

Investment Committee Agenda

REGULAR MEETING

TUESDAY, MAY 14, 2019

**TIME: 10:30 A.M. OR IMMEDIATELY
FOLLOWING ADJOURNMENT
OF REGULAR BOARD MEETING**

MEETING LOCATION:

LACERS Ken Spiker Boardroom
202 West First Street, Suite 500
Los Angeles, CA 90012-4401

Live Committee Meetings can be heard at: (213) 621-CITY (Metro), (818) 904-9450 (Valley), (310) 471-CITY (Westside), and (310) 547-CITY (San Pedro Area).

Chair: Sung Won Sohn

Committee Members: Elizabeth Lee
Nilza R. Serrano

Manager-Secretary: Neil M. Guglielmo

Executive Assistant: Ani Ghoukassian

Legal Counselor: City Attorney's Office
Retirement Benefits Division

Sign Language Interpreters, Communication Access Real-Time Transcription, Assistive Listening Devices, or other auxiliary aids and/or services may be provided upon request. To ensure availability, you are advised to make your request at least 72 hours prior to the meeting you wish to attend. Due to difficulties in securing Sign Language Interpreters, five or more business days' notice is strongly recommended. For additional information, please contact: Board of Administration Office at (213) 473-7169.

- I. PUBLIC COMMENTS ON MATTERS WITHIN THE COMMITTEE'S JURISDICTION
- II. [APPROVAL OF MINUTES FOR THE INVESTMENT COMMITTEE MEETING OF APRIL 9, 2019 AND POSSIBLE COMMITTEE ACTION](#)
- III. CHIEF INVESTMENT OFFICER VERBAL REPORT
- IV. [PRESENTATION BY AQR CAPITAL MANAGEMENT, LLC REGARDING THE MANAGEMENT OF AN ACTIVE NON-U.S. SMALL CAP EQUITIES PORTFOLIO](#)
- V. [INVESTMENT MANAGER CONTRACT WITH BARROW, HANLEY, MEWHINNEY & STRAUSS, LLC REGARDING THE MANAGEMENT OF AN ACTIVE NON-U.S. EQUITIES DEVELOPED MARKETS VALUE PORTFOLIO AND POSSIBLE COMMITTEE ACTION](#)
- VI. [INVESTMENT MANAGER CONTRACT WITH LAZARD ASSET MANAGEMENT LLC REGARDING THE MANAGEMENT OF AN ACTIVE NON-U.S. EQUITIES DEVELOPED MARKETS CORE PORTFOLIO AND POSSIBLE COMMITTEE ACTION](#)
- VII. [INVESTMENT MANAGER CONTRACT WITH MFS INSTITUTIONAL ADVISORS, INC. REGARDING THE MANAGEMENT OF AN ACTIVE NON-U.S. EQUITIES DEVELOPED MARKETS GROWTH PORTFOLIO AND POSSIBLE COMMITTEE ACTION](#)

VIII. CONTINUED DISCUSSION OF TACTICAL ASSET ALLOCATION PLAN AND POSSIBLE COMMITTEE ACTION

IX. OTHER BUSINESS

X. NEXT MEETING: The next Regular Meeting of the Investment Committee is scheduled for Tuesday, June 11, 2019, in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

XI. ADJOURNMENT

Board of Administration Agenda

SPECIAL MEETING

TUESDAY, MAY 14, 2019

**TIME: 10:30 A.M. OR IMMEDIATELY
FOLLOWING ADJOURNMENT
OF REGULAR BOARD MEETING**

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202 West First Street, Suite 500
Los Angeles, CA 90012-4401

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President: Cynthia M. Ruiz
Vice President: Elizabeth L. Greenwood

Commissioners: Elizabeth Lee
Sandra Lee
Nilza R. Serrano
Sung Won Sohn
Michael R. Wilkinson

Manager-Secretary: Neil M. Guglielmo

Executive Assistant: Ani Ghoukassian

Legal Counsel: City Attorney's Office
Retirement Benefits Division

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- XI. ADJOURNMENT

MINUTES OF THE REGULAR MEETING
INVESTMENT COMMITTEE
BOARD OF ADMINISTRATION
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

LACERS Ken Spiker Boardroom
202 West First Street, Suite 500
Los Angeles, California

April 9, 2019

2:05 p.m.

Agenda of: May 14, 2019

Item No: II

PRESENT:	Chair:	Sung Won Sohn
	Committee Members:	Elizabeth Lee Nilza R. Serrano
	Manager-Secretary:	Neil M. Guglielmo
	Executive Assistant:	Ani Ghoukassian
	Legal Counselor:	Anya Freedman

The Items in the Minutes are numbered to correspond with the Agenda.

I

PUBLIC COMMENTS ON MATTERS WITHIN THE COMMITTEE'S JURISDICTION – Chair Sohn asked if any persons wished to speak on matters within the Committee's jurisdiction, to which there was no response and no public comment cards received.

II

APPROVAL OF MINUTES FOR THE INVESTMENT COMMITTEE MEETING OF MARCH 12, 2019 AND POSSIBLE COMMITTEE ACTION – A Motion to approve the minutes of March 12, 2019 was moved by Committee Member Serrano, and adopted by the following vote: Ayes, Committee Members Elizabeth Lee, Serrano and Chair Sohn –3; Nays, None.

Items IV, V, VII, and VI taken out of order.

IV

PRESENTATION BY PGIM, INC. REGARDING THE MANAGEMENT OF AN EMERGING MARKET DEBT PORTFOLIO – Cathy Hepworth, Managing Director and Peter Taggart, Principal with PGIM, Inc. presented this item to the Committee.

V

PRESENTATION BY PRINCIPAL GLOBAL INVESTORS, LLC REGARDING THE MANAGEMENT OF AN ACTIVE U.S. MID-CAP EQUITIES PORTFOLIO – Hans Vander Plaats, Managing Director and Bill Grayson, Managing Director with Principal Global Investors, LLC presented this item to the Committee.

Chair Sohn adjourned the Regular Meeting at 3:04 p.m. to convene in closed session.

VII

CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54956.81 TO CONSIDER THE TOWNSEND GROUP RECOMMENDATION FOR REAL ESTATE FUND INVESTMENT AND POSSIBLE COMMITTEE ACTION

Commissioner Serrano left the Regular Meeting at 3:39 p.m. Chair Sohn reconvened the Regular Meeting at 3:49 p.m.

VI

TACTICAL ASSET ALLOCATION PLAN AND POSSIBLE COMMITTEE ACTION – Rod June, Chief Investment Officer and Jimmy Wang, Investment Officer I presented this item to the Committee. After discussion, the Committee provided direction to staff to report back to Committee at a later date and took no action at this time.

III

CHIEF INVESTMENT OFFICER VERBAL REPORT – There was no report.

VIII

OTHER BUSINESS – There was no other business.

IX

NEXT MEETING – The next Regular Meeting of the Investment Committee is scheduled for Tuesday, May 14, 2019, in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

X

ADJOURNMENT – There being no further business before the Committee, Chair Sohn adjourned the Meeting at 4:11 p.m.

Sung Won Sohn
Chair

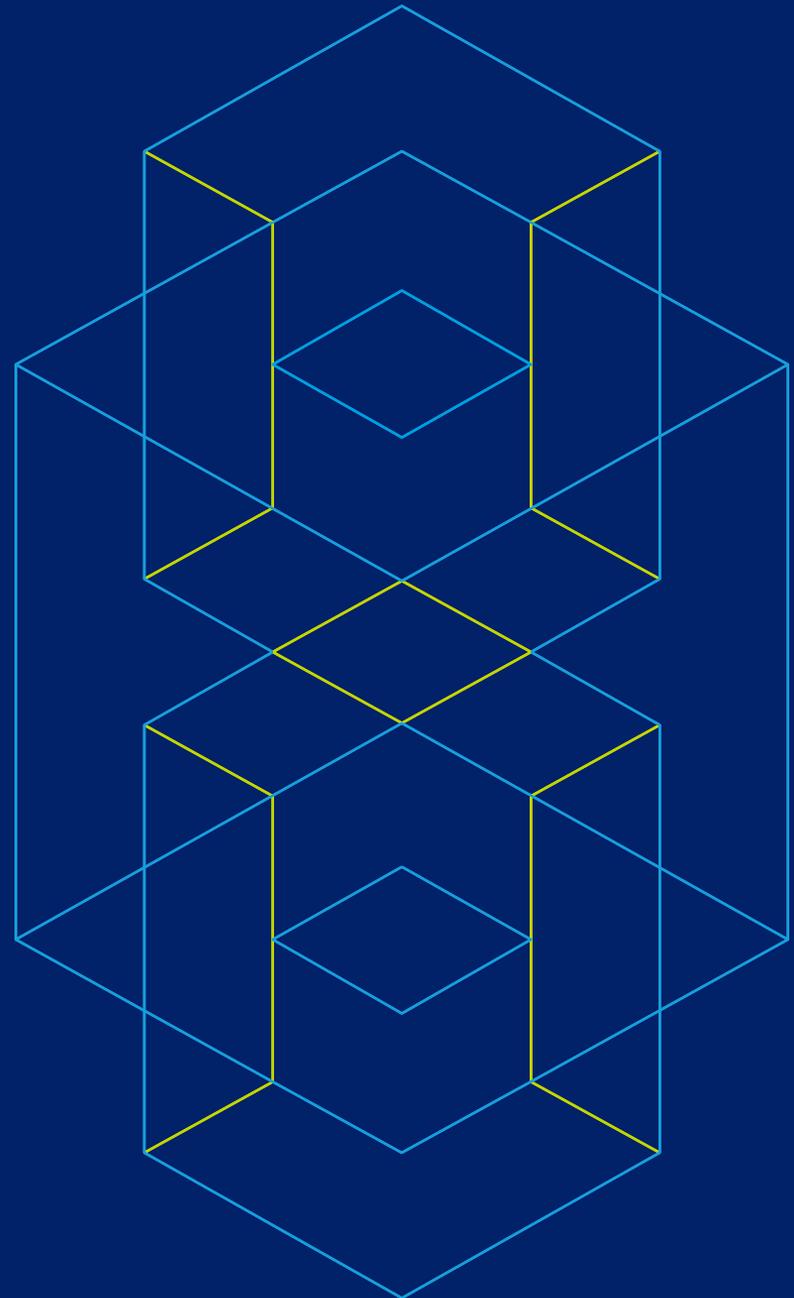
Neil M. Guglielmo
Manager-Secretary

AQR International Small Cap Review

Prepared exclusively for Los Angeles City
Employees' Retirement System

FOR CLIENT REVIEW USE ONLY

May 2019



For Institutional Investors Use Only

Disclosures

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This presentation is not research and should not be treated as research. This presentation does not represent valuation judgments with respect to any financial instrument, issuer, security or sector that may be described or referenced herein and does not represent a formal or official view of AQR.

The views expressed reflect the current views as of the date hereof and neither the speaker nor AQR undertakes to advise you of any changes in the views expressed herein. It should not be assumed that the speaker or AQR will make investment recommendations in the future that are consistent with the views expressed herein, or use any or all of the techniques or methods of analysis described herein in managing client accounts. AQR and its affiliates may have positions (long or short) or engage in securities transactions that are not consistent with the information and views expressed in this presentation.

The information contained herein is only as current as of the date indicated, and may be superseded by subsequent market events or for other reasons. Charts and graphs provided herein are for illustrative purposes only. The information in this presentation has been developed internally and/or obtained from sources believed to be reliable; however, neither AQR nor the speaker guarantees the accuracy, adequacy or completeness of such information. Nothing contained herein constitutes investment, legal, tax or other advice nor is it to be relied on in making an investment or other decision.

There can be no assurance that an investment strategy will be successful. Historic market trends are not reliable indicators of actual future market behavior or future performance of any particular investment which may differ materially, and should not be relied upon as such. Target allocations contained herein are subject to change. There is no assurance that the target allocations will be achieved, and actual allocations may be significantly different than that shown here. This presentation should not be viewed as a current or past recommendation or a solicitation of an offer to buy or sell any securities or to adopt any investment strategy.

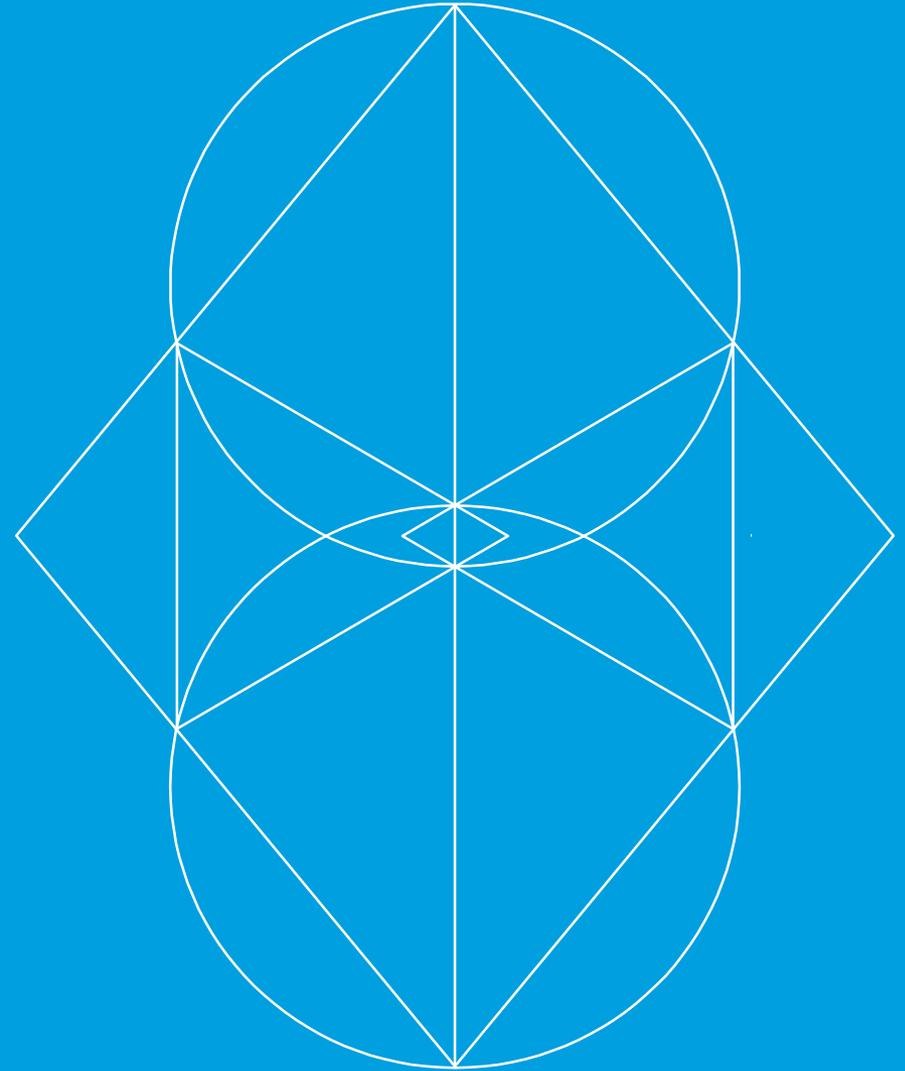
The information in this presentation may contain projections or other forward-looking statements regarding future events, targets, forecasts or expectations regarding the strategies described herein, and is only current as of the date indicated. There is no assurance that such events or targets will be achieved, and may be significantly different from that shown here. The information in this presentation, including statements concerning financial market trends, is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons. Performance of all cited indices is calculated on a total return basis with dividends reinvested.

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Firm Overview



Our Firm

AQR is a global investment management firm built at the intersection of financial theory and practical application. We strive to deliver superior, long-term results for our clients by looking past market noise to identify and isolate what matters most, and by developing ideas that stand up to rigorous testing. Our focus on practical insights and analysis has made us leaders in alternative and traditional strategies since 1998.

At a Glance

- AQR takes a systematic, research-driven approach to managing alternative and traditional strategies
- We apply quantitative tools to process fundamental information and manage risk
- Our clients include institutional investors, such as pension funds, defined contribution plans, insurance companies, endowments, foundations, family offices and sovereign wealth funds, as well as RIAs, private banks and financial advisors
- The firm has 42 principals and ~1,000 employees; nearly half of employees hold advanced degrees
- AQR is based in Greenwich, Connecticut, with offices in Bengaluru, Boston, Chicago, Hong Kong, London, Los Angeles, Sydney, and Tokyo
- Approximately \$203 billion in assets under management as of March 31, 2019*

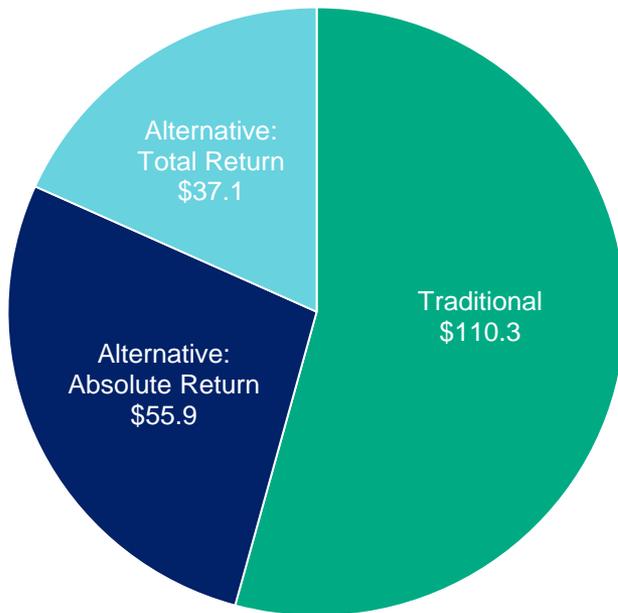


Source: AQR

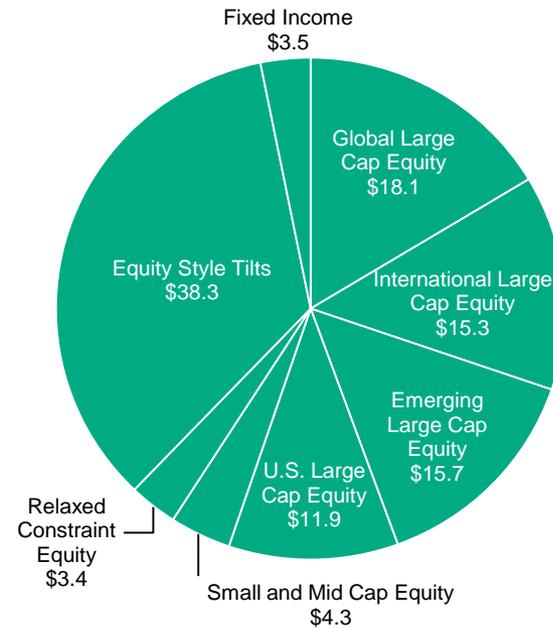
*Approximate as of 3/31/2019, includes assets managed by AQR and its advisory affiliates.

Assets Under Management

Total Assets \$203 Billion*



Traditional Strategies \$110 Billion*



*Source: AQR

*Approximate as of 3/31/2019, includes assets managed by AQR and its advisory affiliates.

Who We Are

Cliff Asness, Ph.D.*
Managing and Founding Principal

Portfolio Management, Research and Trading

John Liew, Ph.D.*
Founding Principal

Portfolio Management and Research

Michele Aghassi, Ph.D.
Principal

Jordan Brooks, Ph.D.
Principal

Andrea Frazzini, Ph.D.
Principal

Jacques Friedman
Principal

Brian Hurst
Principal

John Huss
Principal

Ronen Israel*
Principal

Roni Israelov, Ph.D.
Principal

Michael Katz, Ph.D.
Principal

David Kupersmith
Principal

Oktay Kurbanov
Principal

Ari Levine
Principal

Marcos López de Prado, Ph.D.
Principal

Michael Mendelson*
Principal

Tobias Moskowitz, Ph.D.
Principal

Yao Hua Ooi
Principal

Lasse Pedersen, Ph.D.
Principal

Scott Richardson, Ph.D.
Principal

Nathan Sosner, Ph.D.
Principal

Mark Mitchell, Ph.D.
Principal (CNH)

Todd Pulvino, Ph.D.
Principal (CNH)

Rocky Bryant
Principal (CNH)

Trading

Isaac Chang
Managing Director

Brian Hurst
Principal

Portfolio Finance

Scott Carter
Principal

Risk Management

Risk Management

Lars Nielsen
Principal
Chief Risk Officer

Michael Patchen, CFA
Principal

Business Development

David Kabiller, CFA*
Founding Principal

Client Solutions

Gregor Andrade, Ph.D.
Principal

Bill Cashel
Principal

Jeff Dunn
Principal

Jeremy Getson, CFA
Principal

Portfolio Solutions

Antti Ilmanen, Ph.D.
Principal

Marco Hanig, Ph.D.
Principal

Chris Palazzolo, CFA
Principal

Ted Pyne, Ph.D.
Principal

Marketing

Suzanne Escousse
Principal
Chief Marketing Officer

Corporate Infrastructure

Finance

John Howard*
Principal,
Chief Finance Officer /
Co-Chief Operating Officer

Bradley Asness
Principal
Co-Chief Operating Officer

Accounting, Operations and Client Administration

Steve Mellas
Principal

Systems Development and IT

Neal Pawar
Principal
Chief Technology Officer

Stephen Mock
Principal

Human Resources

Jen Frost
Principal
Chief Human Resources Officer

Legal and Compliance

Legal

Billy Fenrich
Principal
Chief Legal Officer

Compliance

H.J. Willcox
Principal
Chief Compliance Officer



Source: AQR
*Member of Executive Committee
Personnel as of 3/31/2019

Industry-Leading Research

Committed to advancing financial knowledge around the world

Academic Engagement

- Nearly half of employees hold advanced degrees and ~25% of Research has a Ph.D.
- 20 current and former professors work at AQR
- AQR Asset Management Institute at London Business School established to promote excellence in asset management
- AQR Insight Award: annual \$100,000 prize honoring unpublished papers that provide the most significant investment insights
- Online research library with more than 300 AQR papers, journal articles, books and periodicals, as well as our data sets

Awards and Prizes

57 Research Awards

Notable awards include¹:

- 9 Bernstein Fabozzi JPM Awards
- 9 Graham & Dodd Awards
- 6 Smith Breeden Awards²
- 4 DFA Prizes
- 4 Michael Brennan Awards²
- 1 Fischer Black Prize
- 1 Bernacer Prize
- 1 Markowitz JOIM Award

Highly-Ranked Finance Research³

Top Journal Article Citations

1. New York University (NYU)
2. **AQR Capital Management**
3. University of Chicago
4. University of Pennsylvania
5. Harvard University

SSRN Downloads

1. New York University (NYU)
2. Harvard University
3. University of Chicago
4. **AQR Capital Management**
5. Stanford University

As of 3/31/2019. Source: AQR, SSRN and Google Scholar.

