PORTFOLIO MANAGEMENT

TAPE-MEASURE ON
THE MONEY MANAGERS
PORTFOLIO PERFORMANCE UNDER SCRUTINY

Nick Birrell

It is hardly surprising that Australians are being urged to save more—the nation's savings ratio is at its lowest level in more than 30 years. The major thrust in the campaign has been in superannuation, with the introduction of industry superannuation schemes in the mid-eighties and the initiative in the 1991 budget to introduce mandatory superannuation for all employees.

The expected growth of superannuation funds brings questions about the investment of the large volume of Australian savings that will find their way into such funds. The selection of managers for the funds and the monitoring of their performance are of particular concern.

In partial satisfaction of these concerns, various monitoring agencies (in particular, actuarial and investment consultants) are collecting regular data on the performance of superannuation fund managers. The performance tables that result from such surveys are considered so topical that they are published frequently in popular business magazines.

The scrutiny of funds goes further, with the 1991 budget foreshadowing stricter prudential controls for superannuation funds. These controls will, in particular, require a corporate trustee to be appointed to funds over a certain size and will make individuals with responsibility for funds subject to the strictures and penalties of the Corporations Act.

The upshot of this is that trustees, who are already cautious about their duties, will be more so and will rely even more on performance reporting in ensuring that they are adequately discharging their duties.

As a final component to this rapidly changing background, investment management has, over the past decade, become an increasingly complex business, particularly because of frequent asset-allocation changes, and the use of derivative securities and more sophisticated products.

Such is the backdrop to the investment industry in the nineties. It is one of increased product complexity, increased regulation and prudential standards, and greater pressures to perform well with ever-larger amounts of money over longer investment horizons.

Better performance measurement

Investors need to be able to use performance reports to assist in selecting fund managers and in determining how much value the managers are providing for the investment portfolio. Questions which should be addressed include:

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As investors husband their resources more carefully, portfolio performance comes under testing examination. Accurate and timely measurement of returns becomes essential.

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How has the portfolio performed?
How did it compare with a benchmark?
What is the source of the return difference?
Was performance generated through superior selection, superior asset allocation or the use of derivative products to skew the risk/return profile?
Was value added consistently or randomly?

Investment managers who do not provide this information are highly likely to have their month-by-month performance closely monitored. The fund manager, knowing that the investor is watching every update and might sack him if his performance drops, concentrates on performing “well” over each short-term update period, possibly at the expense of focusing effort on obtaining good longer-term results.

If, on the other hand, an investor knows that a manager has consistently added value in the past through, for example, superior stock selection, then there is a reasonable chance that the manager will continue to add value in this way in the future.

Also, the decomposition of manager performance into stock selection and asset allocation can be used to check whether a manager is delivering what is promised.

A first requirement for performance analysis is thus that it must be informative and, in particular, provide answers to the questions above. A second requirement is that it must be accurate.

Performance analysis will not inspire confidence if there is any doubt that it is meaningful. Unfortunately, the performance analysis calculations currently performed by many managers and advisers can lead to quite meaningless results, as is illustrated by the following example.

Consider two portfolio managers, Tom and Dick, both of whom are managing portfolios consisting of two asset classes, equities and cash. Suppose that over a given month Tom follows Dick’s investment strategy exactly, maintaining the same asset allocation and the same selection of stocks. During the month, Tom’s portfolio has a withdrawal of 5 per cent of the portfolio value, which Tom effects by selling 5 per cent of each asset sector (thus maintaining an unchanged asset allocation) and in such a way that the weighting in every security in the portfolio remains the same.
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impossible to mark-to-market the value of the project on a regular, short-term basis. Rather, what is significant is the timing and magnitude of events such as the receipt of income cashflows or the partial or full sale of the developed assets.

Assuming that performance analysis is informative and meaningful, a final requirement for it to be useful in comparing managers or of assessing the same manager over different periods is that it is consistent.

The work described in the remainder of this paper was undertaken to provide a possible standard for performance analysis which is informative, meaningful and can be consistently applied industry-wide.

The methods described in the Q-Group’s position paper can be applied to any portfolio. We focused our comments on balanced and specialised sector funds, splitting the calculation into total fund performance, sector performance and performance decomposition.

Total fund performance
Total fund rates of return should be calculated by the time-weighted return method to ensure accuracy over a particular period. A significant question, which has a large influence on the accuracy of performance calculations, is: “At what frequency do I need portfolio valuations to enable accurate return calculations?” The Q-Group position paper recommended daily valuations as the simplest answer. However, not all fund managers have accurate daily valuations, so the position paper provided an alternative formula based on accurate implementation of the money-weighted return.

In practice, the frequency of portfolio valuation required depends on the occurrence of certain events. For total fund performance, the event is any cashflow into or out of the portfolio. Thus, the portfolio should be valued whenever a cashflow occurs, enabling an accurate calculation of the return since the previous cashflow. Managers using daily unit pricing for a unitised fund already fulfil this requirement.

