The (Un)Reliability of Past Performance

The longer your view, the better your perspective

By Baird's Advisory Services Research

If you're making investment decisions with the assumption that recent performance will continue, that measure is dangerously unreliable – as recent market volatility has amply demonstrated.

We all know the old adage: past performance is not indicative of future results. However, this bit of wisdom typically hides in the fine print of disclosures even though it would likely serve investors better riding the masthead of an investment prospectus.

In this paper, we will explain how making investment decisions based on recent performance – even though this is the information most easily available to investors – can be extremely counterproductive. It is our experience that more informed investment selections usually result from an analysis of less conveniently attained information. In the following pages, we will offer some perspective on the valuable role past performance can play when used in conjunction with a deeper analysis of various quantitative and qualitative factors.

Understanding the Pattern of Active Manager Performance

Depending on what you want it to tell you, past performance can be either reliable or very unreliable. If you're making investment decisions with the assumption that recent performance will continue, the measure is dangerously unreliable – as recent market volatility has amply demonstrated. Yet, studying past performance can be a valuable exercise from the standpoint that reversion to the mean is a powerful dynamic, and the examination of past performance over a longer period spanning various market cycles can help investors avoid making costly mistakes.

All too often, though, we see that investment decisions are fueled by performance alone – hiring an investment manager on the basis of solid past performance or terminating another because of recent poor performance. To be sure, hiring superior investment managers is critical to the long-term success of a portfolio. However, mistiming such decisions can be detrimental and limit the chances of success.

The Cyclicality of Active Manager Performance

The performance of active investment managers is cyclical and, as such, is subject to misinterpretation. Financial Advisors are often asked, "Should I utilize active or passive managers?" and the answer is, "It depends." One reason the active-passive debate rages on is the notion that performance of active managers varies from period to period. In some periods, active managers have been able to add value with an above-average success rate. In other periods, benchmarks have been incredibly difficult to beat and active managers have lagged.

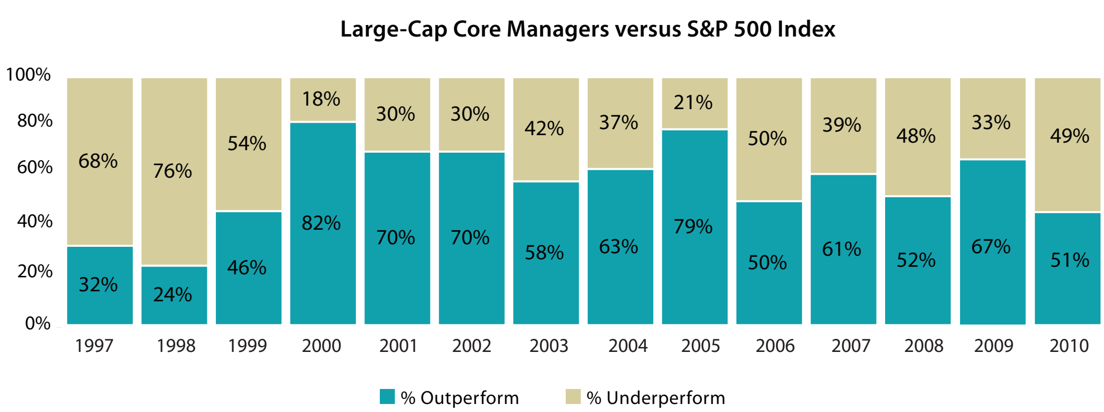
Graph A displays the calendar year performance of large-cap core mutual fund managers relative to the S&P 500 Index.[1] During the late '90s, the S&P 500 was difficult to beat. For example, in 1998 76% of active managers underperformed. Conversely, in the early 2000s active managers fared much better. In 2000, an astonishing 82% of managers outperformed the benchmark. Even though large-cap core is used in this example, a similar pattern exists in all asset classes.

At the individual portfolio level, manager performance is also cyclical for a variety of reasons. Investment style plays an important role in determining a pattern of performance, even within the same asset class. For example, a manager utilizing a deep value versus a relative value strategy may ebb and flow during different periods. Market cap may also affect returns: a mega-cap portfolio will perform differently than another that has greater breadth and includes companies with lower market capitalizations. Certainly, the list of reasons why two portfolios perform differently can be quite extensive.

