



FACTOR INDEX INVESTING: FREQUENTLY ASKED QUESTIONS

Introduction

In a recent edition of Investment Perspectives, we discussed a framework to use when constructing an equity portfolio. Two strategy types addressed therein, active and passive management, are both well understood within the institutional investment space. However, a third strategy type labeled “alternative beta,” sometimes also referred to as “smart beta” or “factor index investing,” is a more recent addition to the options available to institutional investors. The focus of this paper is to provide further detail on the factor index investing space and key questions for this space. At best, factor index strategies can aid clients in constructing successful portfolios at a reasonable cost without relying solely on the more traditional tools of active and passive management. At worst, factor index strategies which are poorly constructed or misunderstood could lead to initial zeal and unreasonable expectations, followed by a short holding period and disappointing results.

Written By:

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RVK has used factor index strategies for nearly a decade, but only in situations deemed appropriate for this strategy type, and only when their role in the portfolio was fully defined. We recommend that institutional investors considering adding a factor index strategy in a portfolio should first address key questions related to market efficiency, factor exposure mix, and return expectations. The recent proliferation of factor index strategies and products has generated broad investor interest and, along with that interest, a steady stream of questions about their foundation in investment theory, their structure, possible roles in the portfolio, cost, and many more. The objective of this paper is to address many of these questions and provide guidance on how factor index strategies can be used most effectively.

What are factor indexes?

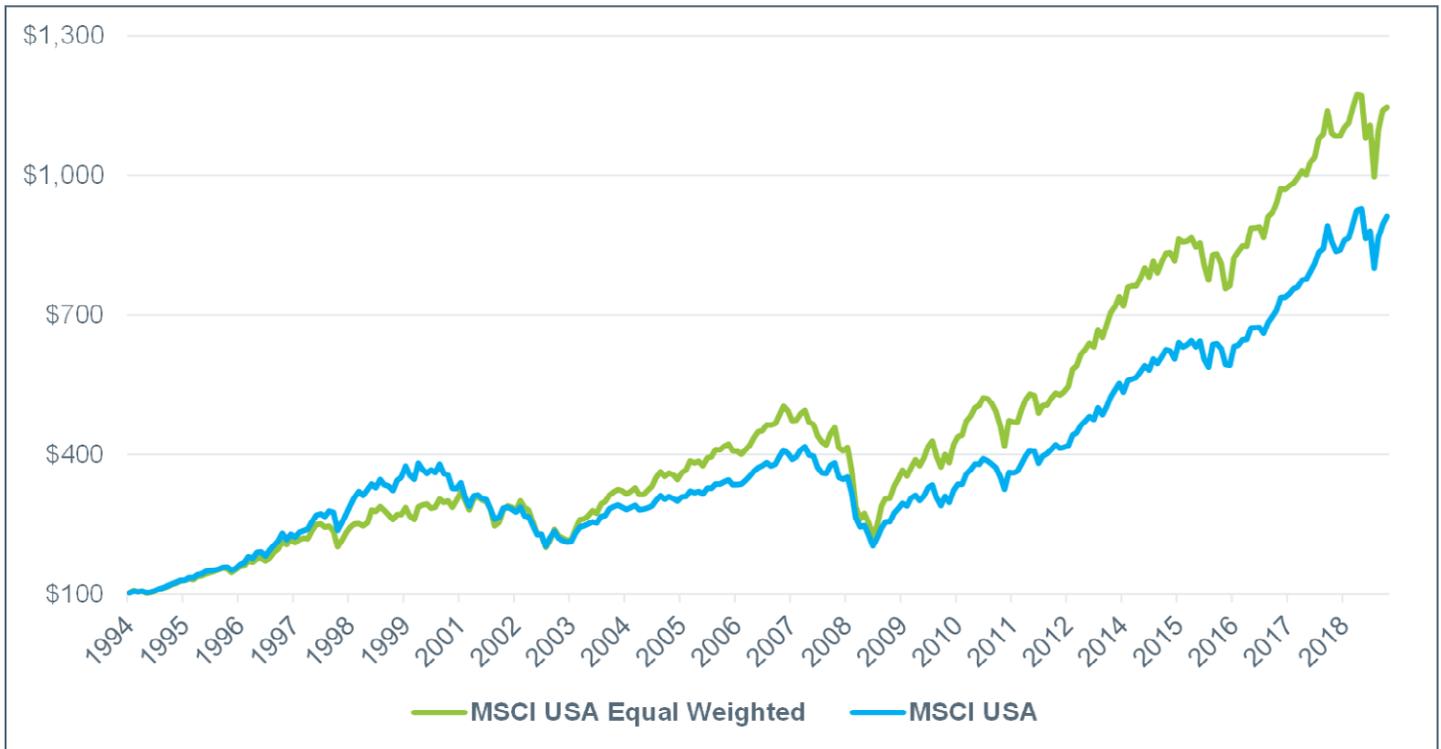
The most straightforward way of understanding factor indexes begins with understanding how mainstream “market cap” indexes are constructed, and how factor indexes diverge from this more established market capitalization-based construction. Indexes that use market capitalizations to weight individual securities are based on the theory that current stock prices, and consequent market values, consistently provide an accurate measure of the actual value of the underlying company. Stock prices are determined by market participants embedding the expected rewards and risks of owning company stock using all of the information available to them. The current stock price at any given time therefore reflects the valuation which marginal buyers and sellers believe compensate them for taking the risk of owning a company’s stock.

