

**STUDY ON
THE PERFORMANCE DRIVERS FOR EMERGING MANAGERS
THREE YEARS ENDING DECEMBER 31, 2006**

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JULY 30, 2007**

Performance Drivers for Emerging Manager Firms for the three years ending December 31, 2006

The purpose of this study is to determine whether there are significant relationships between asset levels that traditionally determine a manager's status as emerging and various measurements of risk-adjusted return. Those measurements include the Information Ratio, Sharpe Ratio and Sortino Ratio. Additionally, the study attempts to evaluate the impact of certain salient characteristics of the firm universe, such as portfolio concentration (as measured by average number of portfolio securities), degree of trading activity (as measured by portfolio turnover) and number of research analysts and portfolio managers.

This updates FIS' ongoing study of the performance drivers for emerging firms and their large firm peer counterparts. The study period covers the three years ending December 31, 2006 and examines both the Large Capitalization and Small Capitalization manager universes. The Large Capitalization universe encompassed 492 firms that manage Large Capitalization Core, Growth and Value products. We categorized the Large Capitalization universe into firms whose total assets were under \$2 Billion, (the traditional definition of "Emerging") and those who exceeded \$2 Billion in assets. The Small Capitalization universe encompassed 338 firms that offer Small Cap Value, Core and/or Growth products. For this analysis, we broke the universe into three asset levels: 1) Less than \$500 Million (the traditional definition of Emerging Small Cap managers; 2) Less than \$1 Billion and 3) Greater than \$1 Billion. In some areas, there was insufficient data to do much of the analysis on Small Cap Core managers in the universe.

It is important to note that the duration over which this study took place represented a period of rising markets. In previous analyses conducted by FIS and others, the performance advantage, particularly for emerging Large Growth and Large Core managers, was strongest during declining markets. The prior FIS study posited that these results did not necessarily indicate that emerging managers were more skilled at providing downside market protection than larger firms, but that their higher degree of variance from the holdings of the market benchmark, coupled with skillful security and or sector selection served to modulate the relative impact of a declining market. When markets experience continuous upward momentum (particularly when concentrated among a few sectors), variance from the market benchmark's holdings caused by selection screens that lead to underweights in sectors or stocks that are deemed to be overvalued can serve to modulate relative returns (but enhance returns during market downturns). In effect, the market dynamics for the period over which this study was conducted might have diluted the relative out-performance of skillful emerging managers of certain investment strategies whose variance from the holdings of their particular market benchmark appeared to provide better downside protection than larger firms.

Additionally, prior FIS and other studies demonstrated that the performance dispersion of emerging managers was greater than that of larger managers (thus underscoring the greater necessity for skillful manager selection). The findings of this study are based on relationships between the average managers in each of the study universes and certain variables. Therefore, the conclusions are not meant to represent all managers, particularly in universes with a high degree of dispersion. In subsequent studies, we plan to examine the dispersion distribution of these findings.

Summary of Observations

1. Firm asset growth for all categories led to increased numbers of Portfolio Managers (perhaps reflecting product diversification) and Research Analysts; but only Research Analyst additions increased risk-adjusted returns
2. Firm asset growth for Large Core products beyond \$2 Billion in AUM led to less concentrated portfolios and lower risk-adjusted returns
3. Firm and Product asset growth for Large Growth products beyond \$2 Billion in AUM led to lower risk-

adjusted returns (though less conclusively than Large Core managers). Increased Product asset growth for Large Growth products beyond \$2 Billion in AUM did not conclusively lead to less concentrated portfolios but led to lower levels of portfolio turnover

4. For Large Value products, Firm and Product asset growth demonstrated a slightly negative or inconclusive relationship with measures of risk-adjusted return
5. Among Small Value firms with \$500 Million or less, those that had more Research Analysts and more concentrated portfolios were most positively correlated with risk-adjusted returns
6. Among Small Growth firms with \$500 Million or less, those that had more Research Analysts and less concentrated portfolios were most positively correlated with risk-adjusted returns
7. For both Small Value and Small Growth products, the positive relationship between asset growth and risk-adjusted returns was strongest up to AUM levels of \$500 Million (perhaps indicating enhanced resources, such as the addition of Research Analysts, as indicated in (5) and (6) above); leveled off up to AUM levels of \$1 Billion and turned negative to neutral thereafter. Thus, the data appears to demonstrate marginal dilution in risk-adjusted return between the \$500 Million and \$1 Billion levels and absolute diminution after the \$1 Billion level.

