



# Board of Retirement Regular Meeting

## Sacramento County Employees' Retirement System

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### Agenda Item 19

**MEETING DATE:** February 21, 2018

**SUBJECT:** Alternative Active Management Equity Strategies

**SUBMITTED FOR:**  Consent  **Deliberation**  **Receive**  
 **and Action**  **and File**

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### **RECOMMENDATION**

Staff recommends the Board approve Verus and Staff initiating a manager search for an alternative active manager within the Domestic Equity asset class. Within the Domestic Equity structure, the manager would fit within the large cap active management sub asset class.

### **PURPOSE**

To provide education to the Board about potential alternative active management strategies within the domestic equity asset class, which include factor-based and option-linked strategies.

### **BACKGROUND**

At the January 2018 meeting, the Board approved a revised structure for the Domestic and International Equity asset classes. The approved structure is designed to align the equity asset classes with SCERS' strategic asset allocation adopted in January 2017. An objective of the structure was to maintain diversification across market capitalization and investment styles while also simplifying the structure and eliminating overlap and redundancies. The details of the approved structure are presented in the table below.

Domestic Equity Structure

	Policy	Benchmark	Allocation	Manager
Russell 3000	100.0%			
LC Passive (R1000)		54.0%	54.0%	
Passive Manager				54.0%
LC Active (R1000)		36.0%	36.0%	
Active Managers				36.0%
SCV (R2000V)		5.0%	5.0%	
Active Managers				5.0%
SCG (R2000G)		5.0%	5.0%	
Active Managers				5.0%

International Equity Structure

	Policy	Benchmark	Allocation	Manager
ACWI ex US IMI	100.0%	20.0%	20.0%	
Active Manager				20.0%
Dev Growth (EAFE G)		25.0%	25.0%	
Active Manager				25.0%
Dev Value (EAFE V)		25.0%	25.0%	
Active Manager				25.0%
Dev SC Growth (EAFE SC G)		5.0%	5.0%	
Active Manager				5.0%
Dev SC Value (EAFE SC V)		5.0%	5.0%	
Active Manager				5.0%
EM (MSCI EM)		20.0%	20.0%	
Active Managers				20.0%

As presented and discussed during the January Board meeting, Staff recommended a multi-step approach to restructuring the equity asset classes. The first step, completed in January, was to approve a new structure, which established sub-asset class target allocations and structured the Domestic and International Equity asset classes to align with policy benchmarks and reduce undesirable risk. The next step will be for Staff and Verus to develop an overall implementation plan for the new structure. The implementation plan will include determining the optimal manager configuration and evaluating specific managers that will carry out assignments within the structure.

The target allocation for passive management was maintained at 54% for the large capitalization domestic equity sub-asset class. Additionally, to reduce Benchmark Risk, the structure eliminated the allocation to REITs and reduced the target allocation to small cap equities (from 14% to 10%). Therefore, given these changes, the target allocation to large cap active management increased from 27% to 36%.

As introduced at the January Board meeting, an approach being considered by Staff and Verus, within the large cap active management allocation, are alternatives to traditional active and passive management strategies. These alternative strategies are often a hybrid approach between passive management, which attempts to mimic performance of market cap weighted indices, and active management strategies that seek to outperform index returns with varying degrees of tracking error and volatility. Additionally, these alternative strategies often have management fee structures above the low fees of passive management but below the higher fees of traditional active managers. This education will further explore the options within active management that can provide an alternative to the traditional passive and active managers that currently occupy SCERS' Domestic Equity structure.

**ACTIVE VS. PASSIVE MANAGEMENT AND MARKET CAP WEIGHTED INDICES**

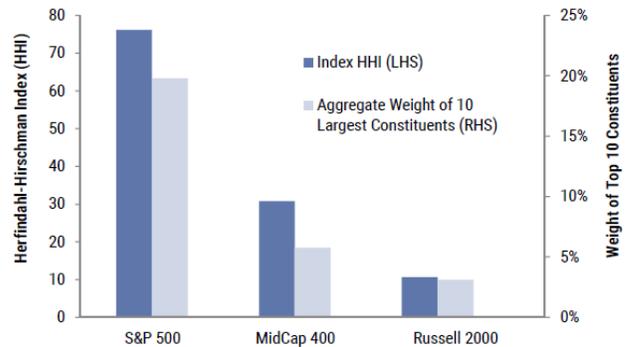
Within the Domestic Equity asset class structure, passive management of large cap equities maintains a 54% target allocation, consistent with the prior structure. With the reduced allocation to REITs and small cap equities, the allocation to large cap equities increased from 81% to 90%.

In determining the allocation to passive management, Staff and Verus considered many issues including:

- Risks to market cap weighted indices
- Market performance and asset flows to passive investment products
- Benefits of active management

Traditional large cap equity benchmarks, such as the S&P 500 or Russell 1000, are market cap weighted benchmarks, which place the greatest weighting in the index to the largest companies (as measured by a company’s market capitalization). Stock weightings in market cap weighted indices are essentially a function of the company’s past success, with weightings skewed towards current market leaders. These indices are dominated by a handful of mega-cap stocks, which constitute a significant portion of the index. For example, the 10 largest companies in the S&P 500 encompass 20% of the total market value of the index. This level of concentration is unique to large capitalization indices, as shown in the nearby chart.

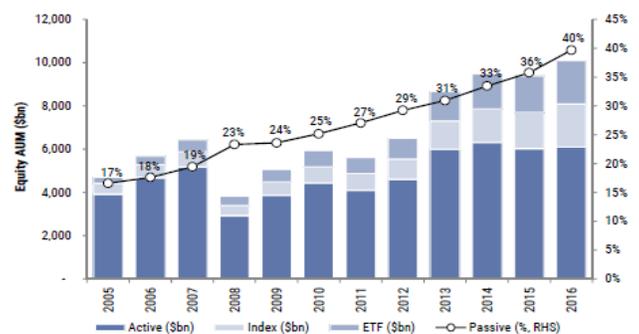
Concentration of Index Constituents: S&P 500 vs. MidCap 400 vs. Russell 2000  
Herfindahl-Hirschman Index (HHI) and Top 10 based on weights of Index constituents as of March 31, 2017



Market cap weighting of indices creates a unique set of risks related to the momentum embedded in their structure. The largest components of a market cap weighted index significantly drive the performance that index. In up trending markets, as we have experienced the last several years, the increase in price of the largest components significantly determines the overall performance for the index. For example, in calendar year 2017, the top ten stocks in the S&P 500 were up on average 32% compared to the index return of 22%. As the largest stocks outperform the market, their market weighting within the index increases, creating a momentum effect for the largest stocks. The better performing stocks become larger parts of the index. This issue is compounded by the increased dollar flow into passively managed products, which track market cap weighted indices. As passive management becomes an increasing percentage of the total U.S. equity market, the largest components increasingly benefit from this trend, as new money is allocated to stocks based on their weighting within the index.

