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Is Your Equity Portfolio Focused *And* Active?

EXECUTIVE SUMMARY

“Wide diversification is only required when investors do not understand what they are doing.”

– **Warren Buffett**

Considerable dispute exists when discussing the most effective method for active management. This paper seeks to prove that focused, active portfolios in developed markets, can outperform their respective benchmark indices with consistency over a prolonged period of time.

In order to better demonstrate the authenticity of this statement, we advocate active share, a measure that calculates to what extent a portfolio differs from its benchmark, as the appropriate method for determining the active quotient of a given portfolio. A 2007 study conducted by the Yale School of Management pioneered this concept and found that funds in the top quintile (in terms of active share) invariably delivered the best performance among the entire sample group.

In addition, we familiarize readers with focused investing and its superiority to both concentrated and diversified portfolio management strategies. Our conclusions lead us to believe that focused, active investing results in the best opportunity for investors to realize outsized excess return in mature markets.

The advantages of utilizing concentrated portfolios have been noted as far back as the 1920s, with advocates such as John Maynard Keynes. Portfolio managers that pursue this approach typically focus on the 20-30 best names in their respective universes and construct their portfolio allocations around these stocks. Even today, the debate regarding the benefits of concentrated and diversified portfolio strategies continues to dominate investment management discussions.

The purpose of this white paper is to delve further into active management and to specifically differentiate long-only strategies for diversified and concentrated portfolios in developed markets. We posit that a focused, actively managed fund should consistently generate excess returns versus its benchmarks, without materially increasing the risk profile compared to diversified portfolios and traditional concentrated portfolios.

Market dislocations as a result of “chronic” and “acute inefficiencies”¹ provide opportunities for active managers to differentiate themselves from their respective benchmarks. In this paradigm, a concentrated or a focused, active portfolio strategy stands to benefit the most from inefficient marketplace allocations.

Concentrated portfolios are considered an effective means for capturing market dislocations. Traditionally, concentrated fund managers are often constrained by either a mandated holdings requirement or by sector restrictions. These top-down constraints can limit the ability of portfolio managers to select their favorite securities and to achieve excess returns.

A focused strategy, while similar to many concentrated strategies in that it is driven by a bottom-up analytical process, differs because of its greater flexibility. This freedom permits portfolio managers to focus solely on their best investment ideas.

Defining Risk

The concept of risk, or at the least its perception, drives both investment management styles and the relevant asset allocations. For the purpose of this study, we acknowledge William Sharpe’s definition of risk, which is characterized by differentiating between *market risk* (systematic/undiversifiable risk) and *active risk* (idiosyncratic/diversifiable risk). Active risk (or a portfolio manager’s ability to exercise it) is what generates *alpha*, the portfolio’s returns in excess of its related benchmark, and represents the conventional way of explaining excess returns on the part of actively managed portfolios.

“...active, concentrated portfolios create greater prospects for alpha production, compared to traditional long-only concentrated portfolios.”

If one believes in the premise of the efficient market hypothesis,² then there would be no need for these types of portfolios. However, it is generally accepted that while the equity markets may trend towards price equilibrium in the long term, short-to-medium-term investment opportunities remain. This tendency can be exploited by portfolio managers to generate returns that will outpace the market.

Typically, active risk and *tracking error* are positively correlated: As you raise non-systematic risk, the tracking error against the related benchmark increases. Tracking error is traditionally defined as the time-series standard deviation of the difference between the return of a particular fund and its related benchmark.³ Active and passive management are commonly distinguished by their tracking error; passively managed funds’ usually are very low, if not inconsequential, while those of active funds tend to fluctuate, depending on the strategy employed.

Active share, as conceived by Martin Cremers and Antti Petajisto of the Yale School of Management,⁴ can be classified as the portion of a portfolio that does not correspond to its benchmark. Essentially, active share tracks the sum of the total active bets (absolute values

1 *Alpha Hunters and Beta Grazers*, Martin Leibowitz, Financial Analysts Journal Vol. 61 No. 5, September/October 2005, pg 33

2 A theory proposed by Eugene Fama of the University of Chicago that suggests that markets are inherently efficient because all known-information is already incorporated into the price of a security.

3 *How Active Is Your Fund Manager? A New Measure That Predicts Performance*, Martin Cremers & Antti Petajisto, 2007, pg 5

4 *Ibid*, 2007

divided by 2) within a given portfolio. The authors' conclusions find that a portfolio with a high active share and a management strategy that focuses on *ex ante* stock selection, combined with higher tracking error, typically outperforms peers, given the outsized active bets at an individual security level.

