



Research Note

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Analysis of Style Biases In Institutional and Mutual Fund Management

During the summer of 1999, OakBrook Investments introduced a new family of style indices that combined the traditional growth vs. value classification with a powerful new classification based on the stability of a stock's past returns relative to other stocks. When used in a returns based style analysis, these indices can be used to identify four new styles of investment management: two specialized styles of growth management called stable growth and variable growth and two specialized styles of value management called stable value and variable value. This report explores the prevalence and return characteristics of these specialized styles of management in both the institutional and retail markets. Our analysis of returns during the January 1994 to September 1999 period has uncovered a number of interesting results. For example, institutions appear more willing to take on risk. The number of managers following the growth and variable growth styles of management are much larger in the institutional market place than in the mutual fund arena. Retail investors see a larger number of funds focused on stable stocks and a larger number of core funds with no particular style emphasis. Curiously, the stable growth style appears to be under represented in both the institutional and mutual fund markets. A sizable investment style risk could result from this under representation. Our research indicates that stable stocks and variable stocks have a cyclical relationship. Recently, the variable stocks have been the best performers but when this cycle turns, many institutions and individual investors may find themselves under performing their benchmarks due to an underweight in stable growth stocks.

To analyze investment manager style, we used the PSN and Morningstar equity databases. Table 1 reports the results of our analysis of institutional manager returns drawn from the PSN database. Table 2 reports the results of our analysis of mutual fund returns drawn from the Morningstar database. The four corners of Tables 1 and 2 represent managers whose return behavior most closely matched the return behavior of OakBrook's four basic style indices. Starting from the top left corner and moving clockwise around the corners, the indices represented are Stable Value, Stable Growth, Variable Growth and Variable Value. At the top and bottom of the center column are managers whose returns were highly stable or variable, but did not exhibit strong growth or value tendencies. Conversely, the managers at either end of the center row exhibited strong value or growth behavior, but did not fall neatly in either the stable or variable return pattern. Finally, at the center of the table are "core" managers that exhibited no particular bias toward growth, value, stability or variability.

The managers included in each table were selected from the PSN or Morningstar database using Zephyr Associates Style Advisor software in a two step process. In the first step, a return based style analysis was conducted on each manager in the database using the Russell indices to distinguish large cap managers from small cap managers. Only managers identified as focusing on US stocks, having a large cap style and having a return history spanning the January 1994 through September 1999 period were held for use in the second step. The second step consisted of a return based analysis using OakBrook's basic style indices of Stable Value, Stable Growth, Variable Growth and Variable Value as the four style categories. This resulted in classifying the



manager's style along the value vs. growth and variable vs. stable axis. Each manager was then placed in one of the nine cells of Table 1 or Table 2. The "cutoff" values used to classify managers in the two samples were identical to facilitate comparison of the two markets.

Table 1 reports the style classifications of 864 institutional managers, with the largest number of managers (173) following the variable growth style. The total number of value managers (188) is about half the total number of growth managers (381). The number of stable value managers (58) is larger than the number of variable value managers (38), which is consistent with the perception that a portfolio of value stocks should offer safety and stability. A value manager focusing on stable stocks may find the market more receptive to their style. The situation is reversed for growth managers, with the number of variable growth managers (173) being substantially larger than the number of stable growth managers (45). Once again this may reflect investor expectations. Growth investors generally expect higher returns than value investors and are therefore willing to tolerate more risk. With growth investors shopping for higher returns, a growth manager whose style emphasizes volatile stocks, which offer the potential of higher returns, is more likely to be accepted in the marketplace. However, the small number of managers following a stable growth style and the relatively small size of their accounts are surprising. The total capitalization of the stocks in the stable growth index is much larger than the total capitalization of stocks in either the stable value or variable value indices. For example, as of 6/30/99 stable growth stocks accounted for 13.1% of the S&P 500's market capitalization while stable value and variable value accounted for only 4.8% and 8.3%, respectively. Variable growth accounted for 28.2% of the S&P's market cap. This suggests that stable growth stocks may be under represented in institutional portfolios.

Table 2 reports the style classifications of 827 mutual fund managers, with the largest number of managers (228) reported for the core group where no particular style is present. The large increase in the number of "core" managers compared to Table 1 may result from a greater tendency among mutual fund managers to change style and chase returns. Institutional investors and investment consultants expect managers to follow a consistent style, whereas mutual fund investors may be more concerned with immediate returns than style consistency. Returning to Table 2, the total number of value managers (161) is about two thirds the total number of growth managers (236). The substantial decline in the total number of growth managers relative to Table 1 reflects a much smaller number of managers in the "core" growth group, 73 in Table 2 vs. 163 in Table 1.

