Investment Committee Agenda

REGULAR MEETING

TUESDAY, OCTOBER 13, 2020

TIME: 10:30 A.M. OR IMMEDIATELY FOLLOWING THE REGULAR BOARD MEETING

MEETING LOCATION:

In conformity with the Governor's Executive Order N-29-20 (March 17, 2020) and due to the concerns over COVID-19, the LACERS Investment Committee's October 13, 2020, meeting will be conducted via telephone and/or videoconferencing.

Important Message to the Public

Information to call-in to participate:
Dial: (669) 900-6833 or (346) 248-7799
Meeting ID# 939 8953 8481

Instructions for call-in participants:

1- Dial in and enter Meeting ID
2- Automatically enter virtual "Waiting Room"
3- Automatically enter Meeting
4- During Public Comment, **press *9** to raise hand
5- Staff will call out the last 3-digits of your phone number to make your comment

Information to listen only: 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 Public Pensions General Counsel Division

Notice to Paid Representatives

If you are compensated to monitor, attend, or speak at this meeting, City law may require you to register as a lobbyist and report your activity. See Los Angeles Municipal Code §§ 48.01 *et seq*. More information is available at ethics.lacity.org/lobbying. For assistance, please contact the Ethics Commission at (213) 978-1960 or ethics.commission@lacity.org.

Request for services

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities.

Sign Language Interpreters, Communication Access Real-Time Transcription, Assistive Listening Devices, Telecommunication Relay Services (TRS), 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) 855-9348*** and/or email at ***ani.ghoukassian@lacers.org***.

Disclaimer to participants

Please be advised that all LACERS Board and Committee Meeting proceedings are audio recorded.

CLICK HERE TO ACCESS BOARD REPORTS

I. PUBLIC COMMENTS AND GENERAL PUBLIC COMMENTS ON MATTERS WITHIN THE COMMITTEE'S JURISDICTION AND COMMENTS ON ANY SPECIFIC MATTERS ON THE AGENDA – *THIS WILL BE THE ONLY OPPORTUNITY FOR PUBLIC COMMENT* - **PRESS *9 TO RAISE HAND DURING PUBLIC COMMENT PERIOD**

II. APPROVAL OF MINUTES FOR THE MEETING OF SEPTEMBER 8, 2020 AND POSSIBLE COMMITTEE ACTION

III. CHIEF INVESTMENT OFFICER VERBAL REPORT

IV. INVESTMENT MANAGER CONTRACT WITH AQR CAPITAL MANAGEMENT, LLC REGARDING THE MANAGEMENT OF AN ACTIVE NON-U.S. SMALL CAP EQUITIES PORTFOLIO AND POSSIBLE COMMITTEE ACTION

V. INVESTMENT MANAGER CONTRACT WITH QUANTITATIVE MANAGEMENT ASSOCIATES, LLC REGARDING THE MANAGEMENT OF AN ACTIVE EMERGING MARKETS CORE EQUITIES PORTFOLIO AND POSSIBLE COMMITTEE ACTION

VI. PRESENTATION BY NORTHERN TRUST REGARDING SECURITIES LENDING PROGRAM FOR THE PERIOD JULY 1, 2019 TO JUNE 30, 2020

VII. BROKERAGE ACTIVITY REPORT FOR THE PERIOD JULY 1, 2019 TO JUNE 30, 2020

VIII. OTHER BUSINESS

IX. NEXT MEETING: The next Regular meeting of the Investment Committee is scheduled for Tuesday, November 10, 2020 at 10:30 a.m. or immediately following the Board Meeting, at LACERS, 977 N. Broadway, Los Angeles, CA 90012 and/or via telephone and/or videoconferencing. Please continue to view the LACERS website for updated information on public access to Board/Committee meetings while response to public health concerns relating to the novel coronavirus continue.

X. ADJOURNMENT

Board of Administration Agenda

SPECIAL MEETING

TUESDAY, OCTOBER 13, 2020

TIME: 10:30 A.M. OR IMMEDIATELY FOLLOWING THE REGULAR BOARD MEETING

MEETING LOCATION:

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X. ADJOURNMENT

Agenda of:	Oct. 13, 2020
Item No:	II

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

In conformity with the Governor's Executive Order N-29-20 (March 17, 2020)
and due to the concerns over COVID-19, the
LACERS Investment Committee's
September 8, 2020, Regular meeting was conducted
via telephone and/or videoconferencing

September 8, 2020

12:16 p.m.

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

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

I

PUBLIC COMMENTS AND GENERAL PUBLIC COMMENTS ON MATTERS WITHIN THE COMMITTEE'S JURISDICTION AND COMMENTS ON ANY SPECIFIC MATTERS ON THE AGENDA – *THIS WILL BE THE ONLY OPPORTUNITY FOR PUBLIC COMMENT* – **PRESS *9 TO RAISE HAND DURING PUBLIC COMMENT PERIOD** – 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 SPECIAL MEETING OF AUGUST 11, 2020 AND SPECIAL MEETING OF AUGUST 19, 2020 AND POSSIBLE COMMITTEE ACTION – Committee Member Serrano moved approval, and adopted by the following vote: Ayes, Committee Members Elizabeth Lee, Serrano, and Chair Sohn -3; Nays, None.