Factor indexes, however, incorporate further information during their construction. The types of information included in most factor indexes are generally based on academic research aimed at uncovering the biases and cognitive errors commonly present in investor behavior, and therefore reflected in stock market prices. Factor indexes use this information to eliminate specific stocks from the universe, and to change the weights of remaining stocks compared to those of a capitalization weighted index. In a similar fashion to capitalization weighted indexes, factor indexes use rules-based construction methodologies, and many are diversified across a large number of stocks.

Historically, investors seeking broad stock market exposure selected market-cap weighted indexes. These indexes are inexpensive, highly liquid, and widely followed. The construction methodology leads to significant exposures to large companies and can result in outsized sector concentration when a group of stocks experiences an extended period of growth or positive sentiment. However, the stock with the highest capitalization weight does not necessarily generate more attractive risk-adjusted returns compared to those of companies with smaller weights.

To put this discussion in a more familiar context, note that the equal-weighted index was one of the original “alternative” indexes when contrasted to market cap weighted indexes. Equal-weighted indexes simply assign the same weight to each stock in a given universe of stocks. Depending on their regional or market cap focus, these indexes can be somewhat more expensive to implement than cap-weighted approaches and usually are more volatile, which leads to sharper swings in performance. However, the historic returns of equal-weighted indexes does point to a potential opportunity to diversify away from a singular reliance on the market cap weighted index for the passively managed portion of an equity composite. **Exhibit 1** shows the compounded returns of the MSCI USA Equal Weighted Index versus the capitalization weighted MSCI USA Index. While producing a more volatile return stream, the equal weighted index has rewarded long-term investors with excess returns relative to the capitalization weighted index.

Exhibit 1: Growth of \$100



Source: MSCI.com

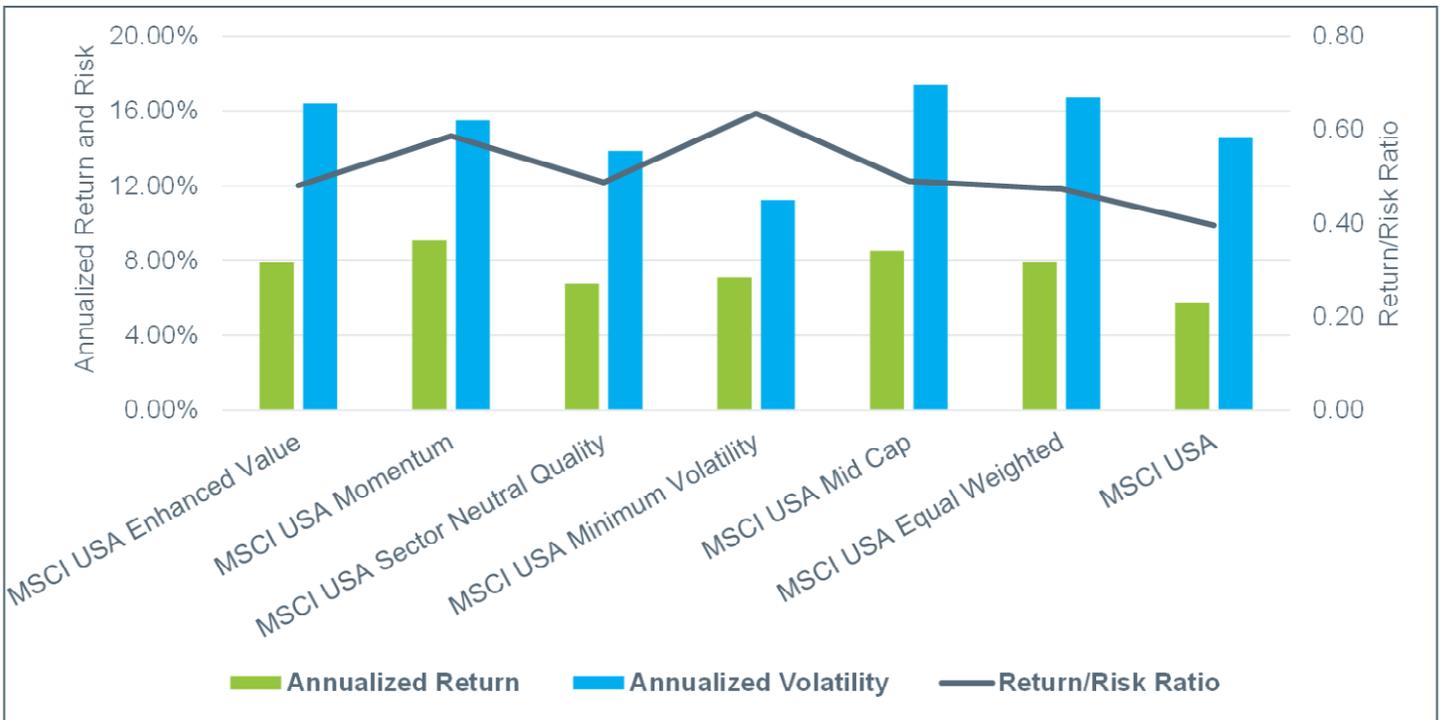
Why are investors considering factor index strategies?