Notably, the active share characteristic — rather than the tracking error — is the significant, relevant factor⁵ in detecting top-performing funds. Therefore, active, concentrated portfolios create greater prospects for *alpha* production, compared to traditional long-only concentrated portfolios.

Risk Is Muted

When determining the relevance of an active, focused portfolio strategy, it is pertinent to examine the effect on diversifiable risk and the potential for *alpha*. However, this fails to track the portion of the portfolio returns that correlates to *beta*. In an attempt to further differentiate *true alpha*, we define the terms in three components: active return, active risk and costs.⁶ Active risk seeks to separate both beta and other “systemic factors” that contribute to total risk.

Alpha is too broad and ill-defined a determinant when separating the superior and inferior performance of fund managers. A recent study by Andrew Lo of the MIT Sloan School of Management advances the idea of separating more passive-like strategies in active management.⁷ Notably, the study highlights the difference between passive-active and true active through a decomposition of a portfolio's returns. Professor Lo argues that what distinguishes a truly actively managed fund is the positive correlation of its holdings weights and their respective returns.⁸

His research finds that a portfolio benchmarked against the S&P500 with positive *risk premia*⁹ can achieve alpha solely from the equity risk premium imbedded in each of its holdings. In other words, using alpha solely to determine the efficacy of a portfolio manager is flawed, as it does not evaluate how much a respective fund benefits from the individual market risk associated with each of its holdings.

Tracking error is frequently utilized by most institutional equity investors as the principal measure of risk for long-only strategies. However, it can be manipulated and fails to differentiate truly active funds.

Many managers attempt to mitigate tracking error in their portfolios and essentially pursue what is conventionally referred to as a passive-active strategy. By this we mean a manager can avoid a large tracking error in his/her portfolio by pursuing sector allocations that mirror the distributions in the related benchmark through a higher degree of diversification. This can be attained by increasing the number of holdings in a given portfolio (i.e., a portfolio with 30 stocks is more likely to have a greater tracking error than one with 100).

Active share is an effective predictor of funds that are truly dynamic and exhibit superior performance. As mentioned earlier, portfolios with a large active share quotient have consistently demonstrated strong returns according to the Cremers and Petajisto study. The researchers argue that tracking error alone is a flawed methodology for tracking active managers because the metric is not “one-dimensional.” Therefore, using a singular classification will yield deviant results.

Clearly, the most limiting factor is that tracking error is *ex post* analysis. Cremers and Petajisto take the argument further, suggesting that tracking error is not a reasonable measure of factor timing, given that the calculation includes the covariance of matrix returns. The calculation puts undue emphasis on correlated active bets or systematic factors.¹⁰ Active share, they argue on the other hand, places equal importance on active bets, and is, therefore, a more accurate proxy for stock selection.¹¹

This landmark study covers the period from 1990-2003¹² and found that tracking error is statistically irrelevant when picking funds.¹³ Instead, they argue their results point to the active share component as a

5 *Ibid*, pg 7-8

6 *Distinguishing True Alpha From Beta*, Laurence Siegel, Investment Performance Measurement: Evaluating and Presenting Results, ed. Todd Jankowski and Phillip Lawton, John Wiley & Sons, 2009, pg 592.

7 *Where Do Alphas Come From?: A New Measurement of the Value of Active Investment Management*, Andrew Lo, MIT Sloan School of Management, 2007, pg 1-2

8 *Ibid*, pg 1.

9 Expected return of a portfolio minus the riskless rate of return.

10 *How Active Is Your Fund Manager? A New Measure That Predicts Performance*, Martin Cremers & Antti Petajisto, 2007, pg 8.

11 *Ibid*, pg 8.

12 Includes all mutual funds tracked by the CDA/Spectrum mutual fund holdings database maintained by Thomson One Financial

13 *How Active Is Your Fund Manager? A New Measure That Predicts Performance*, Martin Cremers & Antti Petajisto, 2007, pg 22.

