Actuaries Institute.

PRACTICE GUIDELINE PG 101
INVESTMENT PERFORMANCE MEASUREMENT AND PRESENTATION
October 2024

Contents

1. Introduction

1.1 Application

This Practice Guideline applies to advice or information provided by a Member that is likely, directly or indirectly, to be relied upon by a person or entity in the calculation of investment returns ('investment performance').

The purpose of this Practice Guideline is to set out one or more well-established or generally accepted actuarial practices and/or techniques for Members providing advice concerning the measurement and presentation of investment performance across all practice areas. It is acknowledged that investment performance is used for a range of purposes in several different practice areas, so practices and/or techniques may vary depending on the use and/or practice area.

This Practice Guideline replaces Professional Standard PS 101 issued March 2021. The change is the result of a review of PS 101 against the classification of professional practice documents set out in the Institute's Policy for Developing Professional Practice Documents.

A revised definition of 'Material' was inserted in October 2024 in line with the revised Policy on Preparing Professional Practice Documents adopted by Council in September 2024.

There are some global, regional and asset class specific performance calculation standards or regulatory requirements that prescribe how the investment performance of an investment product must be calculated and presented. This Practice Guideline provides generally accepted actuarial practices and/or techniques to supplement those standards and legal requirements.

There are a number of common issues that apply to inputs into the calculation of investment performance in all practice areas; further detail on a number of these issues is provided in specific standards the Global Investment Performance Standards (GIPS). Members are expected to be aware of these standards and disclose in their advice to their clients whether there is any significant departure from these standards.

The FSC provides further guidance on investment performance in a series of guidance notes that explain how the GIPS and the calculation of investment performance in specific situations are typically applied. These guidance notes are:

FSC Guidance Note No 1 – Global Investment Performance Standards (GIPS)

FSC Guidance Note No 25 – Product Performance: Calculation of After-Tax Returns

FSC Guidance Note No 26 – Asset Valuation and Unit Pricing/Crediting Rates for Infrequently Valued Assets

FSC Guidance Note No 31 – Provisioning for Deferred Tax Assets

FSC Guidance Note No 46 – Investment Option Performance – Calculation of Returns

FSC Guidance Note No 48 – Scheme Pricing

FSC Guidance Note No 50 – Valuation of Scheme Assets & Liabilities

1.2 About this Practice Guideline

This Practice Guideline has been prepared in accordance with the Institute's Policy for Developing Professional Practice Documents; and is to be applied in the context of the Code.

This Practice Guideline is not mandatory. Even so, if this Practice Guideline covers the Services a Member provides, then the Member should consider explaining any significant departure from this Practice Guideline to the Principal, and record that explanation.

1.3 Other relevant documents

This Practice Guideline must be applied in the context of the relevant legislation, regulation and accounting standards. If there is a conflict in wording, then the legislation, regulation and accounting standards take precedence over this Practice Guideline.

In this context, legislation, regulation and accounting standards include laws, regulations, prudential standards, subordinate standards, rules issued by government authorities and standards issued by professional bodies which have the force of law. Also included are relevant modifications or substitutions of these. Similarly, a reference to a Professional Standard or Practice Guideline includes any modification or replacement of that Professional Standard or Practice Guideline.

Apart from the Code, from Legislation or from regulatory standards, no other document, advice or consultation can be taken to modify or interpret the requirements of this Practice Guideline.

This Practice Guideline does not constitute legal advice. Any interpretation or commentary within this Practice Guideline regarding specific legislative or regulatory requirements reflects the expectations of the Institute but does not guarantee compliance under applicable legislation or regulations. Accordingly, Members should seek clarification from the relevant regulator and/or seek legal advice in the event they are unsure or require specific guidance regarding their legal or regulatory obligations.

2. Commencement date

The commencement date of this Practice Guideline is 1 October 2024.

3. Definitions and interpretation

In this Practice Guideline:

'After tax' refers to investment performance after allowance has been made for tax, including income tax, capital gains tax and imputation credits.

'Asset-weighted Investment Return' is a measure of the rate of return for a portfolio that sets the present value of all cash flows and terminal values equal to the initial investment.

