Beyond Active and Passive: Using Smart Beta Strategies to Build More Efficient Portfolios

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Smart beta strategies may be compelling complements to both passive strategies and conventional active strategies.

EXECUTIVE SUMMARY

Smart beta strategies can be thought of as forms of active management because they take positions that often differ significantly from market capitalization-weighted benchmarks. They differ fundamentally from traditional active strategies, however, in that they typically use a rules-based process and are designed to be transparent. These characteristics mean that smart beta strategies may be compelling complements to both passive strategies that track market capitalization-weighted benchmarks and conventional active strategies that seek to outperform those benchmarks.

Passive strategies are inexpensive, transparent and designed to deliver beta exposures, either to the broad market, narrow regions, countries or sectors. Active strategies are designed to compensate for at least some of the biases of market capitalization-weighting by overweighting stocks with attractive fundamental characteristics that have the potential to deliver an excess return. The power of smart beta strategies lies in their ability to combine compelling elements of both active and passive approaches into a single package. Like passive strategies, smart beta strategies deliver beta exposure in a cost-effective and transparent manner. At the same time, they also offer the potential for excess returns and/or lower volatility than the cap-weighted benchmarks that characterize traditional active strategies.

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The first generation of smart beta strategies were simple approaches that usually either featured a single portfolio "tilt" toward a factor such as value or size, or used techniques that focused on narrow definitions of risk such as minimum variance. While many smart beta strategies still seek to capture these factors, Mellon Capital has sought to diversify portfolio tilts by adding quality and momentum factors. Including these factors delivers a more "core" smart beta strategy that offers downside risk control, while retaining the original smart beta characteristics of transparency, diversification and low-cost.

Smart beta strategies deliver beta exposure in a cost-effective and transparent manner.

WHAT IS SMART BETA?

"Smart beta" is a term[1] applied to the comparatively new strategies that capture risk premia from one or more asset classes in a systematic and transparent fashion. The term "beta" may be defined in a number of different ways. For example, we define the beta of a stock or a portfolio as a measure of its risk relative to the market as a whole.

We also refer to beta as the market performance (the return of a specific benchmark based on a particular asset class or classes) that can be achieved in a very cost-effective manner via a passive investment. One of the issues with a portfolio that represents the market as a whole is that the stock positions it holds are weighted by market capitalization. This means that a stock's weight in the portfolio increases as it outperforms the overall market. As a result, stocks that are more expensive than the market are held as overweight positions in the portfolio.

Smart beta strategies aim to break the link between the price of a stock (or other security) and its weight in a portfolio. The term "smart beta" is therefore somewhat misleading, because smart beta portfolios are not intended to offer beta in the traditional sense by being passive or mirroring the return of a traditional market capitalization-weighted portfolio. Because smart beta strategies seek to escape the constraints of capitalization-weighting in portfolio construction, investors should view them as more transparent forms of active management.

1 Other terms may include scientific beta, fundamental indexing, custom beta, strategic beta, systematic beta, and advanced beta.

Smart beta is often compared to enhanced indexing. That comparison is reasonable, but it can also be misleading. The comparison is reasonable because both types of strategies tend to be used by systematic asset managers as lower-cost means of gaining exposure to specific markets. But the comparison is also misleading because smart beta strategies ignore market capitalization, unlike enhanced index, passive and traditional active strategies that are based on market capitalization indices. And while enhanced index strategies typically do not deviate far from benchmark weights, they tend to rely on proprietary information and lack the transparency that is an essential part of smart beta strategies.

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THE ORIGIN AND CHARACTERISTICS OF SMART BETA

Smart beta derives from the realization that risk premia in asset classes could be more efficiently captured by taking an approach different to that used in market capitalization-based indices. Proponents of smart beta strategies argue that market capitalization-weighted portfolios tend to overweight overvalued securities while underweighting undervalued ones. Therefore, a security whose price has risen beyond its fair value will have a greater weight in a traditional cap-weighted index while a security trading below its fair value will have a lesser weight in that index. Smart beta strategies break this automatic connection between an asset’s price and its weight in a specific benchmark.

Market capitalization-weighted portfolios, especially those based on larger capitalization stocks (i.e. the S&P 500®), are also overweight in so-called mega-capitalization names, whose performance dominates the performance of the overall index. Smart beta strategies seek to reduce concentration through the portfolio construction process.

