Actuaries Institute

SUPERANNUATION PRACTICE COMMITTEE

Technical Paper:
Investment Return Calculation Principles

April 2012

Contents

A. Status of Technical Paper

1. This Technical Paper was prepared by the Benefits Projection Working Group, a Sub-Committee of the Superannuation Practice Committee ("SPC") of the Actuaries Institute ("Institute"). It specifically relates to the calculation of investment returns reported to members of Australian superannuation funds. The Appendix to the TP sets out what is considered best practice for the calculation of investment returns for this purpose.

2. This Technical Paper may, however, have application in other areas where investment returns are to be reported to third parties. It is noted, however, that actuaries are required to calculate investment returns with other objectives. The approach outlined in this Technical Paper may or may not be applicable in those circumstances.

3. This Technical Paper does not represent a Professional Standard or Practice Guideline of the Institute. It has been prepared for the purpose of setting out how investment returns, which are intended to provide an indication of the relative past investment performance of Australian superannuation funds, should be calculated.

4. Feedback from Institute members is encouraged and should be forwarded to the Benefits Projection Working Group as follows:

   Glenn Langton (gclcon@bigpond.net.au or 02 8850 1375), or
   Richard Starkey (richard.Starkey@mercer.com or 03 9623 5650)

5. This is the first version of this Technical Paper.

B. Background

6. Over the last 30 years, superannuation has changed from an employer-provided benefit, dominated by defined benefits, to a legislated right, dominated by defined contributions. A major feature of this change is that members now take on the investment risks associated with their superannuation.

7. At the same time, superannuation fund members have also been given the ability to choose which superannuation fund is to receive their superannuation contributions.

8. These changes have meant that there is significant competition between superannuation funds for members and that the past investment performance of superannuation funds has become a major factor in a member's selection of their superannuation fund.

9. It is therefore imperative that the investment return information that is provided to the public by superannuation funds provides a fair basis for comparing the past investment performance of each superannuation fund and also each investment option within each fund.

C. Legislation

C.1 Periodic statements

10. Corporations Regulation 7.9.20AA states:

> "Requirements from 1 July 2010
>
> (8) The trustee must provide the following, in the periodic statement for a reporting period that is provided from 1 July 2010, to each member of the regulated superannuation fund:
>
> (a) if the member is invested in an investment option at the end of the reporting period -- a statement of the long-term returns of the investment option;
>
> (b) if the member is not invested in an investment option at the end of the reporting period -- a statement of the long term returns of the sub-plan, or, if none, the fund in which the member holds an interest at the end of the reporting period.
>
> (9) For paragraph (8)(a), the long-term returns must be stated as:
>
> (a) the compound average effective rate of net earnings of the investment option for the period of 5 years ending at the end of the last financial year or reporting period before the provision of the periodic statement; and
>
> (b) the compound average effective rate of net earnings of the investment option for the period of 10 years ending at the end of that financial year or reporting period."

11. Corporations Regulation 7.9.01 states:

> "net earnings" means the investment return on the assets of a fund after payment of transaction costs, government charges, taxes and duties and charges relating to the management of investment of fund assets."

C.2 Product Disclosure Statements (PDS) and Annual Reports

12. The general requirement for the investment choice information in a PDS, as detailed in SIS Regulation 4.02, is for members to have enough information to make an informed

decision about their preferred investment choice. Therefore there is no specific legislative requirement for historical investment returns to be shown in a PDS. There is also no longer any legislative requirement to show past investment returns in annual Trustee reports.

D. Future developments

D.1 APRA statistics

13. One of the roles of APRA is to collect a wide range of information from Australian superannuation funds. APRA is considering the production of a report on the investment performance of superannuation funds in some form of League Table. It is expected that such a table would be widely circulated and used to compare the investment performance of superannuation funds. It is therefore vital that the investment returns reported in such a table use a methodology that is appropriate for this purpose. The Principles set out below are considered suitable to provide the basis for such a methodology.

D.2 Award superannuation

14. Arising out of a recommendation of the Cooper Review, the Productivity Commission has been asked to design criteria for the selection and ongoing assessment of superannuation funds eligible for nomination as default funds in modern awards by Fair Work Australia. The aim is to ensure that the best interests of members are met where their superannuation contributions are allocated to a default fund under a modern award.

15. It is expected that past investment performance will be used in some way in the assessment and selection of default funds for Awards and Enterprise Agreements. It is therefore vital that, where past investment performance for superannuation funds is being compared, an appropriate methodology is used. The Principles set out in the Appendix are considered suitable to provide the basis for such a methodology.

E. Conclusion

16. In an environment where superannuation fund members take on the investment risk in relation to their superannuation entitlements and where members can choose where their contributions are paid, the calculation of past investment performance on an appropriate basis is important.