While this trend benefits the largest components within an index, it also increases risk during the next economic downturn. In recessionary economic environments, investors typically reduce exposure to risk assets such as equities, placing downward pricing pressure on stocks. With the increased allocation to passively managed, market cap weighted products, the largest components within the index would face the greatest selling pressure in declining markets.

US Equity mutual fund and ETF AUM (\$bn); % ETF/passive (RHS)



Source: Simfund, Goldman Sachs Global Investment Research.

Within SCERS' large cap domestic equity portfolio, the current allocation is split between passive (65%) and active (35%) management. Large cap domestic equities is a segment of the market that has proven to be mostly efficient and active managers have struggled to outperform their benchmarks. This is consistent with SCERS' experience in the asset class, as two of the four active managers have underperformed their benchmarks over the long term, while the other two managers have delivered performance that exceeded their benchmark. The table below details the performance of SCERS' large cap active and passive segments.

	<u>1 Year</u>	<u>3 Years</u>	<u>5 Years</u>
Russell 1000® Index	21.7	11.2	15.7
SCERS Large Cap Passive	21.6	11.2	15.7
SCERS Large Cap 130/30 Active	23.1	11.2	17.2
SCERS Large Cap Core Active	24.4	12.1	16.8
Russell 1000® Growth Index	30.2	13.8	17.3
SCERS Large Cap Growth Active	31.0	11.3	13.9
Russell 1000® Value Index	13.7	8.7	14.0
SCERS Large Cap Value Active	21.9	9.7	13.0

*As of 12/31/17*

While large cap domestic equity has been a challenging space for many active managers, Staff and Verus still believe active management provides benefits to a portfolio. Active managers present an opportunity to produce excess returns (alpha) above benchmark returns. In addition to seeking excess returns, active managers also can potentially minimize risk exposure by applying an unconstrained approach and not being required to invest in specific stocks or sectors based on the construction of the index.

Given the existing allocation to passive management and SCERS' mixed results with traditional active management, Staff and Verus have been exploring alternatives within active management that could potentially provide both the benefits of active management and minimize the risk an increasing allocation to passive management would present.

### **ALTERNATIVE ACTIVE MANAGEMENT STRATEGIES**

Alternative strategies within active management is a broad category that covers a wide range of investment strategies and managers. Managers offering products that would fit into this category range from boutique firms and hedge funds to large investment banks. For purposes of this education report, we will focus on factor-based investment strategies, as these strategies provide exposure within the category that meet SCERS' overall objective for a potential equity allocation including:

- Simplifying the equity structure, including reducing overlap and redundancies
- Maintaining active management approach designed to generate alpha
- Maintaining an adequately diversified portfolio that reduces risk
- Reducing costs

Factor-based strategies represent a hybrid approach that is a blend of active and passive management. Investment managers utilize a variety of approaches when constructing portfolios based on factor-based strategies.

	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>Passive</span> <span style="font-size: 2em;">➔</span> <span>Active</span> </div>		
	Traditional cap-weighted Index	Factor-based Investing	Traditional active management
Transparency	High	High	Low
Performance attribution	Simple	Simple	Complex
Turnover and trading costs	Low	Low	Moderate to high
Capacity	High	High	Low to moderate
Fees	Low	Low	Moderate to high
Exposure to style factors	None	Moderate	Moderate
Potential for outperformance	None	Moderate	Moderate to high

The development of many strategies have roots in academic research dating back to the concepts of mean-variance optimization and the Capital Asset Pricing Model ('CAPM'), which was developed in the 1960's. The theory behind the CAPM is that every stock has some level of sensitivity to the movement of the broader market – measured as Beta. The CAPM essentially was the first “factor” and the model suggested that this factor, market exposure or Beta, measures the risk and return of a stock.

Following the establishment of the CAPM, academic research furthered the development of factors as a source of explaining stock returns. Factor investing expands on the CAPM by identifying securities with certain common characteristics (factors) that drive returns. The Arbitrage Pricing Theory (APT), introduced in 1976, suggested a multi-factor approach as a model for explaining stock returns. Later research by Eugene Fama and Kenneth French, and then by Mark Carhart (Carhart Four-Factor Model), identified specific factors that could be used as return drivers to generate excess returns. These common factors include company size, valuation, momentum, and quality. Over time, numerous additional factors have been identified including volatility, debt (or leverage) levels, sales growth, etc.

The Evolution of Factor Investing

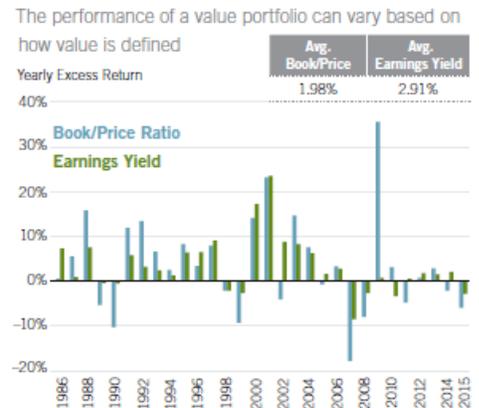


The following section provides a brief primer on the theories underpinning the most common factors and their evolution in the investing landscape.

