# MANAGER SELECTION AND RETENTION:

## PUTTING THE ODDS IN YOUR FAVOR

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*Investment committee fiduciaries have the difficult task of identifying the best investment managers to achieve a fund's objectives over the long term. The difficulty lies in differentiating between managers' abilities and separating the skillful from those who are just lucky. In this article, the author demonstrates the conundrum of manager selection: fiduciaries commonly focus on short-term historical performance to select and retain managers, but this performance alone is an unreliable measure. He presents several ideas about why even good managers can underperform, and how to mitigate this problem with a carefully thought out asset-class strategy and multimanager structure. The article concludes with practical solutions to put the odds of success in your favor.*

### Introduction

Most investment committee fiduciaries and or consultants would argue that good manager selection should encompass a comprehensive analysis of the four Ps of manager evaluation: People, Process, Portfolio, and Past Performance. Unfortunately for most, quantitative analysis is overemphasized to the detriment of qualitative analysis. Perhaps this occurs because most funds lack full-time resources or because performance numbers are readily available and easier to analyze than qualitative information. At any rate, most investment committees are predisposed to evaluating potential and existing managers on performance analytics over a four-, or at most five-, year time horizon. As a result, most investment committees generally have at least one manager who is performing beneath the benchmark during a typical evaluation period, and thus investment committees are searching regularly for a new investment manager or product.

### Manager Performance: More Than Meets the Eye

The investment industry generally recognizes managing money to be a long-term zero-sum game. For every winning manager there is a corresponding loser. A four- or even five-year time horizon, however, is not long enough to statistically evaluate individual manager performance. But equivocal longer-term performance information, with the same team and characteristics, generally is unavailable, due to constant industry and manager change. A manager's good or bad performance during that five-year period could have been the result of luck, skill or some combination of the two.

As a consultant, I saw many such cases, but perhaps the most compelling was a Canadian equity structure that contained two investment managers, one value manager and another growth, which provided poor performance for the five-year period ending June 30, 2000,

as shown in table 1. The two-manager combination underperformed the benchmark S&P/TSX Composite Index by -15.7 percent during the one-year period and -3.6 percent during the full five-year period. The five-year information ratio (that is, the managers' value added per 1 percent of tracking error or estimated risk) was -0.6 percent, based on a tracking error of 6.4 percent. Suffice it to say the performance was abysmal, no matter how you sliced and diced the numbers, and it would have tested the patience of even the most risk-tolerant committee. Over reliance on these performance numbers would have led to one conclusion—termination of at least one, if not both, of the managers.

Now let's look forward two years to the period ending June 30, 2002, as shown in table 2. The combined managers outperformed the benchmark by +11.3 percent compounded over the two years. This in turn righted the total seven-year performance. This two-manager asset-class strategy for Canadian equities provided added value of 1.5 percent over the entire seven-year period, and the seven-year value-added results would have met the asset-class objective for most plan sponsors.

What this example clearly shows is that evaluating investment managers with only performance analytics has great risk of being wrong and incurring unnecessary cost. Had the above managers been terminated, as the

**TABLE 1**

Annualized Returns to June 30, 2000

**ANNUALIZED RETURNS**

| YEAR | VALUE | GROWTH | COMBINED | S&P/TSX* COMPOSITE |
|---|---|---|---|---|
| 1 | 10.7 | 53.5 | 31.7 | 47.4 |
| 2 | 4.2 | 20.2 | 12.7 | 19.4 |
| 3 | 8.3 | 17.1 | 13.1 | 18.3 |
| 4 | 13.0 | 19.5 | 16.6 | 21.2 |
| 5 | 12.5 | 19.1 | 16.1 | 19.7 |

**ANNUALIZED EXCESS RETURNS**

| YEAR | VALUE | GROWTH | COMBINED |
|---|---|---|---|
| 1 | -36.7 | 6.0 | -15.7 |
| 2 | -15.2 | 0.8 | -6.7 |
| 3 | -10.1 | -1.2 | -5.2 |
| 4 | -8.2 | -1.6 | -4.6 |
| 5 | -7.2 | -0.6 | -3.6 |