However, of utmost importance is the realization that portfolio performance is not always a direct extension of a manager's skill. If a manager's

GRAPH A:

Performance Cyclicality – Managers' Success versus the Benchmark



Source: Morningstar Direct, S&P 500 Index, Baird Analysis. All performance is net of the mutual fund expense ratio.

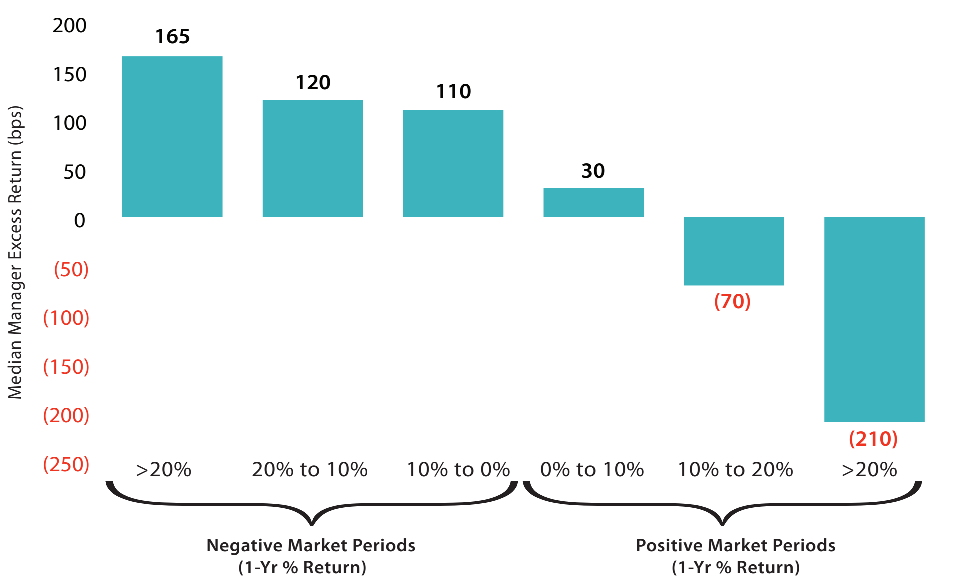
investment style is out of favor in the marketplace, those headwinds will be difficult to overcome. Nevertheless, that style can easily come back into favor and provide a tailwind for much improved performance in the future.

In aggregate, the magnitude of the market's returns affects the fate of active managers, particularly at the extremes. In general, active managers tend to perform best in adverse market conditions and struggle in strong bull markets. Graph B displays the median manager's over- or under-performance in various 1-year periods, sorted by positive and negative market periods and measured across all nine domestic equity asset classes for the past 20 years ending September 2011.[2]

Of utmost importance is the realization that portfolio performance is not always a direct extension of a manager's skill. If a manager's investment style is out of favor in the marketplace, those headwinds will be difficult to overcome.

GRAPH B:

Median Excess Return in Various Market Environments



Source: Morningstar Direct, Baird Analysis. All performance is net of the mutual fund expense ratio. For the 20-year period ending September 30, 2011.

After recording thousands of observations a clear pattern emerged. For example, in 1-year periods when the benchmarks were down 20% or more, the average manager outperformed by 165 basis points (bps). (Note that one basis point equals 0.01%.) On the other hand, when the benchmarks rose 20% or more, managers were not able to provide much excess return, especially when incorporating investment management fees. Among other factors shaping this pattern, a manager's decision to hold cash in a portfolio will provide a cushion in challenging markets, but that cash position also serves as an anchor in rising markets. Another factor at play is that many managers have a high-quality bias and avoid stocks that soar during low-quality rallies.

