While it is easy to identify top performing funds with the benefit of hindsight, no one can consistently predict whether a given mutual fund will outperform its benchmark. It doesn't matter that the fund consistently outperformed in the past. Nor does it matter that every portfolio manager on the team went to Harvard or that the group collectively has 100 years of experience. But some evidence suggests that managers who stick to their investment styles tend to outperform managers who do not.

According to a recent study by the University of Texas, mutual funds that stuck to their styles outperformed those that were not style-consistent over a ten-year period. Professor Keith C. Brown of the University of Texas and W.V. Harlow of Fidelity Investments studied 3,177 equity mutual funds from 1991-2000. They categorized each fund by market-capitalization and style (growth, value and blend). Brown and Harlow found that funds that stayed faithful to their style significantly outperformed funds that did not.

Why is style consistency desirable? First, style-consistent funds tend to have less portfolio turnover and lower trading costs than those managers who allow their styles to drift. Another factor is that managers who stick with their style are more familiar with their holdings and are less likely to make mistakes than those who try to time their style decisions. In other words, managers who stray tend to chase returns.

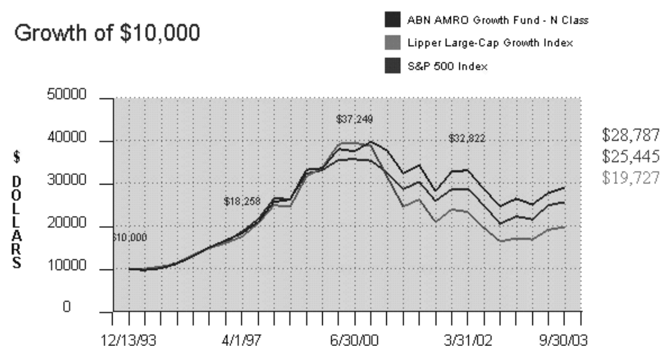
To be sure, style drift is very common. According to a recent analysis of mutual funds by Standard & Poor's, 54% of domestic funds left their style boxes during a three-year study ending in 2002. Over a five-year period ending in 2002, the figure rose to 63%. Large-cap value and growth funds were the most likely to stay within their respective style boxes, while small-cap and mid-cap blend fund managers drifted the most.

How can you pinpoint whether funds are sticking to their investment style? There are two types of style analysis: returns-based and holdings-based (also known as portfolio-based or fundamental style analysis). The returns-based method relies upon historical returns rather than actual portfolio positions to provide an estimate of the average style position of a mutual fund during a given period. In contrast, the holdings-based method analyzes the actual securities within a given portfolio to generate style data. Each method has its proponents and opponents.

Traditional Methods

Before we compare results-based and holdings-based analysis to examine style consistency, let's take a look at the traditional methods of assessing an investment manager. Those include absolute performance, index comparisons, attribution analysis, financial ratios, ratings and modern portfolio theory (MPT) statistics. These measures collectively do a good job in assessing a fund's past record.

Performance often measures "growth of $10,000" over time, or it is expressed as an average annual return while an index comparison might contrast performance against the S&P 500 Index or a Lipper average. Attribution analysis is a common method of assessing a manager's sector and stock selection. Financial ratios such as relative revenue growth or lower-than-average PEG (relationship of P/E to growth) ratio suggest that the composition of a fund may be more attractive on a relative basis and suggest better performance in the future. Ratings are performed by such independent firms as Morningstar, Lipper, Standard & Poor's and various financial magazines.



Of all these methods, attribution analysis may go the farthest in explaining past performance - and even it falls short. Attribution analysis measures the positive or negative contribution to performance made by sector or stock selection decisions. For instance, if the fund is overweight in a sector that outperformed the benchmark, then that position contributes positively to the fund's relative performance. Although interesting data, attribution analysis should not necessarily imply a conscious decision on the part of the portfolio manager, particularly those who claim to invest purely on a bottom-up basis without regard to sector. Rather than evaluating performance, the sector overweight is merely an artifact of the process.

A more sophisticated set of measurements include MPT statistics such as standard deviation (volatility), the Sharpe ratio (performance in relation to volatility), beta (returns attributable to overall market), tracking error (degree to which fund holdings deviate from benchmark) and alpha (fund returns not attributable to the market). While most MPT data are publicly available, MPT requires many data points to be relevant (at least 3 years). But again, results are historical, not forward looking. If the manager changes the portfolio the day before the analysis is conducted, then the results won't be in sync with the manager's current portfolio.

