A Blended Approach

MFS® White Paper

Combining quantitative and fundamental investment indicators

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In brief

- Investors are increasingly focused on outcomes and investment strategies that can meet specific needs while performing across different market environments.
- Fundamental and quantitative strategies have demonstrated effectiveness in different periods.
- A blended approach that combines fundamental and quantitative sources of alpha within a systematic portfolio construction process has been shown to exhibit a favorable risk/return profile that can potentially deliver certain equity outcomes that meet client goals.
- A blended approach within a single portfolio has the potential to produce a better outcome than simply allocating to two independent managers, as it provides the flexibility to capitalize on differences in relative skill across portfolio dimensions and ensures an overarching portfolio management process.

In recent years, capital markets have presented an uncertain and often volatile outlook for asset owners. As a result, the investment community is considering a broader spectrum of investment approaches. A significant shift towards optimizing outcomes reflects the desire of asset owners to design allocations around specific objectives, which will differ from investor to investor. For some, that may mean reducing the risk profile of their growth allocation, others may require a higher level of income, and some may be targeting an active risk profile that can deliver efficient excess returns.

This shift is driving institutional investors to utilize a range of investment options to meet the increasingly specific demands of the equity portfolios they are responsible for. These outcome-oriented investment approaches provide a way to address specific investment objectives and create a need for cost effective solutions not found in traditional investment approaches.

The attention paid to outcomes has not in any way diminished the need for returns, however. Pension fund obligations have grown with rising longevity and lower interest rates, while return expectations have fallen. More than ever, investors are looking for steady, predictable return streams within prescribed risk parameters that link more directly to investor goals.

The desire to manage volatility and achieve steady returns while balancing multiple constraints is at the fulcrum of much of the activity and debate in the investment industry today. It is reflected in a number of current investment trends, including de-risking, factor investing, or smart beta, and increasing allocations to passive and alternative investments.

Factor investing is one approach to achieving these investment objectives. These strategies seek to exploit persistent risk premia, such as quality, valuation, size or momentum, which have been shown to be investment drivers. In some cases, these strategies are implemented by layering a few less-correlated risk factors to create a more efficient portfolio that can perform over market cycles, in part because single factors tend to exhibit a high degree of cyclicality.

* A version of this paper was first published in 2013.

While the layering of factors may be one way to potentially achieve returns in varied market environments, another way is to combine fundamental and quantitative factor-based investment signals into a blended approach using these two investment styles. The fundamental investment approach outperforms in some types of markets, the quantitative in others (see a detailed discussion on this in the following section).

This paper discusses the merits of such a blended approach, which can offer potentially higher risk-adjusted performance aligned with desired outcomes.

The benefits of a blended approach

Fundamental and quantitative management styles have a tendency to be cyclical and bear fruit in different market environments based on their inherent characteristics.

Quantitative investing is based on the premise that historical relationships among investment factors persist over time. It is broad, disciplined and unbiased, and provides a systematic and objective appraisal of company fundamentals and valuation. While it does not account for qualitative factors or subjective judgments in the scoring of each security, the quantitative process is standardized and easily scalable so it can evaluate a large number of securities on a daily basis. As one might expect, quantitative managers tend to perform well during stable, trending market environments.

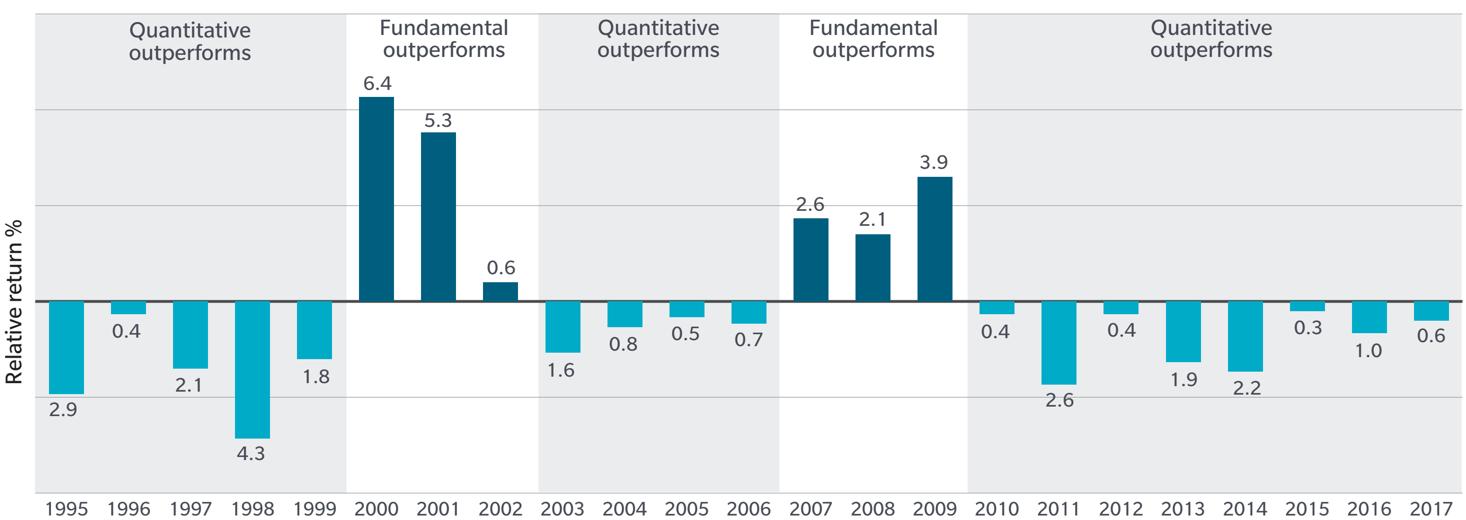
In contrast, fundamental research is not readily scalable, but provides a more forward-looking, subjective assessment of company fundamentals and valuation. Fundamental managers develop in-depth, firsthand knowledge of companies and can react rapidly to changes in conditions. Consequently, fundamental managers tend to do better around major inflection points since they can be more flexible in reacting to market risks and changing investor sentiment.