Large Capitalization Managers

There was a slightly negative correlation between firm assets and various measures of risk-adjusted return for both Large Core and Large Growth managers, suggesting that increases in firm assets for these strategies either have a neutral or negative effect on risk-adjusted performance. In contrast, Large Value product assets were positively correlated with measures of risk-adjusted return, suggesting that emerging Large Value managers did not demonstrate a specific performance advantage. These findings are consistent with the findings of other studies.¹ For Large Core managers, we believe that these correlations are related to the negative relationship between measures of risk-adjusted return and portfolio concentration (as measured by number of stocks). As discussed below, as firm assets for Large Core managers increased, so did the number of holdings; which in turn was negatively correlated with measures of risk-adjusted return. By way of contrast, for Large Value products, number of stocks was positively correlated with various measures of risk-adjusted return.

The underlying rationale for the slight performance advantage for Large Growth managers was less conclusive. Unlike their Large Core manager counterparts, there was no conclusive correlation between firm assets and number of stocks. However, like their Core counterparts, it would appear that with product asset growth, they became less active traders (*i.e.*, there was a negative correlation between product assets and portfolio turnover). In previous analyses, FIS has observed that the performance advantage of both emerging Large Growth and Core managers relative to larger peer firms tends to increase in general market downturns, when less active trading strategies (assuming positive insight in the manager's trading decisions) tend to underperform more active trading decisions. Since the analysis period for this study essentially covers a period of rising markets, it is possible that the more active trading of emerging Large Growth managers detracted from risk adjusted performance relative to the less active trading (or portfolio turnover) with non-emerging Large Growth managers.

Not surprisingly, with asset growth, the firms tended to increase their complement of both portfolio managers (perhaps indicating additional product diversification) and research analysts. The positive correlation between asset growth and additional portfolio managers was particularly pronounced for Large Growth and Large Core managers. However, the addition of these portfolio managers did not appear to positively correlate with measures of risk-adjusted return. As discussed below, like their Small Capitalization counterparts, there was a significant positive correlation between Number of Research Analysts and measures of risk-adjusted return for managers offering Large Growth and Core products.

Interestingly, this relationship was reversed among firms offering Large Value products. One reason, which obviously requires further study, could be that the three-year period over which the study occurred was a particularly strong Value market, with most of the performance momentum concentrated among cyclical sectors such as housing, industrials, finance and energy. When return momentum is so concentrated, investment processes that limit variation from the benchmark (such as indexed or enhanced index funds) are best able to fully capture its price momentum. Fundamental bottom up research processes (particularly those that avoid or sell securities or sectors that are deemed overvalued) can serve to reduce the return of the portfolio relative to its style benchmark. For example, many bottom up value managers underperformed by holding less than the benchmark weight in REITS during this period, because they were deemed overvalued. However, as the momentum turns negative, these same screens can also modulate the impact of a decline.

¹ See, for example, [A Review of Developing Managers and Developing Managers' Programs](#), Pension Consulting Alliance

Small Capitalization Managers

In general, for Small Cap Growth and Core products, there appeared to be a positive relationship between product assets and various measures of risk-adjusted return. Specifically, the data suggests that risk-adjusted performance increases as product assets increase. For Small Cap Growth, the positive relationship between these two variables was strongest with product asset growth of up to the \$1 Billion level; after which there was evidence of a diminishing or negative relationship between these two variables. For Small Cap Value managers, asset growth and risk-adjusted return had the strongest positive relationship among managers with less than \$500 Million. Among the higher asset thresholds, this relationship was neutral to slightly negative.