¹Graham & Dodd Awards won in 2018, 2015, 2011, 2005, 2004, 2003, 2000, 1998, 1991; Bernstein Fabozzi Awards won in 2018, 2015, 2014, 2013, 2012, 2005, 2004, 2003; Smith Breeden Awards won in 2010, 2008, 2002, 2000, 1998; DFA Awards won in 2016, 2014, 2008, 2005; Michael Brennan Awards won in 2014, 2013, 2005 and 2004; Fischer Black Prize won in 2007; Bernacer Prize won in 2011; Markowitz Award won in 2015.

²Three Smith Breeden awards were second place mentions; two DFA awards were second place mentions; one Michael Brennan award was a second place mention.

³Social Science Research Network (SSRN) Finance Economic Network ranked by total new downloads of papers in the last 3 Years. SSRN List is as of March 1, 2019, Google Scholar list as of October 8, 2018.



Global Stock Selection Team

Portfolio Management and Research

Jacques Friedman
Principal

Andrea Frazzini, Ph.D.
Principal

Michele Aghassi, Ph.D., CFA
Principal

Ronen Israel
Principal

Tobias Moskowitz, Ph.D.
Principal

Scott Richardson, Ph.D.
Principal

Nathan Sosner, Ph.D.
Principal

Shaun Fitzgibbons
Managing Director

Rodolfo Martell, Ph.D.
Managing Director

Greg McIntire, CFA
Managing Director

Lukasz Pomorski, Ph.D.
Managing Director

Laura Serban, Ph.D.
Managing Director

Greg Hall
Vice President

David Kershner, CFA
Vice President

Adrienne Ross, CFA
Vice President

Portfolio Implementation

Michael Katz, Ph.D.
Principal

Oktay Kurbanov
Principal

Alla Markova
Managing Director

Trading

Isaac Chang
Managing Director

Brian Hurst
Principal

Risk Management

Lars Nielsen
Principal

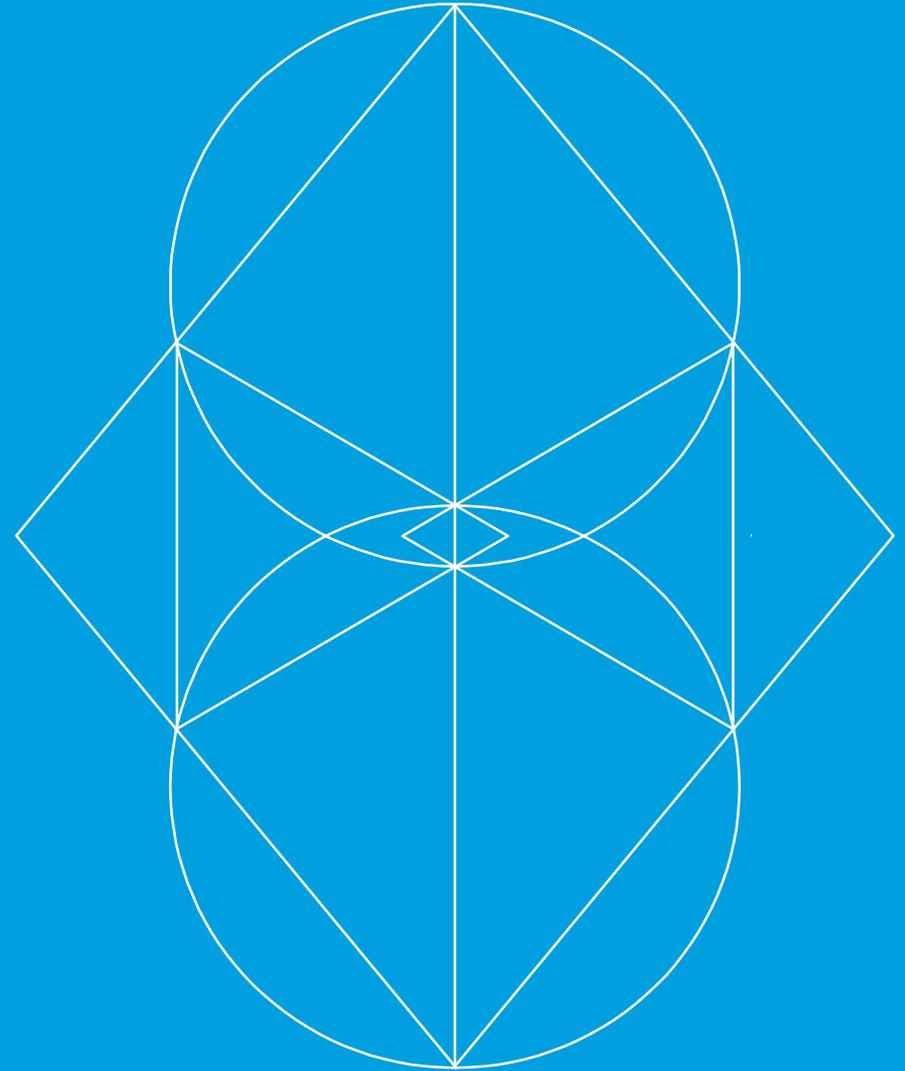
Mike Patchen
Principal

Front Office Technology

Neal Pawar
Principal



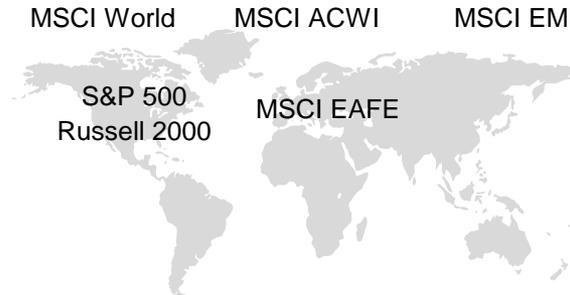
Investment Philosophy and Process



Investment Process

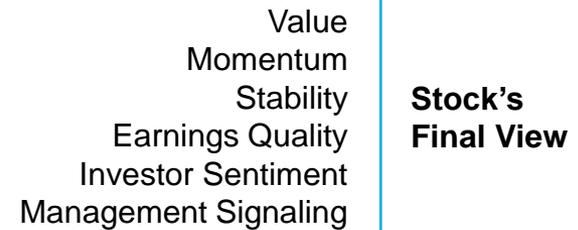
Consistent process across AQR Enhanced Equity Strategies

1. Select Investment Universe

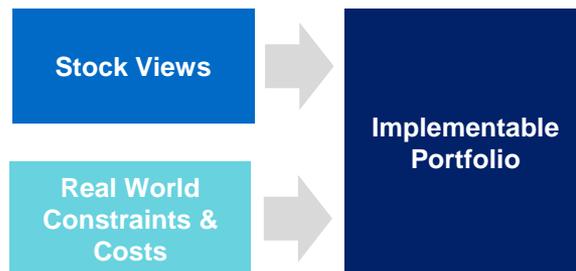


We use broad investment universes and generally do not stray from benchmark names.

2. Evaluate Attractiveness of Each Stock



3. Portfolio Construction



4. Trading



Evaluating Stocks

Select Evaluate

Construct Trade

AQR's evaluation criteria are based on economic signals

- We form a view on each stock through a model developed and improved over the last 20 years.
- Stocks are evaluated based on the below signals, relative to other stocks in the below peer groups, both regionally and globally.

Signal Groups

Valuation:	Attractive prices
Momentum:	Improving prices and fundamentals
Stability:	Stable and high quality financials
Earnings Quality:	Sound accounting practices
Investor Sentiment:	Support of high conviction investors
Management Signaling:	Shareholder-friendly management

Peer Groups

Within Industries

Across Industries

Economically-Linked Groups

Country-Industry Pairs



Evaluating Stocks

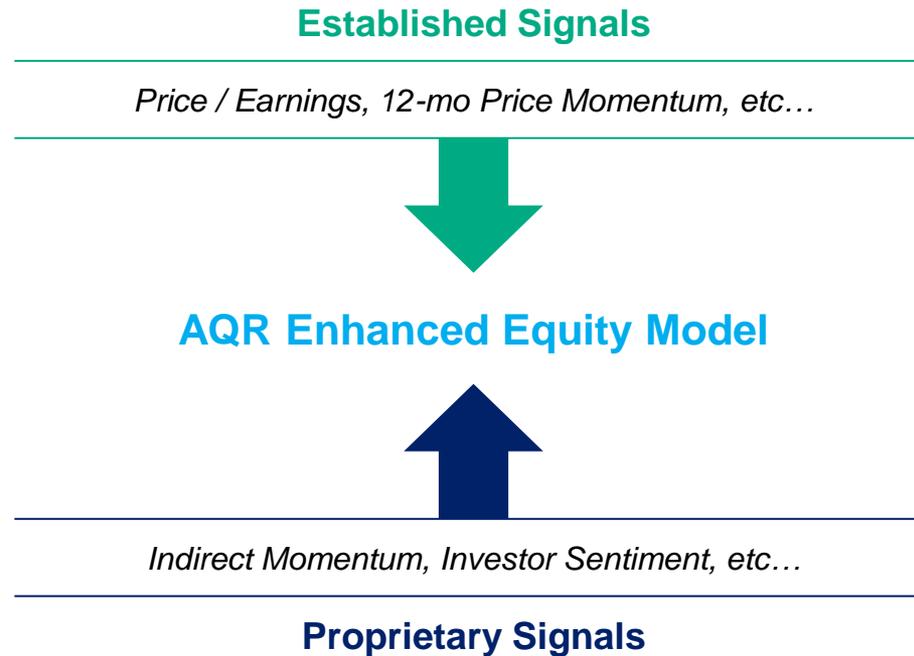
AQR signals

Select Evaluate

Construct Trade

Using innovative implementation, excess returns may be extracted from:

- Established signals backed by academic evidence
- Proprietary signals based on rigorous research and lesser known data sources



Evaluating Stocks

Example: local auto components stock (tires & rubber)

Below is a stylized example of our model's view on a single stock (ranks/percentiles), highlighting a small subset of our signals.

Within Industry (Example Stock vs. Auto Stock Peers)			
Signal	Example	Data Value	Percentile
Valuation:	Adjusted Price / Earnings	14.5x	31%
Momentum:	Adjusted 12 Month Return*	20.8%	77%
Earnings Quality:	Change in Accounts Receivable	0.9%	69%
Stability:	3-year Return on Equity	12.7%	55%
Investor Sentiment	Change in % of Shares Shorted	0.7%	54%
Management Signaling:	% Change in Shares Outstanding	-2.4%	91%

Percentile Score:
92%
Based on
weighted-average
signal scores

Across Industry (Auto Industry vs. Other Industries)			
Signal Example	Data Value	Percentile	
Industry Price Change Last 12 Months	-1.2%	24%	

Economically-Linked Groups (Example's Linked Peers vs. Other Stocks' Linked Peers)			
Signal Example	Data Value	Percentile	
Momentum of Customer Supplier Pairs	16.6%	88%	

Country-Industry Pairs (Local Auto Components Stocks vs. Other Countries')			
Signal Example	Data Value	Percentile	
3-year Return on Equity	17.5%	81%	



*Does not include most recent month's return.

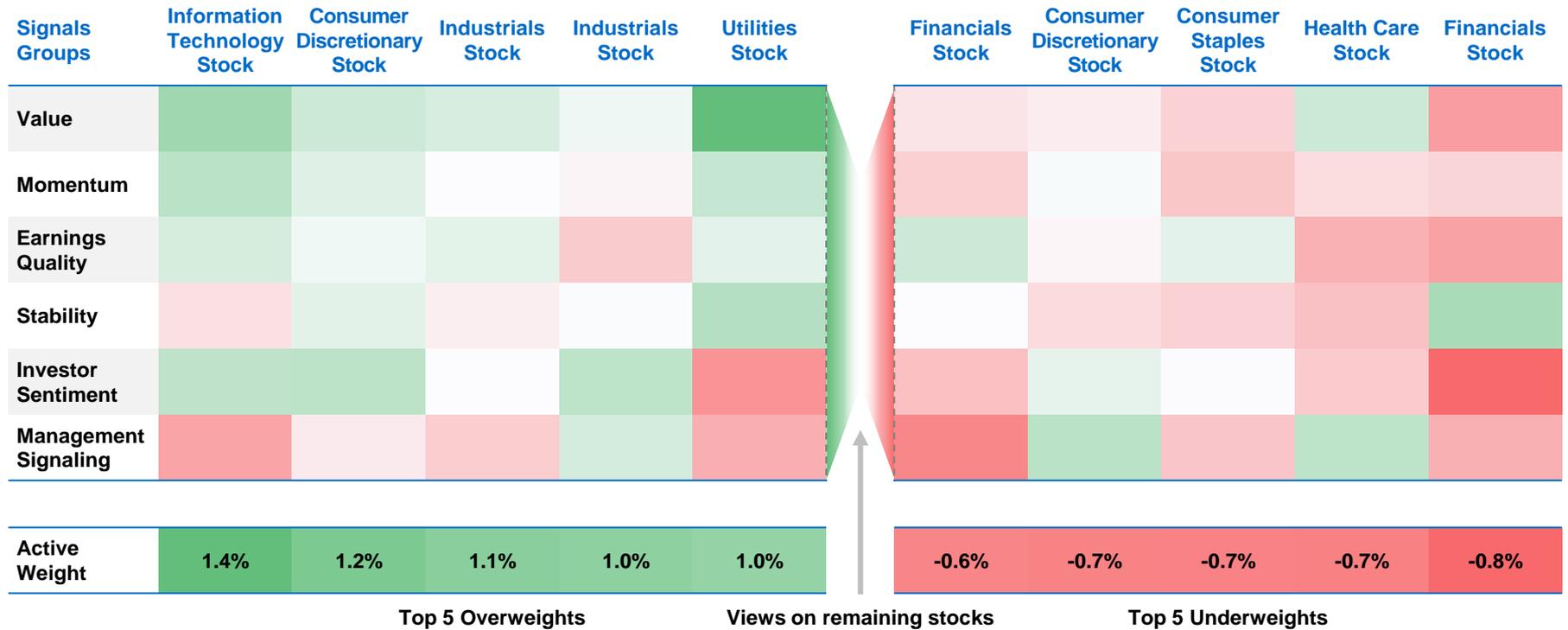
Source: AQR. Example is for illustrative purposes only. For Percentile score, the higher the score, the better. The elements of AQR's investment process presented herein do not indicate the possibility of profits or losses within a portfolio and are subject to change at any time. Holdings are subject to change. These representative security signals were randomly selected merely to illustrate our investment process. The securities presented herein are for illustrative purposes only and not a representation that they will or are likely to achieve profits or losses. Not to be construed as investment advice or a recommendation.

Portfolio Construction

Sample portfolio

- Model views drive active weights
- Avoid concentration in any single name

Top Active Positions



Example Strategy Characteristics*

Diversified, risk controlled, moderate turnover

Performance Targets

2.5% excess return / 3.5% tracking error**

Number of Holdings

Hundreds (e.g. 400+ for International Small Cap)

Average Turnover***

~100%

Benchmark

Customizable (E.g., MSCI World ex-US Small Cap, MSCI EAFE Small Cap)

Maximum Active Weighting

Sector: +/- 7%, Stock +/-2.5%, Country: minimal

Market Capitalization

Small Cap



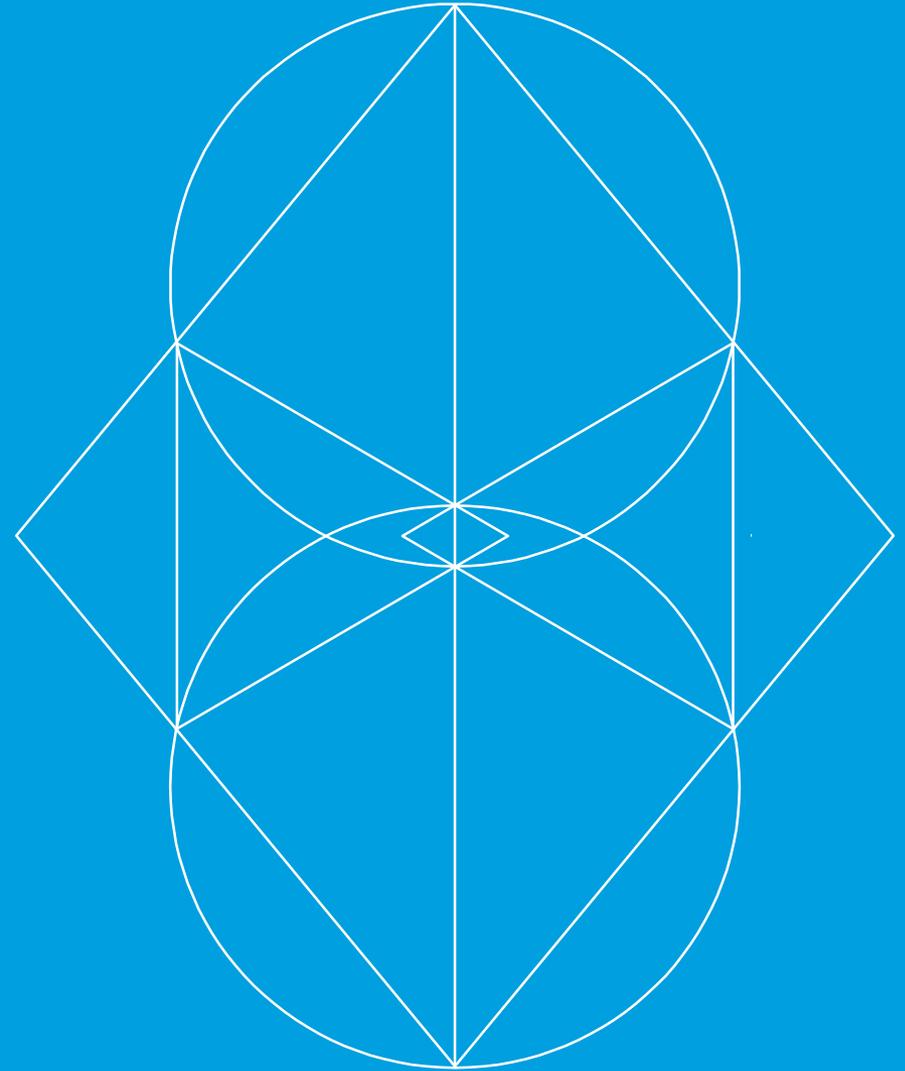
Source: AQR. Investment process, tracking error and portfolio holdings are subject to change at any time without notice. There is no guarantee, express or implied, that long-term return and/or volatility targets will be achieved. Realized returns and/or volatility may come in higher or lower than expected. Targets are subject to change at any time without notice. Please read important disclosures in the Appendix.

*Portfolio characteristics dependent on the portfolio's mandate.

**Tracking error and excess return expectations vary depending on the selected benchmark and are long-term expected annual averages.

***Annual one-sided turnover net of flows.

Performance Review



Performance Review

Since inception performance

Los Angeles City Employees Retirement System (LACERS)

February 26, 2014 - March 31, 2019

	Portfolio Return (Gross)	Portfolio Return (Net)	MSCI EAFE Small Cap	Gross Excess Return	Net Excess Return
2014	-6.9%	-7.5%	-8.1%	1.2%	0.6%
2015	14.1%	13.3%	9.6%	4.5%	3.7%
2016	-0.5%	-1.3%	2.2%	-2.7%	-3.4%
2017	34.6%	33.5%	33.0%	1.5%	0.5%
2018	-19.5%	-20.1%	-17.9%	-1.6%	-2.3%
2019 YTD	9.2%	8.9%	10.7%	-1.5%	-1.7%
Summary (since February 26, 2014)					
1 year	-12.2%	-12.8%	-9.4%	-2.8%	-3.5%
2 years (Annl)	4.5%	3.7%	5.8%	-1.3%	-2.1%
3 years (Annl)	5.9%	5.1%	7.5%	-1.6%	-2.4%
Since Inception (Cuml)	25.0%	20.1%	24.4%	0.7%	-4.3%
Since Inception (Annl)	4.5%	3.7%	4.4%	0.1%	-0.7%
Tracking Error				2.3%	2.3%
Information Ratio*				0.0	-0.3

Source: AQR. Performance figures herein represent unaudited estimates of realized and unrealized gains and losses prepared by AQR. Gross performance does not reflect the deduction of investment advisory fees. Gross performance does not reflect the deduction of investment advisory fees. Please see the Appendix for important risk and performance disclosures. Excess returns are calculated as portfolio returns minus the benchmark. Benchmark: MSCI EAFE Small Cap. Past performance is not a guarantee of future performance. This information is supplemental to the GIPS® compliant presentation for the International Small Cap Equity EAFE Composite included in the Appendix. Please refer to the monthly statements provided by your custodian or administrator for actual returns.

* Information Ratio is calculated as the Annualized Excess Return divided by Tracking Error.



Performance Review

Since inception performance

Los Angeles City Employees Retirement System (LACERS)

February 26, 2014 - March 31, 2019

	Gross Excess Return	Contribution to Gross Excess Return			
		Europe	UK	Japan	Australia & Asia ex-Japan
2014	1.2%	0.7%	0.2%	0.6%	-0.2%
2015	4.5%	2.0%	1.8%	-0.2%	0.9%
2016	-2.7%	-1.6%	-0.7%	-1.2%	0.8%
2017	1.5%	-0.2%	1.0%	-0.1%	0.8%
2018	-1.6%	-1.9%	1.3%	-0.7%	-0.4%
2019 YTD	-1.5%	-0.1%	-0.8%	-0.2%	-0.5%

Summary (since February 26, 2014)

1 year	-2.8%	-1.3%	0.1%	-0.6%	-1.0%
2 years (Annl)	-1.3%	-1.2%	0.5%	-0.4%	-0.2%
3 years (Annl)	-1.6%	-1.2%	0.4%	-0.8%	0.1%
Since Inception (Cuml)	0.7%	-1.4%	2.6%	-1.7%	1.2%
Since Inception (Annl)	0.1%	-0.3%	0.5%	-0.3%	0.2%
Tracking Error	2.3%				
Information Ratio*	0.0				

Source: AQR. Performance figures herein represent unaudited estimates of realized and unrealized gains and losses prepared by AQR. Gross performance does not reflect the deduction of investment advisory fees. Please see the Appendix for important risk and performance disclosures. Excess returns are calculated as portfolio returns minus the benchmark. Benchmark: MSCI EAFE Small Cap. Gross performance does not reflect the deduction of investment advisory fees. Past performance is not a guarantee of future performance. This information is supplemental to the GIPS® compliant presentation for the International Small Cap Equity EAFE Composite included in the Appendix. Please refer to the monthly statements provided by your custodian or administrator for actual returns.