**ANNUALIZED STANDARD DEVIATION**

| YEAR | VALUE | GROWTH | COMBINED | S&P/TSX* COMPOSITE |
|---|---|---|---|---|
| 5 | 13.1 | 20.0 | 14.5 | 18.4 |

**ANNUALIZED TRACKING ERROR**

| YEAR | VALUE | GROWTH | COMBINED |
|---|---|---|---|
| 5 | 14.5 | 4.1 | 6.4 |

**ANNUALIZED INFORMATION RATIO**

| YEAR | VALUE | GROWTH | COMBINED |
|---|---|---|---|
| 5 | -0.5 | -0.1 | -0.6 |

*Conclusion: Fire the Managers!*

**Formerly the TSE 300*

**TABLE 2**

Annualized Returns to June 30, 2002

**ANNUALIZED RETURNS**

| YEAR | VALUE | GROWTH | COMBINED | S&P/TSX* COMPOSITE |
|---|---|---|---|---|
| 1 | 7.1 | -13.9 | -3.5 | -6.1 |
| 2 | 11.9 | -20.4 | -3.7 | -15.0 |
| 3 | 11.5 | -1.0 | 6.9 | 2.1 |
| 4 | 8.0 | -2.2 | 4.1 | 0.7 |
| 5 | 9.7 | 0.3 | 6.0 | 3.7 |

**ANNUALIZED EXCESS RETURNS**

| YEAR | VALUE | GROWTH | COMBINED | |
|---|---|---|---|---|
| 1 | 13.2 | -7.8 | 2.6 | |
| 2 | 27.0 | -5.4 | 11.3 | ← What You Missed |
| 3 | 9.4 | -3.1 | 4.8 | |
| 4 | 7.3 | -2.9 | 3.4 | |
| 5 | 6.1 | -3.3 | 2.4 | |
| 6 | 5.0 | -3.3 | 1.7 | |
| 7 | 3.8 | -2.4 | 1.5 | ← Note the entire 7 year period now looks good |

**ANNUALIZED STANDARD DEVIATION**

| YEAR | VALUE | GROWTH | COMBINED | S&P/TSX* COMPOSITE |
|---|---|---|---|---|
| 7 | 12.7 | 23.1 | 15.4 | 20.0 |

**ANNUALIZED TRACKING ERROR**

| YEAR | VALUE | GROWTH | COMBINED |
|---|---|---|---|
| 7 | 15.9 | 5.4 | 7.2 |

**ANNUALIZED INFORMATION RATIO**

| YEAR | VALUE | GROWTH | COMBINED |
|---|---|---|---|
| 7 | 0.1 | -0.3 | 0.1 |

**Formerly the TSE 300*

five-year performance analytics would have dictated, the fund would have missed the opportunity to participate in the managers' most favorable performance. The fund also probably would have incurred consulting search fees, transition costs, and/or the chance of being whipsawed (that is, selling the managers at the low and picking new managers based on recent high performance, only to see the new managers underperform).

Manager performance usually does not come in nice-and-neat, quarterly value-added packets. It generally comes in giant waves, often following periods of prolonged drought.

The conundrum is that pension and endowment investing is a long-term game, but choosing or retaining managers based upon unreliable short-term performance data is a common industry practice, and it is fraught with error. Manager skill cannot be evaluated statistically with five-year performance data, no matter how precise the tools or frequent the measurements. Bein and Wander phrased this eloquently: "The future is always uncertain. Our inability to know what lies ahead with certainty reflects the very nature of the challenge.... In an attempt to gain insight into what the future may hold, we look to the past. In many realms, however, the past may be a very poor indicator of the future."[1] What's needed are long-term, consistent, value-added strategies that prescribe a better way to evaluate and select managers.

## Why Do Good Managers Underperform?

Mark Kritzman recently noted: "Clients often fire investment managers—even those who are truly skillful—when their performance deviates significantly below the benchmark, because the client believes the investment manager has shifted to a riskier strategy or is no longer skillful. In reality, significant underperformance is normal and does not necessarily signal an increase in risk."[2] During a specific five-year period, managers will underperform for many good and valid reasons, including the following:

The manager's style is out of favor. It was hard to find a growth manager outperforming the broad equity benchmark of 2002, just as it was equally difficult to find a value manager who was outperforming the broad equity benchmark in 1999. Manager styles go in and out of favor with regularity, but that doesn't prove that the manager does or does not have skill.

Markets are extremely random. Although markets are driven long-term by fundamentals (which is how skilled professionals often invest), short-term investment performance often is skewed by onetime random events such as war (the Mid East) or crisis (the September 11th tragedy); or investor emotion (greed or fear), which can take the market to extremes for prolonged periods.

