The fund management industry is showing increasing interest in transition management, the process by which a fund manages a change in its configuration of asset managers. Typically, this would occur if a fund wishes to substantially alter its asset allocation, or if the fund wishes to improve its risk-adjusted returns by changing its asset managers.

In Australia, transition management mandates are carried out by fund managers and stockbrokers who both manage and execute the transition. The service is also offered by asset consultants who manage the transition and sub-contract the execution to other parties.

Interestingly, transition management is an important issue in the United Kingdom, where pools of money are held within pension funds, but is less important in the United States, which favours the use of individual funds in 401K plans. Transition management appears to thrive in countries where there are pooling arrangements such as Australian superannuation funds. As the Australian superannuation industry appears to tend toward greater individual member choice, the demand for transition management may well decline in the future.

The raison d'être of transition management is that the client saves money by carefully managing the transition rather than simply implementing it in an ad hoc manner. This is hard to argue against in principle, but the presumed cost savings are actually very difficult to measure accurately. This paper discusses some of the benchmarks that can be used to measure transition managers. None of these benchmarks is perfect, and their weaknesses will be highlighted.

Benchmarking will improve the transparency of the transition process by providing a measure of relative success (or failure). We hope that the benchmarks presented in this paper will temper some misconceptions existing in the market. For example, the level of off-market transactions such as crossing can now be verified.

**THE IMPLEMENTATION SHORTFALL BENCHMARK**

The implementation shortfall benchmark is defined as the difference between the projected fund size and the actual fund size at the end of the transition.

This benchmark is commonly used to measure transition performance. Clearly, the lower the implementation shortfall, the more successful the transition. It measures a perfect-world situation where the assets are transferred instantly at the beginning of the transition period to the new managers.
However, there are also problems with the shortfall benchmark is that it is very easy to explain. The main benefit of the implementation shortfall benchmark is that it is very easy to explain.

However, there are also problems with the benchmark, such as:

- It can only be calculated after the event (it is an ex-post benchmark). It is therefore not useful for budgeting purposes; i.e., it does not provide the client with any prior idea of the transaction costs that may be incurred or the potential risks due to market movements.
- The projected fund size may be difficult to calculate accurately. A satisfactory way to calculate this might be to use actual returns of the new fund managers. However, the return data may not be available for the new fund managers, in which case acceptable proxies include the returns from their pooled funds or their similarly managed investment mandates. In some cases, the only alternative is to use index returns. The returns should be adjusted appropriately for tax and fees, having regard to the nature of the fund and the method of calculation of the actual fund size at the end of the transition.
- It assumes no transaction costs and includes the opportunity costs from market movements. This means that the difference between the actual fund size and the projected benchmark fund size includes multiple decisions at the same time, i.e.,
  - the decision to perform a transition,
  - the performance of the transition manager,
  - the performance of the asset allocation and stock selection of the new fund managers over a very short period.

Given that most of the items noted above are not within the control of the transition manager, this is clearly not a good benchmark for the transition manager.

It is possible for the implementation “shortfall” to be a gain. One example of this is if the calculation of the projected fund size involves estimates or index figures, and the actual fund outperforms these estimates. Another example is when a transition is implemented slowly to reduce costs and the previous fund managers outperform the new fund managers inclusive of the transaction costs.

RETURN ATTRIBUTION OF THE IMPLEMENTATION SHORTFALL BENCHMARK

Although it is easy to define the implementation shortfall benchmark, in practice it is surprisingly difficult to attribute. This is because of the many sources of shortfall. For example, the implementation shortfall can be attributed to:

- transaction costs, which can be split up more finely (this is discussed later);
- cost of errors in the transition process;
- asset allocation difference between the new and previous configurations;
- stock selection difference between the new and previous configurations;
- the actual timing of the transition (compared with the assumption of instantaneous transition);
- currency effects, if there are overseas assets involved (this could be included under asset allocation differences);
- the interaction effects between the asset allocation and stock selection.

A further issue is the availability of the data to perform the attribution. In particular, experience suggests that over the short period of a transition, accurate daily returns and exposures may not be available from all fund managers. Consequently, a number of assumptions might be required.

A final point is that a benchmark calculated with monthly rebalances (the standard in the industry) could differ markedly from a benchmark calculated with daily rebalances (which may be more appropriate for a transition). An additional difficulty may arise if one has to reconcile the difference between the periodicity of benchmarks.

MEASURING THE DECISION TO CHANGE FUND STRUCTURE

A more appropriate benchmark to measure the decision to change the portfolio configuration is to compare the actual portfolio size after the transition against what would have happened with no transition.

A suitable period would be required (say a year) before calculating this so that the benefits of the transition would hopefully overcome the transaction costs. Many assumptions would be required, such as the performance of the previous fund managers. This is not an appropriate benchmark for a transition manager.

THE WORST-CASE TRANSACTION COST BENCHMARK

We define the worst-case transaction cost benchmark as the sum of all costs incurred if all unwanted assets were sold and new assets purchased at full cost (including stamp duty, brokerage, market impact, bid-offer, etc) on day one of the transition.

This is a simple ex-ante measure of the maximum transaction costs that theoretically should be incurred in any transition.

For example, the worst-case transaction cost benchmark for a fund of $500 million might be $750,000 but the actual transaction costs might be $250,000. Thus, the amount “saved” by the transition manager is $500,000. The higher the saving, the better the transition manager.

The problems with this benchmark are that:

- it is unrealistic (it assumes all transactions take place on the same day);
- it can be difficult to accurately measure the market impact;
- it makes no allowances for investment risks;
- it does not make use of obvious ways to reduce costs such as off-market transactions, i.e., in-specie transfers or crosses with other funds. This makes it an easy benchmark for any transition manager to outperform (particularly if market impact is overestimated).
The benefits of this benchmark include:

- It is very easy to understand;
- It can be calculated before the event.