MPT Statistics

Standard Deviation (A Measure of Risk)	Volatility of returns; How much do returns fluctuate High highs & Low Lows lead to a higher SD High SD is not automatically a bad thing
Sharpe Ratio (Getting Paid for Std. Dev.?)	Excess returns (real return - risk free) divided by Standard Deviation What are you getting in return for each unit of SD Positive is good, higher the better
Beta (A Measure of Risk)	Return that is attributable to the move in the market Higher beta is perceived as having more risk Beta = 1 is the market
Treynor Ratio (Getting Paid for Beta?)	Excess Returns (real return - risk free) divided by beta What are you getting in return for fund's beta Positive is good, higher - the better
Tracking Error	Measure of how closely a manager's returns track that of the benchmark Active managers will have tracking error Higher the TE the more the manager does not look/act like the benchmark
Information Ratio (Getting paid for Tracking Error?)	Annualized excess returns (above benchmark) divided by tracking error Index relative Is the active manager adding value by taking active sector/industry bets?
Alpha return	Returns of the manager not attributable to the market If the market's return was equal to risk free rate, alpha is managers expected excess Is the manager a good stock picker when the market is taken out of variable Want positive number
Up/Down Market Capture Ratio	Measure of manager's performance in up/down markets relative to the market An up market is one in which the market's quarterly return is greater than or equal to zero. Down market is the opposite. How much of good and bad markets has the manager participated in the past?

Measuring Style Consistency Using Returns-Based Analysis

The same criticism - that the analysis is based on history and not current holdings - is leveled at returns-based style analysis developed by Professor William Sharpe at Stanford in the late 1980s. It is a method of evaluating a portfolio's style by comparing the fund's historical returns against various style benchmarks, such as the Russell 1000 Growth, the Russell 1000 Value, the Russell 2000 Growth or the Russell 2000 Value.

Let's look a couple of weakness' of this analysis - one at the security level and one at the portfolio level. At the security level, benchmarks can overlap causing classification confusion. General Electric is an example of this. The company is in both the Russell 1000 Growth and the Russell 1000 Value. At the portfolio level, managers can be "style penalized" for acting differently over a period of time than a given style benchmark. In this example, a hypothetical large cap growth manager has demonstrated the ability to protect wealth or mitigate loss in a declining growth market. If the manager's returns do not resemble those of the Russell 1000 growth over that particular period, returns based analysis might make it look like the manager deviated from the original portfolio process. This

is not always the case and can lead to misclassification of a manager's style.

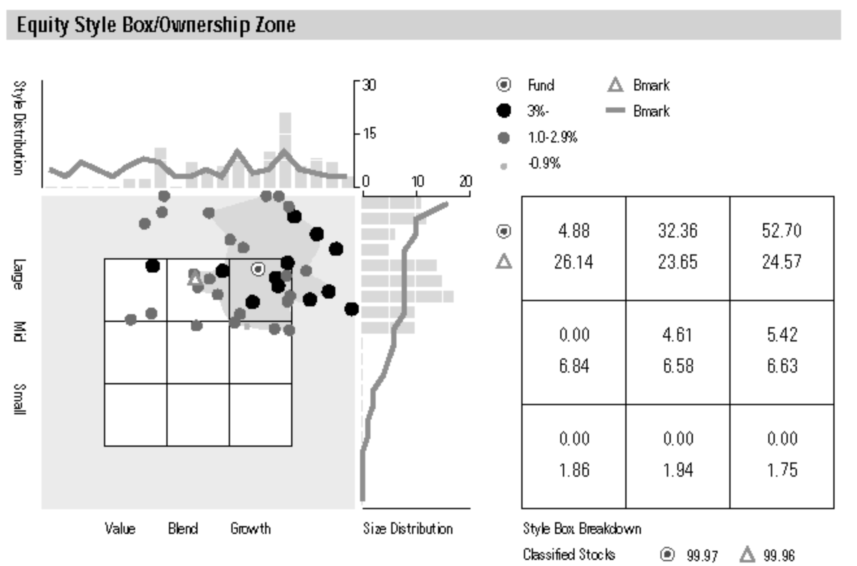
On the plus side, returns-based analysis is easy to perform and provides a reasonable picture of style exposure. Over time, it gives an advisor the ability to monitor style drift. But the user has to rely on a long-term assessment of a manager's style since he or she has no idea what the manager is doing currently. According to studies conducted by Morningstar, returns-based analysis is particularly inaccurate with small-cap and mid-cap funds.