A manager may recognize security value, or lack thereof, three or four years ahead of the market. The manager could have bought good stocks too early (that is, they may not rise in price for several years, until recognized by the rest of the market). Homebuilding stocks were cheap in 1998, but their value went unrecognized until several years later when the technology bubble burst and Central Bankers subsequently reduced interest rates to avoid a deflationary cycle. Or, in another example, the manager did not buy poor stocks because of high valuations. In many cases, a poor stock may continue to rise based on wild investor speculation that is not fundamentally driven (for example, Nortel, Enron, BreX, Worldcom, etc.).

In short, good managers can experience surprisingly bad performance over extended periods due to various random factors affecting the market, which investment managers commonly refer to as "noise." These factors take the market's focus off the fundamentals, resulting in trendless trading that is a reaction to random events. Bowen and Statman argue that excessive portfolio churning and switching results because investors do not properly allow for statistical noise in performance and end up chasing recent winners.[3] Dimson and Jackson point out that the more frequently performance is monitored, the more good managers will be rejected.[4] And Richard Thaler, an economist who popularized behavioral economics, recently proposed that "investors should be barred from viewing investment results any more often than once every five years."[5] Given a fiduciary's responsibilities under trustee law, I am not advocating the latter, but we surely must recognize that the randomness of investment returns makes most short-term performance data useless; a realistic assessment of a manager's skill—based on performance numbers alone—takes years.

What should a prudent fiduciary do? Risk management provides that a structured approach to decision analysis makes the most sense. In dealing with uncertainty it's all about minimizing the probability of loss and maximizing the chance of successful decisions.

## Probability Analysis: Discerning Luck from Skill

Many statistical studies have tackled the subject of discerning luck from skill in investment management. Probability analysis has recently yielded solutions, which computers have made easy. We recently undertook a study to determine the minimum time required to determine statistically if a manager has added value through skill. In our model, time is simply a function of the confidence interval selected (most statisticians use 95 percent, or 99 percent to prove their point with higher confidence), the projected alpha or manager value added, and the tracking error (TE) or estimated risk. In the analysis, we recognize that each asset class performs differently, with varying opportunities for a manager to take risk to add value. I would not expect my Canadian bond manager to continually add more value than my Canadian equity manager, even by taking on more risk.

By entering these various factors in the computer model, the minimum time requirement for proper and adequate evaluation can be solved for each asset class. We constructed the following table using a 95 percent confidence interval along with reasonable value added and tracking error estimates for each asset class, as shown in table 3.[6]

The results probably will be a surprise. As you can see, the timeframes for statistical significance are ludicrous: a minimum of sixteen years or sixty-four quarters of performance data. Certainly, these timeframes can be reduced somewhat by tightening the confidence interval, but that also reduces the chances of selecting appropriate managers. The conclusion is that a manager's performance evaluation by-the-numbers is statistically unreliable in the normal investment-committee evaluation period, which is generally less than five years.

But can we learn anything from probability analysis? Zurich Scudder performed some innovative research that was quite profound. By turning the above four-factor analysis around and by solving the same equation for probability, instead of time, they determined that lower tracking-error strategies had a higher probability of success in a normal five-year time period, as shown in table 4.[7]

They discovered that over a given time horizon, with constant manager alpha (set at 1 percent in table 4), and assuming that active returns are normally distributed, lower tracking error created a higher probability of success. In other words, they helped to solve our manager-selection conundrum. Given the normal investment-committee evaluation period of five years, the use of lower-tracking-error

**TABLE 3**

How long will it take to discern if a manager can add value through skill?

| | REALISTIC VALUE ADDED OBJECTIVE | TARGET VALUE ADDED MIDPOINTS | MINIMUM TIME* |
|---|---|---|---|
| Canadian Fixed Income | 25-50 bps | 38 bps | 16 years |
| Canadian Equity | 100-150 bps | 125 bps | 17 years |
| US Equity | 50-100 bps | 75 bps | 157 years |
| International Equity | 150-200 bps | 175 bps | 68 years |

*Conclusion: Statistically, the performance numbers are unreliable in the normal investment committee evaluation period, which is generally less than 5 years.*

**The Minimum Time estimate depends on the manager's tracking error and on the assumption that the manager's active returns are normally distributed. We used conservative error assumptions for each manager category.*

**TABLE 4**

What is the probability of a skilled manager (1% alpha) underperforming?

| | TRACKING ERROR | | |
|---|---|---|---|
| | 2% | 4% | 8% |
| 1 year | 31% | 41% | 47% |
| 5 years | 14% | 30% | 43% |
| 10 years | 6% | 23% | 40% |

*Conclusion: Good asset class strategies (with lower tracking error) have a higher probability of success in normal evaluation time periods.*

*Source: Zurich Scudder Research*

(risk) strategies created a lower probability of underperformance (or a higher probability of outperformance) than higher-tracking-error (risk) strategies.