Factor indexes, in contrast to the equal-weighted methodology, select and weight stocks based on factors beyond the market capitalization of a company. Similar to an equal weighted index, the fixed relationship between stock weight and total price is broken. In the case of factor indexes, the stock universe, and often stock weights, are tied to a specific risk factor. With increased availability of fundamental data and quantitative rules-based techniques, index providers can offer non-cap weighted indexes linked to specific factor premia at relatively low fees. While factor indexes break the relationship between price and stock weight, as is the case with the equal weighted approach, the volatility of the factor indexes is normally expected to be lower than that of a cap weighted index and, in many cases, liquidity is improved compared to that of an equal weighted index. The potential advantages of lower volatility, and improved liquidity compared to an equal weighted index, have driven most investor interest in factor indexes.

Many investors have gravitated to factor index strategies with an expectation of better returns compared to a market cap weighted benchmark. A more sustainable objective would be to expect improved risk diversification within their equity portfolio – a characteristic that may, over multiple market and factor cycles, produce higher compound returns, but is not guaranteed to achieve higher absolute returns in any given period. There will be periods when factor index strategies will outperform standard market cap weighted indexes. There will also be periods when investors will be disappointed with factor index returns compared to those same cap-weighted approaches. Indeed, the recent period of outperformance of a select number of technology and communication services stocks, often referred to as the “FANG” group, has been challenging for many factor indexes, which often assign lower weights to those stocks compared to their market-cap based counterparts. More generally, factor index strategies should be viewed as a tool to better capture market behavior over multiple market regimes and reduce dependence on a single methodology. For institutional investors unwilling to rely solely on capitalization weighted indexes for equity exposure, the factor index space offers an option, other than active management, to diversify the types of risks impacting portfolio returns.

The annualized return and volatility of the suite of MSCI factor indexes are shown in [Exhibit 2](#). The factor indexes are compared to both the MSCI USA Equal Weighted index and the capitalization weighted MSCI USA index during the longest common time period available. As shown in the data, the returns of each factor index would have been higher than those of the standard capitalization weighted index over this time period, while the volatility of each factor index, with the exception of the mid cap index, would have been lower than that of the equal weighted index. Consequently, the return-to-risk ratio of the factor indexes would have outpaced those of both the market capitalization and equal weighted indexes.

Exhibit 2: Annualized Return and Risk (Dec 1998 - Mar 2019)



Source: MSCI.com

As noted previously, this type of result has led to an increased interest in factor indexes. An important detail not illustrated in Exhibit 2, however, is the cyclical nature associated with each individual factor. This point will be covered in an upcoming section, however it is important to note that factor indexes will produce returns above and below the returns of capitalization weighted indexes, sometimes for extended periods of time. The cyclical nature of factor index returns requires that institutional investors approach factor indexes with a long-term investment horizon in order to realize any benefit from adding these types of strategies to a portfolio.

What are factors?