## Value

There has been considerable academic research on the value factor - the concept that inexpensive stocks should outperform stocks that are more expensive. Early advocates of value investing include Benjamin Graham and Warren Buffett. Behavioral theories explaining the value premium argue investors incorrectly extrapolate past results of expensive, high growth stocks and are overly pessimistic about cheap, slower growth stocks.

There are many different ways to define value. For example, investors may examine earnings, cash flow, or book value to determine if a stock is inexpensive. Stocks representing the value factor can be identified based on a single definition or a combination of these measures. Depending on which metric is used, the performance of the value factor can vary significantly.



## Quality

As with the value factor, the quality factor can be defined in a myriad of ways. Some common features that define quality include higher levels of profitability, stable earnings and cash flow, greater earnings quality (lower accruals), and low corporate debt levels. Investing in companies that exhibit quality factors represents a more fundamental investing approach that is often utilized by traditional active managers, including many of SCERS' existing managers. There is considerable variability in how this factor is employed in practice, given the various methods of determining "quality". However, the general consensus is that companies that generate superior profits, have strong balance sheets, and produce consistent positive cash flows can provide consistent performance over the long term.

## Size

As identified by Fama and French in their seminal research, investing in smaller companies, as measured by their market capitalization, has produced excess returns over large capitalization stocks over the long run. The theory is that a small cap premium exists to compensate investors for investing in smaller companies that are inherently more risky, as measured by volatility and/or higher risk of bankruptcy. However, this factor has come under some scrutiny when examining the excess returns (on a risk-adjusted basis) and the potential for extended periods of under-performance.

## Momentum

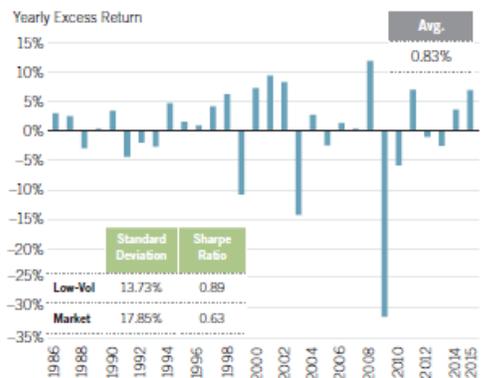
Momentum as an equity investment factor is a more recent development and more technical compared to the fundamentally derived quality or value factors. Momentum examines price

trends and has demonstrated that stocks that have recently outperformed continued to outperform, and stocks that have lagged continued to underperform. The explanation of momentum as a factor is primarily based on behavioral dynamic of investors – once a stock begins to outperform it garners more attention and investors continue to further invest in the stock, creating the momentum that allows the stock to continue to outperform. This cycle continues until a catalyst causes a change in momentum, such as an earnings miss or fundamental shift in sentiment.

**Volatility**

The volatility factor contradicts the conventional hypothesis originally presented by the CAPM that higher risk, as measured by standard deviation (volatility) of returns, should result in higher expected return. Academic research has demonstrated that stocks with lower risk (lower return volatility) than the broad market can generate excess returns, both on an absolute and risk-adjusted basis. The low volatility approach is designed to perform best when markets experience high volatility and experience declines, given that lower risk stocks perform better in down markets. Managers often utilize a minimum volatility strategy as a standalone factor in products such as “defensive equity” or “low-volatility”. A potential criticism of volatility as a stand-alone factor is that the characteristics of low-volatility stocks are attributable to other factors such as quality or value. However, current portfolio construction techniques can isolate the volatility factor and have shown lower volatility stocks can produce positive excess returns over time with less risk.

In addition to reducing risk, a low-volatility portfolio may beat the market over time



**Multi-Factor Approach**

There is considerable evidence, both academic and in real world portfolios, that investing in factors can produce excess returns versus broad market indices. Investment managers, both fundamental and quantitative, have utilized factors for many years as a tool to identify stocks and construct portfolios that can produce favorable market returns. However, different factors work well in different market environments and returns tend to be cyclical. For example, while small capitalization stocks (size factor) have produced excess returns when examining performance over long periods of time, they also have experienced greater volatility and extended periods of underperformance.

Small Caps Factor Relative Performance



Other examples of the

cyclicality of factors include value stocks underperforming over the last several years and momentum stocks underperforming during the global financial crises in 2009 and subsequently outperforming in 2010-2011. Therefore, even though factor returns have produced excess returns over time, the return pattern can be cyclical and inconsistent, generating extended periods of underperformance.

Despite the heightened risk and potential for extended periods of underperformance for an individual factor, research has shown that investment factors are often uncorrelated with one another. As noted, different factors perform well in different parts of the economic cycle and therefore tend to produce outperformance at different times. For example, value and momentum work in near opposite market environments – including both factors in a portfolio offers diversifying benefits to a portfolio.

Therefore, an approach that combines investing in multiple factors can benefit from both the individual factor exposures and also from diversification across factors. This portfolio structure, utilizing a multi-factor approach, can increase the potential for performing well across a variety of markets (an ‘all-weather’ portfolio) while reducing risk and still maintaining the potential for excess market returns (alpha).

Most factors are not highly correlated, so diversifying among them may improve risk-adjusted returns over time



Value represented by the equal-weighted top quintile (by book-to-price ratio) of the Russell 1000 Index. Momentum represented by the equal-weighted top quintile (by trailing 12-month returns) of the Russell 1000 Index. Source: FactSet, as of Mar. 31, 2016.

This is similar to an approach applied by some of SCERS’ existing alternative risk premia absolute return managers. These managers employ a systematic approach to provide beta exposure to multiple hedge fund strategies that have shown evidence of outperforming benchmarks over time. The goal is to provide exposure to the space, in an efficient manner, with a lower overall fee structure compared to traditional hedge fund managers.

A multi-factor approach would compliment SCERS’ existing Domestic Equity portfolio by adding a strategy that utilizes a systematic investment approach compared to SCERS’ existing active equity managers, which apply a fundamental, discretionary approach to selecting stocks and portfolio construction. Research has shown that fundamental and systematic approaches have similar investment outcomes (in terms of returns), but that systematic managers tend to have lower risk. While there is the potential for overlap, the contrasting approaches allow for differentiated, less correlated return streams. Despite similar return expectations overall, the correlations between systematic and discretionary managers are low, highlighting their complimentary nature to a portfolio.