These results appear to be consistent with the often cited observation that when small cap product assets exceed \$1 Billion, particularly those products whose alpha is based on high conviction bottom-up stock selection and significant variation from the market benchmark, excess return diminution is most likely to occur. Not surprisingly, as discussed below, Small Value products for which portfolio concentration is positively correlated with measures of risk-adjusted return (*i.e.*, suggesting that high-conviction bottom stock selection was most effective for this strategy), appear to experience a greater leveling off of risk-adjusted return relative to Small Growth products (for which less concentrated portfolios are positively correlated with risk-adjusted returns).

Asset growth at firms that offer Small Value and Small Growth products was highly correlated with the Number of Portfolio Managers, perhaps as a result of greater product diversification. However, the additional Portfolio Managers did not appear to increase risk-adjusted return as the Number of Portfolio Managers was negatively correlated with various measurements of risk-adjusted return. By contrast, particularly for firms with assets under \$500 Million, the Number of Research Analysts was positively correlated with their Information Ratio and for Small Value managers, the Sortino Ratio, a measure of risk-adjusted return which better gauges downside risk than the more often used Sharpe Ratio.

Among firms with Small Value products with \$500 Million or less, those that had more research analysts (*i.e.*, positive correlation) and more concentrated portfolios (*i.e.*, a negative correlation between number of stocks and risk-adjusted return) had the most positive relationship with measures of risk-adjusted return. As asset growth encompassed those with greater than \$500 Million but less than \$1 Billion, the positive relationship between portfolio concentration and risk adjusted return continues but diminishes and turns negative among firms that are greater than \$1 Billion. The number of research analysts had a particularly positive relationship with the Information Ratio, which measures excess return vs. the tracking error incurred relative to the benchmark and the Sortino Ratio. This suggests that more research analysts at Small Value firms provided more effective stock selection. The strong correlation with the Sortino Ratio suggests that additional Research Analysts were particularly effective for limiting downside risk, which for Value products, is often referred to as the “Value trap”. The Value Trap characterizes situations in which a manager erroneously purchases a stock because he believes it is trading below its intrinsic value, but in reality, the stock price either accurately reflects or overstates the company’s true value because of weak fundamental or other factors.

Finally, among firms with Small Growth products with \$500 Million or less, those that had more research analysts and less concentrated portfolios had the most positive correlation with measures of risk-adjusted return. More research analysts among firms with Small Growth products with \$500 Million or less was most positively related to the Information Ratio. This could suggest that the impact of greater numbers of research analysts was to obtain a greater breadth of securities with higher excess return potential. As asset growth encompassed those with greater than \$500 Million but less than \$1 Billion, the positive relationship between the number of securities in the portfolio and risk adjusted return diminished and turned negative among firms that are greater than \$1 Billion.

Universe Descriptions

FIS maintains return and certain firm level data for over 1000 Emerging Manager firms. However, the size of the study universe was substantially constrained by the level of data detail required over the period of the study. The study examines the characteristics of 492 Large Capitalization firms and 338 Small Capitalization firms. Particularly among certain Small Cap categories, we acknowledge that some of the conclusions are based on relatively few observations. It is our intention to continue to expand the study universe data in order to continue to track trends in the factor relationships revealed in this study and to examine other factors of interest.

The distribution of firms in the Large Cap universe used for this study is as follows:

	LCC	LCV	LCG
# of Funds with less than \$2 Billion AUM; hereafter referred to as "Emerging" managers	34	31	23
# of Funds with greater than \$2 Billion AUM; hereafter referred to as non-"Emerging" managers	175	144	85
Total # of Funds	209	175	108

The distribution of firms in the Small Cap Universe used for this study is as follows:

Category	SCC	SCV	SCG
# of Funds with Less than \$1 billion AUM	6	8	32
# of Funds with Over \$1 billion AUM	71	78	143
Total # of Funds	77	86	175

Pages 7 through 9 provide a detailed correlation analysis of the various characteristics of all 492 Large Cap firms in the study. Pages 10 through 12 provide a detailed correlation analysis of the various characteristics of all 338 firms Small Cap firms in the study. Cells that have been shaded indicate significance.