Note that since full information about potential cost savings may not be available at the beginning of a transition, this benchmark provides a first-cut approximation (and theoretical maximum) of the costs involved. It is therefore useful for budgeting, as it provides a prior idea of the worst-case cost scenario.

The worst-case transaction cost benchmark allows the actual transaction costs to be examined to show the amount that has been “saved” by the transition manager, attributable to:

- in-specie transfers;
- crossings;
- use of lower-cost brokers;
- spreading transactions over time to reduce market impact.

Although it is quite easy for a good transition manager to beat, the worst-case transaction cost benchmark is a better benchmark for a transition manager, as it focuses only on the transaction costs.

THE EXPECTED TRANSACTION COST BENCHMARK

To improve on some of the poorer features of the worst-case transaction cost benchmark, we propose an additional benchmark called the expected transaction cost benchmark.

We define the expected transaction cost benchmark as the sum of all costs incurred in the transition, but making allowances for stock that is in-specie transferred or crossed, and other proposed transition savings.

To calculate this benchmark sufficient information about the portfolio must be available. This obviously includes the likely amount to be transferred in-specie, or crossed, or sold or bought through lower-cost brokers, and also the time period of the transition (so that market impact costs can be estimated).

For example, the estimated cost for the $500 million fund above might be $300,000 and the amount “saved” is $50,000 (actual cost is $250,000). The higher the saving, the better the transition manager.

The problems with this benchmark include:

- its calculation requires many more inputs and assumptions (hence it may be more difficult to understand);
- it makes no allowances for investment risks.

The benefits of the benchmark include:

- it is more realistic, especially assuming transactions take place over a period of time, and that some off-market transactions are used to reduce costs;
- it can be calculated before the event (it is an ex-ante benchmark);
- it is useful for budgeting, as it provides a prior idea of the transaction costs that may be incurred;
- it focuses only on the transaction costs and is a better benchmark for a transition manager.

Ideally, a transition manager should be able to present a client with such a benchmark before a transition, and then manage the transition to that benchmark. If the benchmark is calculated with some accuracy, then it should be quite difficult for the transition manager to beat. Note that in the case of the real transition, the market impact still needs to be estimated, requiring a certain amount of judgment.

There could be some moral hazard with this benchmark because a transition can always be paced over a longer period to reduce market impact.

Attributions are possible against this benchmark, but the resulting figures are likely to be small.

On average, one would expect a transition manager to incur costs above the benchmark half of the time and below the benchmark half of the time. The measure is an improvement on the worst-case transaction cost benchmark because it allows for reasonable attempts to reduce costs.

THE COST AND RISK BENCHMARK

The final benchmark we propose is the cost and risk benchmark, which is defined as the expected transaction cost benchmark plus an allowance for potential investment returns.

Obviously, to construct this benchmark even more assumptions need to be made, particularly about the investment characteristics of the portfolio before and after the transition. The greatest benefit is that an expected cost can be provided (from transaction costs and from any delay in moving to a better-performing configuration), as well as a range around this figure.

For example, the cost and risk figure for a fund of $500 million might be $350,000 ± $200,000. This means that the expected cost to the fund is $350,000 — $300,000 arising from transaction costs as calculated in the previous benchmark plus $50,000 from the opportunity cost of not moving into a better performing configuration immediately. It also means that there is one standard deviation of $200,000 around the expected cost.

The opportunity cost and the possible investment movements are not completely under the control of the transition manager. However, calculating this benchmark allows a manager to balance any reduction in transaction costs by spreading a transition over many days against the increase in opportunity costs from asset movements.

The benchmark helps the fund to understand that a final “cost” is likely to be somewhere between -$50,000 (a gain) and $750,000, ie, two standard deviations around the expected cost.

The problems with this benchmark include:

- there are even more assumptions required to calculate the benchmark;
- it may therefore be even more difficult to understand.

The benefits include:

- it is more realistic, assuming that transactions over a period of time, that some off-market transactions are used to reduce costs, and makes allowance for expected investment returns and risks;
- it can be calculated before the event;
- it is useful for budgeting — it provides a prior idea of the expected transaction costs and provides a range around this expected cost, due to the investment risks that may be incurred;
- it considers transaction costs, expected investment returns and investment risks and is therefore a comprehensive benchmark for a transition manager.
It is possible that, because of favourable market movements, a fund may not incur a cost from a transition but may in fact return a profit. This effect is captured by the cost and risk benchmark which provides a clearer exposition of the meaning of “risk” in the context of a detraction from the fund’s performance.

Attributions are possible against this benchmark, but the resulting figures are again likely to be small.

This benchmark is an improvement over the estimated transaction cost benchmark because it provides a possible range of costs due to market movements.

**CONCLUSION**

All the benchmarks described above include a number of subjective assumptions, meaning that the same methodology used by different people can generate a different numerical figure. For example, the implementation shortfall benchmark itself could be calculated by using pooled fund returns or by using index returns.

It would be a pity if transition managers were to be selected purely based on the absolute benchmark figures. The value of the benchmarks arises from the ability to provide information to the client (preferably before the transition) about the costs and risks of a transition. The benchmark also allows one to measure transition managers relative to the benchmarks to improve accountability and transparency.

We have shown that the commonly used benchmark for transition managers (the implementation shortfall) has its drawbacks. Depending on the data available and the complexity desired we have proposed three new benchmarks that are better measures of transition managers. We believe that funds requiring transition management services will begin to demand benchmarking information so that they can understand the costs and benefits related to re-configuration of their portfolios.