## **NEXT STEPS – INITIATE MANAGER SEARCH**

At the January Board meeting, Staff and Verus presented a timeline for implementing the revised structure for the equity asset class. Phase two of the timeline includes Staff and Verus presenting Domestic Equity manager recommendations to carry out assignments within the approved structure. As noted throughout this education presentation, Staff believes there is an

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opportunity within active management for a manager that utilizes a factor-based approach. **Staff recommends the Board approve initiating a manager search for a systematic factor-based investment manager within the Domestic Equity asset class. Within the Domestic Equity structure, this manager would fit within the large cap active management sub asset class.**

Board members may recall that under the governance structure for the hiring of managers within the traditional asset classes, including public equities, Staff and Verus will identify the candidates to be included in a manager search, and will narrow the initial candidates under consideration to a list of three to six candidates, who will be interviewed by Staff and Verus at SCERS' office. Staff and Verus will then prepare reports explaining the process and rationale for choosing the finalists, which will be posted on the Board's internal website. The reports will also present an opportunity for the Board to note any concerns that it might have on any of the finalists, or on the process that was used to choose them.

Subsequent to the manager interviews, including any follow-up analysis, a final candidate or candidates will be chosen by Staff and Verus, and the chosen firm or firms will then make a presentation to the Board at the next opportune Board meeting. Final reports will also be prepared by Staff and Verus explaining the reasoning that went into choosing the sole finalist or finalists. Following the manager(s)' presentation, the Board will have an opportunity to analyze and question the manager(s) and approve or disapprove the recommended finalist(s).

## **ATTACHMENTS**

Verus Education Presentation on Alternative Management Strategies

Prepared by:

/S/

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Chief Executive Officer



**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**



FEBRUARY 2018

**SCERS Alternative Active Management**

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# Introduction

# Introduction

## – Approved Structure for Domestic and International Equity Asset Classes

Domestic Equity Structure

	Policy	Benchmark	Allocation	Manager
Russell 3000	100.0%			
LC Passive (R1000)		54.0%	54.0%	
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Active Managers				5.0%

International Equity Structure

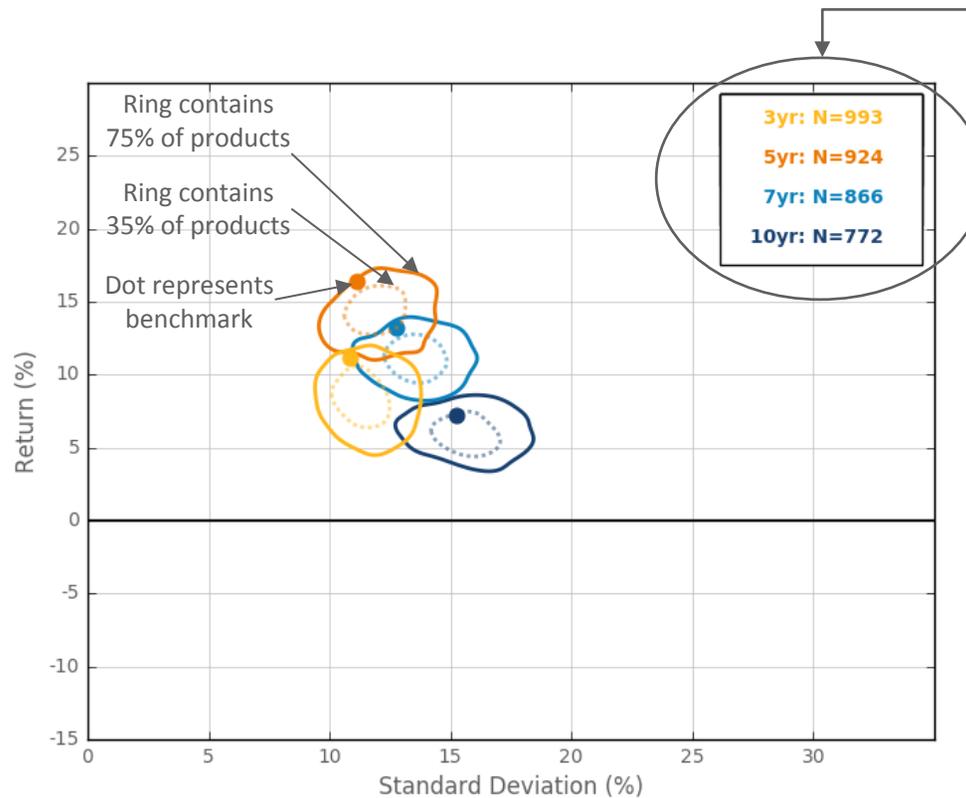
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Active Manager				5.0%
EM (MSCI EM)		20.0%	20.0%	
Active Managers				20.0%

- Simplify the portfolio structure and reduce unintended risk and redundancies.
- Established sub-asset class target allocations
  - Maintained Large Cap passive allocation at prior target
  - Increased target allocation to Large Cap active management
- Explore systematic, factor-based strategies as an alternative to traditional passive and active management.

# Active Management Environment

# How to read a universe chart

The movement of the universe, the change in shape and of size all provide information about product behavior.



The number of products included in the analysis provides insight into the robustness of the analysis.