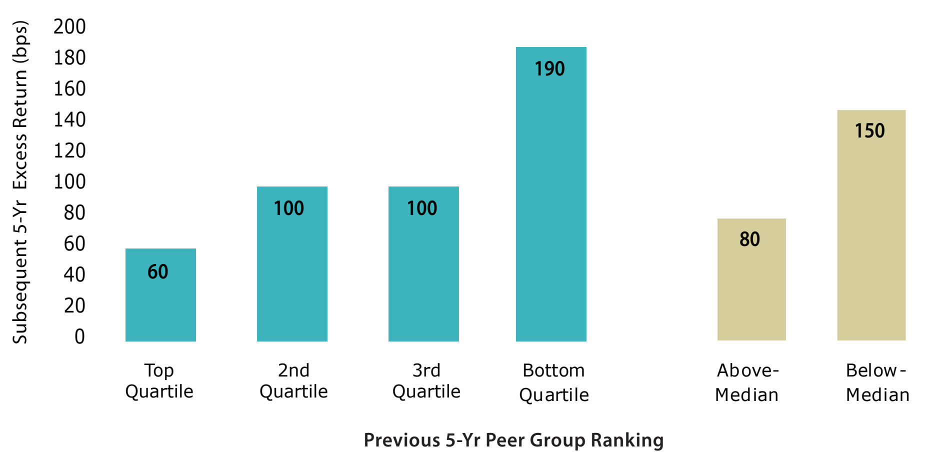
The (Un)Reliability of Past Performance

Past performance, especially short-term, is the most widely publicized and readily available gauge for active managers. Performance is cited in newspapers and is the primary underlying component used by major rating agencies of investment managers. Oftentimes little qualitative information is available, such as investment philosophy or personnel changes. But the convenience and widespread use of performance information should not be interpreted as a unanimous endorsement of its reliability. In fact, we've found evidence that suggests successful past short-term performance and future performance often have an inverse relationship.

Graph C illustrates this concept. The chart summarizes the 5-year return of separately managed accounts from all nine domestic equity asset classes over the 20-year period ending September 2011.[3] To eliminate end-period bias, rolling 5-year windows were examined. In total, more than 30,000 observations were analyzed.

GRAPH C:

Past Performance versus Future Performance – An Inverse Relationship



Source: Morningstar Direct, Baird Analysis. All performance is net of the mutual fund expense ratio. For the 20-year period ending September 30, 2011.

Managers were grouped based on their peer group ranking for the previous 5-year period, and then their excess return was calculated for the subsequent 5-year period. Surprisingly, those managers that had ranked in the lower quartiles over the past 5 years actually outperformed their higher-ranked peers over the subsequent 5 years, on average. Further, managers that ranked in the bottom half of their peer group universe provided a future excess return that was nearly double that of an above-median manager. These results help to confirm the notion of "reversion to the mean" and signal why it is dangerous to place too much emphasis on recent performance.

This concept of manager cyclicality, or reversion to the mean, may be easy to understand, but it is often a hard concept to embrace in practice. Behavioral finance suggests that it is common to extrapolate a successful track record into the future. Also, it can be very difficult to make an investment with a manager when they are struggling because the assumption is frequently made that the manager is ineffective and prone to future underperformance.

Anecdotally, we have seen evidence that past performance drives asset flows. Additionally, chasing these returns often has an adverse impact on investors. We previously explored this topic in the Baird white paper, "The Truth About Top-Performing Money Managers," where we analyzed equity mutual funds that bested their respective benchmarks over long time periods. We consider these fund managers to be both well-established and successful. Using mutual fund data as a proxy for retail investors, positive asset flows

The Due Diligence Process

How professionals choose and monitor money managers

When choosing money managers, it's clear that past performance doesn't tell the full story. The process of identifying quality managers and then monitoring their performance over time is known as due diligence. In the legal world, due diligence refers to the care a reasonable person should take before entering into an agreement. In the investment management world, it refers to the deep investigation of a money manager that takes place before, during and after that manager is recommended to a client.