* Information Ratio is calculated as the Annualized Excess Return divided by Tracking Error.



Performance Review

Q1 2019 Investment theme performance

Stock Selection: Contributions to Gross Excess Returns

February 26, 2014 - March 31, 2019

	2019 YTD	2018	2017	2016	2015	2014
Valuation	-1.2%	-0.4%	-1.0%	1.0%	0.3%	-0.1%
Momentum	-0.4%	-1.0%	1.7%	-2.6%	3.2%	0.4%
Quality	0.3%	0.4%	0.0%	-0.6%	0.5%	0.1%
Sentiment	-0.2%	-0.6%	0.9%	-0.4%	0.6%	0.8%
Total	-1.5%	-1.6%	1.5%	-2.7%	4.5%	1.2%



Source: AQR. Data from February 25, 2014 – March 31, 2019. Contributions to Excess Returns are in USD, gross of fees, and based on AQR's internal profit and loss reporting system. Please see additional performance disclosures in the Appendix.

Performance Review

Q1 2019 Sector attribution

Stock Selection

January 1, 2019 - March 31, 2019

	Average Sector Weight			Excess Return		
	Portfolio	Benchmark	Active	Sector Selection	Stock Selection	Total
Communication Services	2.4%	4.7%	-2.3%	-0.1%	0.0%	-0.1%
Consumer Discretionary	13.1%	13.1%	0.0%	0.0%	-0.2%	-0.2%
Consumer Staples	6.3%	6.5%	-0.3%	0.0%	-0.4%	-0.5%
Energy	4.5%	2.6%	1.9%	0.2%	-0.1%	0.1%
Financials	7.6%	11.5%	-3.9%	0.2%	-0.3%	-0.1%
Health Care	13.5%	7.5%	6.0%	0.0%	-0.1%	-0.1%
Industrials	18.1%	21.5%	-3.4%	0.0%	-0.4%	-0.4%
Information Technology	14.0%	9.6%	4.5%	0.3%	-0.7%	-0.4%
Materials	5.8%	8.5%	-2.7%	0.1%	0.0%	0.1%
Real Estate	11.4%	12.1%	-0.8%	0.0%	0.0%	0.0%
Utilities	3.2%	2.4%	0.8%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	0.0%	0.7%	-2.2%	-1.5%



Source: AQR. Performance figures herein represent unaudited estimates of realized and unrealized gains and losses prepared by AQR. Gross performance does not reflect the deduction of investment advisory fees. Please see the Appendix for important risk and performance disclosures. Excess returns are calculated excess of designated benchmark: MSCI EAFE Small Cap. Please refer to the monthly statements provided by your custodian or administrator for actual returns.

Performance Review

Portfolio characteristics: Equity exposure

Portfolio Characteristics

Stock Selection Exposure
March 31, 2019

	Portfolio	Benchmark
Number of Stocks	605	2,320
Average Market Cap (\$M)	2,192	2,645
Median Market Cap (\$M)	1,368	1,012
P/E (trailing)	12.5	15.3
P/E (forward)	12.6	14.5
P/B	1.6	1.5
P/CF	8.5	9.9
ROE (5-yr)	14.0	11.7
Debt/EQ	0.4	0.6
Sales/EV	1.1	0.8
Earnings Growth (5 yr trailing)	14.6	11.2
12 Month Return of Holdings*	-1.9%	-2.2%

Sector Exposure

Stock Selection Exposure
March 31, 2019

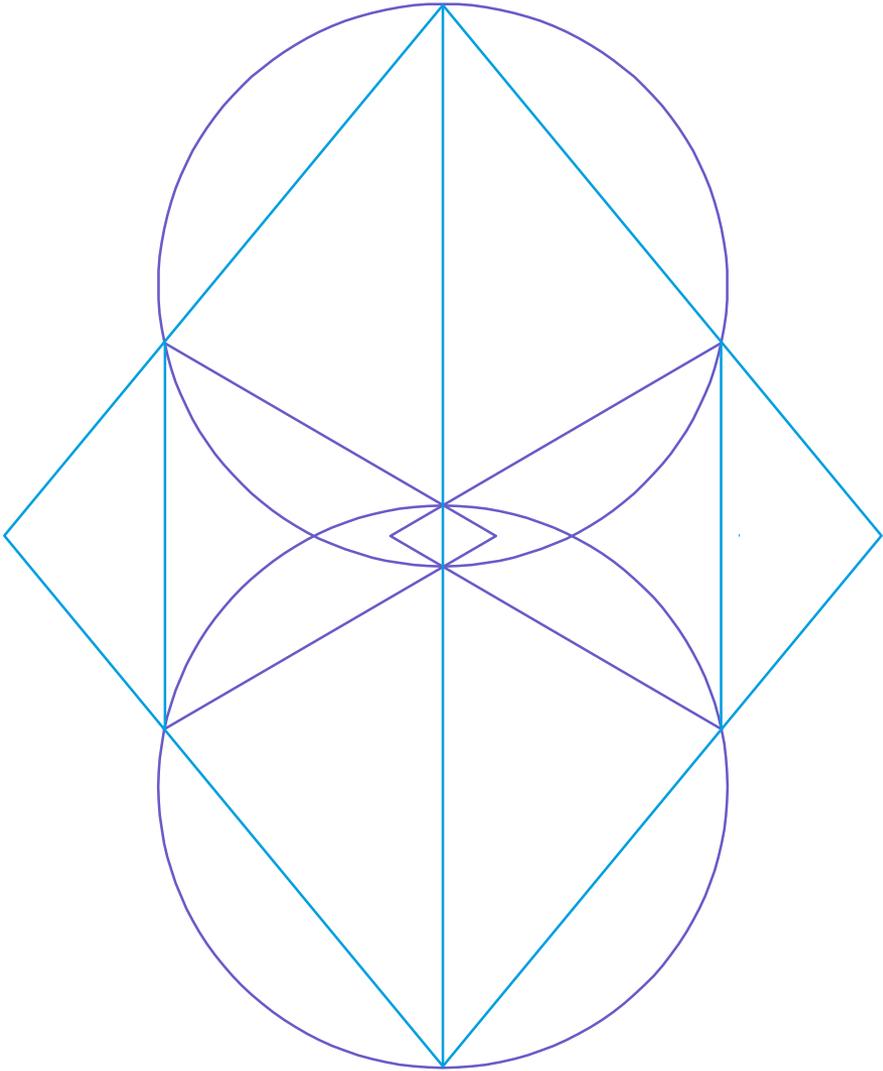
	Portfolio	Benchmark	Active Weight	Active Weight					
				Under	Over	Mar-19	Dec-18	Sep-18	Jun-18
Communication Services	1.7%	4.8%	-3.0%						
Consumer Discretionary	12.2%	12.9%	-0.7%						
Consumer Staples	5.5%	6.5%	-0.9%						
Energy	4.6%	2.6%	2.0%						
Financials	7.0%	11.2%	-4.3%						
Health Care	13.7%	7.6%	6.0%						
Industrials	19.0%	21.4%	-2.4%						
Information Technology	14.6%	9.9%	4.7%						
Materials	5.5%	8.2%	-2.7%						
Real Estate	11.7%	12.4%	-0.7%						
Utilities	4.5%	2.4%	2.1%						
Total	100.0%	100.0%	0.0%						

Sources: AQR, Compustat, Datastream, Bloomberg, Worldscope and IBES. Average P/E ratios of the stocks in the portfolios exclude individual stock price-to-earnings ratios that are negative and the top and bottom 1 percentile of the remaining. Average P/B ratios of the stocks in the portfolios exclude individual stock price-to-book ratios that are negative and the top and bottom 1 percentile of the remaining. Average Sales/EV ratios of the portfolios exclude individual stocks that have sales-to-enterprise values that are negative and the top and bottom 1 percentile of the remaining. Portfolio holdings are subject to change. Benchmark: MSCI EAFE Small Cap.

* 12 Month Return of Holdings is representative of how stocks held in the account or benchmark would have performed over the previous 12 months in USD, gross of fees and weighted as of the date reported. This performance is not representative of the actual performance of the benchmark, account, or any other portfolio that AQR manages.

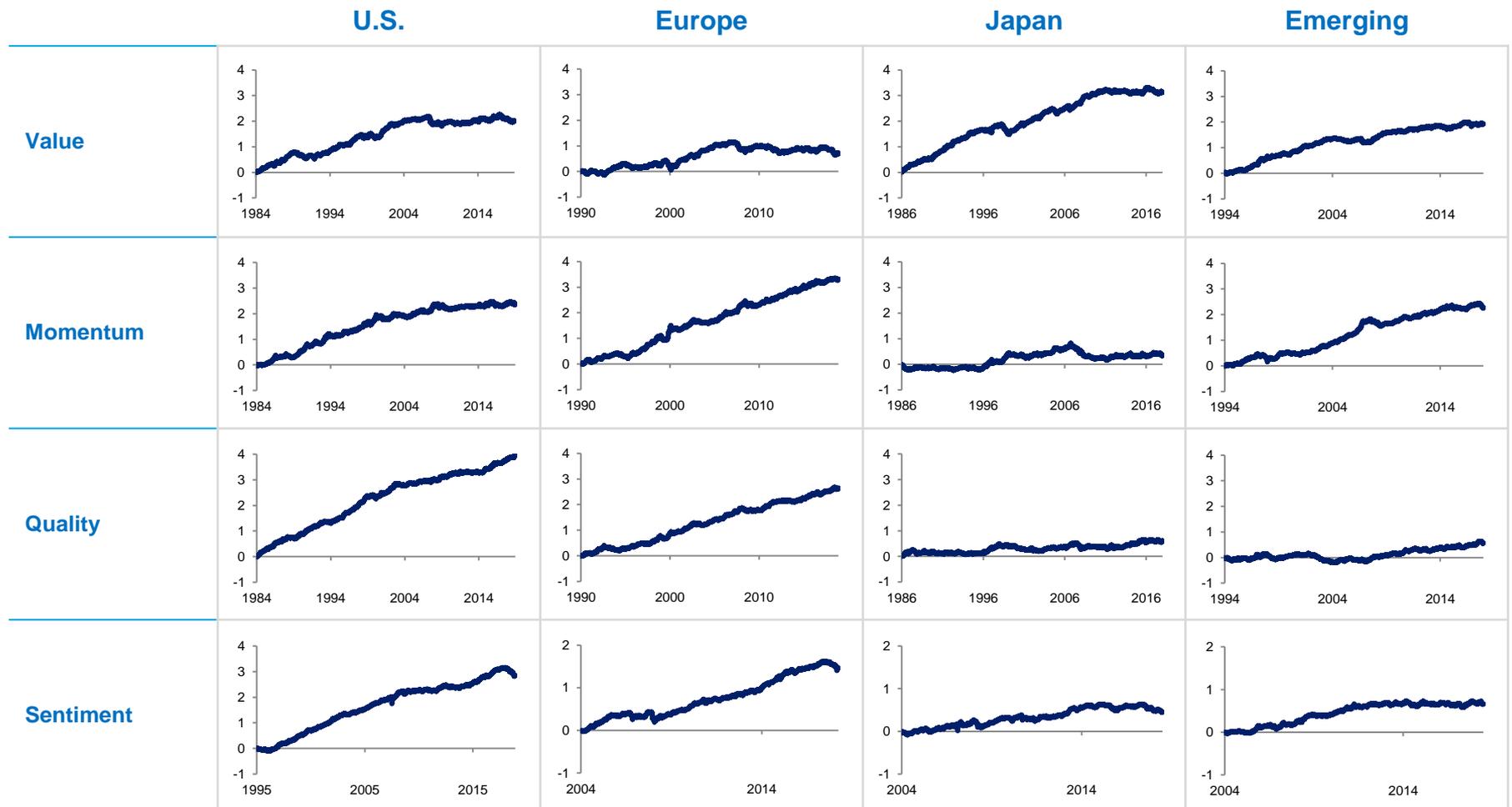


Strategy Update



Investment Themes*

Hypothetical Long-term efficacy across regions



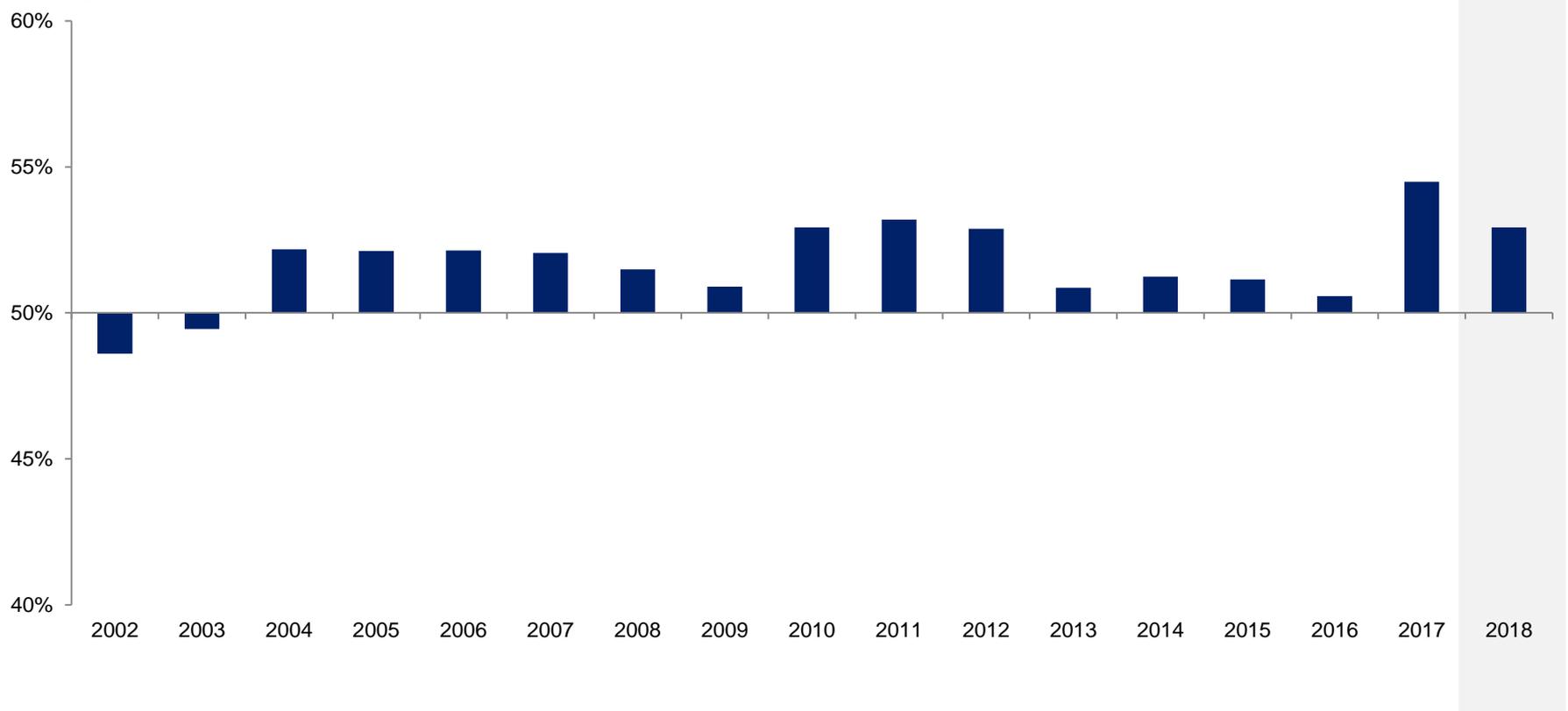
* Source: AQR. AQR Value, Momentum, Quality, and Sentiment theme data is indicative of gross USD returns net of transactions-costs for a long-short, market neutral implementations of the factors at 7% volatility from 1/1/1984–12/31/2018 (where available for each theme). Y-axis for Europe, Japan, and Emerging Sentiment theme data is compressed due to shorter length of backtests (begin in 2004). Gross performance does not reflect the deduction of investment advisory fees. Hypothetical data has inherent limitations, some of which are disclosed in the Appendix. A full description of the backtest methodologies is included in the Appendix. Diversification does not eliminate the risk of experiencing investment losses.

Fundamentals

Model accuracy for predicting changes in fundamentals has not diminished

Percent of Earnings Surprises Predicted Correctly: Hypothetical International Small Cap Value & Momentum

January 1, 2002 – December 31, 2018



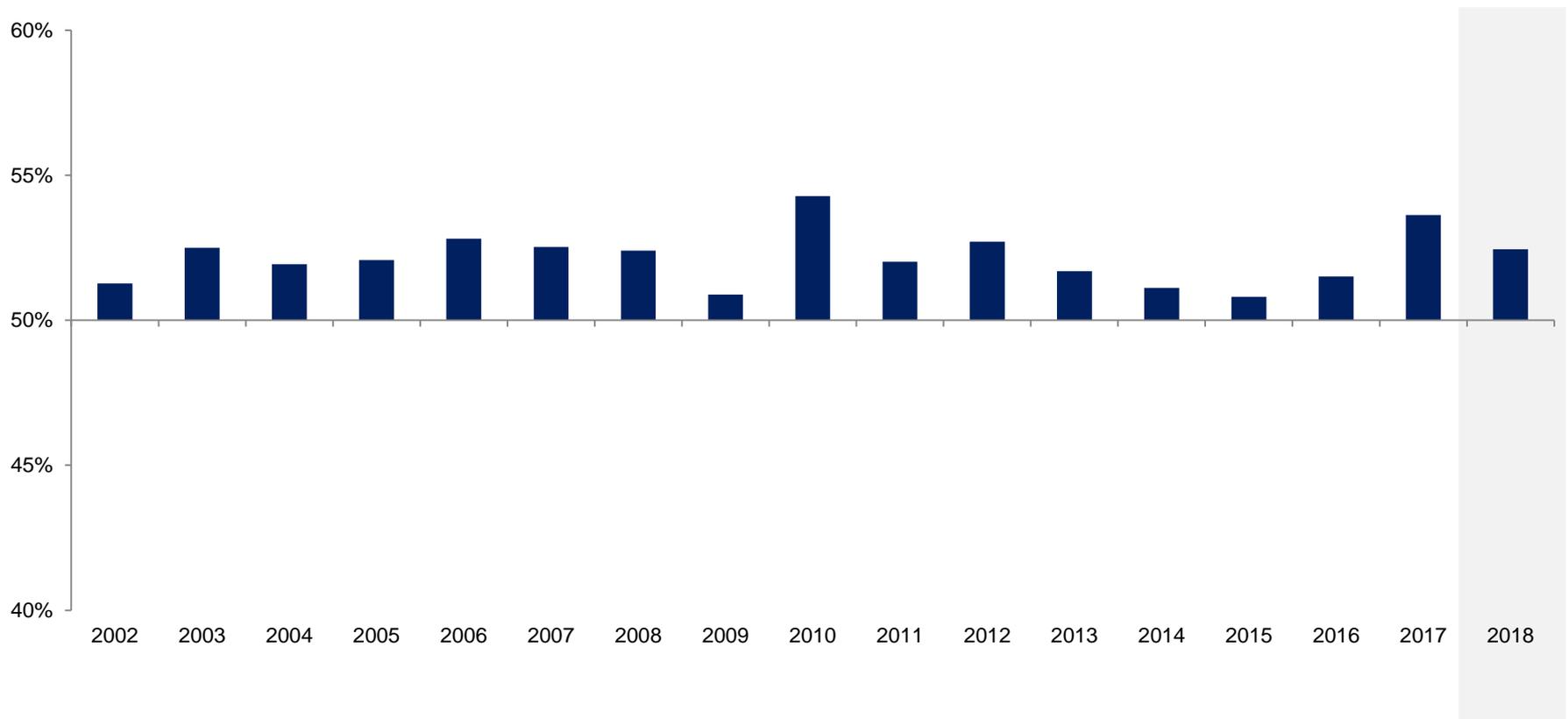
Source: AQR, Bloomberg. Data shows the alignment of AQR's Hypothetical Value and Momentum themes with subsequent earnings surprises of International Small Cap stocks (roughly equivalent to the MSCI World ex US Small Cap universe) using quarterly data. Positive/negative earnings surprises are defined relative to the median in the universe. Date range is January 1, 2002 – March 31, 2019. Returns are gross of fees and in USD. The date range is limited due to availability of earnings surprise data. For illustrative purposes only and not representative of an actual portfolio AQR currently manages. Hypothetical data has inherent limitations, some of which are disclosed in the Appendix.

Fundamentals

Model accuracy for predicting changes in fundamentals has not diminished

Percent of Earnings Surprises Predicted Correctly: Hypothetical International Small Cap Model

January 1, 2002 – December 31, 2018



Source: AQR, Bloomberg. Data shows the alignment of AQR's Hypothetical model with subsequent earnings surprises of International Small Cap stocks (roughly equivalent to the MSCI World ex US Small Cap universe) using quarterly data.. Positive/negative earnings surprises are defined relative to the median in the universe. Date range is January 1, 2002 – March 31, 2019. Returns are gross of fees and in USD. The date range is limited due to availability of earnings surprise data. For illustrative purposes only and not representative of an actual portfolio AQR currently manages. Hypothetical data has inherent limitations, some of which are disclosed in the Appendix.