Looking at table 4 we see that with moderate estimated tracking error of 4 percent and a five-year time horizon, there was a 30-percent chance that a skilled manager with 1-percent alpha will underperform. By keeping all other factors constant (time, alpha, and confidence), reducing the tracking error to 2 percent reduced the probability of underperformance to only 14 percent and increased the chances of success to 86 percent. Similarly, an increase in tracking error from 4 percent (moderate) to 8 percent (high) increased the odds of underperforming to 43 percent and reduced the chances of success to 57 percent.

These results shouldn't come as much of a surprise. We are observing that high-information-ratio managers—that is, the managers with the highest alpha for every 1 percent of tracking error—achieve more consistent results. With constant alpha, the manager with the highest information ratio will have the smallest tracking error and, therefore, will offer the most consistent returns. In other words, returns will be more tightly distributed around their alpha and these managers will experience fewer periods with returns less than zero. Note however that, under the assumption that managers' active returns are normally distributed, managers with the same information ratio will have the same probability that their returns will be less than zero. Furthermore, the higher the information ratio the smaller the probability that the managers will experience returns below zero. Therefore we should be trying to identify the highest-information-ratio managers.

The problem here is that alphas and information ratios are difficult to estimate and are probably unstable. Most managers, on the other hand, maintain a relatively stable level of tracking error, and a variety of tools can help us measure it. Therefore, one way to help put the odds in our favor is to use lower-tracking-error strategies. This also helps to maintain a time horizon that exceeds five years. For example, table 4 shows that a lower risk strategy (2 percent tracking error) with a ten-year time horizon will provide us with 94-percent confidence of being correct. Not only that, but picking a lower-risk strategy with smaller portfolio bets probably provides more downside protection if the strategy underperforms (the 6 percent of occurrences when we were unlucky with a good strategy that failed to add value).

But ten years or a current business cycle is a long time to wait to ensure our manager can add value, and we are limiting our value added by selecting individual managers with low tracking error, mostly enhanced indexers. Why not just go passive and invest in the benchmark, avoiding any manager risk? The simple reason is that each 1 percent of added value at the total fund level derived through active management can increase benefits or decrease funding costs (that is, contributions) by 20 percent over the long term. This is one of the wonders of compound interest and one of the reasons that positive, active management is desirable.

That said, an investment committee may not want to limit its opportunity set to low-value-added strategies. Instead, a committee can pick specialist managers who can add high value in their respective areas of expertise and optimally combine managers to reduce risk relative to the benchmark. This limits exposure to a single manager and also allows the committee to choose from strategies with potentially higher value added. Risk reduction comes from the effects of correlation and modern portfolio theory.

In short, the whole (that is, the asset class structure) may be more important than the sum of the parts (the individual managers). Without multiple managers we are either limiting our outcome by using a low-risk/low-value-added manager with a better chance of success in a five-year period, or increasing our risk by using a high-risk manager and chancing significant underperformance. In either case the fund has high exposure to an individual manager. A well-designed multimanager structure will improve our odds of success through low-asset-class risk, while still enabling us to choose high value added managers.

Don Ezra, Russell's director of strategic advice, wrote an insightful and understandable article that provided four common-sense principles for winning the active management game: (1) use specialist products; (2) diversify manager-research risk; (3) diversify investment styles; and (4) rebalance.[8] All boringly straightforward and logical, but they provide attractive offsetting characteristics, which can add value and make money. This common-sense approach also broadens the topic

from individual manager selection and retention to preparing a good asset class strategy.

## Constructing a Good Asset Class Strategy

Constructing a good asset class strategy generally requires a game plan. The best asset class game plan for your fund will depend upon a number of factors specific to your fund and investment committee.