FIGURE 1 Returns of Funds in Cremers and Petajisto Study

Four-Factor Alpha of Benchmark-Adjusted Return

Active Share Quintile	Tracking Error Quintile						
	Low	2	3	4	High	All	High-Low
High	1.44 (1.79)	0.79 (1.02)	0.48 (0.68)	2.72 (3.17)	0.29 (0.22)	1.15 (1.86)	-1.15 (-0.74)
4	-0.11 (-0.22)	-0.91 (-1.17)	-0.88 (-1.23)	-1.52 (-1.63)	-1.64 (-1.33)	-1.02 (-1.63)	-1.53 (-1.08)
3	-1.05 (-1.97)	-1.41 (-2.15)	-1.58 (-2.34)	-2.25 (-2.23)	-2.86 (-2.51)	-1.83 (-2.84)	-1.81 (-1.59)
2	-1.46 (-3.31)	-1.47 (-2.29)	-1.82 (-2.99)	-2.67 (-3.31)	-3.43 (-3.61)	-2.18 (-4.00)	-1.97 (-2.17)
Low	-1.29 (-4.80)	-1.36 (-4.80)	-1.66 (-4.33)	-2.26 (-4.43)	-2.57 (-3.73)	-1.83 (-5.01)	-1.28 (-2.13)
All	-0.50 (-1.45)	-0.87 (-2.13)	-1.09 (-2.58)	-1.20 (-1.81)	-2.05 (-2.28)	-1.14 (-2.53)	-1.55 (-1.68)
High-Low	2.73 (3.33)	2.16 (2.52)	2.13 (2.61)	4.99 (5.60)	2.86 (2.26)	2.98 (4.51)	

*Chart reprinted with permission from How Active is Your Fund Manager?: A New Measure that Predicts Performance by Martijn Cremers and Antti Petajisto, Yale School of Management. The net fund returns include all fees and transaction costs (index funds are excluded in this study). The t-statistics are in parenthesis and are based on Eicker-Huber-White standard errors.

relevant characteristic: funds with higher active share outperformed those with lower active share with both economic and statistical significance. Furthermore, those in the top quintile outperformed by 1.15% using a four-factor model,¹⁴ while those in bottom quintile underperformed by 1.83%, using the same model¹⁵ (Figure 1).

While the tracking error was higher for these funds, Cremers and Petajisto’s study found that tracking error alone did not account for outsized performance gains. In addition, their study found that there was persistent performance by those members in the top quintile.

When they analyzed the returns, adjusted for momentum and other non-stock-picking characteristics, the excess return by those funds in the top quintile remained consistent. Therefore, we can conclude that the funds in the top active share quintile exhibit a higher information ratio than those in lower quintiles with the same tracking error.

The Focused Investor

Modern portfolio management theory states that to lower the volatility of returns, investors should diversify their holdings. This prevailing perspective finds its roots in the Markowitz Efficient Frontier, which measures the relationship between the mean and variance of portfolio returns. The theory expands on the notion that markets are efficient.

However, while most developed markets may tend towards long-term price equilibrium, inefficiencies remain during the interim period that may be managed by the prudent investor. As a result, diversified portfolios will not necessarily offer the excess returns required to justify their costs. Typically, these types of strategies follow a top-down analytical structure that is not able to nimbly navigate market dislocations, particularly in mature markets.

Concentrated portfolio construction represents an answer to the shortcomings of diversified portfolio investing in mature markets. Bottom-up analysis, which is less fixated on the sector weights of benchmarks, offers opportunities to exploit market irrationality on a security-by-security basis.

¹⁴ Ibid, pg 22.

¹⁵ Ibid, 2007, pg 41.

Portfolios are typically structured with concentrated weights in 20-30 securities. The strategy is predicated on the idea that, rather than own 50 to 100 stocks they like, portfolio managers are permitted only to own the stocks they love. Proponents of this investment philosophy, notably, Warren Buffet, argue that this approach permits them to track only those investment ideas that truly interest them.

Obviously, as a result, tracking error is increased. However, this heightened risk is mitigated by the nature of the strategy. While there is greater dispersion of returns, analysts and portfolio managers are now only required to track a smaller number of securities. The ability to analyze and carefully scrutinize specific companies and/or investments is further strengthened.

A focused portfolio strategy, like many concentrated ones, pursues a bottom-up analysis that drives a small number of holdings. In addition, the focused portfolio strategy is not constrained by a required number of positions: fund managers are given the flexibility to determine the holdings depending on analyst recommendations. This flexibility and ability to adapt is what separates it from both traditional diversified and concentrated portfolio construction. For example, if a fund manager of a focused portfolio strategy can only find 17 good ideas, he or she will pursue only those 17. As a result, the investment approach enables investors to advantageously seize on market inefficiencies as they present themselves when investing in developed markets.

Are You Active and Focused?

Investors seeking to create a focused fund strategy should, therefore, shift their attention from creating a portfolio of stocks and concentrate on bottom-up analysis to generate investment ideas defined by the following:

- Portfolio construction that is solely based on the stock-picking ability of the fund manager
- The focused manager has intimate knowledge of all positions at any given time and the investment flexibility to own any number of stocks within their guidelines
- The focused fund strategy is driven solely by top investment ideas (whereas traditional concentrated portfolio managers are often required to own a set number of stocks)

We define any fund with an active share above 80% as an active fund strategy. This is slightly more aggressive than Cremers and Petajisto's definition, which includes all funds 60% and above. We believe their criterion is too generous, given that more than 50% of funds fall into that range. A more limited threshold helps better discern which funds are truly active.

