

## Measurement and Comparison of Investment Performance.

Performance can be most simply defined as the rate of return of a fund given a particular risk tolerance, over a certain time period. The measurement of this performance should be of great interest not just to personal investors in reviewing their investment decisions but also to fund sponsors and the Boards of Trustees of public and institutional funds in reviewing the effectiveness of their investment policy decisions. It is also important that investment performance is measured correctly for the Boards of fund management companies to assess the fund management team they employed. For the individual fund managers, the evaluation of their own investment performance would allow them to identify the sources of their value-added and their mistakes. This will allow them to continuously finetune their techniques, which [should](#) lead to increasingly consistent performance.

Performance should be compared to the fund's objective, which is usually represented by a particular benchmark. This could range from an equities index, a bond index, a money market rate, an absolute return [to](#) a composite of equities and bond's indices. It is important that the benchmark is matched to the fund's objectives.

In the comparison of investment performance between peer groups, one of the most important rules is to compare '**apples with apples**'. The funds being compared should be similar in risk profile, scope of investments, using similar pricing and valuation methodology, performance measurement formula and the time period being compared. If done correctly, it is possible to identify funds or fund managers who have been consistent in the delivery of performance in the past. Whether or not the past performance is indicative of future performance would depend on qualitative factors such the stability of the investment management team, systems and processes.

The appropriate performance measurement formula should be adopted depending upon the circumstances. Should there be no requirement to compare the performance of the investment with peers, a **Simple Rate of Return** is sufficient, only if there have been no additional injections and/or withdrawals into the investment since the initial investment. If there have been additional injections and/or withdrawals during the period an investor could adopt the **Money Weighted Rate of Return** (similar to Internal Rate of Return) although the **Time-Weighted Rate of Return** would be more accurate and reflective.

However, as soon as a comparison has to be made between different fund managers (after first ensuring that the [comparative basis is](#) 'apples to apples"!') the appropriate formula would be the **Time Weighted Rate of Return**. This allows funds, which have differing injections/withdrawal patterns to be compared over a similar time period.

Another issue that cannot afford to be ignored is the measurement of risk of the fund's performance. It is important to know the degree of risk being taken, [and](#) whether it is commensurate with the fund's investment policy. Investors can use the Risk-Adjusted Return of funds performance in peer comparison.

The Risk-Adjusted Return is basically the fund's performance adjusted for its volatility (risk) as measured by the standard deviation of the performance.

For example, if the investor is looking for an investment which has been giving the highest absolute return with the minimum volatility (a common objective of balanced funds) it is useful to look at the Reward to Risk Ratio, which is simply the average of the fund's returns divided by the standard deviation of the returns over a particular time period, **The higher the Reward to Risk Ratio, the higher the return achieved for every unit of risk taken.**

However, it could be that the investor has done his own asset allocation and is looking for 'best of breed' fund managers within the respective asset classes. In this case, the more appropriate Risk Adjusted Return measure would be the Information Ratio. This, simply put is the average of the fund's excess return (i.e. the return minus the benchmark return) divided by the standard deviation of the excess return over a particular time period.. **The higher the Information Ratio, the better the skill of the fund manager in that asset class delivering higher consistent excess return.** The Information Ratio is applicable to equities and equities growth categories as well as fixed income funds, provided of course, the appropriate benchmark is used in the calculation.

As can be seen above Risk-Adjusted Returns are a better indicator of the **consistency** of fund manager performance (and therefore **more indicative of skill as opposed to luck!**). However using the appropriate Risk-Adjusted Return measure for the particular investment objective is **KEY**. Applying the measures incorrectly could lead to misleading conclusions and unwise investment choices and outcomes.

The choice of **time period** for assessing and comparing investment performance is also crucial. One year or less may not be a sufficient indicator of the fund manager's performance in different market conditions and cycles. **At least three years would be preferable.**

The growing awareness of the **Global Investment Performance Standards<sup>1</sup> (GIPS®)** among the fund management community can only be positive for investors. The increasing compliance to GIPS in the future should lead to reduced potential for misrepresentation of performance, greater transparency, more consistent comparability of data and promote fairer competition.

