Goldman Sachs Asset Management

White Paper

Fundamental Equity and Change

Today's investing environment is marked by severe financial crisis, economic uncertainty, and heightened market volatility. Deterioration in the credit markets over the past year has impacted the way Wall Street and Main Street do business. The rising tide of above-average global growth that had previously lifted all equity investments has receded, and individuals, institutions, and financial intermediaries may use the current market turmoil as an opportunity to reassess their investments. Their confidence shaken by complex and difficult-to-explain investments, today's investors have a desire to go back-to-basics and embrace equity strategies that are high-quality, straightforward, and easily understood. Furthermore, investors are searching for a forward-looking investment approach that not only benefits from change, but counts on and anticipates it. Fundamental equity investing is just such an approach.

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> "The only thing that one really knows about human nature is that it changes. Change is the one quality we can predicate of it. The systems that fail are those that rely on the permanency of human nature, and not on its growth and development."
>
> *–Oscar Wilde*

Change is in the air.

Of course, this is not a new headline or slogan, but part of our shared and ongoing human condition. Today, political instability dominates our news, social progress influences the way we interact, and global capital markets are undergoing a major transition. The relatively smooth market environment fueled by low price volatility and easy access to capital is decidedly over. Many investors who heavily relied on the "permanency" of the environment are now unhappy with their portfolio returns and confused about what to do next in the midst of the current market turmoil. A winning trade gets crowded and everyone heads for the exit at once. No doubt these investors can affirm Nassim Taleb's observation in *The Black Swan* that investment returns are not predictable via bell curves and extrapolating historical data, but are concentrated in a few significant unforeseeable events. The question is: where do we go from here? Is there an investment approach which not only benefits from change, but counts on it?

Fundamental equity investing is based on understanding and anticipating change by thorough forward-looking company research. Change for companies can stem from shifts in secular trends, innovations in technology, or dislocations in market value. These shifts, innovations, and dislocations are never captured by extrapolating recent data and expecting a continuation of the trend. Like human nature, the investable market in general, and companies in particular, are constantly changing. And like Oscar Wilde, we believe that systems that rely solely on historical assumptions inevitably fail because they lack the capacity to anticipate change. As fundamental equity portfolio managers, the purpose of this paper is to clearly define the fundamental equity investment paradigm, discuss the reasons why investors choose to index their investment, and present an objective measure called "active share" which can help investors invest in fundamental equity with confidence.

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I. Fundamental Equity and Change

The goal of high-quality fundamental equity portfolio management is to identify and then invest in companies with high-quality characteristics at a discount to create long-term value. We use the term "fundamental" here versus "active" because active management can mean simply deviating from a benchmark. Fundamental equity investing goes well beyond being merely active. Portfolios are constructed, company by company, based on research conviction. Portfolio weights reflect the research views of the investment team regarding valuation, future prospects, and the risk/reward potential. These views are developed through a variety of ways including meetings with company management, discussions with customers and suppliers, and attending industry conferences. Market data is available to everyone. A research edge is obtained when the fundamental equity analyst interprets the data, builds an in-depth proprietary model, and perceives change the market does not, or cannot, fully appreciate.

A profound understanding of the various sectors and industries which compose the investable universe is critical to anticipating change within the industry and addressing its impact. One of the keys to successful investing is to possess research resources with both breadth and depth, with fundamental research analysts fully immersed in their respective industries. As an industry expert, the fundamental equity analyst uses both technical knowledge and expertise to discern shifts in secular trends. Technical knowledge helps the analyst identify the price-makers and price-takers in the industry as well as competitive winners and losers in their ongoing battle for dominance. In other words, understanding companies as potential investments requires intimate knowledge of the industries in which they operate. A significant change in the market environment can make the historical operating results of a company meaningless. Expertise enables the analyst to focus on the chief beneficiaries of change in the industry and ascertain the future market potential for a company's goods and services. Finally, experience gives the analyst a healthy dose of the skepticism, wisdom, and judgment needed to filter irrelevant noise from pertinent news.

By gaining a firm grasp of company-specific circumstances, it is possible to both anticipate and address change within the business. Assessing whether or not a particular company is a sound investment requires an in-depth understanding of its business model. For example, opportunity can be found when a struggling health care franchise starts to build its pipeline or a technology firm hires new management. This change may be subtle or drastic, but either way, the historical data regarding the company does not fully apply when considering its future prospects. Similarly, a business with a long-term track record of creating value for its shareholders can have its future derailed if it suddenly embarks on empire building in unrelated businesses, the longer-term demand for its product or service declines, or historical margins begin to erode. In either case, a comprehensive understanding of the company is critical when evaluating the impact of these changes to the overall business. The ability to anticipate and address change is especially important when the status of the criteria needed to sustain a business for the long term is fluid. Such criteria for fundamental equity can include the strength of the barriers to entry, pricing power, and balance sheet. Developing a keen intuition for the hallmarks of a high-quality company *prospectively* is the key to successful fundamental equity portfolio management.