'Before tax' refers to investment performance before any allowance has been made for tax, including income tax, capital gains tax and imputation credits.

'Code' means the Code of Conduct of the Institute.

'**Intended User'** means any legal or natural persons (generally including the Client) whom

a. the Member intends to use the output of the Services, or

b. at the time the Member performs the Services, the Member ought reasonably to expect will use the output of the Services.

'Internal Rate of Return' is equivalent to the Asset-weighted Investment Return defined above.

'Legislation' means any law, regulation, by-law, standard or rule in force within Australia (as amended from time to time) and made by a Commonwealth, State or Territory government or authority.

'Material' means relevant to a decision of an Intended User of the Services. For this purpose, 'Material' does not have the same meaning as in Australian accounting standards. 'Materially' has a meaning consistent with Material'.

'Time-weighted Investment Return' is the compound annual rate of return over a selected period of time where equal weight is given to each part of the period regardless of cashflows over the period.

Other capitalised terms used in this Practice Guideline have the same meaning as set out in the Code.

4. Key inputs into investment performance calculation

4.1. Asset Valuations

It is common practice for asset valuations to be at fair value according to the appropriate accounting standard (which will generally involve using values in accordance with audited financial statements prepared by the entity). If the Member believes it is inappropriate to use asset valuations at fair value, the Member is expected to disclose the reasons for not doing so as well as the method of calculation used for the asset valuations.

For listed markets, fair value will generally mean the use of asset valuations at the last sale price although in thinly traded securities where there may be no true market it may be necessary to receive a third party valuation. For unlisted assets, a third party valuation will generally be required and is expected to be done at least once per year. In particular, when significant events occur that materially impact the value of the assets, a valuation is expected to be undertaken as soon as practicable.

Where an accounting standard permits some exercise of discretion in terms of the valuation used, the manner in which the discretion has been exercised is expected to be noted for the assets concerned. The Member is expected to consider whether any exercise of discretion is consistent with practice in similar funds with which comparison is likely to be made, and comment on any perceived lack of consistency.

If a comparison is being made of funds in different accounting jurisdictions, the Member is expected to record any differences in the definition of fair value and disclose in their advice to their client the base currency that has been used for performance measurement.

4.2. Accrued Income and Unrealised Capital Gains

It is common practice that fair value will incorporate accrued income and unrealised capital gains unless this will mislead the user, in which case the departure from common practice is expected to be disclosed. Any changes in accrued income and unrealised capital gains between any two points in time is expected to be recognised as investment income. The Member should consider whether it is appropriate to recognise any impairment in value, and any reversal of an impairment. Where it is not possible to make a reasonable estimate of accrued income, this is expected to be disclosed.

4.3. Tax

For situations where a Time-weighted Investment Return is being calculated, the tax treatment that has been used in the performance measurement is expected to be disclosed in the Member's report to their client (e.g. whether it is before or after tax, and how GST has been treated).

For situations where an Asset-weighted Investment Return is being calculated, typically the amounts of tax paid or accrued are included in the cash flow for after tax results. Where before tax returns are calculated for an entity for the purpose of comparing performance, the method of calculating this before tax performance is expected to be disclosed in the Member's report to their client.

4.4. Fees and costs

For situations where a Time-weighted Investment Return is being calculated, the treatment of fees and costs that has been used in the performance measurement is expected to be disclosed in the Member's report to their client (eg. whether it is gross or net of different types of fees and costs such as administration, investment, regulatory recoveries).

For situations where an Asset-weighted Investment Return is being calculated, fees and costs paid or accrued are expected to be included in the cash flow for 'net of fees' results. Where 'gross of fees' returns are calculated for an entity for the purpose of comparing gross performance, the method of calculating gross of fees performance is expected to be disclosed.

It is generally accepted practice that investment performance be disclosed net of transaction and operational costs such as brokerage and stamp duty and any costs that would be borne by a direct investment.