III

CHIEF INVESTMENT OFFICER VERBAL REPORT – Rod June, Chief Investment Officer, presented the Committee with the forward calendar and he thanked the Committee Members for their time commitment to all of the Investment Manager searches.

IV

CONSENT OF ASSIGNMENT OF BARROW, HANLEY, MEWHINNEY & STRAUSS, LLC CONTRACT AND POSSIBLE COMMITTEE ACTION – Bryan Fujita, Investment Officer III and Ellen Chen, Investment Officer I, presented and discussed this item with the Committee. Committee Member Serrano moved approval, and adopted by the following vote: Ayes, Committee Members Elizabeth Lee, Serrano, and Chair Sohn -3; Nays, None.

V

SEMI-FINALISTS OF THE CORE FIXED INCOME INVESTMENT MANAGER SEARCH AND POSSIBLE COMMITTEE ACTION – Bryan Fujita, Investment Officer III, Barbara Sandoval, Investment Officer II, and Jeremiah Paras, Investment Officer I, presented this item to the Committee. After discussion, Committee Member Serrano moved approval, and adopted by the following vote: Ayes, Committee Members Elizabeth Lee, Serrano, and Chair Sohn -3; Nays, None.

VI

PROXY VOTING ACTIVITY REPORT FOR THE PERIOD JULY 1, 2019 TO JUNE 30, 2020 – Rod June, Chief Investment Officer and Ellen Chen, Investment Officer I, presented and discussed this item with the Committee.

VII

OTHER BUSINESS – There was no other business

VIII

NEXT MEETING: The next Regular Meeting of the Investment Committee is scheduled for Tuesday, October 13, 2020 at 10:30 a.m. or immediately following the Board Meeting, LACERS, 977 N. Broadway, Suite 260, Los Angeles, CA 90012, and/or via telephone and/or videoconferencing. Please continue to view the LACERS website for updated information on public access to Board/Committee meetings while responding to public health concerns relating to the novel coronavirus continue.

IX

ADJOURNMENT – There being no further business before the Committee, Chair Sohn adjourned the Meeting at 12:46 p.m.

Sung Won Sohn
Chair

Neil M. Guglielmo
Manager-Secretary

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

REPORT TO INVESTMENT COMMITTEE **MEETING: OCTOBER 13, 2020**
From: Neil M. Guglielmo, General Manager **ITEM: IV**

SUBJECT: **INVESTMENT MANAGER CONTRACT WITH AQR CAPITAL MANAGEMENT, LLC REGARDING THE MANAGEMENT OF AN ACTIVE NON-U.S. SMALL CAP EQUITIES PORTFOLIO AND POSSIBLE COMMITTEE ACTION**

ACTION: ☒ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☐

Recommendation

That the Committee recommend to the Board:

1. Termination of the contract with AQR Capital Management, LLC for management of an active non-U.S. small cap equities portfolio.

2. Redeployment of the assets into the passive SSgA MSCI EAFE Small Cap Index Non-lending Fund managed by State Street Global Advisors.

Executive Summary

AQR Capital Management, LLC (AQR) has managed an active non-U.S. small cap equities portfolio for LACERS since February 2014. LACERS' portfolio is currently valued at $276 million as of September 30, 2020. AQR was placed "On Watch" for an initial one-year period effective May 13, 2019 due to underperformance, pursuant to the LACERS Manager Monitoring Policy (Policy); the "On Watch" status was extended effective May 14, 2020 due to continued underperformance. AQR's current contract expires on January 31, 2020. Staff and NEPC, LLC (NEPC), LACERS' General Fund Consultant, recommend termination of the AQR contract.

Discussion

Background
AQR has managed an active non-U.S. small cap equities portfolio for LACERS since February 2014, and is benchmarked against the MSCI EAFE Small Cap Index. AQR's quantitative investment strategy is based on the philosophy that fundamentals drive stock returns. AQR attempts to identify companies with characteristics such as attractive valuations relative to industry peers, positive stock price momentum, sound accounting practices, healthy balance sheets, and strong management teams. The portfolio management team is led by John Liew, Founding Principal. He is supported by 17 portfolio management and research professionals, 10 of whom hold PhD degrees. LACERS' portfolio was valued at $276 million as of September 30, 2020.

AQR was hired through the 2013 Active Core Non-U.S. Small Cap Equities manager search process. The Board authorized a three-year contract on August 13, 2013, a three-year contract renewal on September 27, 2016, and a one-year contract extension on August 27, 2019. The current contract expires on January 31, 2020. AQR has been on “On-Watch” status since May 14, 2019 due to underperformance relative to the benchmark, pursuant to the Policy. As detailed in the Performance section of this report, AQR’s relative performance has not improved and continues to breach Policy criteria.