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In addition to a fundamental research base, sensitivity to valuation is also critical for fundamental equity managers. Valuation can be the difference between loving a company and hating the stock. An eagle eye towards valuation gives a manager what Warren Buffett calls a "margin of safety." Safety from what? Change! Specifically, change in price, a.k.a., price volatility. We believe fundamental equity managers can perform well over the long-term because of their focus on valuation, and the ability to adapt to a changing environment. As we will discuss in the next section of this paper, index investing is not necessarily adaptable, and offers no margin of safety during major market transitions – much like the one we are in right now. While our current environment is marked by high volatility, we see this as an opportunity to take advantage of the daily changes in price, with a forward-looking view towards the future economic value of the business.

II. Why Indexing Works (until it doesn't)

Investors hire an active equity manager because they expect to achieve superior long-term performance net of advisory fees. We think this is a reasonable expectation. However, many investors choose index funds such as exchange-traded funds (ETFs) and enhanced index mutual funds[1] because they have lost faith in the ability of fundamental managers to add meaningful excess returns. Just go passive, so the thinking goes, because the average manager underperforms. We think the phrase "passive investing" is a misnomer because the decision to index is not a decision to be passive. Rather, it is an active bet that the companies constructing the indexes build better portfolios to grow capital. In addition, whereas hiring a fundamental manager seeks to capitalize on future change, we think choosing an index fund is a bet on the "permanency" of the current market trend. This is because most indexes are backward looking in nature. In contrast to fundamental portfolio construction, most indexes are market-cap weighted, meaning that they rebalance periodically based on historical information only. Stocks that have appreciated are "buys" and become a bigger weight in the index, and stocks that have depreciated are "sells" and become smaller weights. This investment approach works well when markets are moving in one direction or are characterized by a rising tide of momentum. It also works well when the circumstances that drive a company's stock price do not change. It *does not* work well when there is any kind of market or company-specific shock because such transitions are rarely characterized by events and factors previously priced in. We believe indexes lack a clear forward-looking valuation discipline as evidenced by the fact that they are constantly buying short-term winners and selling short-term losers. Even factors which determine a stock's style (growth, value, etc.) are based on historical valuation multiples. We believe indexes are systems that can only benefit from permanency of the trend.

[1] An enhanced index mutual fund seeks to track a market index, but allows for certain active management decisions, such as an overweight or underweight in position sizes, the exclusion of specific securities, or the use of leverage, in an effort to outperform the return of the index it is tracking.

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The other reason investors index

Of course, not all investors choose index funds because they do not have confidence in fundamental equity management. It is common knowledge that managers who outperform their benchmarks exist. Some investors simply don't have confidence in their ability to pick the right one. This sentiment is partly responsible for the recent boom in the assets and number of index funds. Over the past ten years, assets into index funds have risen 650% and the number of such funds has tripled according to the Investment Company Institute.[2]

Part of what complicates choosing the right manager is that the fundamental equity universe is filled with imposters. By "imposters," we mean that many managers claim to be active, but then end up engineering their portfolios to look like the benchmark. The reasons behind this can vary from managers wanting to take "less risk" to believing that being mediocre is a better business decision than the possibility of not being good. Or as John Maynard Keynes put it, "Worldly wisdom teaches that it is better to fail conventionally than to succeed unconventionally." The results are not only benchmark-like portfolios, but benchmark-like returns. The industry term for these managers is "closet indexers," because no one wants to be identified as replicating the benchmark for higher fees. We'd stay in the closet too if we did that. The ultimate consequence for closet indexers (and their investors) is underperformance over time. No wonder the average manager has a bad reputation – it is well deserved!

So, given the abundance of managers, the questions are: Beyond past performance, how does one determine the ability of an asset manager to generate excess returns? Can an investor avoid the "average manager" and confidently find the above-average manager? Importantly, how does one know if their current manager is truly active?