Fundamentals

As value has sold off, spreads have moved significantly

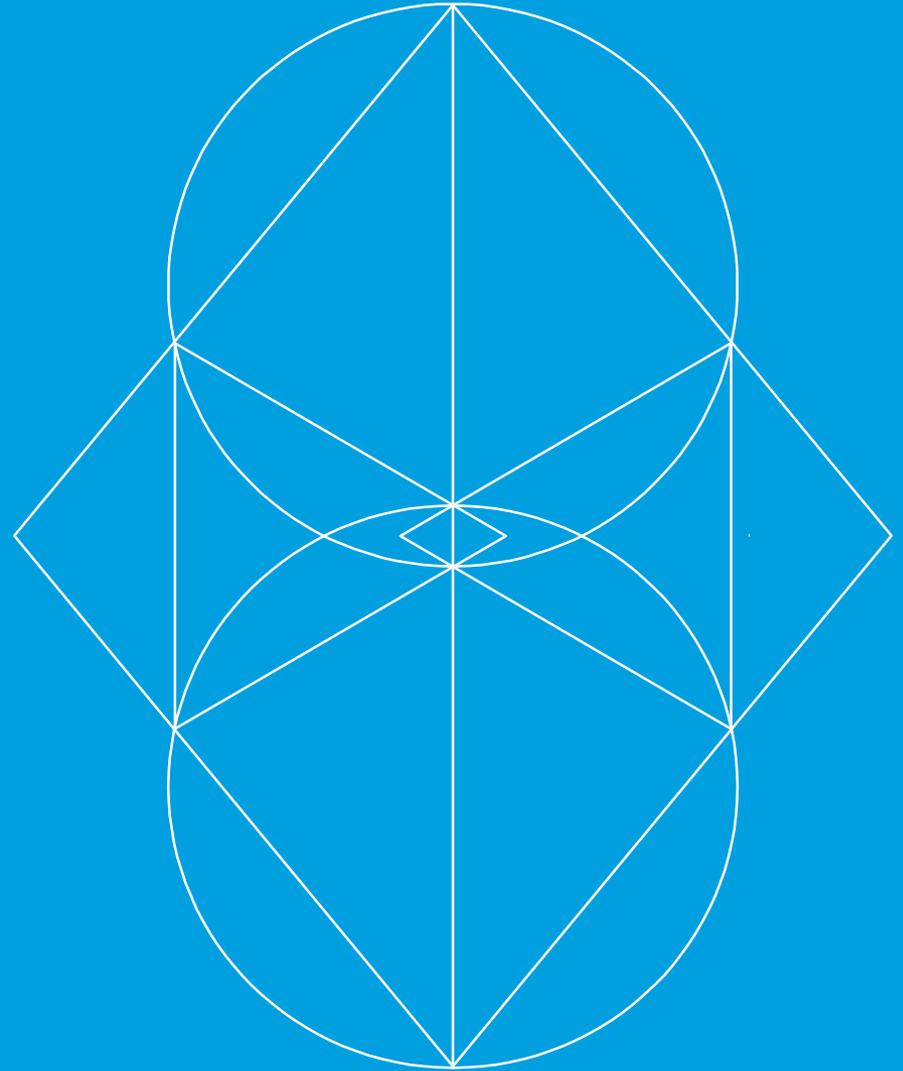
International Small Cap Hypothetical Industry-Neutral Value Portfolio: Value Spread

June 1, 1994 – March 31, 2019



Source: AQR. Value composite includes four value measures: book-to-price, earnings-to-price, forecast earnings-to-price, and sales-to-enterprise value; spreads are measured based on ratios. To construct industry-neutrality, the value spreads are constructed by comparing the aforementioned value measures within each industry, which are then aggregated up to represent an entire portfolio. Hypothetical data has inherent limitations, some of which are disclosed in the Appendix. Please read the Appendix for important disclosures.

Appendices



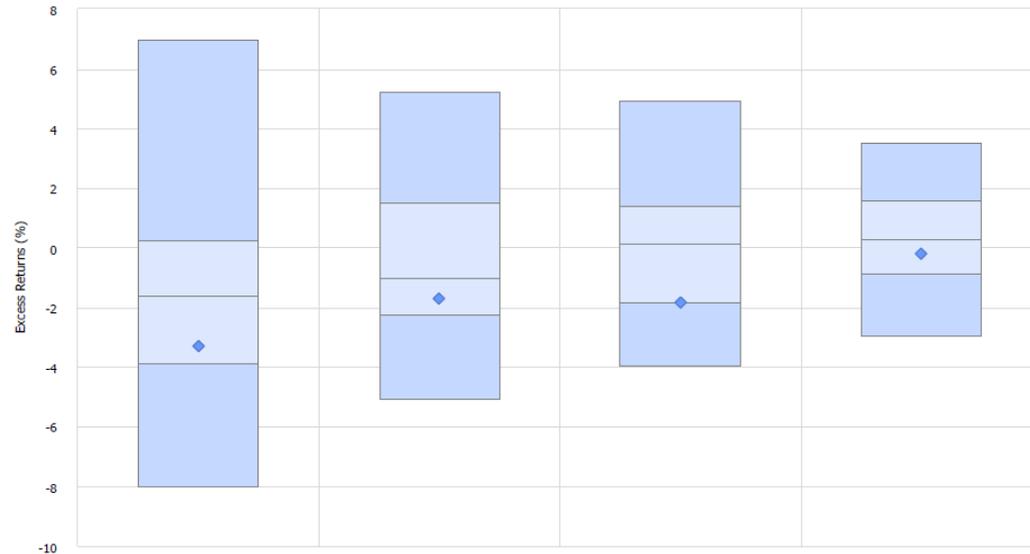
Performance Summary: Peer Comparison

AQR International Small Cap vs. respective eVestment universe

Excess Returns: 1, 2, 3 Years & Since Inception

vs. Index

Excess Returns as of: March 31, 2019



Universe: eVestment EAFE Small Cap Core Equity

	1 Year		2 Years		3 Years		5.08 Years	
		Rk		Rk		Rk		Rk
5th percentile	6.94		5.20		4.89		3.48	
25th percentile	0.22		1.47		1.37		1.54	
Median	-1.64		-1.05		0.13		0.25	
75th percentile	-3.88		-2.26		-1.87		-0.90	
95th percentile	-8.00		-5.09		-3.98		-2.98	
# of Observations	68		68		64		55	
◆ AQR Capital Management LLC: International Small Cap Equity : EAFE	-3.30	69	-1.71	63	-1.84	75	-0.21	62

Source: AQR and eVestment. Return data through March 31, 2019. eVestment data is input by the respective managers in each category. Managers classify their products as within a certain universe when submitting returns. The number of strategies in the EAFE Small Cap Equity universe shown is 68 for 1 year, 68 for 2 years, 64 for 3 Years, 55 for SI Years. Excess returns as in excess of each manager's preferred benchmark, as reported in eVestment. Ranks represent the percentile ranking of the performance and IR relative to all other strategies within their eVestment universe. Gross performance does not reflect the deduction of investment advisory fees. Past performance is not a guarantee of future performance. The data presented herein is supplemental to the GIPS® compliant presentation for the Composites mentioned above included in the Appendix. Please read important disclosures in the Appendix. Information Ratio are provided by eVestment, use monthly returns, and are calculated as the annualized excess return divided by tracking error.



AQR Presenters

Rodolfo Martell, Ph.D.

Managing Director, Portfolio Management

Rodolfo is a Managing Director on the strategy team within AQR's Global Stock Selection group, where he conducts research on equity markets and portfolio attribution. In this role, he is responsible for communicating investment strategy and performance to a wide range of investors globally based on a deep understanding of GSS product offerings and capabilities. Prior to AQR, Rodolfo was a Managing Director and portfolio manager with Quantitative Management Associates. Prior to this, Rodolfo was a Director and portfolio manager with BlackRock, a Principal with Barclays Global Investors, and an Assistant Professor of Finance at Purdue University. His research has been published in top academic journals, including the American Economic Review and Review of Finance. Rodolfo earned a B.A. in economics from Universidad de las Americas-Puebla, an M.A. in economics and Ph.D. in finance from The Ohio State University.



Joey Lee

Managing Director, Client Strategies

Joey is a senior member of AQR's Business Development team, collaborating with institutional investors throughout the Western and Southwestern U.S. In this role, she is responsible for identifying and developing relationships with prospective investors and communicating AQR's investment philosophy and process across a range of traditional and alternative investment strategies. Prior to AQR, Joey worked in the White House as an aide in the Executive Office of the President, helping senior officials with communications and strategic planning. She earned a B.A., with distinction, in political science from Yale University, where she was a recipient of the Yale University–New Asia College Undergraduate Exchange fellowship and the Academic All-Ivy award, and was a four-year starter on the women's volleyball team; she earned an M.B.A. with concentrations in analytic finance and economics from the University of Chicago's Graduate School of Business, where she received the Lehman Brothers Fellowship.



AQR's Commitment to Diversity

AQR has invested in building out a number of key external Partnerships, conference participations, and philanthropic activities that support our commitment to advancing workplace diversity and inclusion.

Our Initiatives:

Management Leadership for Tomorrow

- MLT equips African Americans, Latinos, and Native American students with the skills, coaching and connections they need to lead organizations and communities worldwide.
-

Toigo Foundation

- The mission of the Toigo Foundation is to foster the career advancement and increased leadership of underrepresented talent in finance and allied industries and to create mechanisms for greater inclusion from classroom to the boardroom. AQR was a platinum sponsor of the 2018 Toigo Gala.
-

Disability:IN

- Disability:IN is the leading nonprofit resource for business disability inclusion worldwide. The Next Gen Leaders program is for college students and recent grads with disabilities who have demonstrated talent and leadership to attractive applicants, particularly in STEM, finance and business fields.



AQR's Commitment to Diversity

AQR has invested in building out a number of key external Partnerships, conference participations, and philanthropic activities that support our commitment to advancing workplace diversity and inclusion.

Our Initiatives:

Student Veterans of America (SVA)

- Student Veterans of America (SVA) is a 501(c)(3) coalition of student-veteran groups on college campuses. There are chapters on over 1500 Universities have schools and 700,000 student veterans with a mission to provide military veterans with the resources, support and advocacy needed to success in higher education and following graduation.

Out for Undergraduate

- The mission of Out for Undergrad is to help high-achieving LGBTQ undergraduates reach their full potential by hosting industry-focused conferences. AQR attends Out for Business on an annual basis.

Sponsorships with Undergraduate School Organizations

- Each year, we partner with a select number of undergraduate student organizations at our target schools to partner with for unique recruiting activities to identify top diverse talent. For example, we are sponsoring the University of Chicago Diversity and Inclusion Summit and Women's Networking Reception. We are sponsors of the **Wharton Alliance** for LGBT students at Penn. AQR is a founding sponsor of **BLK Capital Management, Corp**, a 100% black owned student run hedge fund that focuses on educating their members by exposing them to the field of active investment management.



AQR Composition of Work Force

TOTAL COMPOSITION OF WORK FORCE										
Occupation	African American	Hispanic	Asian or Pacific	American Indian/	Two or More	Caucasian	Total Employees	Percent (%)	Gender	
	Full Time	Full Time	Islander	Alaskan Native	Races	(Non Hispanic)			Male	Female
	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time
Officials & Managers	0	8	55	0	2	204	269	23.42%	216	53
Professionals	11	33	228	0	7	358	637	42.70%	480	157
Technicians	0	0	0	0	0	0	0	N/A	0	0
Sales Workers	0	0	0	0	0	0	0	N/A	0	0
Office/Clerical	4	1	3	0	2	21	31	25.81%	4	27
Semi-Skilled	0	0	0	0	0	0	0	N/A	0	0
Unskilled	0	0	0	0	0	0	0	N/A	0	0
Service Workers	0	0	0	0	0	0	0	N/A	0	0
Other	0	0	0	0	0	0	0	N/A	0	0
Total	15	42	286	0	11	583	937	36.61%	700	237



Performance Disclosures

This document has been provided to you solely for information purposes and does not constitute an offer or solicitation of an offer or any advice or recommendation to purchase any securities or other financial instruments and may not be construed as such. The factual information set forth herein has been obtained or derived from sources believed to be reliable but it is not necessarily all-inclusive and is not guaranteed as to its accuracy and is not to be regarded as a representation or warranty, express or implied, as to the information's accuracy or completeness, nor should the attached information serve as the basis of any investment decision. This document is intended exclusively for the use of the person to whom it has been delivered and it is not to be reproduced or redistributed to any other person.

There is no guarantee, express or implied, that long-term return and/or volatility targets will be achieved. Realized returns and/or volatility may come in higher or lower than expected.

Performance figures contained herein reflect the reinvestment of dividends and all other earnings and represent unaudited estimates of realized and unrealized gains and losses prepared by AQR. There is no guarantee as to the above information's accuracy or completeness. PAST PERFORMANCE IS NOT A GUARANTEE OF FUTURE PERFORMANCE. Diversification does not eliminate the risk of experiencing investment losses.

There is a risk of substantial loss associated with trading commodities, futures, options and leverage. Before investing carefully consider your financial position and risk tolerance to determine if the proposed trading style is appropriate. Investors should realize that when engaging in leverage, trading futures, commodities and/or granting/writing options one could lose the full balance of their account. It is also possible to lose more than the initial deposit when engaging in leverage, trading futures and/or granting/writing options. All funds committed should be purely risk capital.

Broad-based securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index.

Gross performance results do not reflect the deduction of investment advisory fees, which would reduce an investor's actual return. For example, assume that \$1 million is invested in an account with the Firm, and this account achieves a 10% compounded annualized return, gross of fees, for five years. At the end of five years that account would grow to \$1,610,510 before the deduction of management fees. Assuming management fees of 1.00% per year are deducted monthly from the account, the value of the account at the end of five years would be \$1,532,886 and the annualized rate of return would be 8.92%. For a 10-year period, the ending dollar values before and after fees would be \$2,593,742 and \$2,349,739, respectively. AQR's asset based fees may range up to 2.85% of assets under management, and are generally billed monthly or quarterly at the commencement of the calendar month or quarter during which AQR will perform the services to which the fees relate. Where applicable, performance fees are generally equal to 20% of net realized and unrealized profits each year, after restoration of any losses carried forward from prior years. In addition, AQR funds incur expenses (including start-up, legal, accounting, audit, administrative and regulatory expenses) and may have redemption or withdrawal charges up to 2% based on gross redemption or withdrawal proceeds. Please refer to AQR's ADV Part 2A for more information on fees. Consultants supplied with gross results are to use this data in accordance with SEC, CFTC, NFA or the applicable jurisdiction's guidelines.

Request Id: 261365



Performance Disclosures

There is a risk of substantial loss associated with trading commodities, futures, options and leverage. Before investing carefully consider your financial position and risk tolerance to determine if the proposed trading style is appropriate. Investors should realize that when engaging in leverage, trading futures, commodities and/or granting/writing options one could lose the full balance of their account. It is also possible to lose more than the initial deposit when engaging in leverage, trading futures and/or granting/writing options. All funds committed should be purely risk capital.

The MSCI Emerging Markets Index captures large and mid cap representation across 24 Emerging Markets (EM) countries*. With 1,138 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The **Russell 1000 Index** is an index of approximately 1,000 of the largest companies in the U.S. equity market.

The Russell 2000 index is an index measuring the performance of approximately 2,000 small-cap companies in the Russell 3000 Index, which is made up of 3,000 of the biggest U.S. stocks. The Russell 2000 serves as a benchmark for small-cap stocks in the United States.

The Russell 1000 Value Index measures the performance of the large-cap value segment of the U.S. equity universe. It includes those Russell 1000 companies with lower price-to-book ratios and lower expected growth values. The index is unmanaged, includes the reinvestment of dividends and cannot be purchased directly by investors.

The Russell 1000 Growth Index measures the performance of the large-cap growth segment of the U.S. equity universe. It includes those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values. The index is unmanaged and cannot be purchased directly by investors.



Performance Disclosures

Hypothetical AQR U.S. Valuation Theme Backtest Description The AQR U.S. Valuation Theme Backtest utilizes the full set of underlying factors that compose the Valuation theme within AQR's Global Stock Selection strategy to evaluate stocks and create a long-short, market-neutral and industry-neutral equity portfolio based exclusively on these signals. The Valuation Theme is designed to capture the tendency for relatively cheap assets to outperform relatively expensive ones. Backtest returns are gross of advisory fees and transaction costs from January 1, 2001 – March 31, 2019. The backtest utilizes a monthly rebalancing schedule and targets 7% annual volatility. The investment universe includes a broad subset of liquid tradeable large and mid cap stocks within the U.S. The risk model used is the Barra U.S. Equity Risk Model (USE3L).

Hypothetical AQR U.S. Momentum Theme Backtest Description The AQR U.S. Momentum Theme Backtest utilizes the full set of underlying factors that compose the Momentum theme within AQR's Global Stock Selection strategy to evaluate stocks and create a long-short, market-neutral and industry-neutral equity portfolio based exclusively on these signals. The Momentum Theme is designed to capture the tendency for assets that have outperformed recently to continue to outperform. Backtest returns are gross of advisory fees and transaction costs from January 1, 2001 – March 31, 2019. The backtest utilizes a monthly rebalancing schedule and targets 7% annual volatility. The investment universe includes a broad subset of liquid tradeable large and small cap stocks within the U.S. The risk model used is the Barra U.S. Equity Risk Model (USE3L).

Hypothetical AQR U.S. Fundamental and Price Momentum Signals Backtest Description: The AQR U.S. Fundamental and Price Momentum Theme Backtest represent the full-set of fundamental and price momentum factors that within the Momentum theme of AQR's Global Stock Selection strategy to evaluate stocks and create a long-short, market-neutral and industry-neutral equity portfolio based exclusively on these signals. The Momentum Theme is designed to favor stocks with improving prices and fundamentals. Backtest returns are gross of advisory fees and transaction costs from January 1, 2018 – March 31, 2019. The backtest utilizes a monthly rebalancing schedule and targets 7% annual volatility. The investment universe includes a broad subset of liquid tradeable large and mid cap stocks within the U.S. The risk model used is the Barra U.S. Equity Risk Model (USE3L).

Hypothetical AQR U.S. Industry Momentum Theme Backtest Description The AQR U.S. Industry Momentum Theme Backtest utilizes the full set of underlying factors that compose the Industry Momentum theme within AQR's Global Stock Selection strategy to evaluate stocks and create a long-short, market-neutral and industry-neutral equity portfolio based exclusively on these signals. The Industry Momentum Theme is designed to capture the tendency for industries that have outperformed recently to continue to outperform. Backtest returns are gross of advisory fees and transaction costs from January 1, 2018 – March 31, 2019. The backtest utilizes a monthly rebalancing schedule and targets 7% annual volatility. The investment universe includes a broad subset of liquid tradeable large and small cap stocks within the U.S. The risk model used is the Barra U.S. Equity Risk Model (USE3L).

Hypothetical AQR U.S. Cross Momentum Theme Backtest Description The AQR U.S. Cross Momentum Theme Backtest utilizes the full set of underlying factors that compose the theme within AQR's Global Stock Selection strategy to evaluate stocks and create a long-short, market-neutral and industry-neutral equity portfolio based exclusively on these signals. The Cross Momentum Theme is designed to capture the tendency for a company's improvement to follow the improvement of related companies. Backtest returns are gross of advisory fees and transaction costs from January 1, 2018 – March 31, 2019. The backtest utilizes a monthly rebalancing schedule and targets 7% annual volatility. The investment universe includes a broad subset of liquid tradeable large and small cap stocks within the U.S. The risk model used is the Barra U.S. Equity Risk Model (USE3L).

Hypothetical AQR U.S. Valuation & Momentum Themes Combination Backtest Description:

The AQR U.S. Valuation and Momentum Combo Backtest is a simple 50/50 combination of the Valuation and Momentum themes within AQR's Global Stock Selection strategy to evaluate stocks and create a long-short, market-neutral and industry-neutral equity portfolio based exclusively on these signals within each of the identified regions. Backtest returns are gross of advisory fees and transaction costs from April 1, 2001 – March 31, 2019. The backtest utilizes a monthly rebalancing schedule and each sub-component targets 7% annual volatility. The investment universes include a broad



Performance Disclosures

AQR Capital Management, LLC
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Upon request, AQR will make available a complete list and description of all Firm composites, as well as additional information regarding the policies for valuing portfolios, calculating performance, and preparing compliant presentations.

GIPS Compliance: AQR claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. AQR has been independently verified for the period August 1, 1998 through December 31, 2017. The verification reports are available upon request. Verification assesses whether (1) the Firm has complied with all composite construction requirements of the GIPS standards on a firm-wide basis and (2) the Firm’s policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

Composite Characteristics: New accounts that fit a composite definition are added at the start of the first full calendar month after the assets come under management, or after it is deemed that the investment decisions made by the investment advisor fully reflect the intended investment strategy of the portfolio. A composite will exclude terminated accounts after the last full calendar month performance measurement period that the assets were under management. The composite will continue to include the performance results for all periods prior to termination. For periods beginning July 1, 2010 through February 28, 2015, AQR defined a significant cash flow as an external cash flow within a portfolio of 50%. Additional information is available upon request.

Calculation Methodology: All portfolios are valued daily, weekly, intra-monthly or monthly as defined by Firm policy. The Modified Dietz calculation methodology is used when calculating monthly and intra-month returns. Mutual funds and UCITS are valued daily and performance is calculated on a daily basis. Gross of fees returns are calculated gross of management and performance fees, administrative and custodial costs, and net of transaction costs beginning January 1, 2010. Prior to January 1, 2010, gross of fees returns are gross of management and performance fees, and net of administrative, custodial, and transaction costs. Additional information regarding fees and the calculation of gross and net performance is available upon request.

The dispersion measure is the equal-weighted standard deviation of accounts in a composite for the entire year. Dispersion is not considered meaningful for periods shorter than one year or for periods during which a composite contains five or fewer accounts for the full period. The three-year annualized ex-post standard deviation measure is inapplicable when 36 monthly returns are not available.

Returns are calculated net of all withholding taxes on foreign dividends. Accruals for fixed income and equity securities are included in calculations. AQR’s management or advisory fees are described in Part 2A of its Form ADV. In addition, AQR funds may have a redemption charge up to 2.00% based on gross redemption proceeds that may be charged upon early withdrawals. Consultants supplied with gross results are to use this data in accordance with SEC, CFTC and NFA guidelines.

Other Disclosures: AQR may engage in leveraged, derivative, and short positions in order to meet its performance objectives. The use of these positions may have a material impact on performance results. Additionally, there may be subjective unobservable inputs used in the valuation of certain financial instruments utilized by certain AQR managed investment vehicles. The risks inherent to the strategies employed by accounts included are set forth in the applicable offering documents and other information provided to potential subscribers, from where more detailed information regarding the extent to which leverage, derivatives, and short positions can be obtained. These are available upon request, if not provided along with this presentation itself.

Past performance is not an indication of future performance.