Correlation Analysis			
All Large Cap Firms for the three years ending December 31, 2006	LCC	LCV	LCG
Firm Total Asset vs. Number of Stocks	0.20	0.14	0.15
Product Assets vs. Number of Portfolio Managers		0.33	-0.17
Product Assets vs. Information Ratio		0.17	0.34
Product Assets vs. Standard Deviation of Total Return		-0.06	-0.20
Firm Total Asset vs. Information Ratio	0.05	0.09	0.06
Firm Total Asset vs. Sortino Ratio	0.05	0.10	0.01
Firm Total Asset vs. Standard Deviation of Total Return	-0.02	-0.07	0.06
Firm Total Asset vs. Sharpe Ratio	0.05	0.09	-0.03
Product Assets vs. Portfolio- Number of Stocks	0.02	0.04	-0.06
Product Assets vs. Average Portfolio Turnover %	-0.15	-0.23	-0.01
Product Assets vs. Number of Portfolio Managers	0.42	0.11	0.29
Product Assets vs. Number of Research Analysts	0.08	0.08	0.08
Product Assets vs. Information Ratio	-0.04	0.09	-0.09
Product Assets vs. Sortino Ratio	-0.12	0.09	-0.12
Product Assets vs. Standard Deviation of Total Return	0.19	-0.01	0.08
Product Assets vs. Sharpe Ratio	-0.11	0.07	-0.08
Number of Stocks vs. Information Ratio	0.04	0.09	0.14
Number of Stocks vs. Sharpe Ratio	-0.05	0.12	-0.05
Number of Stocks vs. Sortino Ratio	-0.07	0.25	0.02
Number of Stocks vs. Standard Deviation of Total Return	0.09	-0.17	-0.14
Number of Portfolio Managers vs. Information Ratio	-0.12	-0.02	0.04
Number of Portfolio Managers vs. Sharpe Ratio	-0.14	-0.22	-0.03
Number of Portfolio Managers vs. Sortino Ratio	-0.18	-0.21	-0.05
Number of Portfolio Managers vs. Standard Deviation of Total Return	-0.03	0.28	-0.02
Number of Research Analysts vs. Information Ratio	0.13	-0.09	0.01
Number of Research Analysts vs. Sharpe Ratio	0.05	-0.04	-0.07
Number of Research Analysts vs. Sortino Ratio	0.03	-0.03	0.02
Number of Research Analysts vs. Standard Deviation of Total Return	0.04	0.00	0.00

Correlation Analysis

Large Cap Firms with AUM less than \$2 Billion for the three years ending December 31, 2006	LCC	LCV	LCG
Firm Total Asset vs. Portfolio- Number of Stocks	0.69	-0.10	0.04
Firm Total Asset vs. Average Portfolio Turnover %	0.26	0.26	-0.55
Firm Total Asset vs. Number of Portfolio Managers	0.20	0.24	0.05
Firm Total Asset vs. Number of Research Analysts	0.48	0.87	-0.09
Firm Total Asset vs. Information Ratio	-0.26	0.27	-0.18
Firm Total Asset vs. Sortino Ratio	-0.10	0.07	-0.17
Firm Total Asset vs. Standard Deviation of Total Return	0.18	0.23	0.19
Firm Total Asset vs. Sharpe Ratio	-0.08	0.06	-0.21
Product Assets vs. Portfolio- Number of Stocks	-0.13	0.27	-0.03
Product Assets vs. Average Portfolio Turnover %	-0.28	0.36	-0.34
Product Assets vs. Number of Portfolio Managers	-0.24	0.01	0.05
Product Assets vs. Number of Research Analysts	0.68	-0.05	-0.15
Product Assets vs. Information Ratio	0.01	0.24	-0.14
Product Assets vs. Sortino Ratio	-0.13	0.21	-0.14
Product Assets vs. Standard Deviation of Total Return	0.41	0.09	0.11
Product Assets vs. Sharpe Ratio	-0.13	0.18	-0.12
Number of Stocks vs. Information Ratio	-0.32	0.23	0.39
Number of Stocks vs. Sharpe Ratio	-0.28	0.22	0.17
Number of Stocks vs. Sortino Ratio	-0.28	0.41	0.20
Number of Stocks vs. Standard Deviation of Total Return	0.13	-0.19	-0.21
Number of Portfolio Managers vs. Information Ratio	-0.49	0.07	0.04
Number of Portfolio Managers vs. Sharpe Ratio	-0.17	-0.08	0.10
Number of Portfolio Managers vs. Sortino Ratio	-0.24	0.13	-0.05
Number of Portfolio Managers vs. Standard Deviation of Total Return	-0.27	0.06	0.00
Number of Research Analysts vs. Information Ratio	0.33	-0.49	0.44
Number of Research Analysts vs. Sharpe Ratio	-0.05	-0.45	0.00
Number of Research Analysts vs. Sortino Ratio	-0.05	-0.78	0.38
Number of Research Analysts vs. Standard Deviation of Total Return	0.45	0.64	-0.27