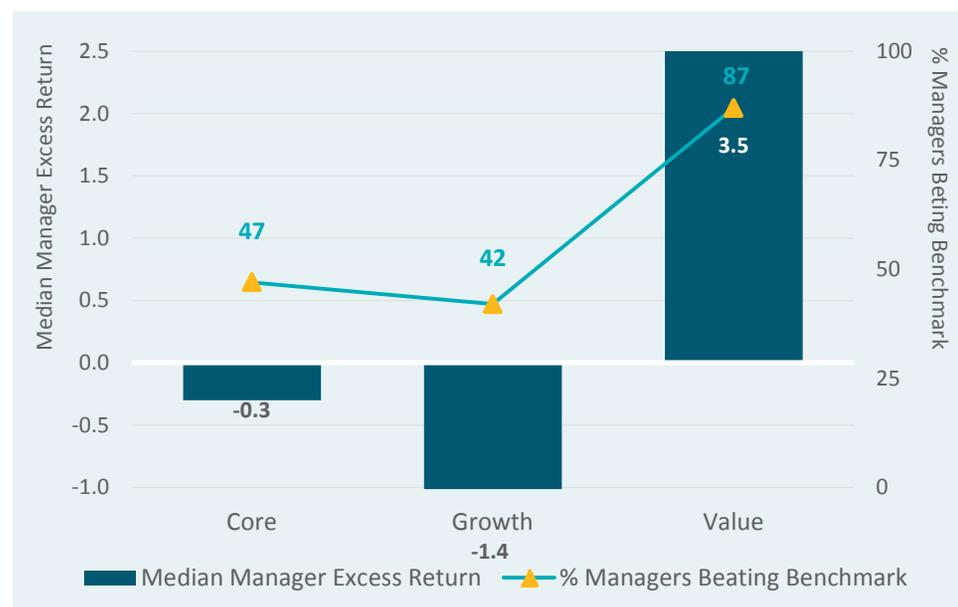
The position of the benchmark relative to the universe may also change through time, representing dynamic structure changes.

Throughout this report each asset class universe chart is placed at the same position on the page, at the same size and with the scales of the axes identical. This allows for easy comparison between universes.

# Equities – U.S. large cap

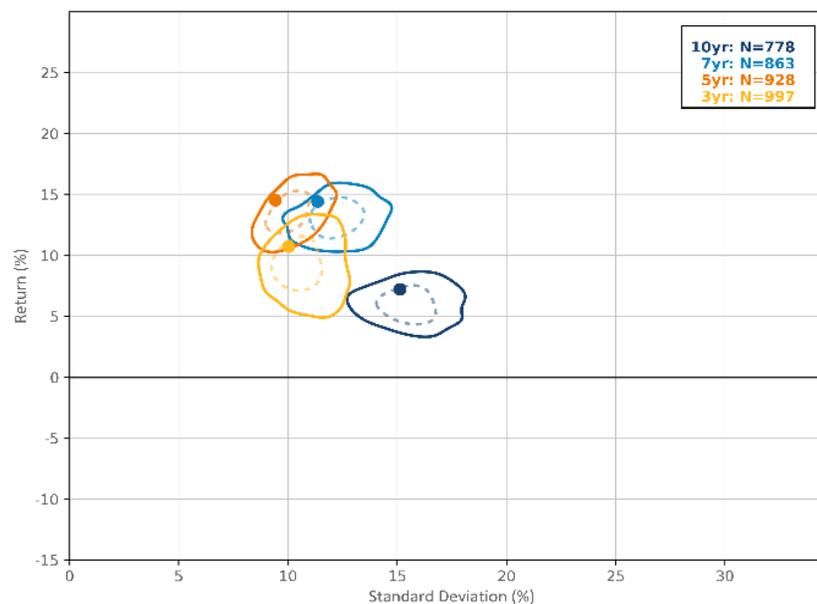
- Over cumulative periods, the majority of large cap managers have underperformed despite taking higher risk
- Based on the evidence, the probability of picking an active manager that can outperform the index over long periods is challenging
- Maintaining exposure to traditional large cap managers should only be with a high level of conviction
- There are intermittent periods when active shines. Maintaining a blend, dominated by passive and semi-passive approaches, is appropriate

## ACTIVE PRODUCT PERFORMANCE 2017



Source: eVestment, as of 12/31/17, gross of fees

## U.S. LARGE

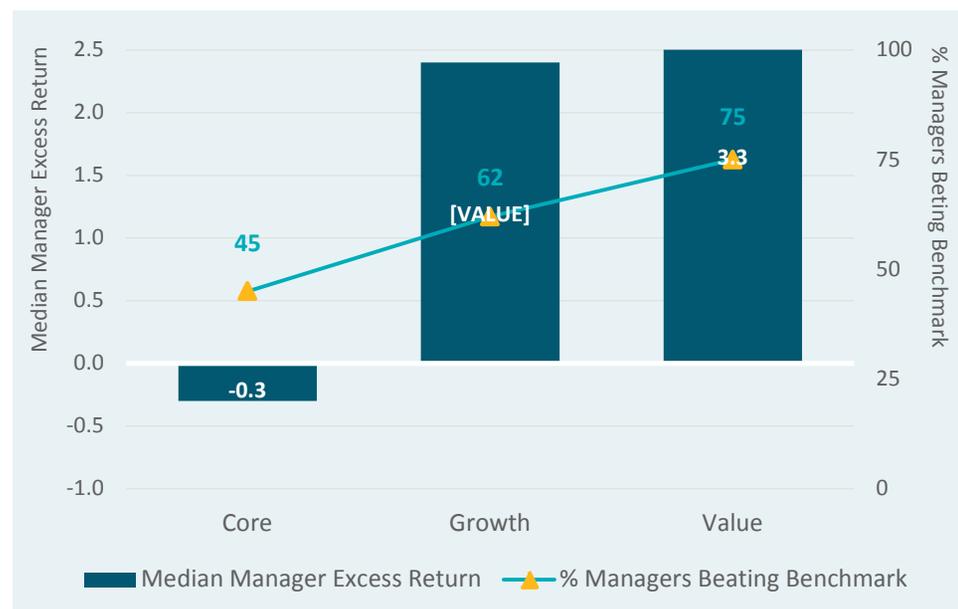


Source: eVestment. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the S&P 500