17. To allow members to make a proper comparison of past investment performance between different superannuation funds, and also in relation to various investment

options within a fund, it is therefore imperative that a consistent methodology is used by all funds. It is also imperative that this methodology minimises the risk that members are misled by this information.

18. Actuaries have historically played an important part in the calculation of investment returns. It is therefore important that members of the Institute use an approach that achieves this objective. The aim of the Principles set out in the Appendix is to provide a suitable approach.

Appendix: Statement of Investment Return Calculation Principles

Definition

1. The investment return of a superannuation fund can be calculated for a range of different reasons. One of these reasons is to provide information to members of defined contribution superannuation funds about the past performance of the various investment options available to them. This Technical Paper sets out the principles the Superannuation Practice Committee considers should be followed when calculating investment returns for this purpose.

2. Past investment performance is not necessarily a guide to future investment performance. For example, the level of past investment performance can reflect luck rather than skill or it can simply reflect the fact that the economic circumstances during the period being examined favoured one investment style over another. When comparing the past investment returns of different investment options within a superannuation fund and between different superannuation funds, it is imperative that they be calculated on the same basis over the same time period. This will ensure that any differences that do exist are not the result of different methodologies or the fact that different periods are being considered.

3. The "investment return" in relation to a specific investment option should be the actual rate of return achieved by the underlying assets in that investment option.

4. Three types of investment returns may be calculated:

   (a) the "Investment return before tax, fees and costs" (or "Gross Investment Return" for short). This is the actual rate of investment return earned on the assets before taxes and investment fees and costs but after normal transaction costs such as brokerage and stamp duty;

   (b) the "Investment return after tax, fees and costs" (or "Net Investment Return" for short). This is the Gross Investment Return net of investment taxes and net of the fees and costs ***directly related to investing the assets***; and

   (c) sometimes, the "Investment return after tax but before fees and costs".

5. When calculating the "investment returns" that are to be reported to members, the treatment of taxes and fees and costs should be clearly stated.

Commentary on definition

6. Actuaries calculate the investment return of a superannuation fund for a variety of reasons (for example, for reporting to members, for comparison with assumptions used in actuarial reviews of defined benefit funds, to allow the performance of a specific investment manager to be analysed, to be used in the calculation of an investment performance fee, etc). Each of these purposes has different objectives and may require different methods of calculation (for example, they might be calculated on a time-weighted or money-weighted basis). This Technical Paper specifically relates to the calculation of investment returns that are to be reported to members.

7. In order that reported investment returns can be appropriately used by members to help make decisions relating to their existing investment options and other possible investment options, within the fund and within other funds, it should be clear how investment taxes and investment fees and costs have been treated in the calculation of those reported investment returns. It is also imperative that only taxes and fees and costs that are directly related to the investments in the investment option be included in the calculation. This will ensure that the past performance of an investment option being considered will not be distorted by the inclusion of other taxes or fees and costs that do not relate to the performance of this investment option.

8. It should be noted that for pension fund (that is, decumulation phase) investment options, investment taxes are equal to zero and imputation credits may mean that the investment return after tax but before fees and costs is actually higher than the Gross Investment Return.

9. For many superannuation funds, "crediting rates" are calculated and reported to members and are often passed to and published by research houses (and then the media). It should be noted that these crediting rates are used to allocate investment income to members' accounts and often do not equal investment returns. This can be the case whether or not the crediting or allotment is via crediting rates or via unit prices.

10. Unlike the investment returns considered above, crediting rates or allocation rates:

    (a) are net of investment taxes and net of investment fees and costs, but are often also net of asset-based administration and/or advice fees and costs;

    (b) may take into account the impact of investment earnings on reserves that are supported by assets that are not part of the assets supporting the investment options provided to members;

(c) may be reduced by transfers to reserves and increased by transfers from reserves (these reserves might be general-purpose contingency reserves or operational reserves to cover fluctuating expenses or "investment smoothing" reserves); and

(d) may be calculated on a money-weighted basis (particularly when the allocations are based on annual crediting rates rather than unit prices or monthly crediting rates).

11. Further, the crediting rate will depend on the timing of cash flows within members' accounts, the method of allocation of interest (for example, simple vs compound) and the frequency of allocation. Often, the actual fund assets will be subject to different cash flows and different timing, which may result in the fund's investment return rate differing from the fund's crediting rate.

12. Further information about crediting rates and allotments is detailed in Corporations Regulations 7.9.37(k), (l) and (m).

Objectives

13. Investment returns are reported to members to enable a member to:

(a) review the past investment returns of specific investment options; and/or

(b) compare the past investment returns for different investment options within a fund; and/or

(c) compare the past investment returns for comparable investment options in different funds.