4.5. Accrual for taxes, fees and costs

When a Time-weighted Investment Return is required to be calculated, fees and costs (or taxes) are expected to be deducted from investment returns for net-of-fee (or after-tax) results, based on accrual accounting (including the accrual of performance fees). If accrual accounting information is not available, the Member is expected to disclose this and use the accounting information that is available (eg. cash accounting). Any fees and costs (or taxes) not included in the calculation of net-of-fee (or after-tax) return are expected to be disclosed.

The fees and costs deducted from investment performance based on accrual accounting are expected to include a reasonable accrual of performance fees (if any) unless it is disclosed that these fees have not been deducted from investment performance.

4.6. Verification of data

Where investment performance data has been provided by a third party, it is expected that the source of the data used in the calculation is disclosed.

It is common practice that reasonableness checks be conducted through comparison with measures such as relevant market indices. If such analysis suggests the data is incorrect, or if the Member suspects that there are problems with the data, the Member is expected to investigate the source of the data and determine whether adjustments to the data are required.

The Member is expected to disclose any material shortcomings in relation to the veracity of the data in their presentation of the investment performance.

4.7. Period of performance measurement

The period over which investment performance is calculated should be appropriate to the purpose of measurement. While investment performance over periods of five years or more will often provide more reliable information on the relative investment skills of investment managers, investment performance over shorter periods may also provide some important information and is often required for reporting to fund members, trustees or regulators.

Members should note that, when comparing performance between investment managers, a focus on short term performance may lead to inappropriate conclusions. Members are expected to exercise caution when drawing conclusions from short term performance.

4.8. Arithmetic vs geometric average for returns over multiple periods

The presentation of historical investment performance over multiple periods is expected to be done using a geometric average rather than an arithmetic average so that it reflects the same outcome if the average time-weighted return had been achieved for each period. A Member is expected to disclose in their report if arithmetic returns are used.

4.9. Benchmarks

Benchmarks are an important mechanism for assessing the performance of investment managers. When selecting a benchmark, the following should be considered:

a) the appropriateness of a benchmark as a meaningful comparator, considering the needs of potential users of the information or advice prepared by the Member;

b) the investment objectives of the portfolio;

c) the relevant universe of investible securities;

d) the time periods(s) over which benchmark comparison is reasonable;

e) the frequency with which benchmark comparisons are to be made; and

f) risk measures related to the benchmark that are relevant for performance assessment.

The source of benchmark returns is expected to be disclosed. Where the benchmark return is used as part of a performance-based fee calculation, any adjustments to the benchmark for that purpose is expected to be disclosed in the Member's report to their client.

Any comparison with a benchmark is expected to disclose the manner in which taxes, transaction costs, management fees and custody fees, and any other charges, have been allowed for in the benchmark. The comparison is expected to disclose whether the benefits of franking credits have been included in the benchmark where relevant. Where direct comparison between a benchmark and a portfolio return is not possible, the effect of differences in taxes, costs and charges on the comparison is expected to be disclosed.

Benchmarks may be single or multi-sector (composite) in nature and will usually consist of recognised equity, bond, and other indices, but may also consist of tailored portfolios. Unless otherwise agreed by the client, accumulation indices should be used in preference to price indices in calculating benchmark returns.

4.10. Investment Risk

Risk is a key factor that causes the investment performance of a portfolio to vary. There are a number of different measures to quantify risk exposure, including volatility, value at risk, cumulative value at risk, benchmark risk, as well as the risk of not meeting investment objectives. Other proxies for risk include the relative proportion of growth assets (e.g. shares and property), or the exposure to credit risk through fixed interest investments.

Stress testing and scenario analysis may be used to assess the risk associated with a portfolio. The economic conditions to be measured could consider liquidity events and movements in market indices, major currencies and other investment risks, as appropriate. For asset portfolios supporting future liabilities, the yield curve, a change in inflation expectations, or a widening or contraction of credit spreads could be considered among other market shocks, as appropriate.

Where the Member assesses that it is appropriate, given the purpose of measurement and/or the objectives of the client, it is generally accepted practice that the measured performance is adjusted for risk. Measures such as the information ratio or the Sharpe ratio could be used for this purpose.