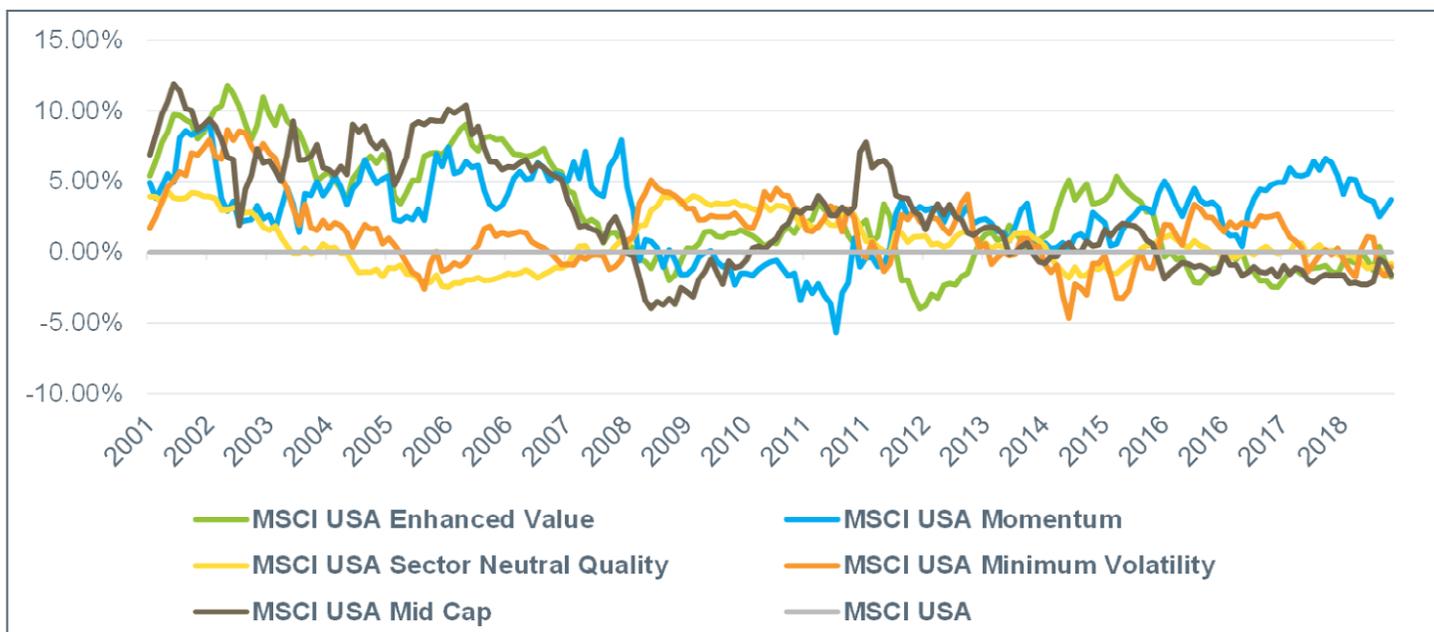
As market conditions and investor preferences shift, stock prices fluctuate. Investor preferences have been studied with notable research papers issued by Eugene Fama, Kenneth French, and Mark Carhart. These papers identified multiple factors that help explain stock returns beyond what is expected based on a stock’s simple market sensitivity or “beta” and the prevailing risk-free rate. Setting aside interest rates and broad market sensitivity, the most widely cited factors are summarized as: value, size, and momentum. Further research also identified additional explanatory factors, such as quality and low volatility. Brief descriptions of the main factors are provided on the following page. However, the definition of and specific methods for gaining exposure to these factors can differ across factor index providers.

| | Basic Definition | Behavioral Rationale |
|----------------|---|---|
| Value | Stocks trading at inexpensive valuations compared to peers | Investors can overreact to recent negative information, avoidance of stocks which have depreciated recently or general neglect |
| Momentum | Stocks which have performed well recently | Investors can extrapolate recent good news and assume past performance will continue |
| Quality | Stocks with consistent profits and low reliance on financial leverage | Investors underprice profitable firms due to a preference for firms with higher, but less sustainable current or forecasted earnings growth |
| Low Volatility | Stocks that have exhibited low price volatility | Investors tend to overestimate the returns for higher risk stocks with high current and expected returns |
| Size | Stocks with smaller market capitalizations | Investors have less information on smaller companies and underestimate the future returns of their stocks |

In sum, the exposure to the largest companies provided by market capitalization weighted indexes generate certain risks. As with any risks, these can be complemented by other risk exposures with low correlations to the broad market itself. Indexes that select stocks and weight stocks based on alternative factor exposures provide investors the opportunity to diversify their equity portfolio by including alternative methods for gaining exposure to broad equity market movements.

At any one time, a specific factor may be in or out of favor. For example, in times of economic uncertainty, investors may place higher premiums on low volatility stocks. Similarly, momentum stocks could receive higher premiums during times of increased speculation and sustained flows into the equity market. [Exhibit 3](#) illustrates this point using the excess returns of factor indexes offered by MSCI relative to the capitalization weighted MSCI USA Index. This cyclicity of factor returns is the driving reason that patience will be required in order for institutional investors to realize the potential benefits of introducing these strategies to their portfolios. An increasingly popular method for gaining exposure to these factors is to invest in methodologies that target numerous factors simultaneously. Through investing in multi-factor indexes, these rising and falling premiums can be captured, without experiencing the unmitigated cyclicity of one specific factor.