Organization
AQR is majority-owned by its principals and minority-owned by Affiliated Managers Group, Inc. (NYSE ticker: AMG), a publicly held asset management holding company. AQR has approximately 800 employees (667 employees in the U.S.) across offices in Greenwich (headquarters), Boston, Chicago, Los Angeles, London, and Sydney. The firm manages approximately $141 billion in total assets, of which approximately $1.3 billion are in the non-U.S. small cap equities strategy as of June 30, 2020.

Due Diligence
While the investment team, strategy, and process have remained stable over the contract period, AQR has experienced notable organizational changes in other areas of the firm. On January 8, 2020, AQR announced that it would be reducing its workforce by approximately 10% after experiencing significant asset outflows from its alternative investment strategies over the past two years. This reduction focused on staff cuts in the areas of operations and administration. The investment team that manages LACERS’ account was not impacted by this event and remains intact.

Performance
Based on unaudited data as of September 30, 2020, AQR has underperformed its benchmark, net-of-fees, over all time periods as presented in the table below.

Annualized Performance as of 9/30/20 (Unaudited and Net-of-Fees)						
	3-Month	1-Year	2-Year	3-Year	5-Year	Since Inception
AQR Capital	9.21	4.28	-2.61	-1.51	4.99	3.49
MSCI EAFE Small Cap ND	10.25	6.84	0.25	1.40	7.37	4.68
% of Excess Return	*-1.04*	*-2.56*	*-2.86*	*-2.91*	*-2.38*	*-1.19*

Inception Date: 2/24/2014

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

Calendar Year Performance as of 12/31/19 (Net-of-Fees)						
	2019	2018	2017	2016	2015	2/24/14-12/31/14
AQR Capital	22.06	-19.92	33.57	-1.21	13.18	-7.15
MSCI EAFE Small Cap ND	24.96	-17.89	33.01	2.18	9.59	-7.61
% of Excess Return	*-2.90*	*-2.03*	*0.56*	*-3.39*	*3.59*	*0.46*

On May 13, 2019, AQR was placed "On Watch" for an initial one-year period for breaching the following Policy criteria based on the performance as of March 31, 2019:

1. Annualized net performance relative to its benchmark for trailing 3 years underperforms in 8 of 12 previous quarters.
2. Annualized net performance is below benchmark for trailing 5 years
3. Annualized net Information Ratio trailing 5 years relative to its benchmark is below 0.20

AQR's "On Watch" status was extended for another one-year period effective May 14, 2020 for continued breach of the three criteria listed above, based on performance as of March 31, 2020. AQR continues to breach criteria #2 and #3 based on unaudited performance as of September 30, 2020. The underperformance is primarily attributed to a value stock tilt within the portfolio, a theme that has been out of favor in recent years.

In light of AQR's continued underperformance, staff and NEPC recommend termination of the contract and redeployment of the assets into the SSgA MSCI EAFE Small Cap Index Non-lending Fund, a passive commingled fund managed by State Street Global Advisors (State Street). This fund is available to LACERS under the multi-passive index fund contract currently in place with State Street. Based on an analysis presented in the attached NEPC report (Attachment 1), replacing AQR's active strategy with a passive strategy will not materially impact the current risk-return profile of LACERS' non-U.S. equities asset class.

Fees
LACERS currently pays AQR an effective fee of 60 basis points (0.60%), which is approximately $1.7 million annually based on the value of LACERS' assets as of September 30, 2020. This fee ranks in the 15th percentile among its peers in the eVestment EAFE Small Cap Universe (i.e., AQR's fee is lower than 85% of peers). The annual fee for State Street's passive strategy would be 4 basis points (0.04%), or approximately $110,400. Additionally, LACERS would incur a one-time transaction cost for moving the assets from the AQR account to the State Street fund; the estimated transaction fee may range from 60 basis points (0.60%,) or $1.7 million, to 100 basis points (1.00%), or $2.8 million.

Should the Committee and Board concur with this contract termination recommendation, staff would initiate the 30-day written notice of termination clause and transfer of assets as soon as practicable.

General Fund Consultant Opinion
NEPC concurs with this recommendation.

<u>Strategic Alignment</u>

A contract termination with AQR and reallocation of the assets into the passively managed SSgA MSCI EAFE Small Cap Index Non-lending Fund managed by State Street will allow the fund to maintain a diversified exposure to the non-U.S. small cap equities markets, which aligns with the Strategic Plan Goal to optimize long-term risk adjusted investment returns (Goal IV). The discussion of the investment manager's profile, strategy, performance, and management fee structure aligns with the Strategic Plan Goal to uphold good governance practices which affirm transparency, accountability, and fiduciary duty (Goal V).

Prepared By: Ellen Chen, Investment Officer I, Investment Division

NMG/RJ/BF/EC:jp

Attachment: 1. Consultant Recommendation – NEPC, LLC

NEPC, LLC

To: Los Angeles City Employees' Retirement System Investment Committee

From: NEPC, LLC

Date: October 13, 2020

Subject: AQR Capital Management, LLC– Contract Termination

Recommendation

NEPC recommends Los Angeles City Employees' Retirement System (LACERS) terminate the contract that is currently in place with AQR Capital Management, LLC ('AQR') and transfer the assets to a MSCI EAFE Small Cap Index Fund. The rationale for the recommendation is based on underperformance over all time periods measured, loss of assets at the firm level and the desire to reduce investment management fees.