Members are expected to consider the risk of a portfolio in assessing investment performance and the relative risk of the portfolios when performing a comparison. If no adjustment for risk is made when using performance for comparative purposes, investment portfolios with a similar level of risk are expected to be compared unless it is clearly disclosed that the portfolios have a different level of risk.

5. Approach to investment performance

5.1. Background

The calculation and presentation of the investment performance of a portfolio is an integral part of the global investment management industry and is also widely used in superannuation and insurance when analysing the performance of portfolios of investment in those segments. Both investment managers and their clients (existing and potential) require accurate investment performance measurement to provide quantitative input into the investment decision-making process. A similar approach applies to the investment, superannuation and insurance industries. This section outlines common issues when considering the investment performance of particular investment managers or portfolios and the related considerations for Members.

5.2. Uses of investment performance measurement

The main uses of investment performance measurement are the following:

a) to compare performance of an investment product against an agreed benchmark and expected excess return;

b) to calculate performance-based fees or carried interest;

c) to compare the performance of different investments, investment managers or other investment products;

d) to determine risk measures for a certain asset class or portfolio of assets;

e) to enable an analysis of the underlying factors affecting performance; and

f) to enable a consumer to assess the underlying investment skills of the investment manager or managers of the assets that support a particular investment product.

Specific factors that are relevant to these uses are set out below.

5.3. Comparison of investment skills of investment product providers

The investment performance data used to assess the skills of different investment product providers are expected to be assessed on a time-weighted basis to neutralise the impact of the actions of individual investors except in situations where the product provider controls the timing and amount of cash flows (eg. private equity).

The investment performance of different investment products are expected, to the greatest extent possible, to be measured on the same basis. If it is not measured on the same basis, this is expected to be disclosed.

The investment performance data used to compare the investment management skills of investment product providers may vary depending on circumstances, and may include:

- net of investment fees but gross of tax;
- net of investment fees and tax;
- gross of investment fees but net of tax; and
- gross of investment fees and tax.

The performance used in comparison is expected to be the actual performance of the portfolio, net of whatever fees or taxes are deducted from the portfolio, except that, in situations where different portfolios are subject to different types of taxes or expenses, an adjustment may be required such that the performance of each portfolio is disclosed on the same basis. For example, this may require adding back some fees and taxes that have been deducted from the investment return of one or more portfolios, or deducting fees from a portfolio. Wherever the Member makes any adjustment to investment performance data for the purpose of ensuring comparison is on the same basis, the basis of the adjustment is expected to be disclosed.

Deducting taxes can be problematic due to the uncertainty of the actual tax rate, as different tax rates may apply to different assets due to the timing of cash-flows and the split between income and capital gains. The Member is expected to disclose what assumption have been made in relation to taxes.

5.4. Market valuation timing

The timing of market valuations within the investment performance should be on a consistent basis in order to assess the skill in constructing the investment product or to compare to an investment benchmark. Where the underlying asset valuations uses historic information (i.e. historic unit prices are used rather than forward prices) then the comparison of investment performance is expected to be reported after adjusting for this timing difference.

For example, if a historic unit price is used then the timing of the unit price used should be one or two days later, depending on the actual delay in market valuations incorporated into the unit price. Allowing for this delay ensures that the investment performance incorporates consistent market valuations with other investment products or the investment benchmarks it is being compared to.

5.5. Calculation of investment performance for attribution analysis

When analysing the investment performance achieved by an individual investment manager or product, this investment performance will often be compared with the performance of the benchmark return relevant to that investment. As the performance of the benchmark is independent of the cash flows of the investment product provider, it is expected that the investment performance achieved be calculated on a time-weighted basis.

5.6. Internal Rate of Return (IRR)

Calculations of the IRR are expected to use the date of contribution by fund investors to the fund for the relevant investment and use the date of distribution from the fund to investors. Where the information is not available approximate dates may be used, or some other dates deemed to be more appropriate for the purpose of the calculation. The IRR should be supplemented by other performance measurement metrics if the Member determines that the IRR alone provides misleading information for investors.