As mentioned earlier, a fund's active share can be calculated by taking the sum of the total active bets (sum of the absolute values) within the portfolio and dividing that result by two. This is done by comparing the actual position weights of a portfolio versus those of its benchmark. As a result, investors wishing to be truly active should try to keep their active quotient above the 80% threshold.

Conclusion

The field of investment management is both wide and deep; however, we have demonstrated that with regard to long-only actively managed funds, a focused active strategy will consistently yield superior results. Debates regarding market efficiency and the best way to achieve excess return will always exist. We argue the best way to capture any discovered inefficiencies is through a focused and active investment strategy with an astute portfolio manager who has intimate knowledge of the securities in his or her portfolio.

Markets exhibit the irrationality of their participants (at least in the short-to-mid term) and, as a result, only an insightful and prudent investor can capitalize on such situations. Focused and active strategies are permitted to pursue a bottom-up analytical process that helps them avoid market biases and explore the ideas that show true potential for alpha generation.

The conventional approach to investing — with an incentive to solely emphasize staying within the confines of a particular benchmark — can limit the creativity and performance of the atypical, unique investor. As a result, it is important to move beyond academic conjecture. While investors will always deliberate on the most effective method of capturing market excess return without increasing their risk, we believe active, focused investment strategies in mature markets should continue to enjoy superior returns compared to both the market and their peers. ■

BIOGRAPHIES



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Mr. Thorn joined the firm in 1998 and is now responsible for the management of the Active European and US Equity teams, as well as the firm's Global Equity portfolios. Mr. Thorn joined the firm as a Co-Portfolio Manager of Global/International portfolios and a Portfolio Manager focused on the health care sector. In 2000, he also became the Global Head of Equity Research, followed by a move to London where he took on the additional responsibilities of Head of European Equities. During his tenure, Mr. Thorn helped develop and implement the firm's equity process and online knowledge-sharing tools for equity investing globally. Previously, he was a global health care portfolio manager with SE Banken Fonder (SEB Asset Management) of Sweden. Mr. Thorn holds an MS in Economics and Business Administration from the Stockholm School of Economics with majors in Financial Economics and Economical Steering/Planning.



Dan Neuger, Managing Director, Head of US Active Equities

Mr. Neuger joined the firm in 2002 and is a Managing Director and Head of U.S. Active Equities. Mr. Neuger co-manages the large cap core strategies and is the sector expert utilities. Previously, he was a Fixed Income Analyst with Wells Capital Management in Minnesota. Mr. Neuger received his BA in Economics from Saint Olaf College and an MBA in Finance and Accounting from the University of Minnesota. Mr. Neuger is currently a Level III candidate in the CFA Program.



Stephen Mathai-Davis, Research Analyst, U.S. Active Equities

Mr. Mathai-Davis joined the firm in March 2008 as a portfolio management assistant and research analyst with the U.S. equities team. Previously, he worked as a trader with Sunridge Capital Advisors, as well as a trader on the equity market making desk at Sandler O'Neill and Partners. Mr. Mathai-Davis received a BA in International Studies from Johns Hopkins University in May 2003. He is currently a Level I candidate in the CFA program.

GLOSSARY

Active Risk: Unsystematic/diversifiable risk. It is generally accepted that this portion of a fund's risk profile leads to alpha generation.

Active Share: The sum of absolute values of active bets in a portfolio, divided by two.

Developed Markets: U.S., developed Europe and Japanese equity markets.

Ex Ante: Latin, meaning "before the event." In the context of this white paper, it refers to analysis that precedes events or performance.

Ex Post: Latin, meaning "after the event." In the context of this white paper, it refers to analysis of past performance and events.

Focus Investment Strategy: Similar to many concentrated portfolio strategies in that it employs a bottom-up approach. However, portfolio managers are afforded greater flexibility when determining their holdings.

Information Ratio: The difference between the returns of a portfolio and its related benchmark, divided by the tracking error. The ratio measures the consistency of returns of a given portfolio.

Risk Premia: The expected return of a portfolio, minus the risk-less rate of return.

Tracking Error: Standard deviation of the difference between the return of a fund and its corresponding benchmark. The metric seeks to determine how closely related a fund's performance is to that of its respective benchmark.

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