Background

AQR was funded on February 24, 2014 to provide the Plan with small capitalization public equity exposure across non-U.S. developed markets. As of August 31, 2020, AQR managed $277.6 million, or 1.4% of Plan assets. The performance objective is to outperform the MSCI EAFE Small Cap Index, net of fees, annualized over a full market cycle (normally three-to-five years). Since May of 2019, the account has been on Watch due to performance based on LACERS' Manager Monitoring Policy.

AQR was founded in 1998 by Clifford Asness, Ph.D., David Kabiller, CFA, Robert Krail, Ph.D., and John Liew, Ph.D. Messrs. Asness, Krail and Liew first met as students in the graduate Ph.D. finance program at the University of Chicago. AQR is a Delaware Limited Liability Company. AQR Capital Management Holdings, LLC is a 100% owner of AQR Capital Management, LLC, whose principals hold majority interest in the firm (approximately 70%). Affiliated Managers Group ('AMG'), a publicly traded company, holds a minority interest (less than 30%) in AQR Capital Management Holdings, LLC.

The firm manages approximately $141.3 billion and has 3,553 accounts; $133.9 billion of which are tax-exempt assets in 1,100 accounts. The firm employs approximately 800-to-900 people and over 200 are investment professionals across portfolio management, research and trading while the rest work in client service, risk monitoring and compliance roles. The firm is headquartered in Greenwich, Connecticut and has marketing/ client service offices in Chicago, Illinois, London, England, Sydney, Australia, Los Angeles, California and Boston, Massachusetts.

In the first quarter of 2020, AQR announced that it would reduce approximately 10% of its workforce after experiencing significant asset outflows over the past two years. AQR has seen assets under management fall over 50% from the year ended 2017 AUM of $243 billion to the current $141 billion as of June 30, 2020. Staff reductions follow an ongoing trend in the asset management business of headcount reductions, however, not all investment firms have publicly announced their reductions. NEPC is not aware of any senior level investment staff departing as part of this reduction but the firm has experienced the loss of some senior operational and support staff.

From a portfolio construction perspective, referring to Exhibit 1, NEPC has evaluated the portfolio's fit within the international equity assets class using three tests; 1) Active risk contribution, 2) Alpha Correlation, 3) Beta profile. We have determined that the contribution to active risk of the AQR portfolio is significantly the same when compared to the MSCI EAFE Small Cap Index fund. The portfolio also has a significantly high alpha correlation to the MSCI EAFE Small Cap Index Fund (+0.93 correlation) as well as a very similar beta profile (0.97 in AQR vs 0.99 in MSCI EAFE Small Cap Index). These three tests suggest that replacement of the portfolio with a MSCI EAFE Small Cap Index fund will not lead to a degradation of the active risk profile, will not impact how the portfolios interact with each other (i.e., contribute to alpha) and will not change the beta profile of the asset class overall.

Performance

Referring to Exhibit 2, over the past 5 years ended August 31, 2020, AQR has underperformed its benchmark by 2.24% returning 4.55%. Referring to Exhibit 3, since March 1, 2014 (the first full month of performance after the account inception date of February 24, 2014), the AQR portfolio has underperformed the MSCI EAFE Small Cap Index by 1.05%, returning 2.07%, net of fees, through June 30, 2020. In the five-year period ended June 30, 2020, the portfolio underperformed the index by 1.61% (2.20% vs. 3.81%). In the one-year period ended June 30, 2020, the portfolio underperformed the benchmark by 1.76% returning -5.28%. The portfolio has an information ratio of -2.50 and active risk as measured by tracking error was 1.01% since inception ending June 30, 2020. The portfolio's Sharpe Ratio since inception was 1.15 versus the index of 1.25 indicating that active management has not added value when compared to the benchmark.

Referring to Exhibit 4, on a cumulative basis, the portfolio has been eroding its cumulative gains from past periods since the fourth quarter of 2017 with underperformance in the past 9 of 12 quarters; note, underperformance in eight of the last 12 quarters is one rule in the LACERS Manager Monitoring Policy. Investment gains from periods of outperformance have been eroded and are negative since inception. Stock selection and the value theme have been the largest detractors from returns versus the benchmark. More broadly, fundamentally driven investment portfolios have not been rewarded against market capitalization-based benchmarks over the past years as investors continue to demand high growth and lower quality stocks.

Fees

The AQR portfolio has an asset-based fee of 0.60% annually. The fee ranks in the 15th percentile among its peers in the eVestment EAFE Small Cap Equity Universe. In other words, 85% of the 81 products included in the peer universe have a higher fee than the LACERS account. LACERS will be able to reduce this fee significantly by utilizing an index fund for this portfolio.