As an example, the number and type of manager(s) chosen may depend upon the dollars allocated to the asset class as well as your objectives and beliefs. More dollars under management in a specific asset class will generally allow for the use of more managers, due to economies of scale and the nature of investment manager fees, which decline as assets under management increase. In other words, having a limited number of dollars allocated to an asset class (say $10 million for Canadian equities) may limit your choices, such as hiring extensive multi-specialist managers, because they won't be cost effective.

Each asset class strategy should have two achievable—but often competing—objectives, usually expressed as return (that is, value added or alpha) and risk (commonly tracking error or TE). As noted earlier these factors differ significantly by asset class. For example, risk and return objectives for Canadian bonds (0.4 percent alpha and 1 percent TE) would be significantly different than that for Canadian equities (1.5 percent alpha and 4 percent TE). Yet they should be aligned with your risk tolerance for each asset class and at the overall fund level. In seeking a higher value-added return, fiduciaries usually must be prepared to accept higher risk. That higher risk ultimately must be congruent with the fiduciaries' risk tolerance and time horizons, or they quickly will unwind the strategy at the first sign of significant underperformance.

Finally, an investment committee's beliefs must be founded in fundamental research and not reliant on gut feel. If the strategy has intended or unintended biases (capitalization, sector, etc.), one had better be convinced of the long-term benefit and prepared for the potential short-term downside. Again, any long-term strategy must be congruent with fund risk tolerance to survive the uncertainties of the market. Without a clearly defined asset class strategy consistent with your risk tolerance and objectives, the battle already may be lost for most fiduciaries.

The professed long-term asset-class investment strategy must be well articulated, communicated and documented. In a specialist structure, each manager should play a separate and distinct role, with differing mandates and guidelines. The combined risk of the individual managers should not exceed the risk objective for the asset class. The value added comes from picking the managers, but the risk reduction comes from combining the managers. In this structure, with multiple competing and complementary managers, the evaluation focus should shift from the individual manager to the performance of the asset class.

## Practical Solutions to Put the Odds in Your Favor

No single action will eliminate the uncertainties of manager selection, but the following practical steps may reduce risk and put the odds of adding value in your favor:

1. Prepare a long-term asset class strategy that is founded in research and consistent with your risk tolerance and objectives.
2. Educate yourself in the fundamental research of asset-class success factors. This research generally concludes that the two factors that result most consistently in good manager selection are high-quality internal research and good security selection (not market timing). Additional factors include a good decision-making approach, disciplined processes, etc.
3. Implement using a lower-risk (low TE) asset-class strategy to improve the odds of outperformance in the conventional five-year evaluation period to limit the downside in case of any underperformance.
4. Choose a structure with multiple specialist managers to diversify manager-selection risk, reduce the exposure to one single manager, increase potential value added, and minimize asset-class turnover costs.
5. Communicate and document the asset-class structure. This will help the investment committee to buy into the strategy and focus at the asset-class level during performance evaluation.
6. Recognize that skilled individual managers can underperform the benchmark for prolonged periods of time, but that the whole may be greater than the

sum of its parts. Focus on the performance of the asset-class strategy.

7. Use a combination of qualitative and quantitative research to analyze manager selection and retention decisions. I recommend a three-tiered approach to performance measurement: superior qualitative research, portfolio profile analysis at the manager and asset-class level, and core performance measurement to ratify the outcomes.[9]
8. When using quantitative performance data, try to remove end-point sensitivity. Do this by looking at all manager returns during the entire product history for rolling one-, three- and five-year periods to determine consistency, average value added and changes in approach.
9. Perform ongoing due diligence of the individual managers and their asset-class holdings. The information gathered will help you control for asset-class risk and make necessary manager replacements or reallocations.
10. Continuously monitor the asset-class structure and its overall risk relative to the benchmark to refine the process.

## Summary

Reliable, long-term historical manager returns or even risk-adjusted returns are generally not available for manager evaluation. Shorter-term historical manager returns are not statistically significant and have always failed to predict future excess returns. Yet investment committees continually use a period of five years or less to evaluate manager success. This is the manager selection conundrum. If an investment committee truly is seeking consistent performance over a reasonable time period, then focusing on a good multimanager asset-class strategy with lower tracking error is more likely to provide consistent value added. The vagaries and randomness of the market can never be removed, but a good asset-class strategy and proper investment committee education and communication put the odds in your favor.

### ENDNOTES

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9. For further insight to this approach, see Curwood, op. cit. p. 36.

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