Performance Disclosures

AQR Capital Management, LLC
 International Small Cap Equity EAFE Composite
 8/1/2007 – 12/31/2017

Year	Gross Return %	Net Return %	Benchmark * Return %	Number of Portfolios	Composite 3-Yr StDev %	Benchmark * 3-Yr StDev %	Composite Assets (\$M)	Total Firm Assets (\$M)	% Non-Fee Paying Portfolios
2007	-8.76	-9.14	-8.77	1	N/A	N/A	4.54	34,495.05	100
2008	-43.09	-43.68	-47.01	1	N/A	N/A	2.58	19,207.22	100
2009	48.91	47.47	46.78	1	N/A	N/A	3.84	23,571.55	100
2010	27.78	26.53	22.04	1	28.10	28.86	4.91	32,701.21	100
2011	-12.97	-13.85	-15.94	1	22.98	23.01	4.28	43,540.99	100
2012	23.01	21.80	20.00	1	19.99	19.84	198.85	71,122.42	-
2013	32.07	30.78	29.30	2	16.29	16.14	420.93	98,302.69	-
2014	-3.53	-4.49	-4.95	4	13.34	13.32	755.29	122,655.99	-
2015	13.24	12.12	9.59	4	10.99	11.26	844.04	142,173.39	-
2016	-0.51	-1.50	2.18	4	11.66	12.11	809.03	175,089.36	-
2017	34.10	32.80	33.01	3	11.32	11.60	1,067.09	223,432.52	-

*MSCI EAFE Small Cap Index

Composite Description: The International Small Cap Equity EAFE Composite (the “Composite”) was created in January 2016. Accounts included invest, hold, and trade in securities of developed small cap markets outside of the U.S. and Canada. The Composite strategy utilizes a set of valuation, momentum and economic factors based on proprietary Security Selection models geared to assist the underlying portfolios in meeting their investment objective. Accounts included will generally be managed by both underweighting and overweighting securities relative to the benchmark. The Composite is denominated in USD.

Benchmark: The Composite benchmark is the MSCI EAFE Small Cap Index (the “Benchmark”). The index is designed to measure the equity market performance of small cap indices across the world, excluding the U.S. and Canada.

Fees: Composite net of fees returns are calculated by deducting the maximum model management or advisory fee AQR could charge from the composite monthly gross returns. Effective February 2018, AQR’s asset-based fees for portfolios within the Composite may range up to 0.85% of assets under management. Prior to February 2018, the Composite’s model fee schedule was 1.00% management fee per annum. Fees are generally billed monthly or quarterly at the commencement of the calendar month or quarter during which AQR will perform the services to which the fees relate. Composite assets may have been exposed to the impact of performance fees.

Past performance is not an indication of future performance.







Report to Investment Committee

Neil M. Guglielmo
From: Neil M. Guglielmo, General Manager

Agenda of: **MAY 14, 2019**

ITEM: **V**

SUBJECT: INVESTMENT MANAGER CONTRACT WITH BARROW, HANLEY, MEWHINNEY & STRAUSS, LLC REGARDING THE MANAGEMENT OF AN ACTIVE NON-U.S. EQUITIES DEVELOPED MARKETS VALUE PORTFOLIO AND POSSIBLE COMMITTEE ACTION

Recommendation

That the Committee recommend to the Board a one-year contract extension with Barrow, Hanley, Mewhinney & Strauss, LLC for management of an active non-U.S. equities developed markets value portfolio.

Discussion

Background

Barrow, Hanley, Mewhinney & Strauss, LLC (BHMS) has managed an active non-U.S. equities developed markets value portfolio for LACERS since November 2013, and is benchmarked against the MSCI EAFE Value Index. BHMS' fundamental research-based and value-oriented investment strategy emphasizes companies with low price/earnings ratios, low price/book ratios, and high dividend yields to provide a measure of protection in down markets, as well as participation in improving economic cycles. The portfolio is managed by Rand Wrighton, who has 19 years of industry experience, and TJ Carter, who has 15 years of industry experience. LACERS' portfolio was valued at \$507 million as of May 31, 2019.

BHMS was hired through the 2013 Active Non-U.S. Equities Developed Markets Manager search process and a three-year contract was authorized by the Board on June 11, 2013. BHMS was awarded a contract renewal on June 28, 2016. The current contract expires on September 30, 2019.

Organization

BHMS is an investment management firm that specializes in long-only value investing. The firm is a majority owned affiliate of BrightSphere Investment Group (BSIG), a public company listed on the New York Stock Exchange (Ticker Symbol: BSIG). BSIG was formerly branded as OM Asset Management, plc. BHMS is headquartered in Dallas and has 98 employees. As of March 31, 2019, the firm had over \$76 billion in total assets under management with \$2.1 billion in the non-U.S. value equity strategy.

Due Diligence

BHMS' organizational structure, investment philosophy, strategy, and process have not changed over the contract period. In early 2018, David Hodges, Co-Portfolio Manager, retired after having built the non-U.S. value strategy at BHMS with Rand Wrighton, Co-Portfolio Manager. Mr. Wrighton continues to serve as portfolio manager alongside TJ Carter, who was promoted to portfolio manager following the retirement of Mr. Hodges.

Performance

BHMS has outperformed its benchmark, net-of-fees, for the 3-month and since inception time periods, and underperformed in the one-year, three-year, and five-year periods as presented in the table below.

Annualized Performance as of 3/31/19 (Net-of-Fees)						
	3-Month	1-Year	3-Year	5-Year	10-Year	Since Inception
BHMS	10.65	-8.55	5.00	0.45	n/a	1.41
MSCI EAFE Value Index	7.92	-6.13	6.90	0.67	n/a	1.11
% of Excess Return	2.73	-2.42	-1.90	-0.22	n/a	0.30

Inception date: 11/30/13

Calendar year performance is presented in the table below as supplemental information.

Calendar Year Performance as of 3/31/19 (Net-of-Fees)							
	1/1/19-3/31/19	2018	2017	2016	2015	2014	11/30/13-12/31/13
BHMS	10.65	-18.12	23.12	3.23	-6.56	-2.06	2.26
MSCI EAFE Value Index	7.92	-14.78	21.44	5.02	-5.68	-5.39	1.36
% of Excess Return	2.73	-3.34	1.68	-1.79	-0.88	3.33	0.90

Pursuant to the LACERS Manager Monitoring Policy (Policy), BHMS was placed on "On Watch" status for an initial one-year period effective April 17, 2019. The following Policy watch list criteria triggered the "On Watch" status based on the performance as of March 31, 2019:

1. Annualized net underperformance relative to its benchmark for trailing 5 years.
2. Annualized net Information Ratio trailing 5 years relative to its benchmark is below .20.

BHMS will meet with staff in May 2019 to provide an update on the firm and performance and discuss their plan of action to return to compliance with the Policy. Staff and NEPC, LLC (NEPC), LACERS' General Fund Consultant, will monitor the portfolio's performance closely during the "On Watch" period.

Fees

LACERS pays BHMS an effective fee of 51 basis points (0.51%), which is approximately \$2,589,869 annually based on the value of LACERS' assets as of March 31, 2019. This fee ranks in the 33rd percentile among its peers in the eVestment EAFE Value Universe (i.e., MFS's fee is lower than 67% of peers).

General Fund Consultant Opinion

NEPC concurs with this recommendation.

Strategic Plan Impact Statement

A contract renewal with Barrow, Hanley, Mewhinney & Strauss, LLC will allow the fund to maintain a diversified exposure to the non-U.S. equities developed markets, which is expected to help optimize long-term risk adjusted investment returns (Goal IV). The discussion of the investment manager's profile, strategy, performance, and management fee structure are consistent with Goal V (uphold good governance practices which affirm transparency, accountability, and fiduciary duty).

This report was prepared by Barbara Sandoval, Investment Officer II, Investment Division.

RJ:BF:BS:sg

Attachments: A) Consultant Recommendation – NEPC, LLC
B) Workforce Composition



To: Los Angeles City Employees' Retirement System Investment Committee

From: NEPC, LLC

Date: May 14, 2019

Subject: Barrow, Hanley, Mewhinney & Strauss, LLC - Contract extension

Recommendation

NEPC recommends Los Angeles City Employees' Retirement System (LACERS) extend the contract that is currently in place with Barrow, Hanley, Mewhinney & Strauss, LLC ('BHMS') for a period of one year from the date of contract expiry.

Background

BHMS was hired into the Non-U.S. Equity asset class in 2013 to provide the Plan with public equity exposure across international developed countries/markets. The portfolio's strategy is benchmarked against the MSCI EAFE Value Index and has a performance inception date of November 30, 2013.

As of March 31, 2019, BHMS managed \$506.8 million, or 3.0% of Plan assets in an international developed markets separately managed account with an asset-based fee of 0.51% (51 basis points) annually. This fee ranks in the 33rd percentile among its peers in the eVestment EAFE Value Universe. In other words, 67% of the 75 products included in the peer universe have a higher fee than the LACERS account. The performance objective is to outperform the MSCI EAFE Value Index, net of fees, annualized over a full market cycle (normally three-to-five years). The BHMS account is currently on watch due to performance according to LACERS' manager monitoring policy.

BHMS was founded and registered with the SEC in July of 1979 to manage U.S. tax-exempt portfolios for institutional clients. In January of 1988, BHMS sold themselves to United Asset Management Corporation (UAM), a Boston-based holding company, listed on the New York Stock Exchange. On October 5, 2000, UAM was acquired by Old Mutual plc, an international financial services group based in London. Following the acquisition, Old Mutual plc renamed UAM, "Old Mutual Asset Management". In 2014, Old Mutual plc conducted an initial public offering of Old Mutual Asset Management. OM Asset Management plc rebranded as BrightSphere Investment Group plc in March 2018, following its separation from Old Mutual plc. BrightSphere Investment Group plc is a publicly-listed company traded on the New York Stock Exchange (Ticker symbol: BSIG). Many key employees, including portfolio managers and analysts, have economic ownership in BHMS through a limited partnership that owns a 24.9% equity interest in BHMS LLC. The firm's assets under management were \$76 billion at March 31, 2019.

The portfolio is managed by two portfolio managers, Rand Wrighton and TJ Carter. Mr. Wrighton has been a lead portfolio manager on the strategy since 2006. In March of 2018 David Hodges, Co-Portfolio Manager, retired after having built the non-US Value portfolio capability at BHMS with Mr. Wrighton. TJ Carter was promoted into the portfolio manager

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role when David Hodges retired. In addition, Charlie Radtke was brought aboard as a third Portfolio Manager. Mr. Radtke left the firm in September of 2018. Mr. Radtke was with the firm for approximately a year and he did not have a significant impact on the names in the portfolio, therefore, a replacement has not been pursued.

BHMS' approach to the equity market is based on the underlying philosophy that markets are inefficient. These inefficiencies can best be exploited through adherence to a value-oriented investment process dedicated to the selection of securities on a bottom-up basis. No attempt to time the market or rotate in and out of broad market sectors is attempted, as they believe that it is difficult, if not impossible, to add incremental value on a consistent basis by top-down or thematic market timing. BHMS stays fully invested with a defensive, conservative orientation, based on the belief that superior returns can be achieved while taking below-average risks. They implement this strategy by constructing portfolios of individual stocks that reflect value characteristics such as: price/earnings, price/book, and enterprise value/free cash flow ratios at or below the market (MSCI EAFE Index), and dividend yields at or above the market.

BHMS' value investing strategy emphasizes low price/earnings ratios, low price/book ratios, and high dividend yields as a way to add protection in down markets, as well as participation in improving economic cycles. Within a broad universe of more than 4,000 non-U.S. stocks, there are approximately 2,600 stocks with market capitalizations greater than \$1 billion with levels of liquidity that they consider sufficient. This subset of stocks is the starting point for their Non-US Value stock selection process. This universe is reduced to the least expensive portion of the universe resulting in approximately 250 stocks that receive the highest ranking by the screening model. These stocks are then placed on BHMS' Non-U.S. Security Guidance List. They then perform bottom-up, fundamental securities analysis on these stocks for potential inclusion in the Non-US Value portfolio. The Security Guidance List is reviewed weekly.

The firm seeks to build equally-weighted portfolios generally consisting of 50 to 70 stocks. While the "core" position size is approximately 2%, positions may be larger if the conviction level is unusually high or the target company's weight in the Index mandates a larger weight in order to generate sufficient alpha. However, no more than 5% of the portfolio, at market value, will be invested in any one security. Sector and country weightings are a residual of the bottom-up stock selection process and they may vary meaningfully at times from the respective weightings in the MSCI EAFE Index. Sector weightings are limited to an absolute weight of 40% of the portfolio. Individual country weightings are limited to 25%, at market value (ex-Japan and the UK). While the Non-US Value strategy is primarily invested in companies domiciled in developed non-U.S. markets, BHMS may, on an opportunistic basis, invest in companies domiciled in emerging markets, as defined by MSCI.

Performance

Referring to Exhibit 1, since inception of the BHMS portfolio on November 30, 2013, the strategy has outperformed the MSCI EAFE Value Index by 0.30%, returning 1.41%, net of fees. The portfolio ranked in the 79th percentile in its peer universe since November 30, 2013. The information ratio was 0.09 and active risk, as measured by tracking error was 3.3%. In the one-year period ended March 31, 2019, the portfolio underperformed the



index by 2.42% and ranked in the 59th percentile in its peer universe. Underperformance in the trailing one-year, ended March 31, 2019, has been driven by stock selection, primarily in the Financials sector. On a global regions basis, detractors from relative performance have been stock selection in Emerging Markets and Europe Ex-United Kingdom in addition to being overweight to North America.

Since December 1, 2013, referring to Exhibit 2, historical cumulative performance had been positive when compared to the benchmark until the second quarter of 2018. Relative outperformance in the first quarter of 2019 has resulted in positive cumulative performance versus the benchmark. This was primarily related to stock selection in Energy, Industrials and Consumer Discretionary sectors.

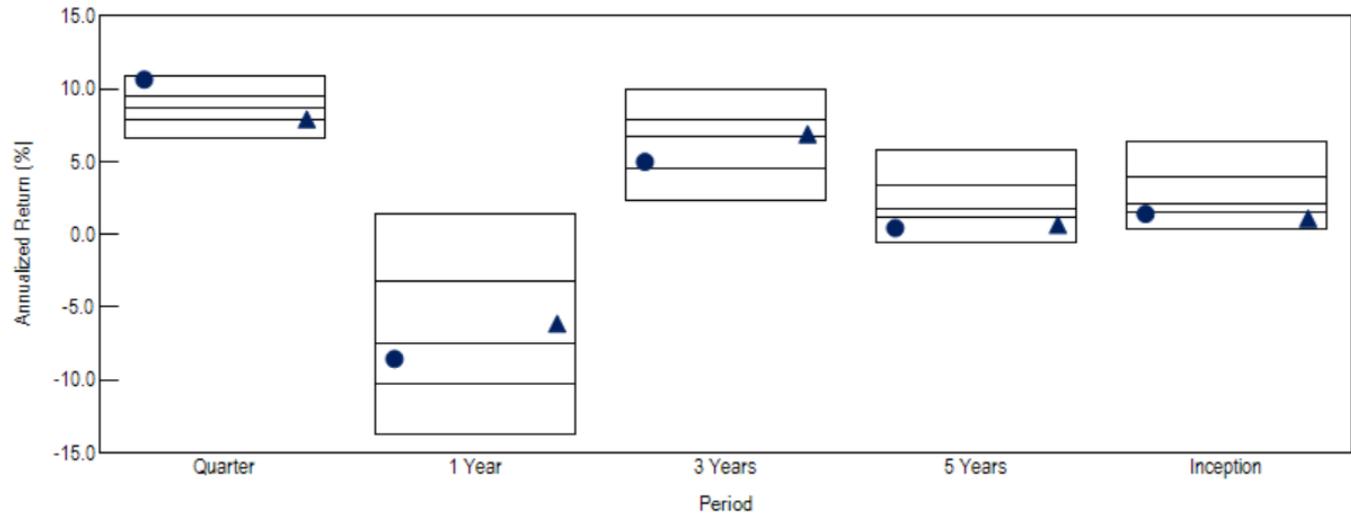
Conclusion

BHMS has performed within the range of anticipated outcomes against its benchmark since inception in a time period in which deep value equity investments have not been favored by markets. The firm has had some turnover in portfolio management, though a founding member of the team is still with the firm/product as the lead portfolio manager. The investment process and philosophy have remained intact, yet the portfolio has been unrewarded in the short-run. BHMS' international equity platform is rated as neutral by NEPC's research team. Note, a neutral rating means that the firm may be an acceptable investment but is simply not currently a 'preferred product'. NEPC recommends a contract extension for a period of one year from the period of contract expiry.

The following tables provide specific performance information, net of fees referenced above.

Exhibit 1

**eV EAFE Value Equity Net Return Comparison
Ending March 31, 2019**

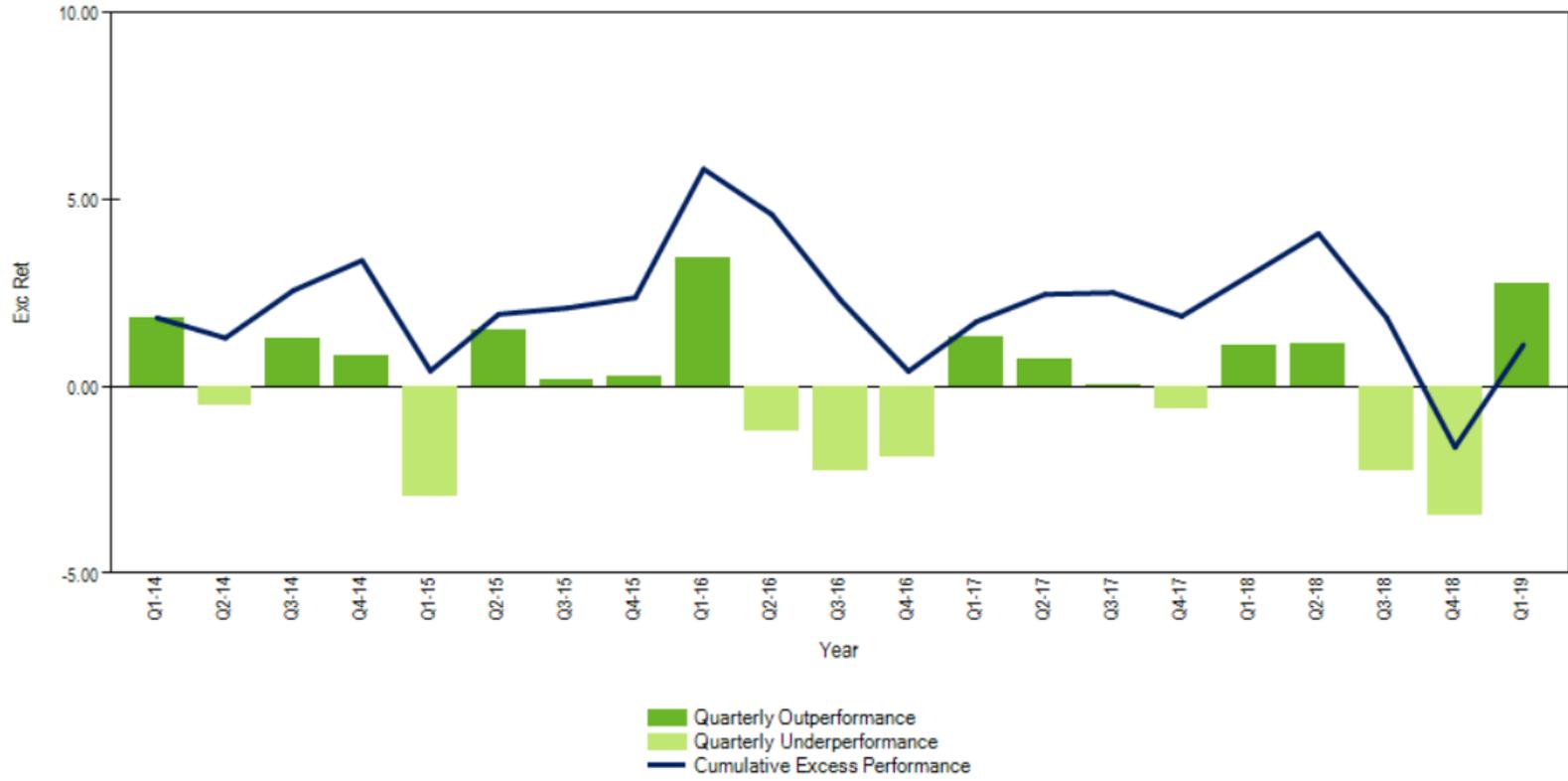


	Return (Rank)									
	Quarter		1 Year		3 Years		5 Years		Inception	
5th Percentile	10.88		1.41		10.02		5.83		6.42	
25th Percentile	9.46		-3.22		7.83		3.42		3.99	
Median	8.69		-7.45		6.71		1.77		2.13	
75th Percentile	7.91		-10.23		4.50		1.19		1.53	
95th Percentile	6.60		-13.69		2.37		-0.61		0.32	
# of Portfolios	52		50		48		43		42	
● Barrow Hanley	10.65	(11)	-8.55	(59)	5.00	(70)	0.45	(82)	1.41	(79)
▲ MSCI EAFE Value	7.92	(75)	-6.13	(45)	6.90	(47)	0.67	(80)	1.11	(80)



Exhibit 2

Quarterly and Cumulative Excess Performance



Vendor
Address

Barrow, Hanley, Mewhinney & Strauss, LLC
2200 Ross Avenue, 31st Floor
Dallas, TX 75201

Date Completed: 3/31/19

Category

Non-U.S. Developed Markets Equities Value

BHMS TOTAL COMPOSITION OF WORK FORCE										
Occupation	African American Full Time	Hispanic Full Time	Asian or Pacific Islander Full Time	American Indian/Alaskan Native Full Time	2 or More Races Full Time	Caucasian (Non Hispanic) Full Time	Total Employees Full Time	Percent (%) Minority Full Time	Gender Full Time	
									Male	Female
Officials & Managers	0	0	0	0	0	4	4	0.00%	3	1
Professionals	0	2	6	0	1	49	58	15.52%	49	9
Technicians	1	1	0	0	0	2	4	50.00%	3	1
Sales Workers	2	0	0	0	0	4	6	33.33%	6	0
Office/Clerical	1	1	0	0	3	21	26	19.23%	3	23
Semi-Skilled	0	0	0	0	0	0	0	0.00%	0	0
Unskilled	0	0	0	0	0	0	0	0.00%	0	0
Service Workers	0	0	0	0	0	0	0	0.00%	0	0
Other	0	0	0	0	0	0	0	0.00%	0	0
Total	4	4	6	0	4	80	98	18.37%	64	34



Report to Investment Committee

Neil M. Guglielmo

From: Neil M. Guglielmo, General Manager

Agenda of: **MAY 14, 2019**

ITEM: **VI**

SUBJECT: INVESTMENT MANAGER CONTRACT WITH LAZARD ASSET MANAGEMENT LLC REGARDING THE MANAGEMENT OF AN ACTIVE NON-U.S. EQUITIES DEVELOPED MARKETS CORE PORTFOLIO AND POSSIBLE COMMITTEE ACTION

Recommendation

That the Committee recommend to the Board a three-year contract renewal with Lazard Asset Management LLC for management of an active non-U.S. equities developed markets core portfolio.