5.7. Performance-related fees calculation

Performance-related fees and carried interest are often calculated as a percentage of the excess return multiplied by the average capital amount over a period. When the excess return is calculated on a time-weighted basis, the denominator in the calculation represents the capital-at-work that earns the excess return. The same asset values are expected to be used for the calculation of portfolio returns and the calculation of performance-related fees.

5.8. Presentation of excess return

It is expected that the Member will assess that the basis used to compare returns for a portfolio and the corresponding benchmark returns is appropriate for the purpose of the investment performance advice.

Excess return is the difference between a portfolio’s return and the benchmark’s return. Excess return over a time period may be calculated arithmetically or geometrically. Arithmetic excess return is the excess value added expressed as the difference between the portfolio’s return and benchmark return. Geometric excess return is calculated as a ratio of the portfolio’s return over the benchmark return).

In calculating time-weighted return differences, excess return is expected to be calculated arithmetically, as the difference between the geometric compounded returns of the investment and the benchmark. When geometric excess return is used this is expected to be disclosed in the Member’s report to the client.

6. Superannuation

6.1. Background

Superannuation is provided to Australian workers either through a Defined Benefit fund, where a member's benefit is determined by a formula generally related to salary and years of service, or an Accumulation fund, where a member's benefit is the accumulation of a member's contributions with investment earnings. While Defined Benefit funds were the dominant model for many years, following the introduction of compulsory superannuation in the early 1990s, Accumulation funds cover the vast majority of members, with most Defined Benefit funds having been closed to new members.

When a member of a superannuation fund ceases working, they typically transfer their superannuation savings to an account-based pension or life pension (for some defined benefit funds) from which they receive regular income

6.2. Uses of performance measurement

The uses of investment performance measurement in superannuation include those covered in Section 5.2 but also include the following:

a) the calculation of the investment performance of a superannuation fund to enable the Member to compare the actual investment performance experienced over the period with the investment performance assumed in the actuarial valuation;

b) the calculation of the investment performance achieved by a superannuation fund member on their own personal superannuation account; and

c) the calculation of investment performance to comply with the requirements of superannuation Legislation.

6.3. Investigation of the Financial Condition of Defined Benefit Funds

For the investigation of the Financial Condition of Defined Benefit Funds, the calculation of investment performance is used to compare the actual investment performance achieved by a fund during the valuation period with that assumed in the previous actuarial valuation. This is required to determine the extent to which the actual investment performance experienced in the valuation period has added to or subtracted from the surplus or deficit (if any) that has arisen during that period. The calculation of investment performance for this purpose must comply with Professional Standards 400 and 404.

A detailed calculation of the investment return contribution to the surplus or deficit arising over the valuation period would typically take into account the cash flows of the fund, with investment performance calculated on an asset-weighted basis as part of this process. Where there is a significant difference between the Asset-weighted Investment Return and the Time-weighted Investment Return, both returns may be included in the valuation report, with the difference being used to help explain the experience of the fund over the valuation period. Otherwise, it is usual for only the Time-weighted Investment Return to be included in the valuation report, for simplicity and consistency with other performance reporting.

6.4. Calculation of Investment performance on a member's account accumulation or pension)

The investment performance disclosed by superannuation funds for their investment options (or in unit linked policies offered by life companies) is typically calculated on a time-weighted basis to allow this performance to be compared across funds. However, the actual return achieved by a member on their own account can be significantly different as this return is affected by the cash flows within their account over time (including contributions for accumulation and drawdowns for account-based pension accounts). Therefore, the calculation of the investment performance actually earned on a member's account over any period is expected to be calculated on an asset-weighted basis taking into account the actual cash flows of the member, and it is expected to disclose what types of fees and costs have been deducted (e.g. investment fees or, perhaps, investment fees and administration fees).

With account-based pensions, the investment performance actually earned on a member's account- based pension will usually be calculated net on investment fees and costs and after tax (i.e. after allowance for imputation credits). This investment return could be described as 'net of investment fees and including imputation credits'.

6.5. Calculation of investment performance to meet disclosure requirements

The investment performance calculated to comply with the legislative requirements relating to the disclosure of investment returns on superannuation investment products must comply with the requirements of that Legislation. Subject to any special provisions of the Legislation, where the investment performance is to be used to compare the past investment performance of different investment products, the investment performance is expected to be calculated on a time-weighted basis.