<u>Conclusion</u>

AQR has struggled to outperform its benchmark in all time periods ended August 2020. AQR's valuation and quality focus when constructing the portfolio has not been favored in the current growth market environment and can explain much of AQR's under performance. However, when compared to a broad universe of non-US small cap managers, the portfolio ranks at or below the median manager for all time periods measured. There is a very wide range of performance (>28%) in the one-year time frame for the peer group as displayed in Exhibit 3. The majority of managers ranking in the upper half of this universe utilize a growth bias in their investment process. While AQR does factor growth into their model through momentum, it is not the overall driver of their investment process.

AQR has experienced meaningfully large client outflows over the past three years resulting in the need to scale back its workforce by 10%. From a portfolio construction perspective, replacement by a MSCI EAFE Small Cap Index fund results in an overall Non-U.S. Equity portfolio that is similar as current. We do not believe that replacing AQR will lead to a degradation in active risk profile and alpha correlations.

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

Exhibit 1: Non-U.S. Equity Asset Class Alpha Correlations

Correlations	AQR	BHMS	Lazard	MFS	Oberweis	SSGA	Axiom	DFA	QMA	MSCI EAFE Small Cap Index
AQR	1	0.32	0.43	0.11	0.61	0.57	-0.28	-0.32	-0.33	0.93
BHMS	0.32	1	0.12	0	0.02	0.47	-0.44	-0.34	-0.45	0.34
Lazard	0.43	0.12	1	0.51	0.42	0.49	-0.33	-0.51	-0.5	0.44
MFS	0.11	0	0.51	1	0.28	0.47	-0.35	-0.52	-0.47	0.25
Oberweis	0.61	0.02	0.42	0.28	1	0.36	0	-0.29	-0.17	0.66
SSGA	0.57	0.47	0.49	0.47	0.36	1	-0.86	-0.82	-0.9	0.67
Axiom	-0.28	-0.44	-0.33	-0.35	0	-0.86	1	0.72	0.86	-0.36
DFA	-0.32	-0.34	-0.51	-0.52	-0.29	-0.82	0.72	1	0.85	-0.36
QMA	-0.33	-0.45	-0.5	-0.47	-0.17	-0.9	0.86	0.85	1	-0.41
MSCI EAFE Small Cap Index	0.93	0.34	0.44	0.25	0.66	0.67	-0.36	-0.36	-0.41	1

Red = High Yellow = Moderate Green & White = Low

	Current		Scenario 1	
Manager	Portfolio Allocation	Active Risk Contribution	Portfolio Allocation	Active Risk Contribution
SSGA	34%	7%	34%	7%
Axiom	9%	12%	9%	12%
DFA	7%	2%	7%	2%
QMA	8%	4.60%	8%	4.60%
AQR	5%	13%		
BHMS	9%	3%	9%	3%
Lazard	11%	14%	11%	14%
MFS	12%	12%	12%	13%
Oberweis	5%	33%	5%	33%
MSCI EAFE Index Fund			5%	11%

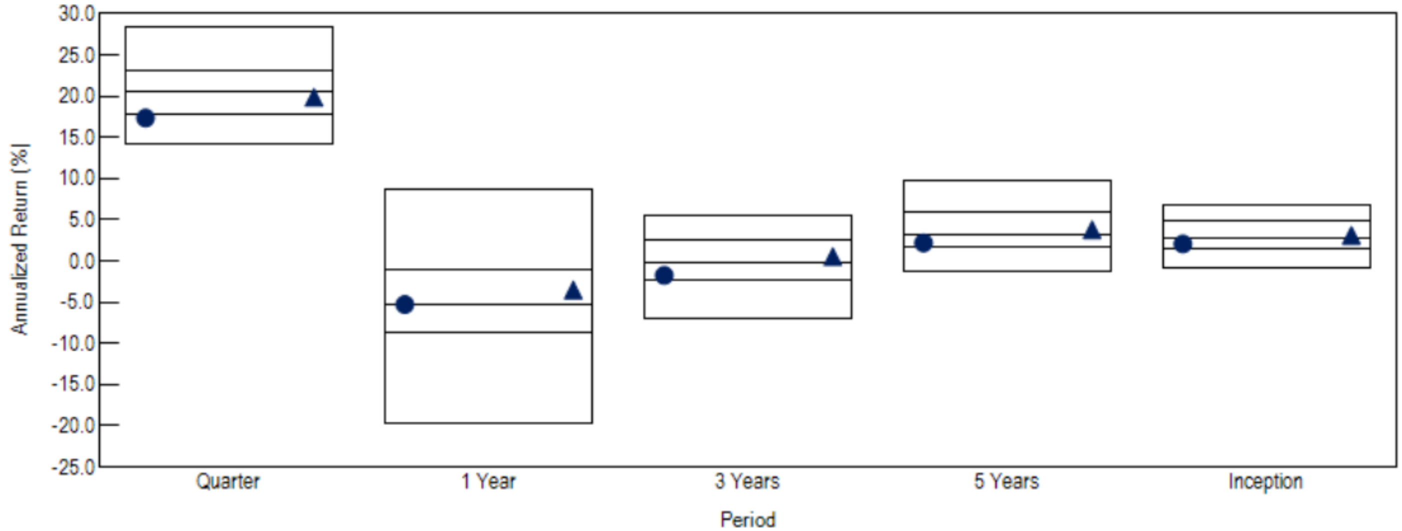
Exhibit 2: Performance Net of Fees Ending August 31, 2020