Discussion

Background

Lazard Asset Management LLC (Lazard) has managed an active non-U.S. equities developed markets core portfolio for LACERS since November 2013, and is benchmarked against the MSCI EAFE Index. Lazard employs a fundamental research-driven investment strategy to identify companies with strong or improving financial productivity at attractive valuations. The strategy is managed by a four-member team led by Mark Little, Managing Director, who has 27 years of industry experience. The three other members are John Reinsburg, Deputy Chairman, International and Global Strategies (38 years of experience); Michael Bennett, Managing Director (33 years of experience); and Robin Jones, Managing Director (17 years of experience). LACERS' portfolio was valued at \$587 million as of March 31, 2019.

Lazard was hired through the 2013 Active Non-U.S. Equities Developed Markets Manager search process and an initial three-year contract was authorized by the Board on June 11, 2013. Lazard was awarded a contract renewal on June 28, 2016. The current contract expires on September 30, 2019.

Organization

Lazard, a subsidiary of Lazard Freres & Co., manages approximately \$211 billion across various equity and fixed income strategies for institutional and individual clients. Lazard has offices in 16 countries across North America, Europe, Asia Pacific, and the Middle East, with over 850 employees including over 275 investment professionals. As of March 31, 2019, the firm had over \$49 billion in total non-U.S. equity assets under management with \$14 billion in the non-U.S. equity strategy.

Due Diligence

Lazard's organizational structure, key personnel, investment philosophy, strategy, and process have not changed over the contract period.

Performance

As of March 31, 2019, Lazard has outperformed its benchmark, net-of-fees, for the 3-month, 1-year, 5-year, and since inception time periods with slight underperformance for the 3-year period as presented in the table below. Lazard is in compliance with the LACERS Manager Monitoring Policy.

Annualized Performance as of 3/31/19 (Net-of-Fees)						
	3-Month	1-Year	3-Year	5-Year	10-Year	Since Inception*
Lazard	11.28	-2.73	6.60	3.54	n/a	4.29
MSCI EAFE Index	9.98	-3.71	7.27	2.33	n/a	2.88
% of Excess Return	1.30	0.98	-0.67	1.21	n/a	1.41

*Inception date: 11/5/13

Calendar year performance is presented in the table below as supplemental information.

Calendar Year Performance as of 3/31/19 (Net-of-Fees)							
	1/1/19-3/31/19	2018	2017	2016	2015	2014	11/5/13-12/31/13
Lazard	11.28	-10.77	27.25	-4.95	0.48	-0.25	4.24
MSCI EAFE Index	9.98	-13.79	25.03	1.00	-0.81	-4.90	3.23
% of Excess Return	1.30	3.02	2.22	-5.95	1.29	4.65	1.01

Fees

LACERS pays Lazard an effective fee of 52 basis points (0.52%), which is approximately \$3,042,760 annually based on the value of LACERS' assets as of March 31, 2019. This fee ranks in the 44th percentile among its peers in the eVestment All EAFE Equity Universe (i.e., Lazard's fee is lower than 56% of peers).

General Fund Consultant Opinion

NEPC, LLC, LACERS' General Fund Consultant, concurs with this recommendation.

Strategic Plan Impact Statement

A contract renewal with Lazard Asset Management LLC will allow the fund to maintain a diversified exposure to the non-U.S. equities developed markets, which is expected to help optimize long-term risk adjusted investment returns (Goal IV). The discussion of the investment manager's profile, strategy, performance, and management fee structure are consistent with Goal V (uphold good governance practices which affirm transparency, accountability, and fiduciary duty).

This report was prepared by Barbara Sandoval, Investment Officer II, Investment Division.

RJ:BF:BS:SG

Attachments: A) Consultant Recommendation – NEPC, LLC
B) Workforce Composition



To: Los Angeles City Employees' Retirement System Investment Committee
From: NEPC, LLC
Date: May 14, 2019
Subject: Lazard Asset Management, LLC – Contract Extension

Recommendation

NEPC recommends Los Angeles City Employees' Retirement System (LACERS) extend the contract that is currently in place with Lazard Asset Management, LLC ('Lazard') for a period of three years from the date of contract expiry.

Background

Lazard was hired into the Non-U.S. Equity asset class in 2013 to provide the Plan with public equity exposure across international developed countries/markets. The portfolio's strategy is benchmarked against the MSCI EAFE Index and has a performance inception date of November 5, 2013.

As of March 31, 2019, Lazard managed \$587.3 million, or 3.4% of Plan assets in an international developed markets separately managed account with an asset-based fee of 0.52% (52 basis points) annually. This fee ranks in the 44th percentile among its peers in the eVestment All EAFE Equity Universe. In other words, 56% of the 384 products included in the peer universe have a higher fee than the LACERS account. The performance objective is to outperform the MSCI EAFE Index, net of fees, annualized over a full market cycle (normally three-to-five years). The Lazard account is currently in good standing according to LACERS' manager monitoring policy.

Lazard's roots date back to the 1840s when members of the Lazard family immigrated to the United States and founded Lazard Frères & Co. in New Orleans as a dry goods merchant. The business relocated to San Francisco in 1851, where it expanded into banking and foreign exchange. That same year, Lazard Frères also established its New York office. In 1854, Lazard Frères & Co. opened an office in Paris and, in 1870, an office in London. In the late 1800s and early 1900s, these three "Houses of Lazard" emerged, advising clients on financial matters and forging relationships with governments and businesses. The three houses were separately managed but remained allied. In the latter part of the 20th century, Lazard expanded into new markets in financial advisory and asset management services. In 1953 Lazard Investors Ltd. began asset management operations in London, and in 1970 Lazard Asset Management made its New York debut.

In 2000, after more than 150 years of separate management, the three Houses of Lazard were merged into one entity. This was done in order to serve clients more effectively, as commerce became increasingly globalized. In 2005, under the leadership of Bruce Wasserstein, Lazard listed on the New York Stock Exchange, trading under the stock ticker



LAZ, but retained its significant employee ownership. In 2009, Kenneth Jacobs assumed the helm of Lazard and has led the firm since then.

The LACERS account sits within the Lazard International Strategic Equity product, which is a multi-capitalization strategy. The strategy typically invests in 40–60 securities of non-US companies, including those from emerging markets. The benchmark is the MSCI EAFE Index. The portfolio is managed by four portfolio managers, however, day to day the portfolio is run by Mark Little, Portfolio Manager/Analyst and Robin Jones, Portfolio Manager/Analyst. Messrs. Little and Jones run the product from a day to day basis from the firm's London office and have been with the firm for 26 and 16 years, respectively. Michael Bennett Portfolio Manager/Analyst and John Reinsberg, Deputy Chairman International and Global Strategies, act in client facing roles on the strategy and work from the firm's New York City office.

Lazard believes in a relative value investment philosophy which is based on sourcing excess returns through the process of bottom-up stock selection. This philosophy is implemented by assessing the trade-off between valuation and financial productivity for an individual security. Lazard believes that stock returns over time are driven by the sustainability and direction of financial productivity, balanced by valuation. To take advantage of these structural inefficiencies, Lazard portfolio manager/analysts and sector specialists collaborate on detailed fundamental analysis that is rooted in developing unique sources of insight and integrating knowledge across regions, sectors and asset classes.

Idea sourcing is a collaborative effort among Lazard's global investment resources. The International Strategic Equity team partners with Lazard's global sector specialists, regional portfolio manager/analysts to identify candidates for further analysis. Quantitative screening processes supplement a qualitative assessment of changing company fundamentals and are utilized to search for companies that appear to offer specific investment characteristics - attractively priced valuations (measured by price/earnings, price/book, price/cash flow, and price/sales, among others) relative to their improving or strong levels of financial productivity (measured by return on equity, return on assets, free cash flow yield and operating margins, among others). Sector specialists prepare an investment thesis for every company which is proposed as an investment idea for portfolios.

Portfolio construction is driven by stock selection. The portfolio management team builds the portfolio by selecting one stock at a time. Inclusion of a stock in the portfolio is primarily dependent on a new idea's attractiveness relative to existing portfolio holdings. Sector and regional exposures are a residual of the investment process.

Performance

Referring to Exhibit 1, since December 1, 2013 (the first full month of performance after the account inception date of November 5, 2013) the strategy has outperformed the MSCI EAFE Index by 1.41%, returning 4.00%, net of fees. The portfolio ranked in the 37th percentile in its peer universe since inception. The information ratio was 0.40 and active risk, as measured by tracking error was 3.5%. In the one-year period ended March 31, 2019, the portfolio outperformed the index by 0.98% and ranked in the 26th percentile in its peer universe. Outperformance in the trailing year, ended March 31, 2019, has been driven by stock selection in Financials and the Consumer Services sectors. On a global regions basis,



strong contributors included stock selection in Continental Europe and the United Kingdom and being under-weight Asia ex-Japan.

Since December 1, 2013, referring to Exhibit 2, historical relative cumulative performance has been strong on a quarterly basis when compared to the benchmark. The last half of 2016 and first quarter of 2017 the strategy did experience some meaningful underperformance as exposures to high quality stocks impeded performance. However, those drawdowns have been overcome by subsequent periods of outperformance over the course of 2017, 2018 and into 2019. Outperformance in 2017 through 2019 was driven by stock selection in Consumer Services and Information Technology.

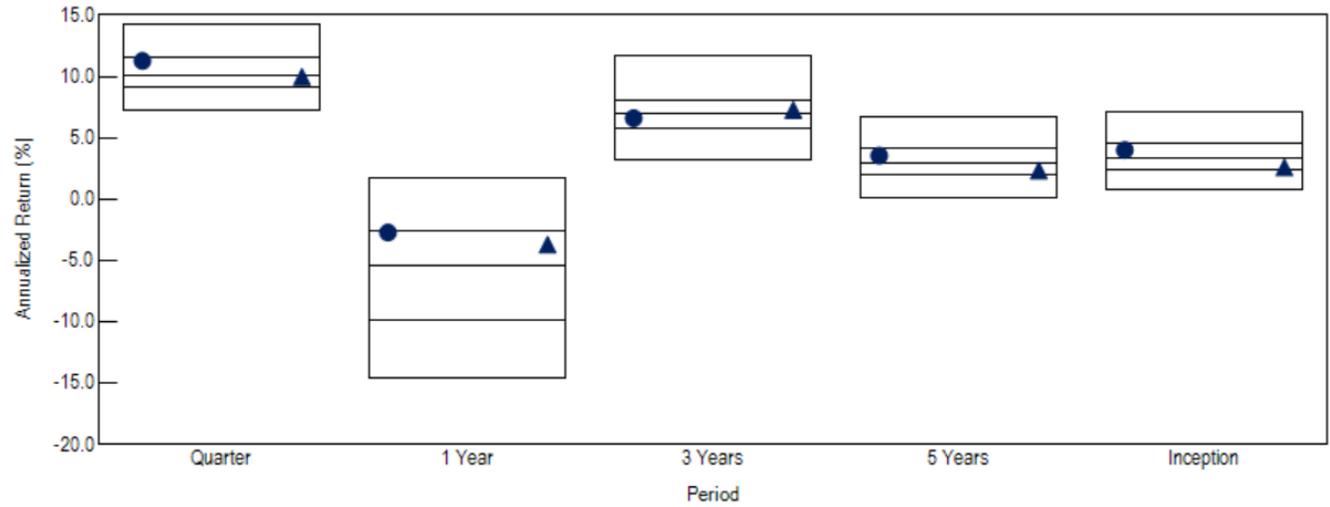
Conclusion

Lazard has performed well against its benchmark since inception and particularly well since the beginning of 2017. The firm has had a well-established, stable team in place, in addition to executing well against its stated investment objectives. With an investment process and philosophy that prioritizes financially productive and inexpensively valued companies, coupled with a vast pool of investment research professionals, this strategy remains a high-conviction manager at NEPC. NEPC recommends a contract extension for a period of three years from the period of contract expiry.

The following tables provide specific net of fees performance information, as referenced above.

Exhibit 1

**eV All EAFE Equity Net Return Comparison
Ending March 31, 2019**



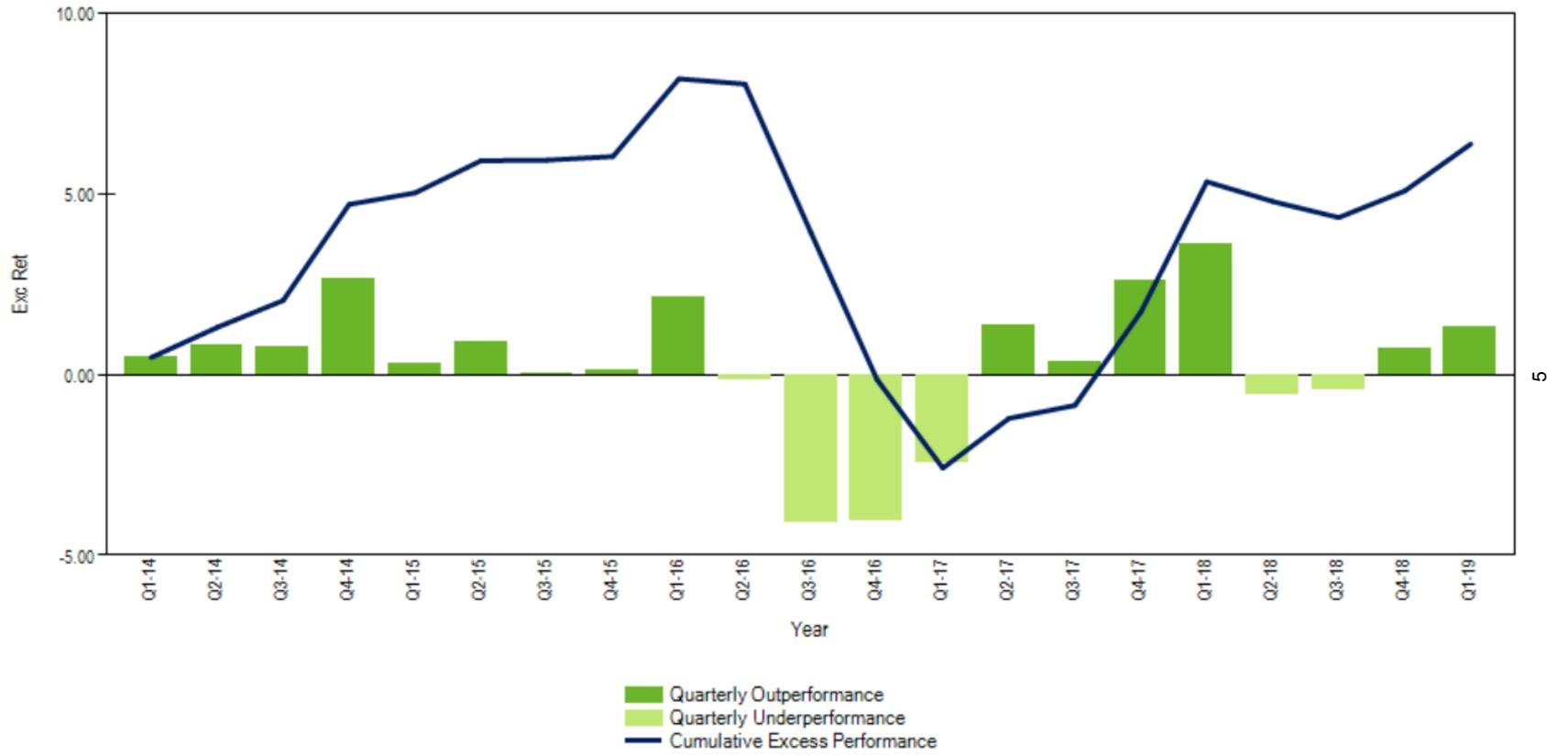
	Return (Rank)									
5th Percentile	14.20		1.75		11.64		6.69		7.09	
25th Percentile	11.57		-2.61		8.11		4.09		4.58	
Median	10.08		-5.48		6.99		2.97		3.37	
75th Percentile	9.14		-9.86		5.73		2.03		2.42	
95th Percentile	7.19		-14.56		3.22		0.10		0.70	
# of Portfolios	241		234		225		197		194	
● Lazard Asset Management	11.28	(29)	-2.73	(26)	6.60	(61)	3.54	(36)	4.00	(37)
▲ MSCI EAFE	9.98	(54)	-3.71	(35)	7.27	(44)	2.33	(68)	2.59	(68)



Note: NEPC performance record starts from the first full month of performance.

Exhibit 2

Quarterly and Cumulative Excess Performance



Vendor **Lazard Asset Management LLC**
 Address **30 Rockefeller Plaza, New York, NY 10112**

Date Completed: 4/22/19*

Category **International Strategic Equity**

TOTAL COMPOSITION OF WORK FORCE									
Occupation	African American	Hispanic	Asian or Pacific Islander	American Indian/Alaskan Native	Caucasian (Non Hispanic)	Total Employees	Percent (%) Minority	Gender	
	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time	Male Full Time	Female Full Time
Officials & Managers	1	1	8	0	53	63	15.87%	57	6
Professionals	1	13	51	0	153	218	29.82%	151	67
Technicians	0	0	0	0	0	0	0.00%	0	0
Sales Workers	4	5	7	0	105	121	13.22%	75	46
Office/Clerical	7	4	5	0	22	38	42.11%	2	36
Semi-Skilled	0	0	0	0	0	0	0.00%	0	0
Unskilled	0	0	0	0	0	0	0.00%	0	0
Service Workers	0	0	0	0	0	0	0.00%	0	0
Other	1	4	32	0	43	80	46.25%	55	25
Total	14	27	103	0	376	520	27.69%	340	180



Report to Investment Committee

Agenda of: **MAY 14, 2019**

Neil M. Guglielmo
From: Neil M. Guglielmo, General Manager

ITEM: **VII**

SUBJECT: INVESTMENT MANAGER CONTRACT WITH MFS INSTITUTIONAL ADVISORS, INC. REGARDING THE MANAGEMENT OF AN ACTIVE NON-U.S. EQUITIES DEVELOPED MARKETS GROWTH PORTFOLIO AND POSSIBLE COMMITTEE ACTION

Recommendation

That the Committee recommend to the Board a three-year contract renewal with MFS Institutional Advisors, Inc. for management of an active non-U.S. equities developed markets growth portfolio.

Discussion

Background

MFS Institutional Advisors, Inc. (MFS) has managed an active non-U.S. equities developed markets growth portfolio for LACERS since October 2013, and is benchmarked against the MSCI World ex-U.S. Growth Index. MFS employs a research-based investment strategy that focuses on companies with long-term, above-average growth. The portfolio is managed by a team of portfolio managers including David A. Antonelli (31 years of experience), Matthew Barrett (23 years of experience), Kevin Dwan (21 years of experience), and Brett Fleishman (22 years of experience). LACERS' portfolio was valued at \$594 million as of May 31, 2019.

MFS was hired through the 2013 Active Non-U.S. Equities Developed Markets Manager search process and a three-year contract was authorized by the Board on June 11, 2013. MFS was awarded a contract renewal on June 28, 2016. The current contract expires on September 30, 2019.

Organization

MFS is an investment management firm with offices in Boston, Hong Kong, London, Mexico City, Sao Paulo, Singapore, Sydney, Tokyo, and Toronto. The firm is majority owned by Sun Life Financial of Canada and has over 1,900 employees, with 274 investment professionals. As of March 31, 2019, the firm had over \$471 billion in total assets under management with over \$17 billion in the non-U.S. growth equity strategy.

Due Diligence

MFS' organizational structure, key personnel, investment philosophy, strategy, and process have not changed over the contract period.

Performance

MFS has outperformed its benchmark, net-of-fees, for the one-year, three-year, five-year, and since inception time periods with slight underperformance for the 3-month period, as presented in the table below. MFS is in compliance with the LACERS Manager Monitoring Policy.

Annualized Performance as of 3/31/19 (Net-of-Fees)						
	3-Month	1-Year	3-Year	5-Year	10-Year	Since Inception*
MFS	12.31	4.27	10.88	6.23	n/a	5.92
MSCI World ex U.S. Growth Index	12.41	-0.82	7.42	3.67	n/a	3.91
% of Excess Return	-0.10	5.09	3.46	2.56	n/a	2.01

*Inception date: 10/31/13

Calendar year performance is presented in the table below as supplemental information

Calendar Year Performance as of 3/31/19 (Net-of-Fees)							
	1/1/19-3/31/19	2018	2017	2016	2015	2014	10/31/13-12/31/13
MFS	12.31	-8.91	32.00	1.93	1.90	-4.52	1.97
MSCI World ex U.S. Growth Index	12.41	-13.14	27.61	-1.87	1.65	-3.26	2.39
% of Excess Return	-0.10	4.23	4.39	3.80	0.25	-1.26	-0.42

Fees

LACERS pays MFS an effective fee of 42 basis points (0.42%), which is approximately \$2,500,139 annually based on the value of LACERS' assets as of March 31, 2019. This fee ranks in the 21st percentile among its peers in the eVestment EAFE All Cap Growth Universe (i.e., MFS's fee is lower than 79% of peers).

General Fund Consultant Opinion

NEPC, LLC, LACERS' General Fund Consultant, concurs with this recommendation.

Strategic Plan Impact Statement

A contract renewal with MFS Institutional Advisors, Inc. will allow the fund to maintain a diversified exposure to the non-U.S. equities developed markets, which is expected to help optimize long-term risk adjusted investment returns (Goal IV). The discussion of the investment manager's profile, strategy, performance, and management fee structure are consistent with Goal V (uphold good governance practices which affirm transparency, accountability, and fiduciary duty).

This report was prepared by Barbara Sandoval, Investment Officer II, Investment Division.