Exhibit 3: Annualized 3 Year Rolling Excess Returns



Source: MSCI.com

Due to this cyclical nature of return, some providers have proposed dynamic weighting schemes to allocate to certain factors which appear attractive based on valuation, momentum, or other criteria. There could be potential for further smoothing of the return stream of a multi-factor strategy using these approaches. However, at the very least, investors should still consider the value proposition of consistent exposure to multiple factors in order to avoid investing in a strategy which relies too heavily on any single factor. Affirming exposure to multiple factors can be a helpful head start for investors to confirm that their portfolio is intentionally leaning toward compensated risk factors and away from unintended, potentially uncompensated risk factors.

What are the main types of factor index strategies?

There are many ways that an investor can construct an equity portfolio in order to tilt towards certain factors. The four main types of processes are described below and onto the following page. However, in many cases, a product will rely on elements of each.

Screened

This type of factor index strategy is normally the most simple. A provider identifies a set of stocks with the highest exposure to a specific factor and then eliminates all other stocks in the universe. These stocks can then be weighted by market cap, equally weighted, or weighted based on the expected factor exposure of each stock. There are providers that eliminate a large percentage of the universe in order to arrive at a very concentrated number of stocks.

Factor Tilted

The tilting approach normally does not eliminate many, if any stocks. Instead, the process changes the weights of the stocks based on their factor exposures to one or more factors. Providers normally calculate composite scores for each stock in the universe and then use the relative rank of stocks' scores to adjust their weights. These approaches can also incorporate certain position size limits or sector constraints to avoid active exposures that are significantly different than a capitalization weighted index.

Alternatively Weighted

This approach normally seeks to create diversified portfolios which weight stocks based on their relative exposure to a factor or a set of factors in a multi-factor approach. These processes typically begin with the elimination of stocks with minimal exposure to the targeted factor in order to focus on a starting universe with high factor exposures. Normally, a standardized weighting scheme is created and applied to the stock universe so that the stocks with the highest factor exposure receive the largest weighting. In the case of multi-factor indexes, providers tend to create single factor sleeves and then combine the individual factor indexes. It is common for turnover and overlap minimization techniques to be applied when sleeves are combined.

Optimized

This process closely mirrors the process used by active quantitative managers. However, active managers are normally attempting to optimize the expected risk-adjusted returns of a portfolio using proprietary stock selection signals or factor definitions. In the case of factor indexes, optimization can be used to maximize not only expected risk-adjusted returns, but also the expected exposure to a certain factor, such as low volatility. Factor index providers attempt to optimize exposure to a factor or multiple factors using transparent and static factor definitions. A stock's exposure to a factor is calculated along with its correlation to other index holdings and expected transaction costs. The portfolio is then optimized to arrive at specific expected factor exposures. It is common for these indexes to target equal risk contribution from each factor.

Any of these processes could be potentially appropriate for a given investor, depending on the expected role that factor investing is meant to play in that investor's portfolio. There are examples of factor indexes that represent each of the four types of approaches in the appendix of this paper.

Are factor indexes “risky”?

All investment strategies incur some amount of risk. The type and expected magnitude of that risk are the more important points on which prospective investors must focus. Factor index strategies generate different levels of absolute risk, but they should generally be expected to increase the tracking error of an equity portfolio relative to any capitalization weighted benchmarks. Even if a factor index strategy has a lower volatility than a market cap weighted index, it can still be considered risky if the lower expected return reduces the probability that a portfolio will match or exceed the returns of that market cap weighted index.

The risks generated by factor index strategies are normally referred to as “factor risks,” as their returns are reliant on the behavior of those targeted factors. A common risk that has been uncovered in some factor index strategies is that a single factor, instead of the full suite of targeted factors, can sometimes drive a disproportionate level of total index risk. For instance, some factor index strategies offered in the US Large Cap market have significant exposure to smaller cap stocks, introducing a size factor bias whether the size factor was intended to be a targeted exposure or not. While this exposure could be beneficial, investors need to be aware of the actual, and not simply the intended, factor exposures their indexes achieve, or they risk unexpected and potentially unsuccessful outcomes.

Are factor indexes considered passive?

The answer to this question depends on a client's reference benchmark. If a client uses a market cap weighted benchmark, such as the S&P 500, then any factor index strategy would represent an active decision to expose the portfolio to risks different than those embedded in the benchmark. Apart from this important definition of active – the introduction of a different set of risks and exposures than a cap-weighted benchmark – most factor index strategies share some other important characteristics with traditional cap-weighted passive products, such as rules-based construction. In addition, except for deliberately concentrated approaches, factor indexes are usually composed of a relatively large number of stocks resulting in similarly broad diversification, and have lower fees than traditional fundamental active management approaches.

Are factor indexes inexpensive?

Generally, factor index strategies are less expensive than traditional active management. However, for smaller clients that access single factors through ETFs, the cost may be higher than expected. While there are some US multi-factor ETFs available for less than 10 basis points in total fees and expenses, there are also some which charge much higher fees. There are also mutual funds which represent a discount compared to most active managers, but the difference can be low enough to make the decision less clear cut.