	Ending August 31, 2020 Market Value($)	1 Mo(%)	3 Mo(%)	YTD(%)	1 Yr(%)	3 Yrs(%)	5 Yrs(%)	Inception(%)
AQR Capital	277,560,939	5.92	10.9	-6.88	7.03	-0.22	4.55	3.50
MSCI EAFE Small Cap		*7.46*	*12.59*	*-3.49*	*10.66*	*2.6*	*6.79*	*4.72*
Excess		-1.54	-1.69	-3.39	-3.63	-2.82	-2.24	-1.22

NEPC, LLC

Exhibit 3: Universe Comparison

eV EAFE Small Cap Equity Net Return Comparison
Ending June 30, 2020

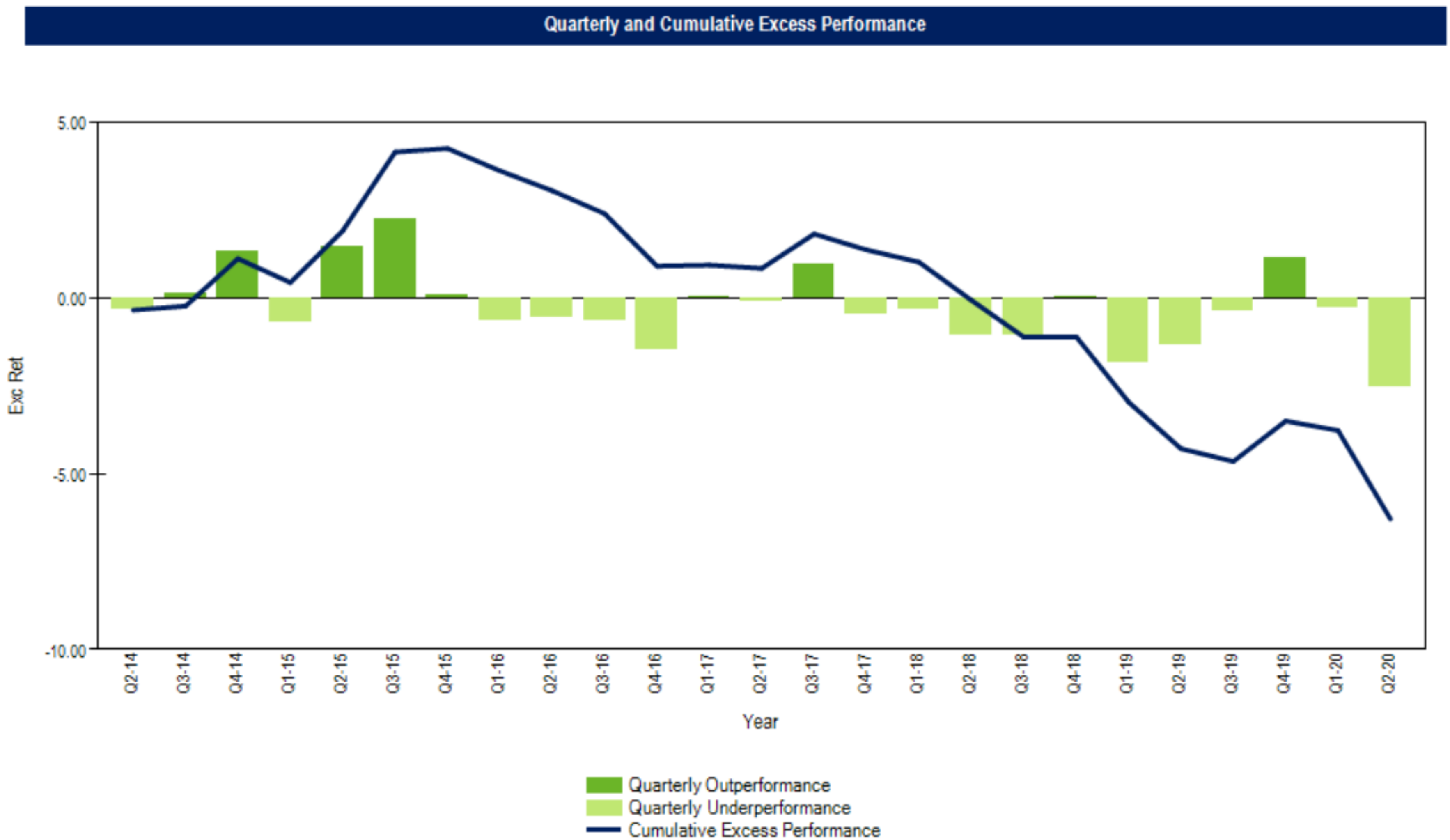


Return (Rank)	Quarter		1 Year		3 Years		5 Years		Inception	
5th Percentile	28.33		8.73		5.41		9.85		6.72	
25th Percentile	23.12		-1.14		2.63		5.85		4.83	
Median	20.64		-5.28		-0.31		3.25		2.83	
75th Percentile	17.79		-8.64		-2.37		1.72		1.50	
95th Percentile	14.21		-19.80		-7.01		-1.31		-0.89	
# of Portfolios	60		59		55		48		41	
● AQR Capital	17.37	(81)	-5.28	(50)	-1.74	(66)	2.20	(68)	2.07	(67)
▲ MSCI EAFE Small Cap	19.88	(55)	-3.52	(45)	0.53	(44)	3.81	(45)	3.12	(45)

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

NEPC, LLC

Exhibit 4



LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

REPORT TO INVESTMENT COMMITTEE | **MEETING: OCTOBER 13, 2020**
From: Neil M. Guglielmo, General Manager | **ITEM: V**

SUBJECT: **INVESTMENT MANAGER CONTRACT WITH QUANTITATIVE MANAGEMENT ASSOCIATES, LLC REGARDING THE MANAGEMENT OF AN ACTIVE EMERGING MARKETS CORE EQUITIES PORTFOLIO AND POSSIBLE COMMITTEE ACTION**

ACTION: ☒ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☐

Recommendation

That the Committee recommend to the Board:

1. Termination of the contract with Quantitative Management Associates, LLC for management of an active emerging markets core equities portfolio.

2. Redeployment of the assets into the passive SSgA Daily MSCI Emerging Markets Index Non-Lending Fund managed by State Street Global Advisors.

Executive Summary

Quantitative Management Associates, LLC (QMA) has managed an active emerging markets core equities portfolio for LACERS since April 2014. LACERS' portfolio was valued at $458 million as of September 30, 2020. QMA was placed "On Watch" for an initial one-year period effective July 29, 2019, due to underperformance, pursuant to the LACERS Manager Monitoring Policy (Policy). In light of QMA's underperformance as of June 30, 2020 and recent organizational changes, the "On Watch" status was extended for an additional one-year period effective July 29, 2020. QMA's current contract expires on December 31, 2020. Staff and NEPC, LLC (NEPC), LACERS' General Fund Consultant, recommend termination of the QMA contract.

Discussion

Background