# Equities – U.S. small cap

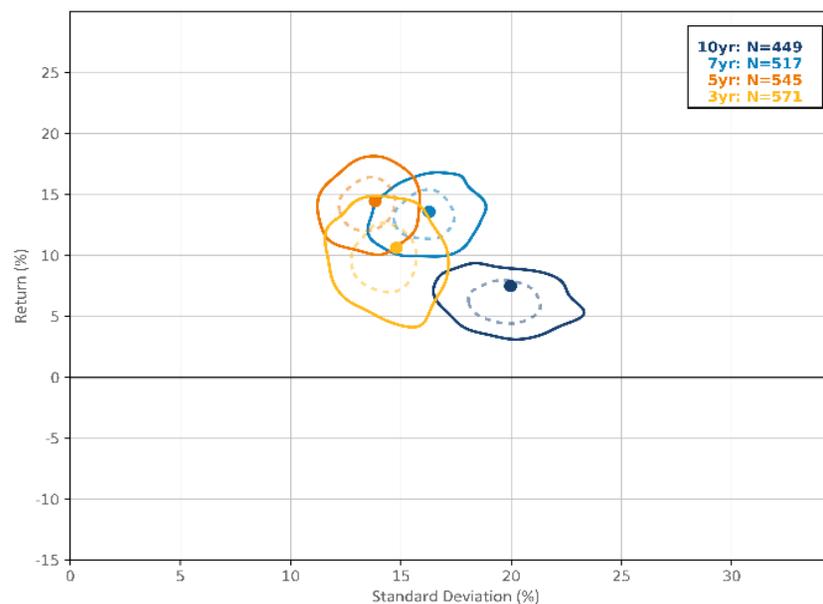
- Risks are evenly distributed and do not correlate with good or bad performance
- A smaller proportion of small cap managers take on greater risk than in a large cap universe
- Based on the data, picking a small cap manager that tends to exhibit less risk than the index has an equally good chance of outperforming
- Small cap is a more attractive arena to take active risk, particularly within growth and value style groups

## ACTIVE PRODUCT PERFORMANCE 2017



Source: eVestment, as of 12/31/17, gross of fees

## U.S. SMALL

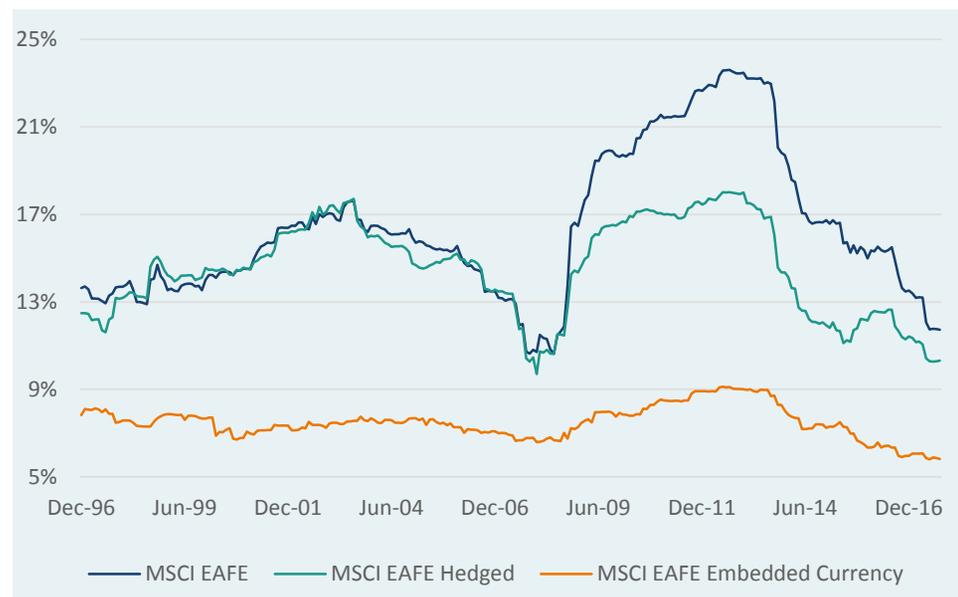


Source: eVestment. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the Russell 2000

# Equities – International developed

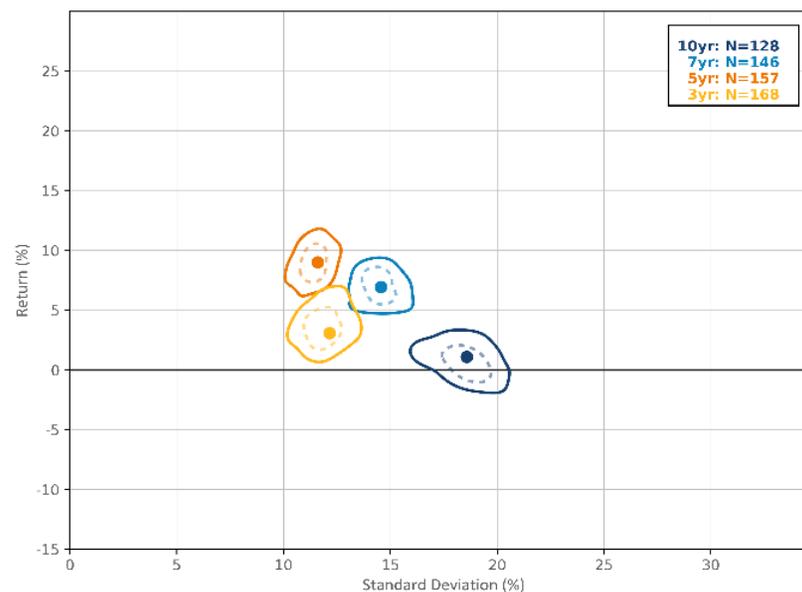
- Like small cap, developed international markets are a more fertile area for active risk, especially in terms of risk reduction
- Active hedging of currency has produced lower absolute volatility, but higher tracking error to the benchmark

## 5-YEAR ROLLING VOLATILITY



Source: MSCI, as of 11/30/17

## INTERNATIONAL LARGE



Source: eVestment. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the MSCI EAFE

