

T Standard, Version 2.0

December 2008

I. Transition Implementation Shortfall¹

1. "Implementation shortfall" shall be defined as the arithmetic difference between the return on the actual portfolio and the return on the target portfolio wherein the target portfolio is attained at no cost.

Example:

A portfolio starts with a value of \$121,650,000 and the target portfolio has the same value. The actual portfolio ends with a value of \$119,987,000, while the target portfolio ends with a value of \$120,351,000. The target portfolio is a paper portfolio rather than an actual one.

The return on the actual portfolio is $(119,987,000 \div 121,650,000) - 1 = -1.37\%$.

The return on the target portfolio is $(120,351,000 \div 121,650,000) - 1 = -1.07\%$.

Implementation shortfall = $-1.37\% - (-1.07\%) = -0.30\%$

Implementation shortfall is 0.30% or 30 basis points in this case. In other words, performance against a target portfolio benchmark was -30 basis points over the relevant period.

2. Calculations shall be performed daily and should include all appropriate assets. Included are all securities, cash, derivative positions and any other relevant asset in the portfolios at the time of transition. If, for any reason, an asset is excluded, the specific nature of this asset and the reason for exclusion shall be disclosed to the client.
3. Returns shall be based upon time-weighted total portfolio returns, using closing prices.
4. Changes to the target portfolio and cash flows shall be incorporated with effect from the close prior to the practical implementation of the portfolio adjustment. The transition provider shall disclose to the client the time that these changes are received from the manager(s).

Example:

During the implementation period, a target manager rebalances their portfolio and sends an updated model to the transition provider prior to the relevant market close. The transition provider reconciles the new model against the old and creates a modified trade list to reflect the model changes. The practical implementation of this process extends beyond the close of the day upon which the updated model is received and trading on the updated information can not commence until the following day. In this case, the adjustments to the target portfolio are implemented as of the close on the day the update is received.

If the new target can be implemented and trading on the new information can commence on the date of the communication of the changes, the adjustments to the target portfolio are implemented as of the market close on the day prior to the receipt of the update. In

addition, the transition provider discloses to the client the time that the portfolio change was received.

5. Prices used to calculate daily returns should adhere to the rules outlined in Section IV.

6. Pooled vehicles shall be included in the total return calculation of legacy and/or target portfolio values. Where daily pricing is not available, the most recent applicable prices shall be used. The transition provider shall disclose to the client how these prices are incorporated into the return calculations.

Example:

At the market close on May 10, a target portfolio consists of 100,000 units of a weekly-valued pooled fund, which is worth \$4,056,000 based on the most recent valuation (May 5) and \$58,946,000 in direct holdings. The total target portfolio value at May 10 is taken as \$63,002,000.

In some situations, costs may be incurred on externally-managed pooled funds that do not hit the transition account, for example, a different NAV may apply to a client exiting a pooled fund than applies to other clients. The transition manager should make every reasonable effort to identify any material costs and include these in the performance calculation. If, despite these efforts, costs remain unknown then this fact should be disclosed.

II. Performance Periods

1. The performance period shall comprise three distinct periods: pre-implementation period, implementation period, and post-implementation period.

a) The pre-implementation period shall span three business days prior to the commencement of the Implementation Period, ending as of the market close on the day prior to the commencement of the Implementation Period. At the client's request, this period shall extend to begin on the date on which the terminated manager no longer has discretion over the portfolio.

b) The implementation period shall commence using the closing prices in the applicable market on the date prior to all external factors being resolved that are necessary for the transition provider to be able to trade. For this purpose, benchmark closing prices for foreign currency transactions refer to the WM Reuters close (4 p.m. GMT). Where hedging trades are undertaken, the implementation period shall commence using closing pricing on the day preceding the hedging trade. The implementation period will end on the market close on the day that all trading is completed.

c) Post-implementation period shall commence as of the end of the implementation period and end as of the market close prior to the target provider assuming control and responsibility for the assets.