Besides dispensing with market capitalization as an anchor in any weighting scheme, smart beta strategies also typically have three characteristics in common. First, smart beta strategies are implemented in a systematic fashion. They follow a pre-defined set of rules in order to construct a portfolio. In addition to those rules, strategies can also be customized to suit the particular objectives of an investor. For example, additional guidelines may be added that govern socially-responsible investing or require particular fundamental data as inputs. Second, smart beta strategies are extremely transparent because they are constructed systematically and use clearly identifiable rules and characteristics. Third, the systematic and transparent nature of smart beta strategies means they can be implemented at a low cost. Regardless of their construction, smart beta strategies take exposures that are different from passive, cap-weighted benchmarks. We therefore view smart beta strategies as active in nature.

Smart beta strategies follow pre-defined rules in order to construct portfolios.

TYPES OF EQUITY SMART BETA STRATEGIES

Most equity smart beta strategies can be grouped into two categories. In the first group are strategies that seek added return from one or more fundamental characteristics, such as earnings yield, cash flow, or dividends. In the second category are strategies that focus more on managing risk, whether they seek to deliver a portfolio that has the lowest possible overall volatility or one that seeks to deliver greater diversification.

FUNDAMENTALS-BASED STRATEGIES

Perhaps the most common type of fundamentally-based smart beta strategy seeks to add value through a single (or small number of) fundamental measure(s) such as sales, earnings, dividends, or book value—as opposed to market capitalization. Stocks with relatively higher fundamental measures are weighted more heavily in the portfolio, while stocks with lower fundamental measures have a relatively lower weight. For example, for a given stock universe, a strategy might use revenues as a fundamental measure. The strategy's creator could derive a weight for a particular stock within the portfolio by taking the revenue for a particular stock in the universe and dividing that figure by the sum total of revenues for all stocks in the universe.

Smart beta strategies that focus on one or a small set of fundamental measures can produce very concentrated portfolios that take significant (and sometimes unintended) sector or factor bets. Fundamental indexing is sometimes referred to as "value investing by another name" because portfolios constructed using a limited set of fundamental measures often exhibit strong value characteristics. Such an emphasis on a small set of fundamental measures can create greater-than-expected risk for the portfolio. To compensate for this implicit value tilt, some smart beta strategies seek to incorporate other fundamental measures into the overall portfolio. For example, a smart beta portfolio might also incorporate measures of earnings growth, earnings quality, volatility, or momentum—or a combination thereof—in an attempt to gain exposure to a broader set of factors and avoid the potential underperformance that a value tilt can produce in certain market environments.

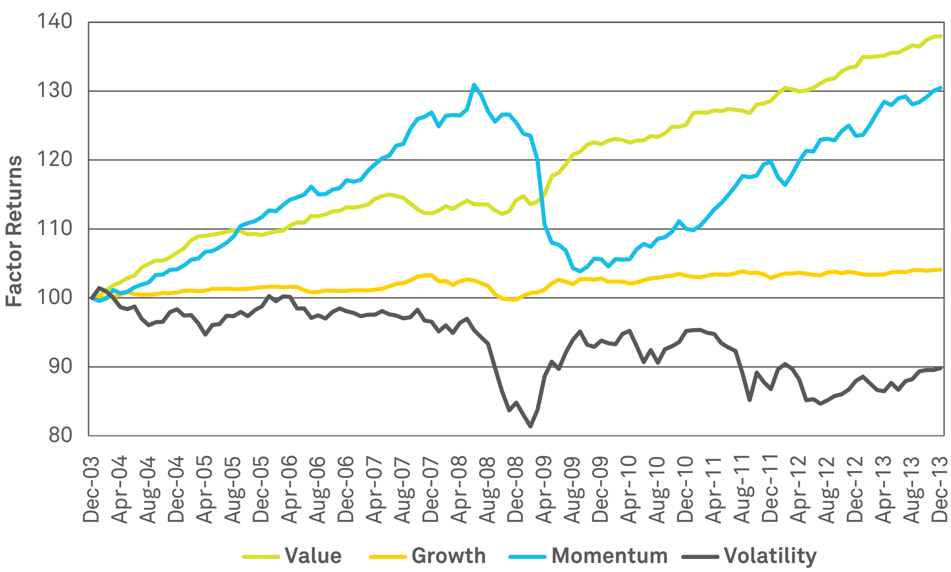
To illustrate this, consider the performance of momentum, volatility, value, and growth over the last ten years, as shown in Figure 1. The chart shows global returns for each of the above factors[2] calculated using Barra's GEM2L model. For example, the return to momentum represents the return of a portfolio that holds long positions in higher momentum stocks and short positions in lower momentum stocks (momentum is measured by relative strength and historic alpha) relative to a global index.