For institutional clients able to access separate accounts or commingled funds, the fees connected to US factor index strategies are often less than 10 basis points. This represents a significant savings compared to active management. In almost all cases, however, passive strategies tracking market cap weighted indexes, such as the S&P 500, remain the least expensive way to access the broad equity market.

Since in our view, fees always matter, prior to making a final decision on whether to select traditional active, factor index, or cap-weighted passive management, the range of fees associated with each should be reviewed to confirm whether the portfolio's total blended fee remains within client expectations.

Can factor indexes replace active management?

There is a key distinction in the type of risk provided by traditional active managers compared to the type of risk provided by factor index strategies. Active managers are typically using projections for company valuation, cash flows, or growth driven by proprietary research to develop unique stock price forecasts. As such, many actively managed portfolios are exposed to stock-specific risks while a rules-based factor index portfolio attempts to generate risk through factor exposures. The stock-specific risk provided by active management can be a good diversifying force, even for a portfolio that already includes factor index strategies.

There are some active managers that rely on factor exposures to generate excess returns. Also, other active managers offer portfolios with specific risk targets, normally aiming to provide downside protection. In these cases, there could be an opportunity to reduce the use of these active management approaches in favor of less expensive factor index strategies without detrimentally impacting progress toward an investors' major goals.

However, it should be noted that the influence of major market factors can explain some of the performance of active managers, but it does not necessarily mean that factor investing can fully replicate the dynamic behavior of all active strategies. For instance, there are quantitative strategies that use proprietary signals and trading approaches which add value or manage risk in a more dynamic and sophisticated fashion than the techniques available with factor indexes. A backward looking factor analysis of this type of quantitative manager may help explain their historical returns, but that does not indicate that the strategy can be replaced with a static mix of factor indexes.

No matter what mix of passive, active, and factor index strategies are selected, we believe that clients should aim to be well diversified across different types of risk. This typically requires a low level of overlap in the type of risks delivered by each strategy. Factor index strategies can be a useful tool to diversify the risk in an equity portfolio while driving down overall cost. However, the utility provided by factor index strategies should be not viewed as a simple replacement for the utility provided by active management.

Should factor indexes introduce significant sector or country risk?

Many factors have been shown to be persistent across many different sectors and geographies. However, this does not necessarily mean that it is appropriate for factor index strategies to introduce risk through significantly different sector or country weights compared to a capitalization weighted benchmark. These types of sector and regional risk can easily overwhelm other intended factor exposures over short periods of time, depending on what benchmark an investor uses and what factor indexes they choose to invest in. Sector and country allocation constraints relative to policy benchmarks can reduce the uncertainty posed by these non-factor risks. However, investors should confirm that factor exposures remain at significant levels following the introduction of any additional constraints they apply.

How could factor indexes fail?

All investment strategies can fail; all will perform poorly in some market environments. Regarding factor indexes, there is a large and diverse universe of factor index strategies which has grown rapidly over the past few years. Given the wide array of strategies in this space and the untested nature of the newest arrivals, some strategies within this group will inevitably underperform investor expectations.

There are many potential reasons behind such failures. For example, poorly constructed strategies which do not sufficiently limit portfolio turnover, use relaxed liquidity criteria, or don't provide clients with appropriate diversification are key candidates for future problems.

Given this environment, we suggest that an institutional investor interested in adding factor indexes to a portfolio begin their underwriting of any factor index strategy with a few simple questions:

1. Does each factor used have a behavioral rationale which is expected to persist?
2. Are the targeted factors complementary, or are they highly correlated?
3. Does this strategy provide consistent exposure to the desired factors?
4. What process is in place to control for portfolio turnover and illiquid stock exposure?

While the careful consideration of these questions by no means guarantees the success of any given investment, we believe it may help investors to avoid what we view to be some of the most common pitfalls of investing in this space.

It is also worth noting that, in and of itself, the increased use of factor index strategies raises the risk that the return premium associated with each targeted factor could become less significant over time. This issue of crowding, with large capital inflows driving the potential outperformance of each factor downward, can be somewhat mitigated through well-constructed strategies that are designed to dynamically respond to changes in stock price. However, as always, an important goal of many investors is to diversify the risks in their portfolios, and factor index strategies, when appropriately understood and selected, can be a potential source of diversification.

Conclusion

This paper aimed to answer some of the most frequently asked questions about factor index strategies. It also provided guidance on how these strategies could be applied to a portfolio. We expect that the recent interest in factor index strategies will persist. However, in our opinion, it is important for institutional investors to have a realistic grasp of the benefits and risks of this strategy option, apply rigorous due diligence to these types of investments, and fully understand why and how they might play an effective role in a broader equity allocation.