Interestingly, the total number of stable managers (168) in Table 2 is larger than the total number of value managers in Table 2. The total number of managers focusing on variable stocks (274) is also larger than the total number of growth managers. It appears that among retail investors the stable and variable investment styles may be more important than growth and value.

The number of stable value managers (41) in Table 2 is larger than the number of variable value managers (36). Variable growth managers (138) outnumber stable growth managers (25) by a wide margin. Once again, the small number of managers following a stable growth style and the relatively small size of their accounts are surprising. As cited above, the total capitalization of the stocks in the stable growth index is much larger than the total capitalization of stocks in either the stable value or variable value indices. This suggests that stable growth stocks may be under represented in the portfolios of individual investors.



The return characteristics of the manager groups reported in Tables 1 and 2 are consistent with those of the four basic style indices. Return increases as one moves from left to right and from top to bottom, reflecting the strong historical performance of growth stocks vs. value stocks and variable stocks vs. stable stocks during the January 1994 through September 1999 period covered by this study. Standard deviation of return and beta increase as one moves from top to bottom, reflecting the increase in the variability of return as one moves from stable to variable managers. Growth managers tend to have higher betas than their value counterparts in each row. Comparing the two tables, the overall level of risk borne by mutual fund investors, as measured by standard deviations and betas reported in Table 2, appears to be slightly lower than the risk assumed by institutional investors in every style category except stable value. The median annual returns in Table 2 are on average 2.2% lower than those reported in Table 1. This reflects the lower level of risk cited above, the deduction of management fees (Morningstar's mutual fund returns are net of fees while PSN's institutional figures are gross), and the higher cash balances typically held in mutual fund accounts.

In summary, the results of our returns based style analyses show that institutions appear more willing to take on risk than mutual fund investors. This is reflected in the larger number of managers following the growth and variable growth styles of management in the institutional market place and the greater emphasis on stable stocks by managers in the mutual fund arena. The median institutional manager, within each style category, also tends to exhibit a higher standard deviation of return and beta than does their counter part in the mutual fund sample. Both institutions and mutual fund investors appear to ignore the stable growth style. Both groups could face a sizable investment style risk as a result. Our research has shown that stable stocks and variable stocks have a cyclical relationship. Over the past five years, variable stocks have been the best performers and a bias in their favor is understandable. However, when the cycle turns in favor of more stable stocks, many institutions and individual investors may find themselves under performing their benchmarks due to an underweight in stable growth stocks.



Table 1

**Style Classifications and Performance of Institutional Managers
January 1994 – September 1999**

Stable Value Number of Managers: 58 Median Return: 12.89% Median Stdev: 10.86% Median Beta: 0.56	Stable Number of Managers: 50 Median Return: 16.54% Median Stdev: 13.15% Median Beta: 0.81	Stable Growth Number of Managers: 45 Median Return: 17.55% Median Stdev: 13.72% Median Beta: 0.87
Value Number of Managers: 92 Median Return: 16.60% Median Stdev: 14.70% Median Beta: 0.92	Core Number of Managers: 138 Median Return: 19.74% Median Stdev: 14.54% Median Beta: 0.99	Growth Number of Managers: 163 Median Return: 21.62% Median Stdev: 14.43% Median Beta: 1.01
Variable Value Number of Managers: 38 Median Return: 19.14% Median Stdev: 16.47% Median Beta: 1.04	Variable Number of Managers: 107 Median Return: 21.10% Median Stdev: 15.99% Median Beta: 1.10	Variable Growth Number of Managers: 173 Median Return: 22.27% Median Stdev: 16.04% Median Beta: 1.11

Table 2

**Style Classifications and Performance of Mutual Fund Managers
January 1994 – September 1999**

Stable Value Number of Managers: 41 Median Return: 12.77% Median Stdev: 11.41% Median Beta: 0.65	Stable Number of Managers: 102 Median Return: 14.25% Median Stdev: 11.75% Median Beta: 0.75	Stable Growth Number of Managers: 25 Median Return: 15.71% Median Stdev: 12.30% Median Beta: 0.72
Value Number of Managers: 84 Median Return: 15.66% Median Stdev: 13.71% Median Beta: 0.91	Core Number of Managers: 228 Median Return: 17.52% Median Stdev: 13.40% Median Beta: 0.93	Growth Number of Managers: 73 Median Return: 17.73% Median Stdev: 13.84% Median Beta: 0.94
Variable Value Number of Managers: 36 Median Return: 16.37% Median Stdev: 16.46% Median Beta: 1.05	Variable Number of Managers: 100 Median Return: 17.64% Median Stdev: 14.90% Median Beta: 1.02	Variable Growth Number of Managers: 138 Median Return: 19.50% Median Stdev: 15.85% Median Beta: 1.07

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