At Baird, a team of analysts conducts investment manager due diligence. Their goal is to minimize the risk of underperformance by gaining

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generally follow above-average performance, and asset outflows follow a streak of poor performance (see Graph D left side).[4] However, those same funds that experienced asset outflows subsequently out-performed by a fairly wide margin, on average (see Graph D right side).[5]

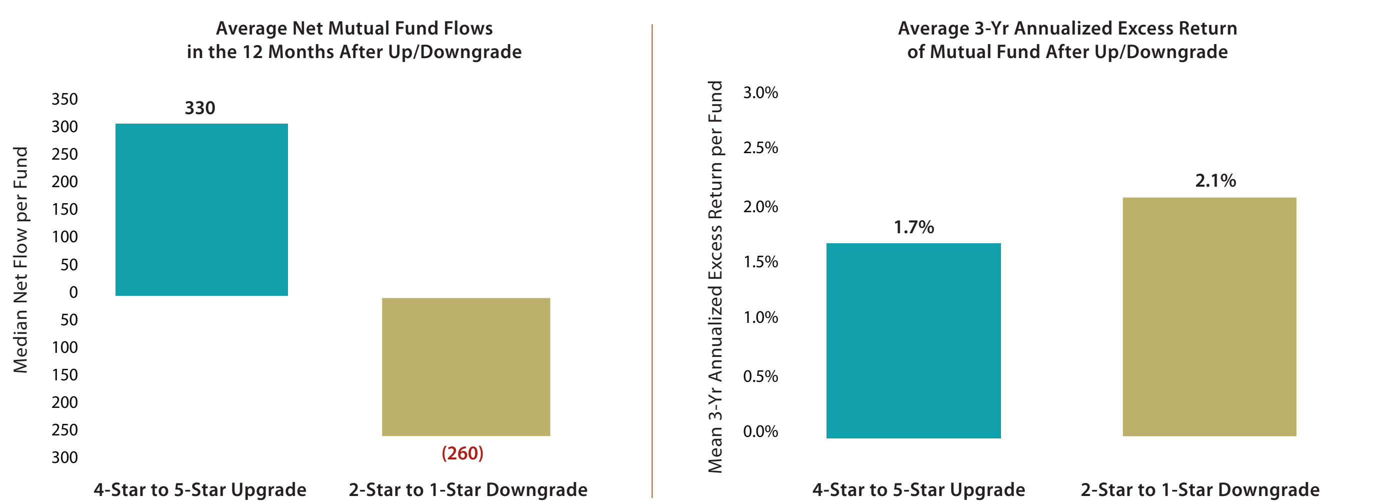
Morningstar, a leading mutual fund research firm, provides an insightful calculation called the "Investor Return." This figure essentially captures the return of the average mutual fund investor after accounting for asset inflows and outflows, implicitly measuring the effectiveness of buy and sell decisions. This differs from the stated return of the actual mutual fund, which assumes a buy and hold strategy. When evaluating the difference between these two sets of returns we can begin to measure the impact of investors' timing decisions. What we discovered is that the timing of most investors' decisions can be quite harmful to long-term results. For example, over the past 5 years ending September 2011, the "Investor Return" was less than the average fund return in *all nine* domestic equity asset classes.

How to Avoid Costly Investment Decisions

In our opinion, maximizing the return from investment managers requires a combination of the aptitude to select above-average managers and the fortitude to maintain a disciplined approach. Understanding, analyzing and monitoring the many investment options available to our clients is a daunting task that requires that Baird adhere to strict due diligence criteria conducted by full-time portfolio analysts. Our goal is not to hire those managers that have already done well, it is to identify those that present the best prospects for future success.

GRAPH D:

Investor's Folly – Buying High and Selling Low



Source: Morningstar; Zephyr; Baird analysis. For the 10-year period ending December 2010.

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a full understanding of the story behind the numbers. The process is continuous with equal effort applied to manager selection and ongoing manager evaluation.

It includes these steps:

1. *Initial manager screening* using a proprietary, multi-factor model that encompasses 16 different factors scored over various times periods
2. *Preliminary and detailed portfolio analysis,* which requires weeks of research and numerous conversations with the prospective money manager
3. *On-site visits,* which often lead to important observations that cannot be garnered over the phone
4. *Written investment thesis* that consolidates all information gathered in the prior steps to answer the question, "Why should clients invest with this manager?"
5. *Committee approvals* to ensure full agreement that the manager is an acceptable investment option
6. *Ongoing due diligence* including periodic, on-site visits and frequent dialogue with managers is conducted to access consistency.