To evaluate this thesis, we compared annual returns of fundamental and quantitative managers, specifically looking at the large-cap US core equity universe from 1995 through 2017 in the eVestment Alliance database. We used the median fundamental manager and the median quantitative manager as proxies for their respective investment styles and calculated the difference in their annual returns.

Exhibit 1 shows how these two different types of managers performed in different market environments. The shaded areas coincide with stable, trending markets, and the other areas mark inflection points in the market. The first being the technology-media-telecom (TMT) bubble and the second the global financial crisis. Quantitative factors are most effective in low-to-moderate-volatility regimes and are most challenged in the high-volatility regimes often associated with inflection points. The reverse tends to be true for fundamental approaches. The exhibit shows that fundamental managers clearly outperformed around inflection points, while quantitative managers tended to generate more alpha in stable, trending markets.

Exhibit 1: Benefiting from different environments

Fundamental median manager return (%) minus quantitative median manager return (%) in USD



Past performance is no guarantee of future results.

Source: eVestment. Based on gross monthly returns of the large-cap US core equity universe. Products in large-cap US core equity universe are then split into those that identified themselves as having a "fundamental" approach or a "quantitative" approach. Compiled on 2-Feb-18 with over 92% of firms reporting. There were 310 observations in the universe as of 31-Dec-17. The number of products in the universe has changed throughout the periods.

Other regions of the world, and the global universe more broadly, also exhibit periods when fundamental approaches outperform quantitative approaches and vice-versa. We conducted a similar study to that described above for the global large-cap core equity universe. The results show similar periods of both outperformance and underperformance for the fundamental and quantitative managers. The periods of relative performance are not necessarily aligned with the periods we witnessed in the US study and appear to be less correlated with market events. The smaller universe of quantitative managers is also a consideration in the evaluation of this data.

Our comparison of the returns of fundamental and quantitative managers suggests that the systematic combination of these two independent stock selection approaches can benefit from their complementary strengths and potentially generate higher, risk-adjusted returns over a full market cycle or multiple market cycles. Consequently, portfolios built with this blended approach, *i.e.*, with a combination of quantitative and fundamental management styles, have the potential to provide risk-adjusted returns over longer time-horizons that are greater than those of portfolios limited to the quantitative or fundamental style alone. It should be noted, however, that investment styles can underperform at any point in the market cycle, and this approach makes no claim to be a panacea for investors.

Common approaches

This then leads us to the question of how best to combine the two investment disciplines: Retain two independent investment managers — one fundamental and one quantitative — or combine both disciplines within a single investment process?

It is common practice for investors to try to reduce risk and add value by diversifying managers. They may choose to hire both fundamental and quantitative managers in the belief that the combination of two differentiated investment approaches will result in a more efficient overall portfolio. While this may be a broadly accepted practice, there are a few potential risks associated with it.

A typical starting point for investors is the asset-liability study, which provides the context for the formulation of policy and strategic asset allocation to address how the plan will meet current and future liabilities. For example, many investors have allocations to various asset classes that are represented by familiar capitalization-weighted indices, such as the MSCI All-Country World Index (ACWI) or MSCI Emerging Markets Equity Index (EME), and are used as proxies for global and emerging market equities, respectively. Investors then retain investment managers in benchmark-specific mandates in line with the asset allocation strategy, with a common approach being the hiring of multiple managers within a specific asset class in the hope of improving diversification.