QMA has managed an active emerging markets core equities portfolio for LACERS since April 2014, and is benchmarked against the MSCI Emerging Markets Index. QMA's quantitative investment strategy is rooted in the belief that investor behavior creates disconnections between stock prices and company fundamentals. QMA's model evaluates fundamental metrics, such as valuation, growth, and quality, and seeks to add value by actively adapting to changing growth and market expectations. The

investment team is comprised of 14 professionals with the team averaging over 22 years of investment experience. LACERS' portfolio was valued at $458 million as of September 30, 2020.

QMA was hired through the 2013 Active Non-U.S. Equities Emerging Markets Core manager search process. The Board authorized a three-year contract on July 23, 2013, a three-year contract renewal on September 27, 2016, and a one-year contract extension on August 27, 2019. The current contract expires on December 31, 2020. QMA has been on "On-Watch" status since July 29, 2019 due to underperformance relative to the benchmark, pursuant to the Policy. As detailed in the Performance section of this report, QMA's relative performance has not improved and continues to breach Policy criteria. Further, as detailed in the Due Diligence section of this report, QMA recently experienced organizational changes, triggering the qualitative criteria of the Policy.

Organization
QMA is wholly owned by Prudential Financial, Inc., a public company (NYSE ticker symbol: PRU), but operates independently. QMA is headquartered in Newark, New Jersey, and has over 200 employees. As of June 30, 2020, the firm managed over $106 billion in total assets with $1.5 billion in the emerging markets core equities strategy.

Due Diligence
The firm recently implemented material organizational changes that impact LACERS' investment with QMA. On July 13, 2020, as part of a broad restructuring plan for its equity business, George Patterson, QMA's previous co-head of Quantitative Equities, was appointed as Chief Investment Officer (CIO), overseeing both the quantitative equity and multi-asset platforms. Mr. Patterson assumed the CIO role from Roy Henriksson, who will leave the firm in October 2020. Additionally, Stacie Mintz, head of Equity Portfolio Management, was promoted to co-head of Quantitative Equities, alongside existing co-head, Peter Xu. Gavin Smith, currently a senior portfolio manager at QMA, assumed additional responsibility as head of Equity Research, more closely integrating QMA's research team with the investment process.

Further, QMA's emerging markets core equities strategy has experienced a significant decline in assets of approximately $966 million over the last two years. The restructuring of key personnel and loss of assets triggered the "Organization" criteria of the Policy; these changes factored into an extension of QMA's "On Watch" status in July 2020, as discussed in the Performance section of this report.