Although it is easy for investors to access historical performance data, deeper information becomes much more difficult to uncover. A robust due diligence process can bridge that gap. Understanding the drivers of performance can significantly improve our chances of identifying high-performing managers.

Our experience suggests that the following investment guidelines will benefit investors:

- Understand that past performance is exactly that. It has already been earned and the same results are unlikely to continue in perpetuity. However, recognizing patterns of performance (how a manager does in various environments) is important.
- Understanding how a manager achieved performance is as important as the performance itself. Baird spends considerable time determining what element drives a manager's success – people, investment process or even luck.
- Be skeptical about hiring after a peak performance period. Baird evaluates managers over many holding periods, not just the most recent. A manager that is competitive over many periods is more attractive than one that looks strong because of recent outperformance. Not every manager follows good performance with bad, but reversion to the mean can be a powerful force and is something to be aware of.
- It often pays to be contrarian. As the saying goes, "the time of maximum pessimism is the best time to buy." If nothing has changed with your investment manager, the performance may be cyclical and poised to rebound. Consider allocating more to an underperforming manager, much like you would allocate to an asset class during re-balancing.
- An investor's biggest folly is to buy high and sell low. Yet, we see clear evidence of this in the marketplace. Don't be quick to terminate a manager if the underperformance is related to style and not skill – sometimes exercising patience is the best option.
- Set a rebalancing schedule. This will help to automate the countercyclical process of adding to those that are struggling and skimming from those that are performing well.
- Work with a professional Financial Advisor who has access to due diligence resources. The qualitative and quantitative story behind the past performance numbers is what can give investors an edge.

Investors should consider the investment objectives, risks, charges and expenses of a fund carefully before investing. This and other information is found in the prospectus. For a prospectus, contact your Baird Financial Advisor. Please read the prospectus carefully before investing.

[1]Data includes all active managers defined as Large Core by Morningstar. Performance was calculated for each calendar year from 1997 to 2010 and compared relative to the S&P 500 Index. This chart illustrates the percentage of those managers that either outperformed or underperformed the S&P 500 Index in a given calendar year. All performance is reported net of fees. The S&P 500 Index is a representative sample of 500 leading companies in leading industries of the U.S. economy. It is unmanaged and an investment cannot be made in it.

[2]Market returns were calculated for each of the nine domestic asset classes using a widely recognized Russell benchmark that corresponded to that specific asset class, except in large-core where the S&P 500 Index was used. Investment Manager performance was provided by Morningstar. Data was calculated using rolling 1-year periods, computed quarterly over the past 20 years ending September 2011. Market performance was sorted by the magnitude of that period's return and compared to the performance of the Investment Manager average. Data from each asset class was aggregated and the results are displayed in Graph B.

[3]Manager returns were collected from the nine domestic style boxes as defined by Morningstar and compared to a widely recognized Russell index that corresponds to that specific asset class. The rolling 5-year return of each manager was sorted by asset class and ranked into quartiles. These 5-year calculations were repeated each quarter for the 20-year period ending September 2011. After each return was ranked, the subsequent 5-year excess return was calculated. This process was repeated for each asset class and shown in aggregate in Graph C.

[4]Morningstar Star rankings were observed for the nine domestic equity style boxes over a 10-year period ending December 2010. Asset inflows and outflows were also collected. Graph D represents the average 12-month inflow or outflow for each fund after a rating change. Among other factors, Morningstar rankings utilize a fund's risk-adjusted return relative to peers over various time frames.

Morningstar Ratings
The overall Morningstar rating for a fund is derived from a weighted average of the performance figures associated with a fund's 3-, 5- and 10-year (if applicable) Morningstar Rating metrics.

For each fund with at least a three-year history, Morningstar calculates a Morningstar Rating based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a fund's monthly performance (including the effects of sales charges, loads and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. The top 10% of funds in each category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars and the bottom 10% receive 1 star. Each share class is counted as a fraction of one fund within this scale and rated separately, which may cause slight variations in the distribution percentages.

[5]Morningstar Star rankings were observed for the nine domestic equity style boxes over a 10-year period ending December 2010. The 3-year performance was calculated for any fund that had a change in Star ranking.

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