Implications for asset owners

Retaining multiple managers relative to the same benchmark, however, can lead to implicit risks that may not be initially evident to the investor. Let us assume that two equity managers are engaged with the MSCI ACWI as the benchmark and that both managers independently believe that technology is a preferred sector and Europe is a preferred region, along with smaller-capitalization and growth-oriented stocks. If both managers independently incorporate their investment views in their respective portfolios, the investor's equity allocation will not be representative of the strategic target. The investor's aggregate portfolio will have a region/sector/size/style bias that exposes the portfolio to implicit benchmark-relative risks that create a mismatch with the strategic target.

Furthermore, unless the institutional investor retains a third manager to employ an overlay or completion portfolio to counterbalance unintended exposures — such as the implicit risks associated with macro-related risk-on/risk-off asset flows and the resulting pronounced region/sector/size/style shifts — there can be a significant impact on the investor's risk/return expectation because of the mismatch between the aggregate portfolio and the respective target benchmark.

Systematically combining multiple alpha sources in a single investment strategy, on the other hand, has the potential to produce a better outcome than simply allocating to independent managers in that it provides the flexibility to capitalize on differences in relative skill across portfolio dimensions. We believe this results in more efficient portfolios and also ensures an overarching portfolio management process with controls for sector/style/size biases.

Two analytical perspectives

Bottom-up fundamental analysts examine a company from both a quantitative and a qualitative viewpoint, assessing company, industry, growth and valuation characteristics, and develop a detailed earnings and valuation model for each security followed. The assessment can include analyzing the quality of products and services, the growth rate of a company versus its industry, the quality of management and the financial strength of the company, while industry analysis encompasses growth prospects, pricing power, the regulatory environment and economic sensitivity. Analysts incorporate these assumptions into models to project earnings growth rates and to gauge the stock's current and historical valuation. They use measures such as discounted cash flow analysis, price-to-earnings, price-to-book, price-to-cash flow and the company's profitability, employing such criteria as return on equity, return on invested capital and operating margins. The outcome of this research is typically a stock rating of buy, hold or sell.

Quantitative models can vary significantly in their constituent parts and complexity. Generally speaking, these models typically include

- stock selection factors (the building blocks of the models)
- model weighting (how the factors are combined into a composite model)
- portfolio construction (how the models are implemented in the portfolio context)

Furthermore, stock selection factors can be chosen for a number of reasons, *e.g.*, because they have a fundamental rationale and make sense, because they are meaningful (*i.e.*, the factor has had a significantly positive signal-to-noise ratio through time) or because of their independence of one another. Ideally, new factors have low or negative correlation with the other factors in the model.

Quantitative models may use factors based on earnings momentum, price momentum, valuation and earnings quality. The models can be sector specific and weighted accordingly in order to capture the different dynamics of peer groups.

For example, the consumer staples sector in the US market has historically been a defensive sector where valuation is a primary driver of relative returns. The technology sector, by contrast, has been a growth sector where earnings and price momentum have played a larger role in determining relative returns. These differences are reflected in the factor and theme weights of these two sector models.

Quantitative research involves the systematic and objective appraisal of a company's fundamentals and valuation, and these models essentially allow managers to exploit the persistence of fundamental factors over time.

A blended approach: Managing to an outcome

A blended approach seeks to maximize the active returns anticipated from the fundamental and quantitative research signals while minimizing systematic risks relative to the benchmark from the structured and disciplined portfolio construction process.

In this investment approach, active-return forecasts from the fundamental analysts and quantitative models can be incorporated into a single blended active-return forecast for each constituent of a benchmark universe. These blended active returns can then be used to build portfolios where greater weight is given to those names with a higher potential active return. The portfolio optimization process can ensure that there are no sizable deviations from the respective benchmark's region, sector, size or style footprint.

Conclusion

As asset owners increasingly focus on desired outcomes in relation to both risk allocation and asset allocation, a host of investment products that span the passive–active spectrum and perform under various market regimes are in demand. Blended approaches that combine fundamental and quantitative sources of alpha within a systematic portfolio construction process offer the potential to earn returns through diverse market environments.

This paper argues that engaging a single manager to manage a combined fundamental-quantitative allocation has the potential to produce a better outcome than simply making an allocation to two independent managers. This is true for the following reasons: The blended approach provides the flexibility to capitalize on differences in relative skill across portfolio dimensions and ensures an overarching portfolio management process with controls for region/sector/size/style biases and other risks. The result is a flexible and cost efficient approach that can address a full range of client needs and objectives while maintaining an appropriate risk profile and the potential for excess returns.

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