# Equities – Emerging markets

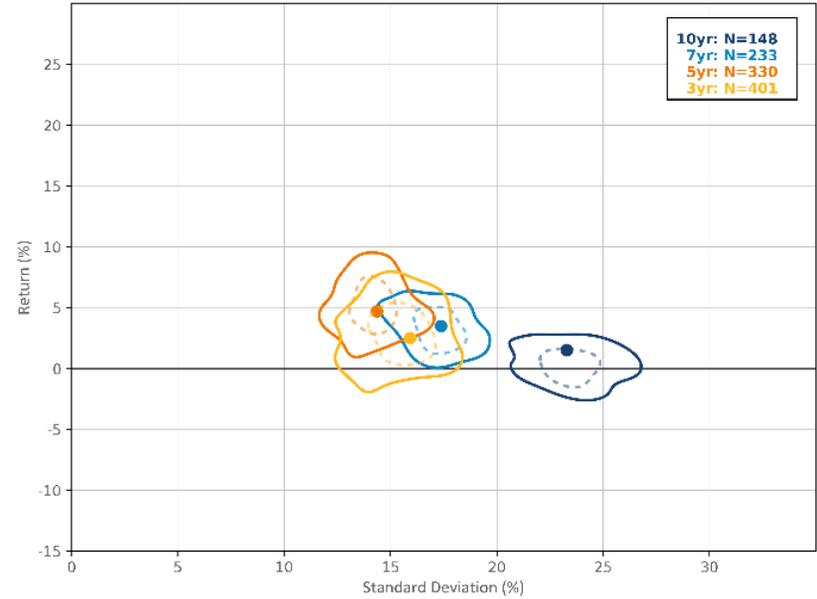
- Emerging market managers have produced excess returns, particularly over the last 3-5 years. Note that the 10 year observation includes the GFC.
- In the last 5-7 years, emerging markets have experienced considerably higher volatility driven by commodity price fluctuations and country specific macro headwinds. Active managements ability to navigate within companies, sectors and countries has contributed to a greater share of the universes outperformance
- Value managers within emerging markets significantly outperformed the benchmark in 2017

## ACTIVE PRODUCT PERFORMANCE 2017



Source: eVestment, as of 12/31/17

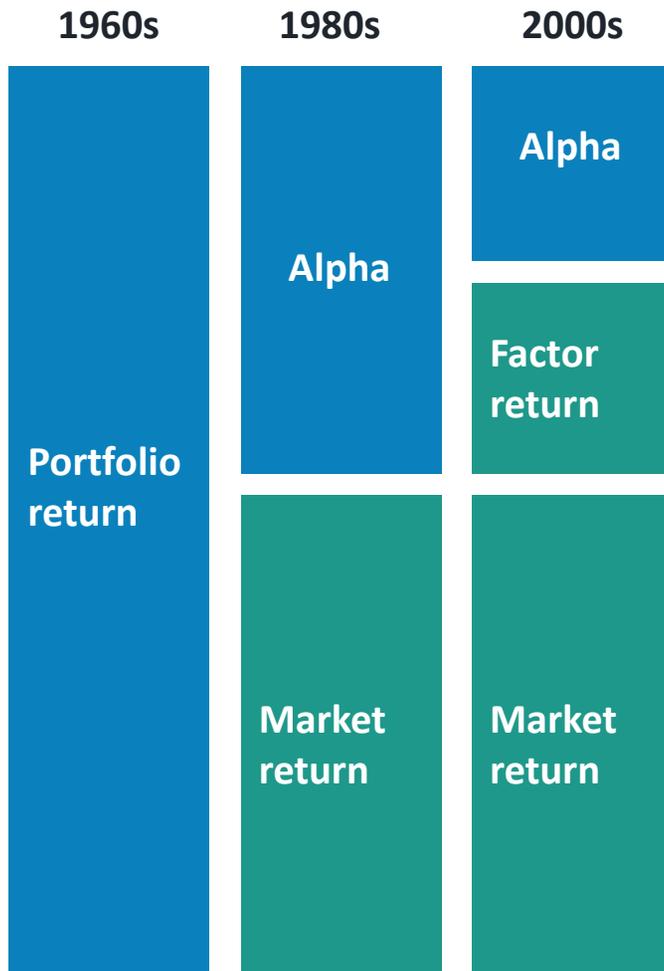
## EMERGING MARKETS



Source: eVestment. Universe returns have been adjusted for fees and survivorship bias. Benchmark displayed is the MSCI EM

# Factor Investing

# We all use factors



“Approximately 70% of all active returns on the overall fund can be explained by exposures to systematic factors”

-Ang, Goetzmann, Schaefer  
Report on Norway’s Government Pension Fund

The Evolution of Factor Investing



Source: MSCI. Ang, A., W. Goetzmann, and S. Schaefer, 2009. “Evaluation of Active Management of the Norwegian Government Pension Fund Global”. Bender, J., Hammond, B. Mok, W, 2014. “Can Alpha Be Captured by Risk Premia?”. Journal of Portfolio Management, Winter 2014.

# Risk factors

Risk premia exist across asset classes

Rates	Credit	Equity	Inflation	Currency	Alternatives
Domestic	Investment Grade	Domestic	TIPS	Developed	Event driven
International	High Yield	International	Commodities	Emerging Market	Convertible arbitrage
Curve	Emerging Markets	Emerging Markets	Country	Value	Fixed income relative value
Duration	Curve	Country	Curve	Momentum	Dedicated shorts
Liquidity	Duration	Sector	Duration	Carry	Equity market neutral
Country	Liquidity	Value	Liquidity	Country	Emerging markets
Sector	Quality	Momentum			Global macro
	Country	Quality			Equity long/short
	Sector	Size			Managed futures

# Equity return outperforming benchmarks

Certain broad, persistent sources of equity return have historically outperformed market cap weighted benchmarks

Certain equity factors have proven to add value over the long term

- Economic intuition is widely understood and well supported by academic research
- Generally the result of a risk premium, structural impediment or behavioral anomaly

Value	Quality
Value stocks have outperformed growth stocks over the long term, a result of a distress premium and investors over-buying of growth names on average	High quality stocks have outperformed low quality stocks over the long term, a result of investors' excess demand for growth and lottery-like stocks
Momentum	Size
High momentum stocks have outperformed low momentum stocks, a result of the return-following behavior of investors on average	Smaller cap stocks have outperformed larger cap stocks over the long terms, a result of a liquidity premium and tax consequences