Additional information and resources are included in the appendices of this paper. Descriptions for the following pages are provided below:

- **Appendix I:** Examples of how factor indexes have been added to portfolios alongside passive capitalization weighted indexes and active management.
- **Appendix II:** Brief summaries and a portfolio comparison of different factor indexes currently offered by various providers.
- **Appendix III:** A demonstration of how a factor index strategy fits within the previously introduced Active Management Decision Tool.

Appendix I: Factor Index Application Examples

When building an alternatively weighted index, there are multiple factors that may be selected, with the most commonly used options being value, momentum, size, quality, and low volatility. Two examples of potential applications are provided below; one using the full suite of factors and another using a smaller subset to fill a specific role.

| Portfolio Weight | Strategy Type | Annual Fee |
|-----------------------------|---|--------------------------|
| 50% | Factor Index Portfolio (Value, Momentum & Quality) | 10 Basis Points |
| 30% | Passive Cap-Weighted Russell 1000 Index | 5 Basis Points |
| 20% | Active U.S. Small & Mid Cap Managers | 80 Basis Points |
| <i>Effective Annual Fee</i> | | <i>22.5 Basis Points</i> |

The first application uses all three types of management (traditional passive, factor-based, and active), but each is used strategically. The factor index and traditional passive investments are put to work in the most efficient parts of the market, which are therefore the least likely to experience added value from active management. The smaller cap exposure, in contrast, is managed actively due to the higher success rate of active management in that area.

| Portfolio Weight | Strategy Type | Annual Fee |
|-----------------------------|--|--------------------------|
| 50% | Passive Cap-Weighted Global Equity | 5 Basis Points |
| 30% | Active Global Equity | 70 Basis Points |
| 20% | Factor Index Portfolio (Low Volatility and Quality) | 10 Basis Points |
| <i>Effective Annual Fee</i> | | <i>25.5 Basis Points</i> |

The application above is similar to the first in that it relies on a traditional passive strategy for market exposure. A key difference between the first and second applications, however, is that the investor is balancing their total portfolio beta by taking excess risk with their active managers and then controlling that exposure with an offsetting investment in a low beta, lower volatility factor mix.

Appendix II: Factor Index Examples

The following examples should not be viewed as recommendations to consider for a portfolio. Each was selected purely to illustrate the different approaches used in the factor index investing space. In addition, each provider offers multiple factor indexes which could be reviewed as options beyond the subset used for this exercise.

Screened

S&P 500 Low Volatility

The 100 stocks within the capitalization weighted S&P 500 with the lowest price volatility based on daily trading data over the past 12 months are selected for the index. Stocks are given weights based on their volatility with the least volatile stocks receiving the highest weights. The index is rebalanced on a quarterly basis.

Factor Tilted

FTSE Russell 1000 Comprehensive Factor Index

This index targets five well-known factors, labeled as quality, momentum, value, volatility, and size. The metrics used to define each factor are provided below.

Quality: Profitability, Efficiency, Earnings Quality, and Leverage

Momentum: Cumulative 11 month return

Value: Cash Flow Yield, Earnings Yield, Sales/Price Ratio

Volatility: Standard Deviation of 5 years of weekly returns

Size: Log of Market Cap

For each factor, a stock receives a score indicating its factor exposure. These scores are based on a normalized distribution of a given universe of stocks. The weight of a stock in the capitalization weighted Russell 1000 is then multiplied by each of its factor scores to tilt its weight based on its factor exposures. This results in the highest active weights assigned to stocks with the highest combined factor exposures.

Alternatively Weighted

Scientific Beta US MBMS Four-Factor Equal Risk Contribution Index

The process involves selecting and weighting stocks from a universe of 500 US large- and mid-cap stocks universe according to metrics identified in academic literature as being indicators of certain factors. The index provider offers other versions with expanded factor exposures, however this version targets the value, momentum, low volatility, and size factors. The following metrics are used to define each factor.

Value: Current Price-to-Book Ratio

Momentum: Cumulative Return over 1 year excluding the most recent month

Low Volatility: Volatility of weekly returns over past 2 years

Size: Free Float Market Capitalization

The top 50% of stocks as identified by each metric are placed into separate sleeves. A multi-factor score is calculated for each stock and the bottom 20% of stocks, based on this multi-factor score, are removed from the sleeves. Stocks are then weighted within each factor group into separate sleeves which each use different weighting scheme in order to maximize diversification and reduce idiosyncratic risk. The multiple sleeves are then combined with the aim of equal risk contribution from each sleeve to create a portfolio of stocks with exposure to each targeted factor.

Optimized

MSCI USA Diversified Multiple Factor Index

The optimization objective is to maximize the combined exposure to the value, momentum, quality, and size factors, subject to constraints intended to result in similar risk levels as the capitalization weighted index. Each factor score is weighted at 25% when calculating the alpha score. The definitions of each factor group are given below.