2 A brief description of the above factors may be found at msci.com.

The chart clearly shows that value delivers the highest return over the ten year period, but its performance is flat during certain time periods (April 2007 – March 2009). It also shows that momentum performs well from December 2003 until June 2008 but then gives up almost all of its return over the following 15 months before recovering over the following four years. In addition, the chart shows that returns to growth are modest and that volatility has a negative return, including a comparatively sharp drawdown during the culmination of the global financial crisis.

A smart beta portfolio might incorporate measures of earnings growth, earnings quality, volatility, or momentum.

Figure 1: Returns for Selected Style Factors, Barra Global Equity Market Model
December 2003-December 2013, December 2003=100



Data Source: Barra

RISK-BASED STRATEGIES

The second type of smart beta strategies focus explicitly on risk. These include low volatility, or minimum variance, strategies and maximum diversification strategies, among others. Low volatility strategies are typically constructed to reduce or minimize risk by emphasizing the volatility and correlation of all the assets in the specified universe. Maximum diversification strategies seek to identify stocks with the lowest correlation to one another. These strategies seek to improve portfolio efficiency.

However, in seeking to minimize volatility or maximize diversification, these strategies ignore fundamentals and therefore potentially expose the portfolio to very different types of risk. For example, a low volatility approach selects stocks that happen to have exhibited low historic volatility, even though this quite likely leads to large and consistent sector biases. In addition, this approach ignores the fact that, at times, low volatility stocks are exceedingly expensive relative both to their own history and the rest of the market. On the other hand, a maximum diversification approach may yield a portfolio that is dominated by high volatility stocks that happen to have a low correlation with each other, likely leading to relatively low overall portfolio volatility. This approach, too, is grounded more in mathematical design than in economic logic.

Mellon Capital believes that investment returns are predicated on economic and financial fundamentals.

The table below summarizes the advantages of the two key types of equity smart beta strategy and compares them to both traditional passive and active management.

Figure 2: Comparison of Smart Beta, Passive and Active Management

Strategy	Advantages	Disadvantages
Traditional Passive Management	▪ Cost-effective ▪ Delivers equity risk premium	▪ Overweights more expensive stocks ▪ Underweights less expensive stocks ▪ Does not protect against downside risk
Traditional Active Management	▪ Uses fundamental insights ▪ Has the potential to deliver alpha	▪ Relies to some extent on intuition and/or complex optimization
Fundamentals-Based Smart Beta	▪ Uses fundamental insights ▪ Has the potential to deliver moderate alpha ▪ Cost-effective	▪ Focus on single factor or factor group raises risk or underperformance
Risk-Based Smart Beta	▪ Lowers volatility, designed to mitigate downside risk ▪ Typically delivers equity returns with higher Sharpe Ratio	▪ Takes significantly larger sector and risk factor bets ▪ Relies on correlation forecasts and optimization ▪ Utilizes statistical techniques rather than fundamental insights

Data Source: Mellon Capital

MELLON CAPITAL'S APPROACH TO EQUITY SMART BETA STRATEGIES

Mellon Capital believes that investment returns are predicated on economic and financial fundamentals. In partnership with clients and consultants, Mellon Capital has been implementing customized smart beta strategies for a number of years. Based on our investment philosophy and the custom beta strategies that we have implemented for clients, we have developed a proprietary equity smart beta framework that takes a "core" approach to portfolio construction, anchored to a balanced set of investment rationales.

Rather than focusing on a single economic risk factor or narrow set of related risk factors, we take a more balanced approach that draws on a range of different risk premia derived from different factor groups and rely on economic and financial analysis for stock selection and portfolio construction. Strategies that seek to incorporate a number of different risk premia, as opposed to just one (or one type) have a number of advantages. Using just one factor or set of similar factors that represent a specific theme can lead to underperformance when the risk of that particular factor is not compensated by its return. In contrast to this approach, employing multiple factors from different factor groups such as valuation, quality and momentum, has a diversification effect that offers a more consistent stream of returns over time. Rather than weighting a smart beta strategy based purely on economic factors such as sales and earnings yields, adding a quality component (such as consistency of earnings and earnings growth) will likely add additional risk-adjusted return.

Mellon Capital's approach seeks efficient trade-offs between various characteristics by balancing exposures to multiple factors while maintaining a transparent investment framework, appropriate levels of risk management and a moderate level of portfolio turnover. This multi-factor approach enables us to retain a focus on the value-driven components of a stock's price while taking into account improving company fundamentals to avoid the "value trap." The inclusion of earnings quality in our process also provides some measure of downside protection for the strategy since periods of higher risk and risk aversion tend to encourage a flight to more defensive stocks that have higher quality earnings.

Smart beta strategies offer investors some of the key benefits of traditional passive portfolios–transparency, low cost, broad market exposure–while adding customization and the potential for risk-adjusted excess returns.

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