Correlation Analysis

Large Cap Firms with AUM greater than \$2 Billion for the three years ending December 31, 2006	LCC	LCV	LCG
Firm Total Asset vs. Number of Stocks	0.22	0.06	0.13
Firm Total Asset vs. Average Portfolio Turnover %	-0.13	-0.03	0.02
Product Assets vs. Number of Portfolio Managers		-0.05	0.02
Product Assets vs. Information Ratio		-0.08	-0.04
Product Assets vs. Standard Deviation of Total Return		-0.06	-0.06
Firm Total Asset vs. Sortino Ratio	0.05	0.08	0.03
Firm Total Asset vs. Standard Deviation of Total Return	-0.03	-0.06	0.11
Firm Total Asset vs. Sharpe Ratio	0.05	0.05	0.00
Product Assets vs. Number of Stocks	0.09	0.00	-0.10
Product Assets vs. Average Portfolio Turnover %	-0.14	-0.25	-0.05
Product Assets vs. Number of Portfolio Managers	0.63	0.11	0.28
Product Assets vs. Number of Research Analysts	0.08	0.08	0.06
Product Assets vs. Information Ratio	-0.07	0.08	-0.08
Product Assets vs. Sortino Ratio	-0.13	0.08	-0.13
Product Assets vs. Standard Deviation of Total Return	0.02	-0.01	0.12
Product Assets vs. Sharpe Ratio	-0.11	0.03	-0.07
Number of Stocks vs. Information Ratio	0.17	0.05	0.10
Number of Stocks vs. Sharpe Ratio	0.04	0.08	-0.10
Number of Stocks vs. Sortino Ratio	0.01	0.22	-0.02
Number of Stocks vs. Standard Deviation of Total Return	0.08	-0.19	-0.10
Number of Portfolio Managers vs. Information Ratio	-0.13	-0.02	0.04
Number of Portfolio Managers vs. Sharpe Ratio	-0.18	0.00	-0.06
Number of Portfolio Managers vs. Sortino Ratio	-0.21	-0.23	-0.05
Number of Portfolio Managers vs. Standard Deviation of Total Return	0.00	0.30	-0.01
Number of Research Analysts vs. Information Ratio	0.11	-0.09	-0.01
Number of Research Analysts vs. Sharpe Ratio	0.04	-0.04	-0.09
Number of Research Analysts vs. Sortino Ratio	0.02	-0.02	0.00
Number of Research Analysts vs. Standard Deviation of Total Return	0.03	-0.01	0.04