Fund managers currently report performance in a range of states between gross and net of expenses and taxes. Returns should be calculated both before and after fees and taxes.

The inclusion of derivative securities in a portfolio may in some cases provide “exposure” to securities at levels greater than the portfolio value. Such cases should be reported with the performance results.

Sector performance
The division of a portfolio into sectors is somewhat arbitrary, in most cases based on the investment mandates. For example, in an accumulation superannuation portfolio, commonly defined sectors are Australian and Overseas Equities and Fixed Interest, Cash and Property. Each of these sectors will have sub-sectors. The division into sectors, sub-sectors, etc, is dependent on the composition of the total fund; for example, the “sectors” of industrial stocks and resource stocks in an Australian Equity portfolio would be classified as sub-sectors in a balanced fund.

Once the sectoral division has been defined, the sector exposures need to be determined. For a portfolio with no derivative securities, this is relatively easy because it is based on the value of the securities in each sector.

The inclusion of derivatives (such as futures and options) requires further work to arrive at accurate exposures, and hence accurate returns for the sectors of a portfolio. Briefly, futures have to be combined with their cash backing and options are decomposed into the equivalent cash and security components, using a standard formula (Black/Scholes).

One important impact of the use of derivatives, particularly options, is that they can modify the exposure to a sector faster than the underlying market movements would have. Therefore, even though a portfolio manager may not have explicitly changed an asset sector weight through direct cashflows between sectors, he has implicitly achieved this through the investment in derivatives. The result of this effect is that to obtain accurate sector returns, frequent valuations are required if derivatives are used. In fact, daily valuations are recommended.

Frequency of return calculations
In calculating total fund performance, the events which trigger a portfolio valuation and return calculation are:

- cashflow into or out of the portfolio, including contributions, withdrawals, income distributions, fees
and taxes;
- the start of a new performance reporting period.

When the return of a sector of a portfolio is required, extra events can trigger the requirement for portfolio and sector valuations and return valuations:
- cashflows between sectors, eg, asset re-allocation or uninvested income;
- changes in exposure because of the impact of derivatives.

Although these events may lead to frequent performance calculations, we do not suggest a short-term view of performance; in some circumstances, frequent calculations may be required to ensure accurate and meaningful long-term results.

Performance decomposition

Once the performance calculations are outlined for the total fund and the sectors of the fund, and the sector allocations are determined for each period between the relevant “events”, an accurate performance attribution can be derived showing:
- contribution from the pre-defined strategy as measured by a benchmark portfolio (benchmark return);
- contribution from sector allocations which differ from the benchmark (asset allocation management return);
- contribution from stock selection within each sector of the portfolio (stock selection return for each sector and total portfolio).

The future

A number of areas are to be, or are being, addressed:
- education of fund managers and consultants about the need to follow the guidelines to achieve accurate performance calculations;
- implementation of the guidelines and extra data requirements;
- data requirements for performance numbers required by regulatory bodies and the caveats necessary when these cannot be met.

A major practical issue is implementation of the required calculations. If a fund manager is currently obtaining only weekly or monthly valuations, it is likely that he will need extra data to ensure that valuations are triggered whenever certain events occur. This will place an additional load on both front and back office operations of fund managers.

The question of the accuracy of more frequent portfolio valuations may also be raised: how many fund managers have problems with the accuracy of timely monthly valuations?

Further, systems to provide accurate performance calculations have yet to be fully developed for all but a handful of managers. Approximations will continue to be used for some time.

It may be that the performance surveyors will not need the detailed day-by-day performance data used by some managers to calculate accurate returns; fund managers should be able to provide accurate monthly calculations of total fund performance, sector performance and performance decomposition.

Following our performance calculations standard will mean that useful and accurate information will be available to assist fund sponsors in monitoring and reviewing fund managers’ abilities as measured by performance, and fund managers will have a sound base from which to monitor their own strengths and weaknesses.

THE SUPER MESSAGE

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Both sides—a small number of members may be made marginally worse off on the one hand and, on the other hand, there may be some future cost to government revenue.

Complexity is both inefficient (in terms of added costs to both funds and government) and inequitable. A simpler system of regulation is inherently a fairer system. At present the complexity favours those who are “in the know” or who have access to expert advice.

Those without this access can easily lose by taking decisions without a full appreciation of the implications.

There has been a worldwide trend towards greater regulation of the private pension/superannuation movement with the aim of producing outcomes perceived as:
- adequate in terms of standard of living after retirement;
- fair in terms of the distribution of benefits receiving tax assistance;
- secure in terms of confidence that the funds will be available when the member comes to retire.

The past 10 years have seen a massive increase in the regulation of Australia’s superannuation funds, much of which can be viewed as attempting to achieve these three objectives. Much has been achieved, but there remain a number of challenges in producing a simpler and more secure system.