RJ:BF:BS:SG

Attachments: A) Consultant Recommendation – NEPC, LLC
B) Workforce Composition



To: Los Angeles City Employees' Retirement System Investment Committee
From: NEPC, LLC
Date: May 14, 2019
Subject: MFS Investment Management – Contract Extension

Recommendation

NEPC recommends Los Angeles City Employees' Retirement System (LACERS) extend the contract that is currently in place with MFS Investment Management ('MFS') for a period of three years from the date of contract expiry.

Background

MFS was hired into the Non-U.S. Equity asset class in 2013 to provide the Plan with public equity exposure across international developed countries/markets. The portfolio's strategy is benchmarked against the MSCI World ex USA Growth Index and has a performance inception date of October 31, 2013.

As of March 31, 2019, MFS managed \$594.0 million, or 3.4% of Plan assets in an international developed markets separately managed account with an asset-based fee of 0.42% (42 basis points) annually. This fee ranks in the 21st percentile among its peers in the eVestment EAFE All Cap Growth Universe. In other words, 79% of the 18 products included in the peer universe have a higher fee than the LACERS account. The performance objective is to outperform the MSCI World ex USA Index, net of fees, annualized over a full market cycle (normally three-to-five years). The MFS account is currently in good standing according to LACERS' manager monitoring policy.

Massachusetts Financial Services Company, commonly known as MFS Investment Management or MFS, has a history of money management dating back to 1924, when it created the first open-end U.S. mutual fund, Massachusetts Investors Trust. In 1932, MFS established one of the first in-house research departments in the investment management business. MFS and its predecessor organizations have been registered as an investment adviser under the Investment Advisers Act of 1940 (the "Advisers Act") since 1969, and began managing its first tax-exempt account in 1970. MFS subsequently formed a separate subsidiary, MFS Institutional Advisors, Inc., which registered as an investment adviser under the Advisers Act in 1994. MFS is a majority owned subsidiary of Sun Life of Canada (U.S.) Financial Services Holdings, Inc., which in turn is an indirect majority-owned subsidiary of Sun Life Financial, Inc. (a diversified financial services organization). MFS has been a subsidiary of Sun Life since 1982. While MFS operates with considerable autonomy, this partnership offers additional resources as it continues to expand its global research presence. As of December 31, 2018 the firm's assets under management were \$426.6 billion.



In 1996 MFS initiated an equity compensation program. The equity compensation program provides for the grant of long-term incentive awards to MFS senior management, investment personnel and other key employees who assist in the growth and financial success of the firm. The program permits the issuance of both restricted stock and stock options as equity-based awards up to a maximum of 20% of the fully diluted capital stock of MFS, and 2.5% of the fully diluted capital stock of MFS' immediate parent entity, Sun Life of Canada (US) Financial Services Holdings, Inc.

The International Growth Equity team includes Portfolio Managers David Antonelli, Matthew Barrett, and Kevin Dwan, and Institutional Portfolio Manager Brett Fleishman. David joined MFS in 1991 as a research analyst, was named portfolio manager in 1997 and assumed portfolio management responsibility for International Growth Equity in 2010. Matthew joined MFS in 2000 as an equity research analyst and joined the International Growth Equity team as a portfolio manager in 2015. Kevin joined MFS in 2005 as an equity research analyst and became a portfolio manager for International Growth Equity in 2012. Brett joined MFS in 2001 as a research analyst and has worked on the International Growth Equity strategy as an investment product specialist since 2002 and as an institutional portfolio manager since 2008.

The International Growth Equity team's investment process encompasses three critical steps: idea generation, fundamental research and analysis and portfolio construction. Idea generation reduces the investable universe to approximately 70-100 companies and is supported by the firm's global research platform. The analysts on the platform are organized into eight international sector teams that include capital goods, consumer cyclicals, consumer staples, energy, financial services, health care, technology, and telecommunications & cable. The sector-team structure facilitates the sharing of information across geographies, as well as asset classes, resulting process that aims to be highly collaborative and integrated leveraging all the research by MFS. The portfolio construction process is conducted based on bottom-up, fundamental research. MFS determines position size in the portfolio based on the security's upside potential as compared to its downside risk and level of conviction in the idea. Sector, industry, country and regional weightings are the residual of the bottom-up stock selection process, rather than the result of any top-down, macroeconomic outlook. Generally, no more than 5% has been held in a single issue at purchase, no more than 25% has been allocated to any one industry, and the portfolio has had a limit on out of benchmark names at 10%.

Performance

Referring to Exhibit 1, since inception of the MFS portfolio on October 31, 2013, the strategy has outperformed the MSCI World ex USA Growth Index by 2.01%, returning 5.92%, net of fees. The portfolio ranked in the 12th percentile in its peer universe since October 31, 2013. The information ratio was 1.0 and active risk, as measured by tracking error was 2.1%. In the one-year period ended March 31, 2019, the portfolio outperformed the index by 5.09% and ranked 1st in its peer universe. Outperformance in the trailing year, ended March 31, 2019, has been driven by stock selection in the Consumer Discretionary and Information Technology sectors. On a global regions basis, strong contributors included stock selection in Europe Ex-United Kingdom and being under-weight Japan.



Since October 31, 2013, referring to Exhibit 2, historical relative performance has been consistent with minimal drawdowns and strong quarterly cumulative excess returns when compared to the benchmark. A portfolio construction process that results in a focus on quality companies with long-term above average growth potential has resulted in an experience for LACERS that is within the top decile of peer performance results.

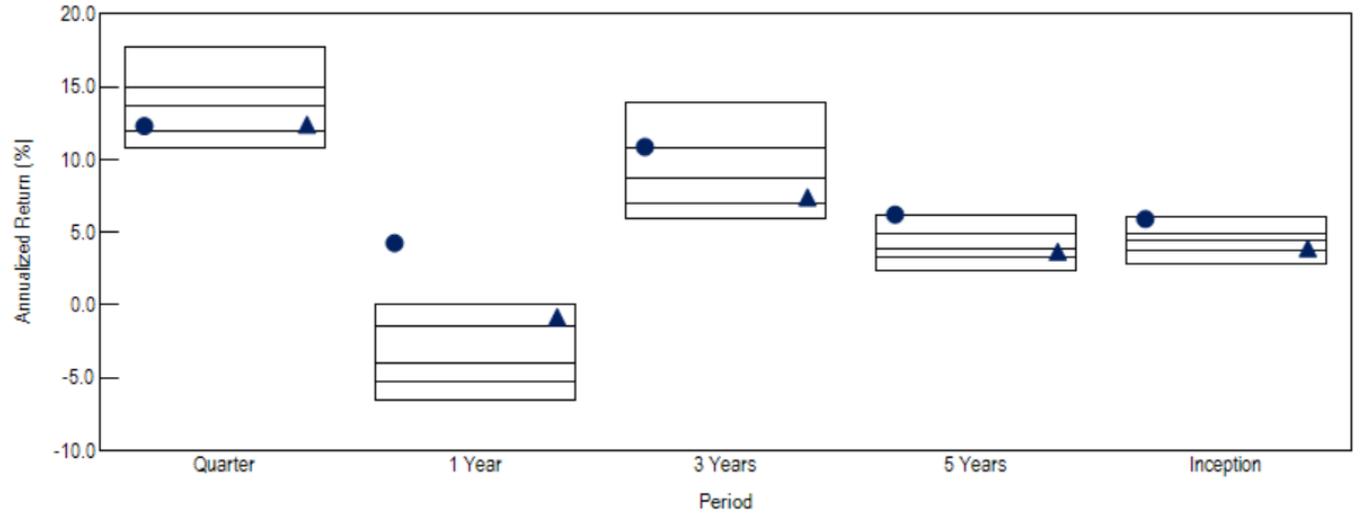
Conclusion

MFS has performed well against its benchmark since inception as well as in all trailing time periods. The firm has a well-established, stable team in place, in addition to executing well against its stated investment objectives. With an investment process and philosophy that prioritizes quality, growth and fundamental research, we believe the portfolio is well suited for long-term success. MFS has been a high-conviction manager at NEPC in the developed markets international equity space since 2011. NEPC recommends a contract extension for a period of three years from the period of contract expiry.

The following tables provide specific net of fees performance information, as referenced above.

Exhibit 1

**eV EAFE All Cap Growth Net Return Comparison
Ending March 31, 2019**

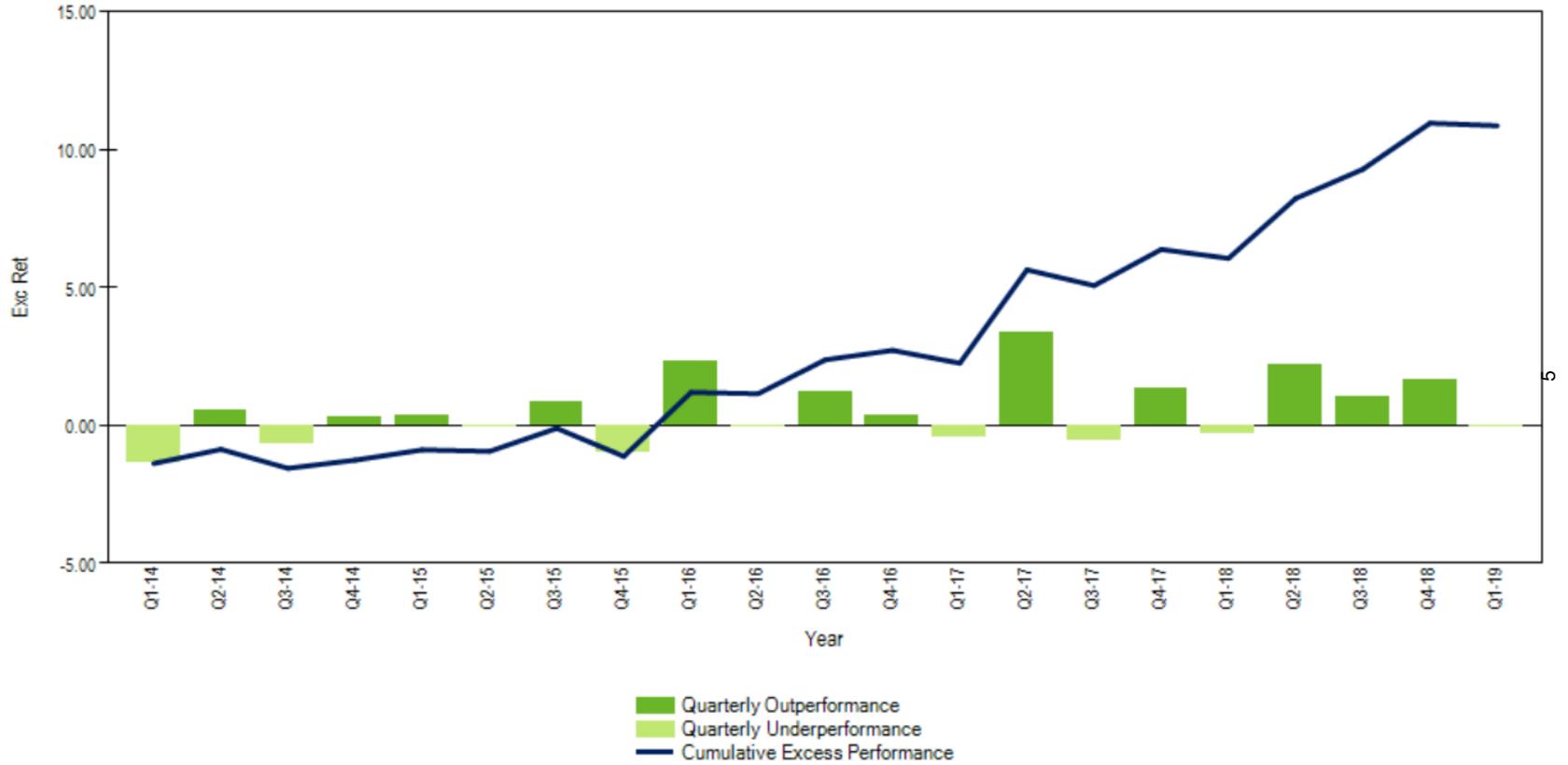


	Return (Rank)									
	Quarter	1 Year	3 Years	5 Years	Inception	Quarter	1 Year	3 Years	5 Years	Inception
5th Percentile	17.71	0.02	13.97	6.20	6.10					
25th Percentile	14.94	-1.44	10.77	4.86	4.92					
Median	13.67	-3.97	8.68	3.83	4.41					
75th Percentile	11.95	-5.25	6.94	3.27	3.73					
95th Percentile	10.78	-6.48	5.90	2.39	2.79					
# of Portfolios	14	13	12	11	11					
● MFS Institutional Advisors	12.31	(72)	4.27	(1)	10.88	(25)	6.23	(5)	5.92	(12)
▲ MSCI World ex USA Growth NR USD	12.41	(71)	-0.82	(11)	7.42	(66)	3.67	(56)	3.91	(72)



Exhibit 2

Quarterly and Cumulative Excess Performance



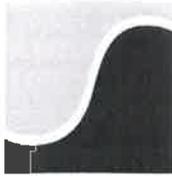
Vendor **MFS Investment Management**
 Address **111 Huntington Avenue**
Boston, MA 02199

Date Completed: **April 24, 2019**
 As of March 31, 2019

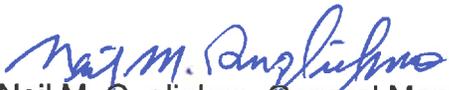
Category **Non-U.S. Developed Markets Equity Growth**

TOTAL COMPOSITION OF WORK FORCE										
Occupation	African	Hispanic	Asian or	American Indian/	Caucasian	Two or More	Total	Percent (%)	Gender	
	American	Full Time	Pacific Islander	Alaskan Native	(Non Hispanic)	Races	Employees	Minority	Male	Female
	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time	Full Time
Officials & Managers	6	8	24	0	323	3	364	11.26%	228	136
Professionals	25	21	109	0	635	9	799	20.53%	456	343
Technicians	0	0	0	0	1	0	1	0.00%	0	0
Sales Workers	3	6	7	1	262	3	282	7.09%	233	49
Office/Clerical	16	6	14	0	99	3	138	28.26%	64	74
Semi-Skilled	0	0	0	0	0	0	0	0.00%	0	0
Unskilled	0	0	0	0	0	0	0	0.00%	0	0
Service Workers	0	0	0	0	0	0	0	0.00%	0	0
Other	0	0	0	0	0	0	0	0.00%	0	0
Total	50	41	154	1	1,320	18	1,584	15.53%	981	602

* Please note that the legal and regulatory privacy requirements vary by region therefore this data is reflective of the MFS employees in the U.S. only (minus 35 employees who declined to identify their race).



Report to Investment Committee


From: Neil M. Guglielmo, General Manager

Agenda of: **MAY 14, 2019**

ITEM: **VIII**

SUBJECT: TACTICAL ASSET ALLOCATION PLAN AND POSSIBLE COMMITTEE ACTION

Recommendation

That the Committee consider and provide comments regarding the proposed Tactical Asset Allocation Plan.

Discussion

On February 12, 2019, the Board approved revisions to the Investment Policy (Policy) to include Tactical Asset Allocation within the rebalancing section of the Policy (Section I.V.G). Pursuant to the Policy, the Board must approve a Tactical Asset Allocation Plan (TAAP) annually to authorize staff to conduct tactical rebalancing.

On April 9, 2019, the Committee discussed the proposed TAAP and asked staff to make adjustments to allow for greater flexibility. The proposed revised TAAP (Attachment A) addresses the goals and objectives of tactical asset allocation, roles and responsibilities of parties involved, decision-making and implementation framework, and reporting requirements.

Strategic Plan Impact Statement

The Tactical Asset Allocation Plan assists the Board in building a diversified portfolio to optimize LACERS' long-term risk-adjusted return profile (Goal IV). Development and adoption of such a plan also promotes good governance practices (Goal V).

This report was prepared by Jimmy Wang, Investment Officer I, Investment Division.

RJ:BF:JW:sg

Attachment: A) Revised Proposed Tactical Asset Allocation Plan (Redline Version)
B) Revised Proposed Tactical Asset Allocation Plan (Clean Version)

TACTICAL ASSET ALLOCATION PLAN

TABLE OF CONTENTS

- I. Purpose and Scope
- II. Roles and Responsibilities
- III. Terminology
- IV. Tactical Asset Allocation Considerations
- V. Implementation
- VI. Risk Management Guidelines
- VII. Annual Review of the TAAP
- VIII. Appendix

I. Purpose and Scope

The Tactical Asset Allocation Plan (TAAP) is an addendum to Section I.V.G of the Investment Policy.

On February 12, 2019, the Board of Administration (“Board”) of the Los Angeles City Employees’ Retirement System (LACERS) approved revisions to the Investment Policy, which included a revision to the Rebalancing Policy (Section I.V.G). Specifically, a provision was ~~added~~[provided](#) for Tactical Asset Allocation (TAA). Under the TAA section, staff is authorized to initiate tactical rebalancing pursuant to the Tactical Asset Allocation Plan (TAAP).

The Board believes that LACERS Total Fund (Total Fund) is best managed when additional tools are available for staff to address a dynamic and rapidly changing investment market. Tactical Asset Allocation, pursuant to the Rebalancing Policy and procedures found in the TAAP, is designed to supplement and complement the Rebalancing Policy by adding flexibility to rebalancing decisions within a prudent, decision-making framework based on market and/or internal operational conditions. Rebalancing decisions – strategic and tactical – will be based on the principles of prudence, care, and risk mitigation.

More specifically, the TAAP provides additional approaches to the rebalancing of asset classes within established asset class policy target ranges. Rebalancing under the TAAP must achieve at least one of the following objectives: 1) Enhance Total Fund value; 2) Protect Total Fund value; or 3) Enhance the risk/return profile of the Total Fund pursuant to the Asset Allocation Policy and Risk Budget.

II. Roles and Responsibilities

The Board of Administration

The Board authorizes, provides oversight, and approves amendments to the TAAP. The Board delegates to staff the implementation of TAA within the adopted Rebalancing Policy, Asset Allocation Policy, and Risk Budget. The Board will review and approve the TAAP on or before July 1 of each year.

Investment Committee

The Investment Committee ~~is responsible for~~ reviews TAAP status reports if applicable, and conducts an annual performance evaluation of the TAAP, and recommends amendments to the Board.

Chief Investment Officer

The Chief Investment Officer (CIO) is responsible for the implementation of a Tactical Asset Allocation rebalancing pursuant to the TAAP. The CIO will review recommendations from staff and the General Fund Consultant to determine if a Tactical Rebalance is appropriate. The CIO is also responsible for unwinding any previously-initiated Tactical Actions as may be necessary. The CIO along with staff is responsible for observing economic and market indicators, assessing internal operational conditions, and working with the General Fund Consultant (and seeking advisement of other Investment Consultants under contract may be as necessary) to seek concurrence with a Tactical Action Proposal. The CIO will apprise the Board within 30 days of initiating a Tactical Rebalance.

General Fund Consultant

The General Fund Consultant reviews the CIO's proposed Tactical Action, and either concurs, amends, or disagrees with the proposed decision within seven business days of presentation of the Tactical Rebalance Proposal.

Internal Auditor

~~LACERSThe Internal Auditor shall review the CIO's annual annual TAAP report, to the Investment Committee as provided in Section VII of this plan, each year prior to the presentation of the report to the Investment Committee.~~

III. Terminology

Tactical Factors – External landscape observations that include economic, market, and valuation factors plus internal operational factors, all of which are to be considered when developing a Tactical Rebalance Proposal (see Appendix A).

Tactical Objectives – The driving force that underpins justification for a Tactical Rebalance. ~~It~~ Objectives may include: 1) Enhance Total Fund value; 2) Protect Total Fund value; ~~or~~ and 3) Enhance the Risk/Return Profile of the Total Fund.

Tactical Rebalance Proposal – A written Tactical Rebalance plan to address one specific Tactical Asset Allocation (TAA) Rebalance project. The Tactical Rebalance Proposal shall consider the provisions found in TAAP Sections IV, V, VI, and VII.

Tactical Rebalance – One or more individual tactical movements of capital between or among asset classes to achieve one or more Tactical Objectives. A Tactical Rebalance may take one to 12 months to implement; ~~and~~ up to an additional 12 months ~~are~~ may be provided if a Tactical Reversal is included in a Tactical Rebalance Proposal.

Tactical Action – One specific, individual movement of capital that ~~impacts~~ adjusts asset holdings due to movements of cash, in-kind asset transfers, or use of derivatives. Derivatives may be used as an alternative to cash or in-kind asset transfers to obtain the equivalent changes in exposure(s), if derivatives are expected to produce more favorable economic and/or risk enhancements. Derivatives may not be used as a form of leverage.

Tactical Reversal – An optional component of a Tactical Rebalance Proposal, a Tactical Reversal is a specific and time-bound plan to partially or fully unwind a Tactical Rebalance once economic or market conditions, or internal operations, stabilize. A Tactical Reversal ~~is~~ can be an integral component of a Tactical Rebalance Proposal and may take up to 12 additional months to achieve full implementation.

IV. Tactical Asset Allocation Considerations

LACERS is a long-term strategic investor and implements the Asset Allocation Policy. TAA allows LACERS flexibility to adjust exposures to established asset classes to achieve one of several aforementioned TAA Objectives. TAA Factors that are considered when contemplating a Tactical Rebalance include (but are not restricted to): stage of the economic cycle; abrupt or trending market or capital dislocations; ~~or~~ excessive or deep under valuations of specific or broad asset types within the Total Fund or in the market; and internal operational factors.