Correlation Analysis

All Small Cap Firms for the 3 years ending December 31, 2006	SCC	SCV	SCG
Firm Total Asset vs. Portfolio- Number of Stocks	0.22	0.10	0.36
Firm Total Asset vs. Average Portfolio Turnover %	-0.12	-0.06	0.08
Firm Total Asset vs. Number of Portfolio Managers	0.46	0.05	0.48
Firm Total Asset vs. Number of Research Analysts	0.03	0.20	0.17
Firm Total Asset vs. Information Ratio	-0.03	0.03	0.05
Firm Total Asset vs. Sortino Ratio	0.01	0.10	-0.03
Firm Total Asset vs. Standard Deviation of Total Return	-0.03	-0.09	-0.04
Firm Total Asset vs. Sharpe Ratio	-0.02	0.02	0.00
Product Assets vs. Portfolio- Number of Stocks	0.20	0.10	0.10
Product Assets vs. Average Portfolio Turnover %	-0.10	-0.16	-0.15
Product Assets vs. Number of Portfolio Managers	-0.13	-0.05	-0.06
Product Assets vs. Number of Research Analysts	0.26	0.11	-0.09
Product Assets vs. Information Ratio	0.10	-0.05	0.12
Product Assets vs. Sortino Ratio	0.18	-0.06	0.25
Product Assets vs. Standard Deviation of Total Return	-0.21	-0.06	-0.09
Number of Stocks vs. Information Ratio	0.16	0.12	0.08
Number of Stocks vs. Sharpe Ratio	-0.03	-0.04	-0.25
Number of Stocks vs. Sortino Ratio	-0.02	-0.01	0.06
Number of Stocks vs. Standard Deviation of Total Return	0.04	0.07	-0.12
Number of Portfolio Managers vs. Information Ratio	-0.22	-0.16	-0.26
Number of Portfolio Managers vs. Sharpe Ratio	-0.17	-0.22	-0.25
Number of Portfolio Managers vs. Sortino Ratio	-0.15	-0.22	-0.24
Number of Portfolio Managers vs. Standard Deviation of Total Return	0.01	0.23	0.03
Number of Research Analysts vs. Information Ratio	0.16	-0.16	0.13
Number of Research Analysts vs. Sharpe Ratio	0.19	-0.10	0.12
Number of Research Analysts vs. Sortino Ratio	0.17	-0.05	0.12
Number of Research Analysts vs. Standard Deviation of Total Return	-0.02	-0.03	-0.21

Correlation Analysis

Small Cap Firms with AUM less than \$500 Million for the 3 years ending December 31, 2006	SCC	SCV	SCG
Firm Total Asset vs. Number of Stocks		-0.29	-0.01
Firm Total Asset vs. Average Portfolio Turnover %		0.02	0.57
Firm Total Asset vs. Number of Portfolio Managers		0.02	-0.28
Firm Total Asset vs. Number of Research Analysts		-0.26	-0.43
Firm Total Asset vs. Information Ratio		-0.08	-0.56
Firm Total Asset vs. Sortino Ratio		0.14	-0.42
Firm Total Asset vs. Standard Deviation of Total Return		-0.37	0.27
Firm Total Asset vs. Sharpe Ratio		0.34	-0.42
Product Assets vs. Number of Stocks		0.02	-0.12
Product Assets vs. Average Portfolio Turnover %		-0.26	-0.04
Product Assets vs. Number of Portfolio Managers		0.33	-0.17
Product Assets vs. Number of Research Analysts		0.16	-0.04
Product Assets vs. Information Ratio		0.17	0.34
Product Assets vs. Sortino Ratio		0.42	0.49
Product Assets vs. Standard Deviation of Total Return		-0.06	-0.20
Number of Stocks vs. Information Ratio		-0.13	-0.09
Number of Stocks vs. Sharpe Ratio		-0.52	0.19
Number of Stocks vs. Sortino Ratio		0.15	-0.22
Number of Stocks vs. Standard Deviation of Total Return		-0.29	0.13
Number of Portfolio Managers vs. Information Ratio		-0.85	0.32
Number of Portfolio Managers vs. Sharpe Ratio		-0.73	0.19
Number of Portfolio Managers vs. Sortino Ratio		-0.70	0.17
Number of Portfolio Managers vs. Standard Deviation of Total Return		0.41	-0.42
Number of Research Analysts vs. Information Ratio		0.85	0.27
Number of Research Analysts vs. Sharpe Ratio		-0.10	0.08
Number of Research Analysts vs. Sortino Ratio		0.54	0.06
Number of Research Analysts vs. Standard Deviation of Total Return		-0.79	0.34