To promote fairer comparison of fund performance for institutional investors the **Malaysian Association of Asset Managers (MAAM)** has undertaken a project with an independent international investment consultant **Mercer Investment Consulting** to establish a fair comparison of investment performance for the Malaysian fund management industry. All asset management companies licensed by the Securities Commission were invited to participate free of charge, provided that they submit all their funds under management (to avoid any company 'cherry-picking' their best and hiding the rest!). Mercer's mandate was to categorise the funds to ensure 'apples with apples' comparison, and apply the Risk-Adjusted Returns measures over at least three years. This league table is updated biannually.

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<sup>1</sup> "GIPS® is a trademark owned by the Association for Investment Management and Research in relation to the development of standards and practices to promote uniformity in reporting investment performance."

### **Example 1**

Example 1 is an actual extract from the Mercer Survey June 2002 for Discretionary Equities Mandates listing the KLSE Composite index as the benchmark.

<b>Composite Mandates – Discretionary Risk vs Return for 3 Years to 30 June 2002 (calculated monthly)</b>						
Manager/Fund	Annualised Return		Reward to Risk Ratio		Information Ratio	
	% pa	Rank	Value	Rank	Value	Rank
A	1.8	(9)	0.1	(9)	1.1	(3)
B	7.4	(3)	0.3	(3)	1.3	(1)
C	3.6	(8)	0.2	(6)	0.8	(7)
D	4.0	(7)	0.2	(6)	0.8	(7)
E	4.9	(5)	0.2	(6)	1.3	(1)
F	-3.8	(10)	-0.2	(10)	0.0	(10)
G	12.5	(1)	0.4	(2)	0.9	(6)
H	-8.0	(11)	-0.4	(11)	-0.3	(11)
I	4.2	(6)	0.3	(3)	0.6	(9)
J	10.1	(2)	0.5	(1)	1.0	(4)
K	6.8	(4)	0.3	(3)	1.0	(4)
Median	4.2		0.2		0.9	
KLSE Composite	-3.7	(10)	-0.2			

In Example 1, the Information Ratio may be more appropriate as the funds are discretionary equities mandates.

### **Example 2**

Example 2 is an actual extract from the Mercer Survey June 2002 for Discretionary (constrained) mandates.

<b>Composite Mandates – Discretionary (constrained) Risk vs Return for 3 Years to 30 June 2002 (calculated monthly)</b>						
Manager/Fund	Annualised Return		Reward to Risk Ratio		Information Ratio	
	% pa	Rank	Value	Rank	Value	Rank
B	8.1	(1)	0.3	(1)	1.3	(1)
C	2.9	(4)	0.1	(4)	0.7	(4)
D	6.6	(2)	0.3	(1)	0.9	(3)
E	4.1	(3)	0.2	(3)	1.2	(2)
F	0.0	(5)	0.0	(5)	0.6	(5)
H	-8.8	(7)	-0.4	(7)	-0.04	(7)
I	-3.9	(6)	-0.2	(6)	0.0	(6)
J	Na					
K	na					
Median	2.9		0.1		0.7	
KLSE Composite	-3.7	(6)	-0.2			

The difference between mandates in Example 1 and that in Example 2 is that Example 2 mandates are sensitive to the realization of losses. This implies a lower absolute volatility tolerance and a desire for smoothness in return for P&L consideration for entities which do not mark to market their investments. Thus, in the Table 2 example the Reward to Risk Ratio may be more relevant.

Retail investors can also apply the principles above although it would be more of a challenge as the information may not be easily available to the general public and even the common awards and rankings for unit trust funds are not based on the appropriate Risk-Adjusted Return measures. However some reputable fund houses and fund distributors may subscribe to databases with the relevant information. It is important to ask your fund distributor the right questions. Greater awareness on the part of retail investors can only improve the levels of professionalism and transparency within the fund management, as well as the fund distribution industries.