MSCI WORLD INDEX VS. MSCI WORLD FACTORS



CUMULATIVE EXCESS RETURNS OF FACTOR INDICES OVER MSCI WORLD INDEX

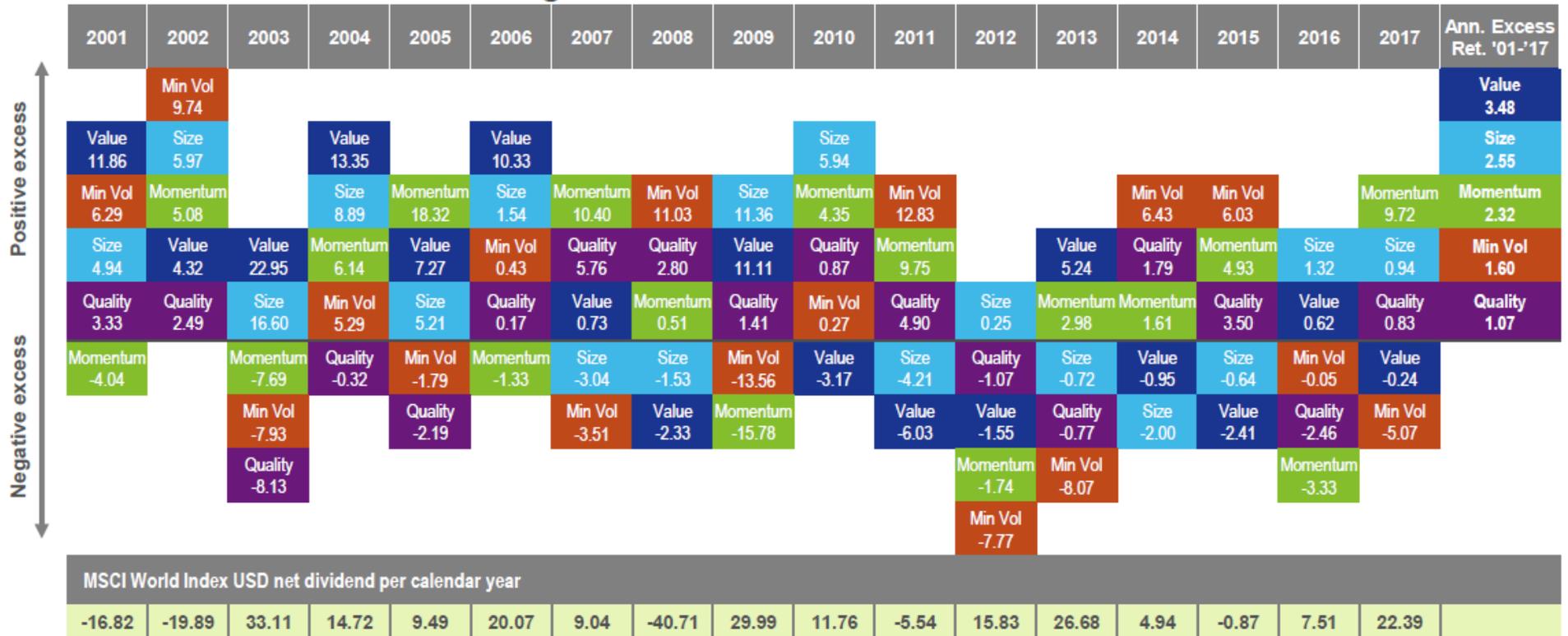


Source: MSCI, Blackrock. Performance based on index data from December 1975 – May 2015. Does not include all factors that may have outperformed the capitalization weighted index over the same time period. MSCI World Index refers to the MSCI World Index USD Net Dividend. MSCI World Factors represent MSCI World single factor strategies for value, quality, momentum and size (represented using the equal weighted index). Index returns are for illustrative purposes. Index performance returns do not reflect management fees, transactions costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. For additional information, see "Index Disclosures" slides located in the Appendix.

# Style rotation within factor indices

HOW FACTOR PERFORMANCE VARIES FROM YEAR TO YEAR

MSCI World single factor index excess returns vs. MSCI World



Source: MSCI

# Multi-Factor Approach

- Individual factors work in different market environments.
- Using factors in isolation isn't as successful as employing a multi-factor approach with a manager that gives different weights to each factor based on market environments.
- Utilizing a multi-factor approach can help to dampen the cyclicity of individual factors and is more likely to produce an “all-weather” portfolio that can perform well across different market environments.
- As seen in the Active Management Environment, large cap equities are fairly efficient. Factor-based investing employs a systematic approach with the potential to produce excess returns over passive investing.
- Factor-based approaches offer “affordable alpha”.

# Multi-Factor Approach

- Passive investing in traditional market-cap weighted indices includes some sub-optimal attributes and is biased toward momentum.
- Multi-factor strategies are similar to active quantitative strategies which seek to provide efficient equity exposure with lower overall fees.
- Fundamental active managers often allocate or “tilt” portfolios to specific factors to generate alpha.
- Potential concerns:
  - Unintended Factor exposure
  - Tracking Error
  - Strategies may become crowded trades.

# Summary & Next Steps

# Summary

- An allocation to a factor-based approach fits within SCERS’ Large Cap Domestic Equity asset allocation.
- Factor-based strategies represent a hybrid approach to traditional passive and active management and complement SCERS’ existing barbell approach within equities.

	Traditional cap-weighted Index	Factor-based Investing	Traditional active management
Transparency	High	High	Low
Performance attribution	Simple	Simple	Complex
Turnover and trading costs	Low	Low	Moderate to high
Capacity	High	High	Low to moderate
Fees	Low	Low	Moderate to high
Exposure to style factors	None	Moderate	Moderate
Potential for outperformance	None	Moderate	Moderate to high

- Staff and Verus recommend the Board approve initiating a manager search for a factor-based manager within the Domestic Equity asset class.

# Next Steps

- With Board approval, Staff and Verus will initiate a manager search for a factor-based investment manager within the Domestic Equity asset class.
- Under the approved governance structure, Staff and Verus will take the following actions:
  - Identify initial candidates to be included in the search and narrow the list for those under consideration to between three and six candidates
  - Conduct manager interviews and additional due diligence to select a final candidate or candidates
  - The selected manager(s) will present to the Board at a future Board meeting
  - Detailed reports that explain the reasoning for selecting a manager will be provided to the Board
  - The Board will have an opportunity to question the manager and analyze the selection prior to approving or disapproving of the recommendation.
- We anticipate the search and interview process to occur over the next few months.

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