach taken to the assumptions listed is invited from both IFSA members and other interested parties. We would be pleased to accept your feedback in writing to Emma Grainge at egrainge@ifsa.com.au by Friday 28th April 2006.

Attachment 1: Bibliography:

Investment and Financial Services Association, IFSA Submission to ASIC on Online Calculators: Consultation Paper, September 2005. Available from IFSA by contacting ifsa@ifsa.com.au

Association of Superannuation Funds of Australia, ASFA Submission to ASIC on Online Calculators: Consultation Paper, August 2005. Available at: http://www.asfa.asn.au/policy/sub0509_Online-calculators.pdf

Association of Superannuation Funds of Australia, Assumptions for Online Calculators, Discussion paper, September 2005

Australian Securities & Investments Commission FIDO Calculators:

- **Superannuation Calculator**, Available at: <http://www.fido.asic.gov.au/fido/fido.nsf/byheadline/Superannuation+calculator>
- **Managed Fund Calculator**, Available at: <http://www.fido.asic.gov.au/fido/fido.nsf/byheadline/Using+the+managed+fund+fee+estimator>
- **Allocated Pension Calculator**, Available at: <http://www.fido.asic.gov.au/fido/fido.nsf/byheadline/Allocated+pensions+calculator>

Australian Securities & Investments Commission, Online calculators ASIC consultation paper, August 2005

Australian Securities & Investments Commission, [CO 05/1122] Relief for providers of generic calculators, Issued 15 December 2005

Institute of Actuaries, Guidance Note 466, Projected Superannuation Benefit Illustrations, October 2004. Available at: <http://www.actuaries.asn.au/PublicSite/pdf/GN466-2004-10.pdf>

International Online Calculators including:

- **Edward Jones Investment Return Calculator**, Available at: http://www.edwardjones.com/cgi/getHTML.cgi?page=/USA/resources/calculators/investment_return.html
- **Guardian Unlimited Money Investment Returns Spread**, Available at: <http://money.guardian.co.uk/calculator/form//0,1456,603135,00.html>
- **Merriman Capital Management Fund Advice Retirement and Investment Calculators**, Available at: <http://www.fundadvice.com/tools/calculators/retirement-and-investment-calculators.html>
- **GAMCO Investors Inc, Periodic Investment Calculator**, Available at: <http://www.gabelli.com/university/saving1.html>
- **Association of British Insurers Pension Calculator**, Available at: <http://www.pensioncalculator.org.uk/pages/home.php>