III. Active Share

Among other areas of due diligence, we believe that the consistency, strength, and tenure of a manager's philosophy, process, and people are telling indicators of future performance. We also believe that a new and intuitive measure introduced last year by the Yale School of Management's Martijn Cremers and Antti Petajisto called "active share" is a good indicator of potential future excess returns and tells investors to what degree their manager is active. By definition, active share is the percent of the portfolio that differs from the benchmark. Practically, active share tells how active a manager is within a range of 0% (index fund) to 100% (fully active). Interpretation of the authors' data suggests a manager with an active share of 60% or greater is truly active. *Exhibit 1* demonstrates how this is calculated. Here we compare two portfolios, Portfolio A that has 10 holdings and Portfolio B that has 30 holdings, versus an equal-weighted Dow Jones Industrial Average benchmark.[3]

[2] Investment Company Institute, "2007 Investment Company Fact Book, 47th Edition"

[3] Cremers, M. and Petajisto, A. 2007 "How Active Is Your Manager? A New Measure That Predicts Performance," Yale ICF Working Paper No. 06-14

The Dow Jones Industrial Average (DJIA) benchmark is a price-weighted average of 30 actively traded blue-chip stocks, primarily industrials including stocks that trade on the New York Stock Exchange. The DJIA is indicative of how shares of the largest US companies are performing.

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Exhibit 1: The active share calculation illustrates the difference between a truly active portfolio manager and a closet indexer

Active share calculation*

	Portfolio A (10 holdings)	Overweight/ Underweight	Portfolio B (30 holdings)	Overweight/ Underweight	Benchmark (30 holdings)
3M	0.0%	3.3%	8.0%	4.7%	3.3%
Alcoa	0.0%	3.3%	7.5%	4.2%	3.3%
American Express	0.0%	3.3%	6.8%	3.5%	3.3%
AIG	0.0%	3.3%	6.9%	3.6%	3.3%
AT&T	0.0%	3.3%	5.7%	2.4%	3.3%
Bank of America	0.0%	3.3%	5.3%	2.0%	3.3%
Boeing	10.0%	6.7%	4.8%	1.5%	3.3%
Caterpillar	13.0%	9.7%	4.3%	1.0%	3.3%
Chevron	0.0%	3.3%	3.8%	0.5%	3.3%
Citigroup	9.0%	5.7%	3.6%	0.3%	3.3%
Coca-Cola	0.0%	3.3%	3.6%	0.3%	3.3%
DuPont	0.0%	3.3%	3.4%	0.1%	3.3%
ExxonMobil	0.0%	3.3%	3.1%	0.2%	3.3%
General Electric	9.0%	5.7%	3.1%	0.2%	3.3%
General Motors	0.0%	3.3%	3.0%	0.3%	3.3%
Hewlett-Packard	9.0%	5.7%	2.9%	0.4%	3.3%
Home Depot	0.0%	3.3%	2.8%	0.5%	3.3%
Intel	0.0%	3.3%	2.7%	0.6%	3.3%
IBM	7.0%	3.7%	2.6%	0.7%	3.3%
Johnson & Johnson	0.0%	3.3%	2.4%	0.9%	3.3%
JPMorgan Chase	0.0%	3.3%	2.3%	1.0%	3.3%
McDonald's	10.0%	6.7%	2.1%	1.2%	3.3%
Merck	0.0%	3.3%	2.0%	1.3%	3.3%
Microsoft	12.0%	8.7%	1.9%	1.4%	3.3%
Pfizer	0.0%	3.3%	1.5%	1.8%	3.3%
Procter & Gamble	0.0%	3.3%	1.0%	2.3%	3.3%
United Technologies	0.0%	3.3%	0.9%	2.4%	3.3%
Verizon	15.0%	11.7%	0.8%	2.5%	3.3%
Wal-Mart	0.0%	3.3%	0.7%	2.6%	3.3%
Walt Disney	6.0%	2.7%	0.5%	2.8%	3.3%
Total	**100%**	**133%** ÷ 2	**100%**	**47%** ÷ 2	**100%**
Active Share		**67%**		**24%**	

*For illustrative purposes only. These are the holdings of the Dow Jones Industrial Average and do not represent any GSAM portfolios.

As you can see in the example, both Portfolio A and Portfolio B have overweights and underweights versus the benchmark. However, Portfolio A has an active share of 67% while Portfolio B has an active share of 24%. The authors would call Portfolio A “truly active” and Portfolio B a “closet indexer.”