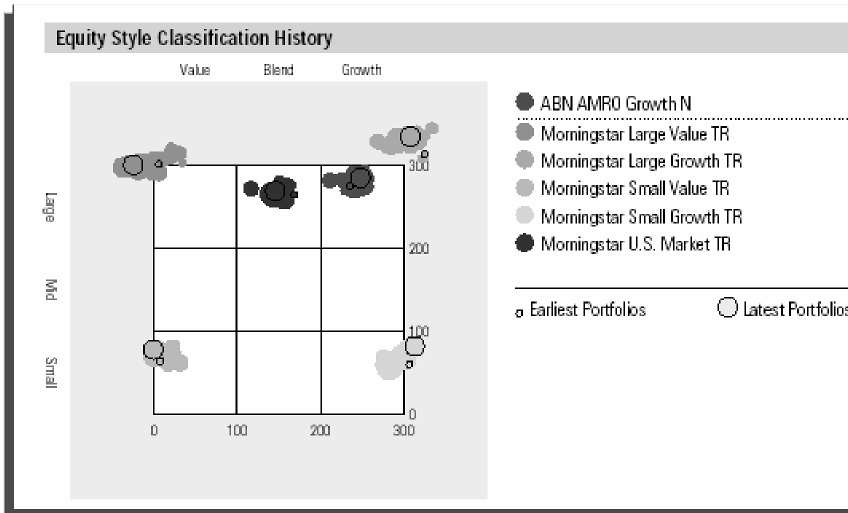
Measuring Style Consistency Using Holdings-Based Analysis

Holdings-based analysis determines a portfolio's style by an examination of actual underlying holdings. No elaborate methodology is required to perform the analysis. Most academic studies in recent years have shown that forecasts of fund risk based on holdings-based analysis generally has a higher correlation with future risk - and shows greater accuracy in predicting future returns - than do forecasts based on returns based analysis .

The major drawbacks to this method are the timeliness and cost of the data. It is not as effective for portfolios in which there are sudden changes. Hedge funds, for instance, where no portfolio data are available, are not conducive to holdings-based analysis. Mutual fund companies are now required to disclose holdings at least semi-annually, and several third party firms collect and analyze the data more frequently. But most of the data is still not "live."

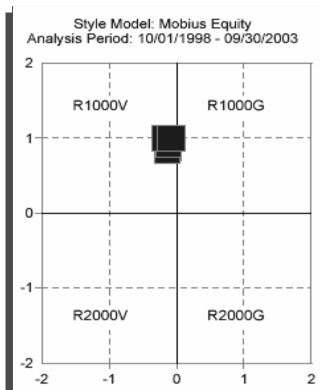
Morningstar has developed a holdings-based analysis tool as part of its DataLab software, which takes advantage of the firm's continuous collection of monthly portfolio data for all mutual funds. Its accuracy is better when there is less portfolio turnover because the data is usable for a longer period. With this tool, the user can visualize where a fund belongs in terms of style. "Ownership zones" help to describe the concentration of holdings within a portfolio. Using one of our funds as an example, the ABN AMRO Growth Fund is primarily located in the Large Cap Growth style box. The gray area is the ownership zone, which covers 75% of the portfolio. The style box breakdown shows the percent of holdings in each box relative to the benchmark. Almost every fund will have some holdings that reach into other styles. DataLab users can depict style history, showing how the "centroid" of the fund has migrated over time.

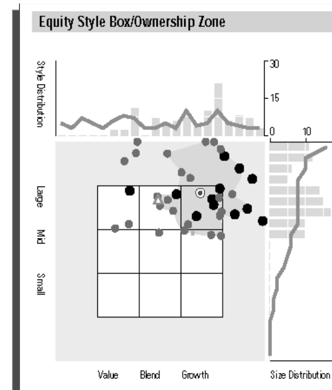




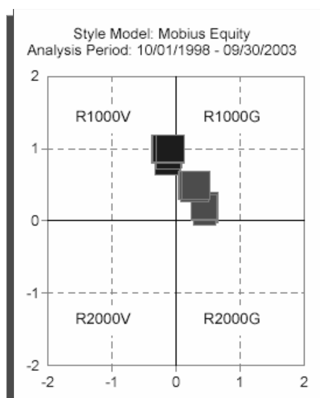
Notice the different results using returns-based and holdings-based analysis on the same fund portfolio. Using the returns-based model[4], the Growth Fund appears as a large-cap blend, whereas the holdings-based model clearly shows large-cap growth. In comparing different funds within the same Morningstar category, one appears to have a tighter ownership zone than the other, which reflects the purity of style. The fund with the larger ownership zone shows that the manager is buying everything from large cap value to small cap growth. As long as a fund provides current holdings, this analysis can be performed and will uncover managers who are not remaining true to their style.

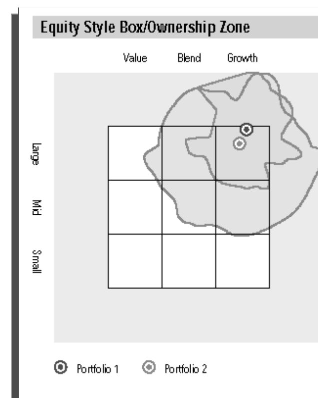
Returns-Based vs. Holdings-Based 1 Fund





Returns-Based vs. Holdings-Based 2 Funds





Conclusion

Based on our experience, we believe that holdings-based analysis is the most reliable method for determining style consistency, assuming the appropriate data is available. And we also agree that style consistency is a significant factor in predicting portfolio performance. (1,357 words)