Commentary on objectives

14. Members may want to review the actual investment performance of their existing superannuation arrangements and compare this performance with the investment performance assumed in their personal retirement planning.

15. Members normally will be able to choose between different investment options which have different return and risk objectives. Members should be able to use the historic investment returns reported for each investment option to help make a judgment on the return and risk characteristics of these investment options in the past.

16. Members may also want to compare investment options that have similar return and risk characteristics between different funds. Members should be able to use the level

and volatility of historic investment returns as part of their assessment of the investment offerings of the different funds.

Principles

17. To achieve these objectives, the historic investment returns being compared should be calculated on a consistent basis with clear disclosure of the treatment of taxes, fees and costs. Accordingly, the methodology used to calculate the investment return to be reported to members in respect of any investment option should be consistent with the following six Principles:

Principle 1	Investment returns should be calculated on a time-weighted basis.
Principle 2	Reported returns should include returns for periods from 1 July to 30 June.
Principle 3	Market values should be used for all investments with adjustments for effective exposure where appropriate (for example, by allowing for the cash-backed futures and delta-adjusted option exposure).
Principle 4	The investment earnings taken into account when calculating the investment return should represent the investment earnings (regardless of whether realised or unrealised, income or capital appreciation) that have arisen in respect of the investments held during the period of calculation.
Principle 5	The Net Investment Return should be calculated after allowing for all investment taxes that have arisen in respect of the investments held during the year of calculation and have a reasonable expectation of being paid or, in the case of taxation credits, being received.
Principle 6	The Net Investment Return should be calculated after adjustment for tax as per Principle 5 and allowance for all investment fees and costs directly and indirectly incurred in investing the assets held during the year of calculation, including any performance fees incurred during the relevant period.

Commentary on principles

18. Subject to materiality, investment costs will include fund investment accounting costs, in-house investment costs, trustee director costs relating to investment matters,

investment consulting costs, etc. If the fund trustee regards these as material, they should be deducted when calculating the Net Investment Return.

19. If investments are held in a separate fund or funds where taxes, fees and costs are paid by that fund or funds prior to determining unit prices or distributing investment income, the taxes, fees and costs relating to the investment of the assets held by that fund or funds should be included in the taxes, fees and costs used in calculating the Net Investment Return and the investment return after tax but before fees and costs. If a Gross Investment Return is required, then these taxes, fees and costs should be added back to the investment return when calculating the Gross Investment Return.

20. Members need to be confident that the investment returns reported are independent of the cash flow idiosyncrasies of the investments that support each investment option. Only where this occurs can a member be confident that the investment return is indicative of the intrinsic investment performance of the investments supporting the investment option. This is achieved by using time-weighted rates of investment returns.

21. It is noted that, in some funds, it will not be possible to calculate investment returns that are completely independent of the cash flows within that fund. In these cases, it would be acceptable for the annual investment return to be based on the combination of monthly asset-weighted returns.

22. Where investment returns are being reported as general information relating to a fund, members need to be able to compare investment returns between funds. This can only be achieved if the investment returns are calculated for the same period of time. As the majority of funds balance on 30 June, all funds should be required to produce investment returns calculated to 30 June. It is, however, recognised that some funds have financial years that end on dates other than 30 June. If funds are required to calculate their investment returns for years ending 30 June, then they should be freed from legislative requirements relating to investment returns for their actual financial years where these do not end on 30 June. These funds might still choose to calculate and report investment returns for their fund year in addition to the returns calculated to 30 June if they wish. These investment returns should be calculated in accordance with the Principles set out above, other than Principle 2.

23. In calculating the investment return for a year, the investment earnings that are taken into account should be based on the investment earnings (both realised and unrealised income and capital appreciation) that have accrued during that year. This will ensure that the investment return is not distorted by the timing of investment earnings that arise over time.

24. In considering investment returns, members will wish to consider the investment return that will underlie the investment earnings credited to their accounts. Therefore, the investment return that members will be interested in will be the investment return net of all of the taxes paid in respect the investment earnings and the investment fees and costs incurred in obtaining the investment earnings. Only these fees, costs and taxes should be deducted from investment returns as the deduction of any other, non-investment fees, costs or taxes is likely to mislead members.

25. In calculating the investment taxes, full allowance should be made for all taxes that have been incurred or potentially will be incurred in respect of the investment earnings that have accrued during the year (regardless of whether realised or unrealised). In determining the level of taxes, full allowance should be made for the impact of imputation credits. However, the benefit of past investment losses offsetting future investment gains should only be taken into account if there is a reasonable prospect that there will be sufficient investment gains in the future.

END OF TECHNICAL PAPER