The transition provider shall disclose to the client the timing of the receipt of certified holdings, target portfolios, and any other information required to transact from the investment manager(s) and custodian(s).

Example:

An event is managed to transition from a single portfolio into three target portfolios. Two of the final target portfolios are received on 8 February, the certified list of holdings is received on February 9 and the final target portfolio is received after the market close on February 10. Execution of the transition commences February 11 and trading is completed on February 14. Final trades settle and accounts are handed over to the new managers as of the close on February 17.

The three performance periods are broken down as:

Pre-implementation period:

close February 7 – close February 10

Implementation period:

close February 10 – close February 14

Post-implementation period:

close February 14 – close February 17

Any pre-hedging activity would change the start of the Implementation Period accordingly. If such a trade occurred on February 10 the period breakout would change as follows:

Pre-implementation period:

close February 6 – close February 9

Implementation period:

close February 9 – close February 14

Post-implementation period:

close February 14 – close February 17

III. Reporting

1. Performance reporting shall, at a minimum, display returns on the actual portfolio and the target portfolio within each of the distinctive periods: Pre-Implementation, Implementation, and Post-Implementation Periods.

Example:

	Pre-Implementation Period	Implementation Period	Post - Implementation Period	Time Weighted Return
	Feb. 7 – Feb. 10	Feb. 10 - Feb. 14	Feb. 14 – Feb. 17	Feb. 7 – Feb. 17
Transition Portfolio	-1.20%	-0.40%	3.50%	1.85%
Target portfolio	-2.00%	-0.29%	3.50%	1.14%
Index Portfolio	-2.10%	-0.30%	3.40%	0.92%
T Standard Implementation Shortfall		-0.11%		

2. Daily performance calculations shall be provided to the client within the transition performance report.

3. If a transition provider shows, in addition to the results described above, additional results calculated on a different basis, then all differences in the calculation should be clearly disclosed.

The calculation set out above is based on the outcome experienced by the investor. Depending on the circumstances of the particular event, the transition manager may want to provide additional information to shed light on the factors that produced that outcome.

There are a number of ways in which a transition manager might validly argue that a better assessment of his own performance is given by a different calculation than the one described above, either in terms of the time period covered, the holdings included or some other aspect of the calculation.

Example: A firm might show a second set of results, which removes the impact of “stale” valuations for pooled funds or illiquid holdings.

The basis of such additional calculations should be clearly disclosed and consistently applied. To this end, transition managers are encouraged to identify in advance the basis for any additional results they will be calculating. Clients should pay particular attention to calculations which have not been identified in advance, to calculations identified in advance but not made, to calculations not widely made by other transition managers, to calculations which appear to have been made selectively and to calculations which might exclude performance impacts which are attributable to the transition manager. In all cases, these calculations are in addition to the standard calculation as opposed to in place of the standard calculation.

IV. Disclosure

1. Transition providers shall be prepared to disclose upon request the sources used for pricing all securities and instruments used during the transition including equities, fixed income, pooled funds, futures and foreign exchange. The pricing source should be an independent data provider with a disclosed pricing methodology. Without exception, currency rates should only come from an independent, third-party data provider.
2. Where independent pricing is not available other pricing sources such as individual banks, brokers, intrinsic valuations, etc. should specifically be disclosed in footnotes to the performance calculations.
3. Where independent pricing is available, but not used, the transition provider shall disclose the difference between the pricing source used and price from the auditable, third-party source as well as the rationale for not using the independent price.
4. As detailed in sections I and II, the transition provider shall disclose evidence of the time of receipt of all information required to begin trading or target portfolio modifications and/or cash flows.

V. T Standard Copyright

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Endnotes:

¹ The term implementation shortfall was first given prominence by André Perold's paper, "The Implementation Shortfall: Paper vs. Reality" in *The Journal of Portfolio Management* (1988). This concept has become a widely-used measure for the success of a portfolio transition event.

This paper does not deal directly with the calculation of performance during events for which implementation shortfall is not the chosen benchmark, although many of the principles set out can and should be transferred across to other benchmarks.

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