Correlation Analysis

Small Cap Firms with AUM less than \$1 Billion for the 3 years ending December 31, 2006	SCC	SCV	SCG
Firm Total Asset vs. Number of Stocks		-0.34	0.03
Firm Total Asset vs. Average Portfolio Turnover %		0.31	-0.17
Firm Total Asset vs. Number of Portfolio Managers		0.30	0.55
Firm Total Asset vs. Number of Research Analysts		-0.30	0.32
Firm Total Asset vs. Information Ratio		-0.18	-0.39
Firm Total Asset vs. Sortino Ratio		0.10	-0.44
Firm Total Asset vs. Standard Deviation of Total Return		-0.42	0.00
Firm Total Asset vs. Sharpe Ratio		-0.04	-0.44
Product Assets vs. Number of Stocks		-0.01	0.14
Product Assets vs. Average Portfolio Turnover %		0.39	-0.28
Product Assets vs. Number of Portfolio Managers		0.57	-0.16
Product Assets vs. Number of Research Analysts		-0.08	-0.15
Product Assets vs. Information Ratio		-0.14	0.32
Product Assets vs. Sortino Ratio		0.08	0.47
Product Assets vs. Standard Deviation of Total Return		-0.06	-0.16
Number of Stocks vs. Information Ratio		-0.12	-0.18
Number of Stocks vs. Sharpe Ratio		-0.42	-0.12
Number of Stocks vs. Sortino Ratio		0.04	-0.15
Number of Stocks vs. Standard Deviation of Total Return		-0.20	-0.19
Number of Portfolio Managers vs. Information Ratio		-0.06	-0.04
Number of Portfolio Managers vs. Sharpe Ratio		0.08	-0.12
Number of Portfolio Managers vs. Sortino Ratio		-0.42	-0.13
Number of Portfolio Managers vs. Standard Deviation of Total Return		0.27	-0.05
Number of Research Analysts vs. Information Ratio		-0.06	0.08
Number of Research Analysts vs. Sharpe Ratio		-0.10	-0.12
Number of Research Analysts vs. Sortino Ratio		0.43	-0.12
Number of Research Analysts vs. Standard Deviation of Total Return		-0.68	0.07

Correlation Analysis

Small Cap Firms with AUM greater than \$1 Billion for the 3 years ending December 31, 2006	SCC	SCV	SCG
Firm Total Asset vs. Number of Stocks		0.09	0.35
Firm Total Asset vs. Average Portfolio Turnover %		-0.09	0.14
Firm Total Asset vs. Number of Portfolio Managers		0.05	0.49
Firm Total Asset vs. Number of Research Analysts		0.20	0.12
Firm Total Asset vs. Information Ratio		0.01	0.04
Firm Total Asset vs. Sortino Ratio		0.09	-0.06
Firm Total Asset vs. Standard Deviation of Total Return		-0.09	0.01
Firm Total Asset vs. Sharpe Ratio		0.00	-0.02
Product Assets vs. Number of Stocks		0.08	0.04
Product Assets vs. Average Portfolio Turnover %		-0.23	-0.13
Product Assets vs. Number of Portfolio Managers		-0.05	0.02
Product Assets vs. Number of Research Analysts		0.10	-0.12
Product Assets vs. Information Ratio		-0.08	-0.04
Product Assets vs. Sortino Ratio		-0.09	0.03
Product Assets vs. Standard Deviation of Total Return		-0.06	-0.06
Number of Stocks vs. Information Ratio		0.12	0.08
Number of Stocks vs. Sharpe Ratio		-0.04	-0.31
Number of Stocks vs. Sortino Ratio		-0.02	0.07
Number of Stocks vs. Standard Deviation of Total Return		0.08	-0.06
Number of Portfolio Managers vs. Information Ratio		-0.17	-0.33
Number of Portfolio Managers vs. Sharpe Ratio		-0.23	-0.31
Number of Portfolio Managers vs. Sortino Ratio		-0.22	-0.29
Number of Portfolio Managers vs. Standard Deviation of Total Return		0.23	0.10
Number of Research Analysts vs. Information Ratio		-0.17	0.15
Number of Research Analysts vs. Sharpe Ratio		-0.10	0.15
Number of Research Analysts vs. Sortino Ratio		-0.08	0.16
Number of Research Analysts vs. Standard Deviation of Total Return		-0.01	-0.19