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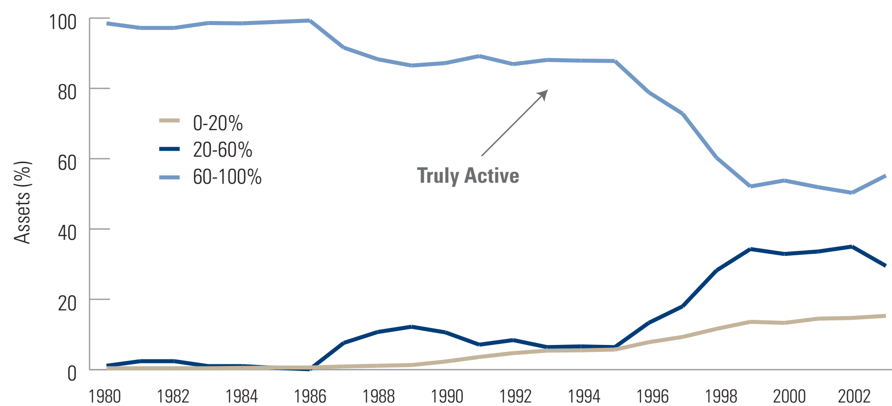
In their comprehensive study, the authors assign active share metrics to equity managers over 24 years and reveal some startling conclusions. Firstly, the academic literature frequently cited to justify index investing uses tracking error to define whether or not a manager is active. Tracking error measures the difference between the portfolio and index returns to determine how closely a portfolio follows the index to which it is benchmarked. An actual holdings-based analysis to determine active management is missing from the literature. The result is that all actively managed funds are treated as one homogenous group. Active share (for the first time) adds the missing dimension of what the manager actually owns to separate the wheat (truly active) from the chaff (pseudo or closet indexers).

Secondly, over the past 24 years, managers in general have steadily reduced their active share, becoming more index-like *(Exhibit 2)*. This increase of closet indexers in the active equity universe causes underperformance to be epidemic and the task of finding truly active managers that much more difficult.

Exhibit 2: The increase of closet indexers in the active equity universe over the last 24 years

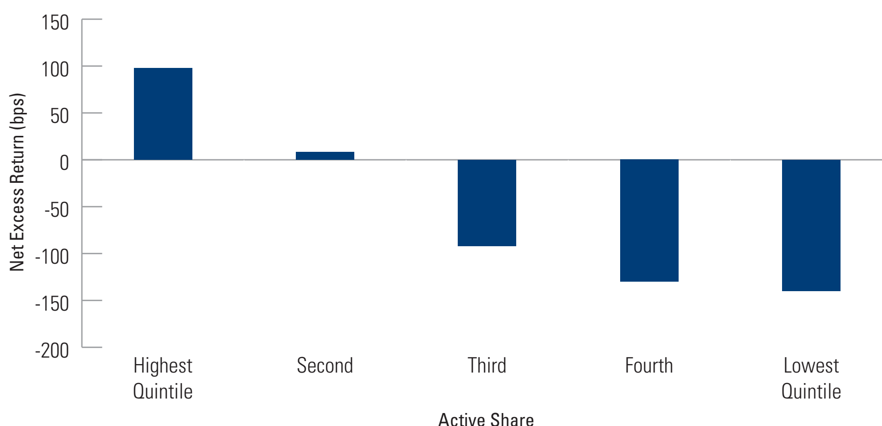
Percentage active share of equity mutual fund assets over time (1980-2003)[4]



Lastly, and perhaps most importantly, managers with the highest active share on average deliver the highest excess returns *gross and net of fees*. Cremers and Petajisto say, "Active management, as measured by active share, significantly predicts fund performance. Funds with the highest active share outperform their benchmarks both before and after expenses, while funds with the lowest active share underperform after expenses." *(Exhibit 3)*

Exhibit 3: Equity mutual funds with the highest active share generated greater excess returns

Excess returns of equity mutual funds sorted by active share (1990-2003)[4]



[4] Cremers, M. and Petajisto, A. 2007 "How Active Is Your Manager? A New Measure That Predicts Performance," Yale ICF Working Paper No. 06-14

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The implication of this new measure is that investors can actively seek strategies with high active share because it is measurable. Alternatively, investors can avoid strategies with low active share, because, as Cremers and Petajisto state, "Closet indexers [with low active share] exhibit no ability and tend to lose money after fees and transaction costs." We believe investors should continue to perform due diligence on the philosophy, process, and people of an asset manager, and ensure that the manager has a research advantage. A manager that looks meaningfully different than the benchmark will have high active share, but if they also have poor research the combination will ultimately result in underperformance over time. We believe that careful attention to active share combined a philosophy, process, and team with a clear research advantage gives an investor a higher potential for achieving superior long-term investment returns. In fact, the authors believe that the investment research company Morningstar is considering adding active share as a screen in its asset manager database.[5]