V. Implementation

Implementation of a Tactical Action will comply with the following procedures, as they may apply:

1. External Landscape Evaluation – Economic market outlook, including economic indicators, monetary and fiscal policies, geo-political events, Federal Reserve Bank actions, interest rates, inflation, etc.
- 4.
2. Internal Operational Evaluation – Actual asset allocation of the Total Fund compared to policy targets, asset class movements and trends, portfolio valuations, operational cash, future, pending, or existing RFP manager searches and hiring of investment managers, pending investment manager terminations, market and economic landscape commentary or information from investment managers, and compliance with existing Investment Policy
3. General Fund Consultant Discussion and Concurrence (and discussion with other contracted Investment Consultants as it may apply warranted)
- 3.
4. Written Tactical Rebalance Proposal to-should include the following decision considerations (as they may apply as appropriate):
 - o External Landscape and Internal Operational Evaluations;
 - o Projected Impact on Asset Allocation and Asset Classes;
 - o Projected Impact on Total Fund addressing Tactical Objectives:
 - Enhancement to Total Fund Value; and/or
 - Protection of Total Fund Value; and/or
 - Enhanced Risk/Return Profile and Compliance to Risk Budget
 - o Projected Quantitative Outcomes including measurable Performance and Risk Metric improvements and Capital Preservation amounts;
 - o Financial Considerations - Dollars-Funds directly impacted by a Tactical Rebalance; Proposed Implementation Timing and Transactional Costs; Benchmark to evaluate performance; Monitoring Schedule
 - o Tactical Reversal (Partial or Full) as needed
- ⊖
5. Implementation of Tactical Action pursuant to the written Tactical Rebalance Proposal and TAAP Risk Management Guidelines.
- 5.
6. Report to the Board within 30 days of initiating a Tactical Rebalance
- 6.
7. Quarterly Status Reporting of Tactical Rebalancing implementation
- 7.
8. Internal Monthly Rebalancing and Compliance Staff Reviews per the Rebalancing Policy (Section I.V.G of the LACERS Investment Policy)
, attached as Appendix B
- 8.
9. Annual Investment Committee Review of TAAP based on Staff CIO Report as provided in Section VII of this plan
- 9.
10. Annual Board Renewal, Modification, or Repeal of TAAP based on Investment Committee Report as provided in Section VII of this plan

VI. Risk Management Guidelines

The following guidelines are designed to help the CIO manage the implementation of the TAA Policy within a prudent risk-management framework.

1. A Tactical Rebalance may be initiated when the actual weighting of an asset class exceeds 70% of the range from its target weighting to its established bands.
2. A Tactical Rebalance Proposal shall not exceed 50% of the excess valuation that is over_ or under_weight to its policy target at the time the decision to rebalance is made.
3. A Tactical Rebalance ~~shall is expected to should~~ be completed within 12-24 months of initiation; except in the case of a partial or full reversal of the original Tactical Rebalance, which may extend the Tactical Rebalance up to an additional 12 months.
- ~~4. A Tactical Action shall not exceed 50% of the value between an asset class upper or lower actual value (at the time of initiating a Tactical Rebalance) and its current policy target; subsequent Tactical Actions within a specific Tactical Rebalance shall be based on the original policy target valuations and actual valuations at the time the first Tactical Action is deployed.~~
- ~~5. Each Tactical Action within a Tactical Rebalance shall be separated by no less than 30 calendar days but not more than calendar days.~~
4. A Tactical Rebalance may be suspended after the first Tactical Action is completed if such single Tactical Action or subsequent ~~prescribed~~ Tactical Actions achieves the Tactical Objective(s) within the Tactical Rebalance Proposal; thus requiring no further Tactical Action(s) pursuant to a Tactical Rebalancing Proposal.
- ~~6.~~
- ~~7. No more than one Tactical Rebalance be actively deployed and in progress within the Total LACERS Fund without prior Board approval.~~
5. A Tactical Rebalance Proposal may be modified or(including suspen~~ded~~sion) by the CIO with-upon the concurrence of the General Fund Consultant if market conditions or other external landscape factors change or strategic asset class rebalances are necessary that disrupts the orderly implementation of the Tactical Rebalance Proposal, or when internal operations such as liquidity needs ~~creates~~would have a material impact on the Tactical Rebalance Proposal such that the Tactical Objectives are no longer achievable within the established Tactical Rebalance Proposal timeframe due to material changes in the original market assumptions, operational factors, or risk levels.
- ~~8.~~
- 9.6. The General Fund Consultant ~~must shall~~must concur with the Tactical Rebalance Proposal prior to initiation.

VII. Annual Review of the TAAP

Annual TAAP Review by the Investment Committee

~~Staff~~ The CIO shall will prepare an annual report of all Tactical Rebalance Proposals that were initiated in the current fiscal year, the current status of Tactical Rebalances and Tactical Actions, and the projected and actual impact of the Tactical Rebalance(s) including (but not restricted to) performance, capital preservation, and/or risk factors. Staff may also include recommendations to modify, continue or cease the TAAP. The Annual TAAP Review will be presented to the Investment Committee not later than the month of April of each year.

The Investment Committee will determine if the ~~TAAP meets the goals of the Rebalancing Policy and if the~~ TAAP requires any modifications including repeal. The Investment Committee recommendations will be then sent to the Board of Administration for approval.

Annual TAAP Approval or Repeal by the Board of Administration

The Board of Administration shall review and approve, modify, or repeal the TAAP prior to the beginning of each Fiscal Year.

If the TAAP is repealed, staff may not enter any new Tactical Rebalances; except Tactical Reversals that were contemplated in the Tactical Rebalance Proposal may be implemented according to the implementation sequence of the Tactical Actions.

VIII. APPENDIX

APPENDIX A

External Landscape and Internal Operational Considerations

- I. *Economic Cycle Consideration* - A Tactical Action may be appropriate based on the economic cycle, as illustrated below:

Early Stage Phase - The early stage of the economic cycle is characterized by recovering growth in the gross domestic product (GDP), profit margins, and consumer confidence. Credit and inflation in the economy are typically flat while interest rates start to rise. Stocks tend to be trading at more attractive levels compared to longer term historical averages.

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Later and Recession Stage Phases - During late and recession stages, equities have potential to underperform risk-off assets. TAA may attempt to protect the Total Fund by reducing public equities and increasing fixed income assets.

- II. *Market Stages Consideration*

The economy oscillates between stages of expansion (early and middle stages) and contraction (late and recession stages). The early stage of the economic cycle is characterized by recovering growth in the gross domestic product (GDP), profit margins, and consumer confidence. Credit and inflation in the economy are typically flat while interest rates start to rise. Stocks tend to be trading at more attractive levels compared to longer term historical averages.

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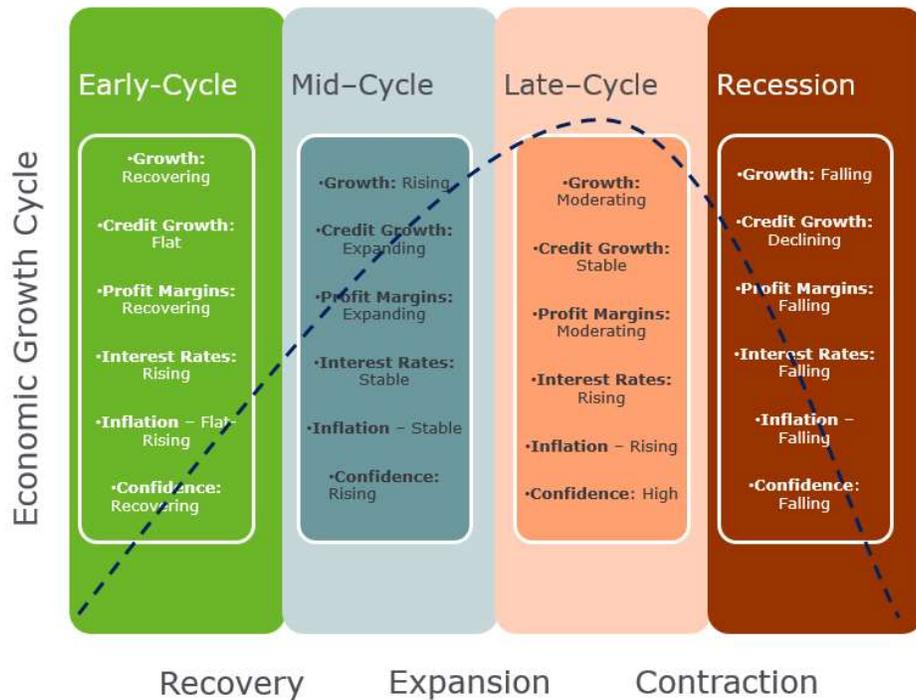
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Finally, during the recession stage of the economic cycle, excesses are purged from the system. GDP, credit, profit margins, interest rates, inflation and consumer confidence are all falling. During this phase of the market, volatility in the stock market increases dramatically while prices tend to fall to below average valuations.

III. *Assessment of Market Conditions*

Staff will evaluate and assess if the market is Early-Cycle, Mid-Cycle, Late-Cycle or in a Recession [on a quarterly basis](#).

This assessment will be based on the factors listed in the chart below.



*chart provided by NEPC, LLC

IV. *Economic and Market Risk Assessment*

Staff will address one or more of the economic, financial, and market indicators.

- Growth: Year-over-year growth in GDP
- Credit Growth: Year-over-year growth in total credit
- Profit Margins: Corporate profit margins
- Interest Rates: Short, Long, Yield Curve
- Inflation: Consumer Price Index
- Confidence Levels: Consumer Sentiment Index
- Additional factors such as commodity and currency trends, unemployment statistics, building permits, sales, and manufacturing statistics.

V. *Asset Valuations*

Staff will address the relevant market valuation indicators to include (but not restricted to):

- Current to Long-Term Historical Valuations reflected in Price to Earnings, Price to Book, and Dividend Yields
- Interest rate spreads, duration
- Growth versus Value

VI. *Internal Operational Considerations*

Staff will evaluate factors to include (but not restricted to):

- Benefits and Consequences of initiating a Tactical Action versus strategic rebalancing against asset allocation upper and lower policy target thresholds
- Liquidity Impact

APPENDIX B

Investment Policy, Section I.V.G. Rebalancing

The investment portfolio shall, on an ongoing basis in accordance with market fluctuations, be rebalanced to remain within the range of targeted allocations and distributions among investment advisors. The Board has a long-term investment horizon and utilizes an asset allocation that encompasses a strategic, long-run perspective of capital markets. It is recognized that a strategic long-run asset allocation plan implemented in a consistent and disciplined manner will be the major determinant of the System's investment performance.

Rebalancing is not primarily intended to be used for tactical asset allocation. The Board will not attempt to time the rise or fall of the investment markets by moving away from long-term targets because (1) market timing may result in lower returns than buy-and-hold strategies; (2) there is little or no evidence that one can consistently and accurately predict market timing opportunities; and (3) rebalancing too often may result in excessive transaction costs. However, the Board may authorize staff to rebalance assets within or among asset classes without breaching Board-established asset allocation policy threshold bands. Such rebalancing would be subject to an annually approved Tactical Asset Allocation Plan (TAAP) in order to enhance incremental performance during periods of market dislocations. The Board will consider the approval of a new TAAP or renewal of an existing TAAP within three months prior to the start of each fiscal year. The approved TAAP will be effective on July 1 of each year. Should the Board choose not to renew a TAAP, the existing TAAP may continue to be implemented; however, new TAA positions may not be introduced until a new TAAP is approved by the Board.

The Board delegates the responsibility of rebalancing to the Chief Investment Officer, who will seek the concurrence of the General Fund Consultant. Rebalancing generally will occur when the market values of asset classes (e.g., equities, fixed income, etc.) or sub-asset classes (e.g., large cap value, emerging markets, etc.) exceed their respective thresholds as established by the Board's approved asset allocation and asset class risk budgets.

The portfolio will be monitored daily, but reviewed by senior investment staff (i.e., Chief Investment Officer or Chief Operating Officer) at the beginning of each month to determine the need to rebalance asset classes or sub-asset classes within approved policy bands. Rebalancing will be conducted in a timely manner, taking into consideration associated costs and operational circumstances and market conditions. Rebalancing will be accomplished by using routine cash flows, such as contributions and benefit payments, by reallocating assets across asset classes, investment mandates, and investment managers.

Asset classes temporarily may remain outside of their ranges due to operational and implementation circumstances to include, but not limited to, illiquidity that prevents immediate

~~rebalancing of certain asset classes such as private equity and private real estate; potential asset shifts pending in the portfolio over the next 12 months such as hiring/termination of a manager(s); an asset allocation review of the entire portfolio; or a structural review of a given asset class.~~

- ~~_____ The Chief Investment Officer shall inform the Board in a timely manner of all rebalancing activity.~~

TACTICAL ASSET ALLOCATION PLAN

TABLE OF CONTENTS

- I. Purpose and Scope
- II. Roles and Responsibilities
- III. Terminology
- IV. Tactical Asset Allocation Considerations
- V. Implementation
- VI. Risk Management Guidelines
- VII. Annual Review of the TAAP
- VIII. Appendix

I. Purpose and Scope

The Tactical Asset Allocation Plan (TAAP) is an addendum to Section I.V.G of the Investment Policy.

On February 12, 2019, the Board of Administration (“Board”) of the Los Angeles City Employees’ Retirement System (LACERS) approved revisions to the Investment Policy, which included a revision to the Rebalancing Policy (Section I.V.G). Specifically, a provision was added for Tactical Asset Allocation (TAA). Under the TAA section, staff is authorized to initiate tactical rebalancing pursuant to the Tactical Asset Allocation Plan (TAAP).

The Board believes that LACERS Total Fund (Total Fund) is best managed when additional tools are available for staff to address a dynamic and rapidly changing investment market. Tactical Asset Allocation, pursuant to the Rebalancing Policy and procedures found in the TAAP, is designed to supplement and complement the Rebalancing Policy by adding flexibility to rebalancing decisions within a prudent, decision-making framework based on market and/or internal operational conditions. Rebalancing decisions – strategic and tactical – will be based on the principles of prudence, care, and risk mitigation.

More specifically, the TAAP provides additional approaches to the rebalancing of asset classes within established asset class policy target ranges. Rebalancing under the TAAP must achieve at least one of the following objectives: 1) Enhance Total Fund value; 2) Protect Total Fund value; or 3) Enhance the risk/return profile of the Total Fund pursuant to the Asset Allocation Policy and Risk Budget.

II. Roles and Responsibilities

The Board of Administration

The Board authorizes, provides oversight, and approves amendments to the TAAP. The Board delegates to staff the implementation of TAA within the adopted Rebalancing Policy, Asset Allocation Policy, and Risk Budget. The Board will review and approve the TAAP on or before July 1 of each year.

Investment Committee

The Investment Committee reviews TAAP status reports if applicable, conducts an annual performance evaluation of the TAAP, and recommends amendments to the Board.

Chief Investment Officer

The Chief Investment Officer (CIO) is responsible for the implementation of a Tactical Asset Allocation rebalancing pursuant to the TAAP. The CIO will review recommendations from staff and the General Fund Consultant to determine if a Tactical Rebalance is appropriate. The CIO is also responsible for unwinding any previously-initiated Tactical Actions as may be necessary. The CIO along with staff is responsible for observing economic and market indicators, assessing internal operational conditions, and working with the General Fund Consultant (and seeking advisement of other Investment Consultants under contract may be as necessary) to seek concurrence with a Tactical Action Proposal. The CIO will apprise the Board within 30 days of initiating a Tactical Rebalance.

General Fund Consultant

The General Fund Consultant reviews the CIO's proposed Tactical Action, and either concurs, amends, or disagrees with the proposed decision within seven business days of presentation of the Tactical Rebalance Proposal.

Internal Auditor

The Internal Auditor shall review the CIO's annual TAAP report, as provided in Section VII of this plan, prior presenting the report to the Investment Committee.

III. Terminology

Tactical Factors – External landscape observations that include economic, market, and valuation factors plus internal operational factors, all of which are to be considered when developing a Tactical Rebalance Proposal (see Appendix A).

Tactical Objectives – The driving force that underpins justification for a Tactical Rebalance. Objectives may include: 1) Enhance Total Fund value; 2) Protect Total Fund value; and 3) Enhance the Risk/Return Profile of the Total Fund.

Tactical Rebalance Proposal – A written Tactical Rebalance plan to address one specific Tactical Asset Allocation (TAA) Rebalance project. The Tactical Rebalance Proposal shall consider the provisions found in TAAP Sections IV, V, VI, and VII.

Tactical Rebalance – One or more individual tactical movements of capital between or among asset classes to achieve one or more Tactical Objectives. A Tactical Rebalance may take one to 12 months to implement; up to an additional 12 months may be provided if a Tactical Reversal is included in a Tactical Rebalance Proposal.

Tactical Action – One specific, individual movement of capital that adjusts asset holdings due to movements of cash, in-kind asset transfers, or use of derivatives. Derivatives may be used as an alternative to cash or in-kind asset transfers to obtain the equivalent changes in exposure(s), if derivatives are expected to produce more favorable economic and/or risk enhancements. Derivatives may not be used as a form of leverage.

Tactical Reversal – An optional component of a Tactical Rebalance Proposal, a Tactical Reversal is a specific and time-bound plan to partially or fully unwind a Tactical Rebalance once economic or market conditions, or internal operations, stabilize. A Tactical Reversal can be an integral component of a Tactical Rebalance Proposal and may take up to 12 additional months to achieve full implementation.

IV. Tactical Asset Allocation Considerations

LACERS is a long-term strategic investor and implements the Asset Allocation Policy. TAA allows LACERS flexibility to adjust exposures to established asset classes to achieve one of several aforementioned TAA Objectives. TAA Factors that are considered when contemplating a Tactical Rebalance include (but are not restricted to): stage of the economic cycle; abrupt or trending market or capital dislocations; excessive or deep under valuations of specific or broad asset types within the Total Fund or in the market; and internal operational factors.

V. Implementation

Implementation of a Tactical Action will comply with the following procedures, as they may apply:

1. External Landscape Evaluation – Economic market outlook, including economic indicators, monetary and fiscal policies, geo-political events, Federal Reserve Bank actions, interest rates, inflation, etc.
2. Internal Operational Evaluation – Actual asset allocation of the Total Fund compared to policy targets, asset class movements and trends, portfolio valuations, operational cash, future, pending, or existing RFP manager searches and hiring of investment managers, pending investment manager terminations, market and economic landscape commentary or information from investment managers, and compliance with existing Investment Policy

3. General Fund Consultant Discussion and Concurrence (and discussion with other contracted Investment Consultants as warranted)
4. Written Tactical Rebalance Proposal should include the following decision considerations (as appropriate):
 - External Landscape and Internal Operational Evaluations;
 - Projected Impact on Asset Allocation and Asset Classes;
 - Projected Impact on Total Fund addressing Tactical Objectives:
 - Enhancement to Total Fund Value; and/or
 - Protection of Total Fund Value; and/or
 - Enhanced Risk/Return Profile and Compliance to Risk Budget
 - Projected Quantitative Outcomes including measurable Performance and Risk Metric improvements and Capital Preservation amounts;
 - Financial Considerations - Funds directly impacted by a Tactical Rebalance; Proposed Implementation Timing and Transactional Costs; Benchmark to evaluate performance; Monitoring Schedule
 - Tactical Reversal (Partial or Full) as needed
5. Implementation of Tactical Action pursuant to the written Tactical Rebalance Proposal and TAAP Risk Management Guidelines.
6. Report to the Board within 30 days of initiating a Tactical Rebalance
7. Quarterly Status Reporting of Tactical Rebalancing implementation
8. Internal Monthly Rebalancing and Compliance Staff Reviews per the Rebalancing Policy (Section I.V.G of the LACERS Investment Policy)
9. Annual Investment Committee Review of TAAP based on CIO Report as provided in Section VII of this plan
10. Annual Board Renewal, Modification, or Repeal of TAAP based on Investment Committee Report as provided in Section VII of this plan

VI. Risk Management Guidelines

The following guidelines are designed to help the CIO manage the implementation of the TAA Policy within a prudent risk-management framework.

1. A Tactical Rebalance may be initiated when the actual weighting of an asset class exceeds 70% of the range from its target weighting to its established bands.
2. A Tactical Rebalance Proposal shall not exceed 50% of the excess valuation that is over- or under-weight to its policy target at the time the decision to rebalance is made.

3. A Tactical Rebalance should be completed within 12-24 months of initiation, except in the case of a partial or full reversal of the original Tactical Rebalance, which may extend the Tactical Rebalance up to an additional 12 months.
4. A Tactical Rebalance may be suspended after the first Tactical Action is completed if such single Tactical Action or subsequent Tactical Actions achieves the Tactical Objective(s) within the Tactical Rebalance Proposal pursuant to a Tactical Rebalancing Proposal.
5. A Tactical Rebalance Proposal may be modified or suspended by the CIO upon the concurrence of the General Fund Consultant if market conditions or other external landscape factors change or strategic asset class rebalances are necessary that disrupt the orderly implementation of the Tactical Rebalance Proposal, or when internal operations such as liquidity needs would have a material impact on the Tactical Rebalance Proposal such that the Tactical Objectives are no longer achievable within the established Tactical Rebalance Proposal timeframe due to material changes in the original market assumptions, operational factors, or risk levels.
6. The General Fund Consultant must concur with the Tactical Rebalance Proposal prior to initiation.

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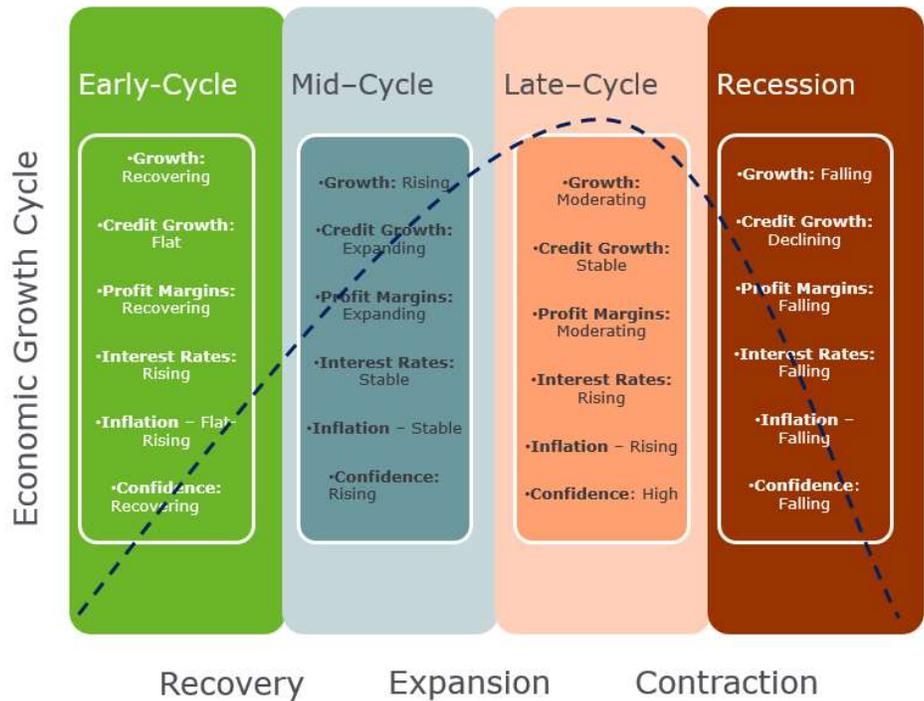
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