Where the relevant legislative requirements do not specify how investment performance is to be calculated, it is expected that the Member will calculate the investment performance net of investment fees and costs (and taxes where appropriate), except where another performance measurement is considered more appropriate and this is clearly disclosed (e.g. where the unit price or crediting rate is calculated net of the %-based administration fees and costs).

If the Member determines that the methodology used in accordance with the Legislation leads to disclosed investment performance that is misleading, the Member is expected to disclose the methodology used and why the disclosed information may be misleading. This statement is expected to be provided along with the disclosed investment performance except where there are restrictions on the amount of information that can be included in the relevant disclosure (eg. Product Dashboards), in which case it may be included in a separate report provided to the client. An example of when this may arise is where a fund has $-based administration fees and costs and a Net Return (based on a $50,000 account balance) is being quoted to a member or group of members with very low or very high account balances.

Trustees also need to provide investment performance information to APRA. At the time this Practice Guideline was issued, Reporting Standard SRS 702.0 – Investment Performance sets out how this information must be calculated.

7. Insurance

7.1. Background

Insurance companies typically manage their investment assets in conjunction with their liability profile. From this perspective the approach is generally to consider investment returns and asset performance from an asset and liability perspective.

In the case of superannuation products, unit linked investment policies and participating/discretionary investment policies issued by life insurance companies, investment performance impacts policyholders directly. Hence the considerations relating to investment performance measurement are the same as those set out in Section 6.4.

In the case of pure insurance business (i.e. business with no policyholder investment component), companies receive regular policy premiums for the risks which they underwrite. A portion of these premiums, the technical reserves, is held to support the claims expected to arise on these policies. These funds are typically invested in lower risk money market and capital markets instruments, while the capital backing shareholders' funds may be invested in higher risk instruments.

Therefore, for pure insurance business it is important to measure the return generated on insurance assets and compare this with the movement in value of liabilities resulting from economic changes (i.e. changes in the risk-free rates).

7.2. Uses of investment performance measurement

The uses for investment performance measurement in insurance include those covered in Section 5.2 but applied to the assets of an insurance company.

7.3. Requirements for particular uses of performance measurement:

With the exception of superannuation products, unit linked investment policies and participating/discretionary investment policies in life insurance where investment performance impacts policyholders directly, investment performance for insurance companies only impacts shareholder returns. Shareholder investment performance is typically disclosed through management and financial reporting and not directly to policyholders.

Shareholder investment performance is expected to be calculated net of investment fees and costs (and taxes where appropriate), to align returns with those which are reported as shareholder investment returns, unless the investment performance is required to be shown pre-fees, in which case the level of fees is expected to be disclosed.

For comparison of actual versus expected investment performance for shareholders' funds and technical reserves:

The relevant considerations for the Member in the calculation of both actual and expected investment performance are as outlined in Section 5.

Expected performance is expected to be based on:

- Benchmark Returns, for assets backing the insurance liabilities the benchmark is generally the discount rate(s) used in the calculation of the insurance liabilities. This will allow direct comparison between interest rate sensitivity of assets versus the interest rate sensitivity of liabilities.

- Target Returns, for the assets backing the shareholders' funds – in assessing the performance of the asset manager, consideration is expected to be given to the duration and credit exposure allowed within the mandate.

- For profit and loss reporting, investment performance is expected to be measured in accordance with the requirements outlined in the relevant accounting standards and based on the fair value of each asset. The value of insurance liabilities will often vary with changes in the risk-free yield curve. Calculation of this movement is expected to be consistent with the calculation methodology used to measure asset performance over the same period.

- In cases where the term of liabilities is longer than that of the assets backing them, the risk-free yield curve will generally need to be extrapolated to discount long-tailed cash flows. Members are expected to undertake such extrapolation consistent with the principles used for pricing instruments available in the market.

The approach adopted by the Member, and the reason the approach has been taken, considering the application and purpose, is expected to be disclosed.

END OF PRACTICE GUIDELINE 101