Value: Score is calculated by combining multiple valuation descriptors including earnings-, book value-, and enterprise value-based measures

Momentum: Score is calculated by combining multiple signals including relative strength and historical alpha

Quality: Score is calculated by combining multiple fundamental descriptors including profitability, leverage, and earnings variability

Size: Score based on the logarithm of the market-capitalization

The optimization is conducted with stock weights, sector allocation, and other risk factors constrained to be similar to the parent index. Turnover limits are also in place to improve the liquidity of the index.

Portfolio Comparison

The following table displays portfolio characteristics for each index compared to the capitalization weighted S&P 500 index. Typically, based on their relative descriptions, investors would expect that the S&P 500 Low Volatility strategy would have significantly different characteristics than the multi-factor indexes. However, the number of holdings, valuations, and average market capitalizations also vary widely among the multi-factor indexes. The differences between the three factor indexes underlie the need for investors to investigate and understand the risks generated by any index they select.

| Portfolio Characteristics (As of 03/29/2019) | S&P Low Volatility | FTSE Russell | MSCI | Scientific Beta | S&P 500 |
|--|-----------------------------------|-------------------------|-------------|----------------------------|--------------------|
| Number of Stocks | 100 | 828 | 152 | 359 | 505 |
| Annual Turnover | 68% | 45% | 46% | 39% | 3% |
| Price/Earnings | 20.48 | 16.82 | 13.60 | 17.04 | 16.80 |
| Price/Book | 2.50 | 2.83 | 2.24 | 1.59 | 2.95 |
| Long-Term Earnings Growth | 7.32 | 9.72% | 9.69% | 9.82% | 10.45 |
| Average Market Cap (\$M) | \$31,724 | \$16,720 | \$27,433 | \$30,427 | \$103,182 |

Source: Morningstar. Data from ETFs tracking each index was used for this comparison (Tickers: SPLV, DEUS, LRGF, SCIU, SPY).

Appendix III: Active Management Decision Tool – Part I

The following tool provides a framework for active/passive decision making. For each area of the portfolio under consideration, fill out the form in Part I and then plot the score in Part II. Generally, a high score overall and for individual line items suggests a higher level of attractiveness for active management, while low scores suggest that passive management may be more attractive. It is intended to provide insights into the relative strength of an opportunity, as well as the extent to which an investor values potential excess return and is able to handle the accompanying risks. The following example illustrates a situation when a factor index may be appropriate for a given asset class.

| | Score | | | | | Score | |
|--|-----------|---------|----------|--------|-------------|-----------|---|
| | 0 | 1 | 2 | 3 | 4 | | |
| Opportunity-Related Factors | | | | | | | |
| Degree of market inefficiency | Very Low | Low | Moderate | High | Very High | 2 | |
| All-in-Fee Levels* | 300+ bps | 150 bps | 75 bps | 50 bps | 25 bps | 2 | |
| Strength of current opportunity set | Very Weak | Weak | Average | Strong | Very Strong | 2 | |
| Opportunity Strength Average (Total ÷ 3) | 2 | | | | | Sub-Total | 6 |

| | Score | | | | | Score | |
|--|-----------|---------|----------|-----------|-----------|-----------|----|
| | 0 | 1 | 2 | 3 | 4 | | |
| Investor-Related Factors | | | | | | | |
| Utility of excess return | Very Low | Low | Moderate | High | Very High | 3 | |
| Risk tolerance for underperformance | Very Low | Low | Moderate | High | Very High | 3 | |
| Length of investment time horizon | < 3 Yrs | 3-5 Yrs | 5-10 Yrs | 10-15 Yrs | 15+ Yrs | 3 | |
| Stability of investment strategy | Very Low | Low | Moderate | High | Very High | 2 | |
| Level of decision maker conviction | Very Low | Low | Average | High | Very High | 2 | |
| Level of opportunity costs* | Very High | High | Moderate | Low | Very Low | 2 | |
| Fee Sensitivity* | Very High | High | Moderate | Low | Very Low | 0 | |
| Impact of investment constraints* | Very High | High | Moderate | Low | Very Low | 4 | |
| Investor Appropriateness Average (Total ÷ 8) | 2.4 | | | | | Sub-Total | 19 |

*Red text indicates scoring that is the inverse of the prior factors. In other words “very high” serves as a negative indicator for the use of active management rather than a positive indicator.

Active Management Decision Tool – Part II

For each asset class, take the total average score for investor appropriateness and opportunity strength that you calculated in Part I and plot it on the two-by-two matrix .



There is not a clear bias towards active or passive management in this situation. While there appears to be the potential for added value the fee levels and strength of active management options make factor indexing a potential choice for this client.

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