Like tracking error, active share is just one of many characteristics investors should consider when evaluating managers. However, we think active share is far superior to tracking error when considering future excess returns. Tracking error is a *backward-looking* measure based on the volatility of past performance, but active share is a *forward-looking* measure based on current holdings and the degree they will impact future returns. Cremers and Petajisto note, "Interestingly, tracking error by itself is not related to fund returns... not all dimensions of active management are rewarded in the market, but the dimension captured by active share is… high active share is far from irrelevant: a manager can only outperform the benchmark index by deviating from it, so this is a direct indication of the fund's active efforts to outperform… tracking error does not help us as much when picking funds." Depending on tracking error alone to determine the degree of active management can be misleading, as closet indexers can generate high tracking error and claim to be active, and diversified stock pickers can have low tracking error and high active share. In this way, the authors suggest using both measures when evaluating managers.

Of course, patience is required to reap the rewards of successful fundamental portfolio management. Top-performing managers almost always experience periods of underperformance. The times that "try men's souls" are the times when adhering to a discipline regarding the fundamentals of a business means having a view that differs from the market consensus, especially when that consensus is overly optimistic or pessimistic. It also means looking different than the benchmark. This brings us back to the topic of fundamental equity investing and anticipating and addressing change. Developing an investment thesis via fundamental research, and implementing it in an investment portfolio, gives an asset manager the long-term opportunity to not only benefit, but profit from change. We believe this is the link between high active share and outperformance.

The most important objective in fundamental equity investing is performance for clients. In addition, we believe in the potential of fundamental equity to add significant excess returns to our portfolios. GSAM's Fundamental Equity, bottom-up stock selection process lends itself to portfolios with high active share, ranging from 63% to 92% *(Exhibit 4)*.

[5] Antti Petajisto quoted on SmartMoney.com, May 3, 2007, "Is Your Fund a Closet Indexer?"

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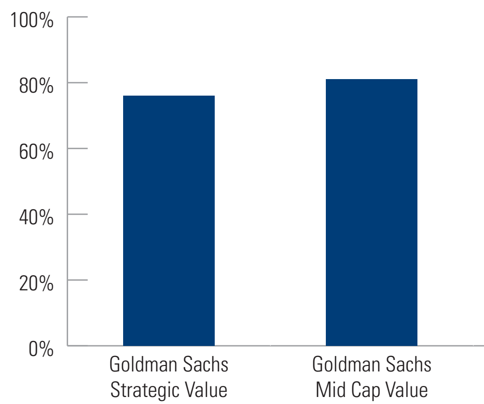
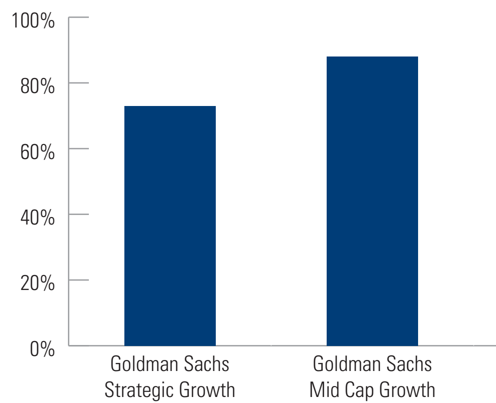
Exhibit 4: High active share across GSAM Fundamental Equity portfolios as of 9/30/08

a) Active share for select Goldman Sachs Fundamental Value portfolios as of 9/30/08



b) Active share for select Goldman Sachs Fundamental Growth portfolios as of 9/30/08



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IV. GSAM Fundamental Equity: Anticipating Change

We believe that backward-looking investing, in whatever form that becomes temporarily popular, is unable to anticipate change the way fundamental equity investing can. Good investors have the imagination to weave relevant information together to form a forward-looking investment thesis. In our view, this quality, tempered by judgment and experience, is what sets fundamental equity investing apart. Concluding that markets are too efficient for managers to add value because everyone has the same information assumes that everyone interprets that information the same. They do not.

We've recently observed that today's markets are becoming increasingly Darwinistic, meaning that there are more rewards for those who can pick winners and avoid losers in the investable market. Indeed, it was Charles Darwin who noted, "It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change." We believe GSAM's Fundamental Equity managers are just that.

Indices are unmanaged. The figures for the index reflect the reinvestment of dividends but do not reflect the deduction of any fees or expenses which would reduce returns. Investors cannot invest directly in indices.

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08-16172.MF / WP-127-SMA / 11-08