Performance
Based on unaudited data as of September 30, 2020, QMA has underperformed its benchmark, net of fees, over all time periods except for the 3-month period as presented in the following table.

Annualized Performance as of 9/30/20 (Unaudited and Net-of-Fees)						
	3-Month	1-Year	2-Year	3-Year	5-Year	Since Inception
QMA	9.82	8.66	2.57	1.08	7.76	3.27
MSCI EM Index	9.56	10.54	4.07	2.42	8.97	3.66
% of Excess Return	*0.26*	*-1.88*	*-1.50*	*-1.34*	*-1.21*	*-0.39*

Inception Date: 4/24/2014

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

Calendar Year Performance as of 12/31/19 (Net-of-Fees)						
	2019	2018	2017	2016	2015	4/24/14-12/31/14
QMA	17.66	-15.47	37.72	10.62	-16.30	-0.32
MSCI EM Index	18.42	-14.57	37.28	11.19	-14.92	-2.92
% of Excess Return	*-0.76*	*-0.90*	*0.44*	*-0.57*	*-1.38*	*2.60*

On July 29, 2019, QMA was placed "On Watch" for an initial one-year period for breaching the following Policy criteria based on the performance as of June 30, 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.

QMA's "On Watch" status was extended for another one-year period effective July 29, 2020 for continued breach of the two criteria listed above, based on performance as of June 30, 2020. Additionally, the following qualitative criteria were triggered in July 2020 as discussed in the Due Diligence section of this report:

1. Loss of key personnel and restructuring of Quantitative Equities team.

2. Significant loss of clients and/or assets under management.

QMA continues to breach the performance criteria based on unaudited performance as of September 30, 2020. The underperformance is primarily attributed to a value stock tilt within the portfolio, a theme that has been out of favor in recent years. In light of QMA's continued underperformance, staff and NEPC recommend termination of the contract and redeployment of the assets into the SSgA Daily MSCI Emerging Markets Index Non-Lending Fund, a passive commingled fund managed by State Street Global Advisors (State Street). This fund is available to LACERS under the multi-passive index fund contract currently in place with State Street.

Based on an analysis presented in the attached NEPC report (Attachment 1), active investment management may continue to be warranted in the emerging markets core equities space. Staff and NEPC will revisit this matter during the next asset-liability and risk budgeting study (anticipated to be completed in calendar year 2021) and determine whether LACERS should maintain long-term active or passive exposure to emerging markets core equities.

Fees

LACERS pays QMA an effective fee of 39 basis points (0.39%), which is approximately $1.8 million annually based on the value of LACERS' assets as of September 30, 2020. The fee ranks in the 6th percentile of fees charged by similar managers in the eVestment database (i.e., 94% of like-managers have higher fees). The annual fee for State Street's passive strategy would be 5.5 basis points

(0.055%), or approximately $251,900. Additionally, LACERS would incur a one-time transaction cost for moving the assets from QMA to the State Street fund; the estimated transaction fee may range from 60 basis points (0.60%), or $2.7 million, to 100 basis points (1.00%), or $4.6 million.

Should the Committee and Board concur with this contract termination recommendation, staff would initiate the 30-day written notice of termination clause and transfer of assets as soon as practicable.

General Fund Consultant Opinion
NEPC concurs with this recommendation.

Strategic Alignment

A contract termination with QMA and reallocation of the assets into a passively managed SSgA Daily MSCI Emerging Markets Index Non-Lending Fund managed by State Street will allow the fund to maintain a diversified exposure to the emerging markets equities, which aligns with the Strategic Plan Goal to optimize long-term risk adjusted investment returns (Goal IV). The discussion of the investment manager's profile, strategy, performance, and management fee structure aligns with the Strategic Plan Goal to uphold good governance practices which affirm transparency, accountability, and fiduciary duty (Goal V).

Prepared By: Ellen Chen, Investment Officer I, Investment Division

NMG/RJ/BF/EC:jp

Attachment: 1. Consultant Recommendation – NEPC, LLC

NEPC, LLC

To: Los Angeles City Employees' Retirement System Investment Committee

From: NEPC, LLC

Date: October 13, 2020

Subject: QMA – Contract Termination

Recommendation

NEPC recommends Los Angeles City Employees' Retirement System (LACERS) terminate the contract that is currently in place with Quantitative Management Associates, LLC ('QMA') and transfer the assets to a MSCI Emerging Markets Index Fund. The rationale for the recommendation is based on underperformance over all time periods measured, product asset outflows, high level personnel and organizational changes and the desire to reduce investment management fees.

Background

QMA was funded on April 24, 2014 to provide the Plan with emerging markets public equity exposure within the non-U.S. Equity asset class. As of August 31, 2020, QMA managed $465.6 million, or 2.4% of Plan assets. The performance objective is to outperform the MSCI Emerging Markets Index, net of fees, annualized over a full market cycle (normally three-to-five years). The account is currently on Watch due to performance based on LACERS' Manager Monitoring Policy.

QMA was founded in 1975 as the quantitative equity and global multi-asset businesses of PGIM, Inc. (formerly Prudential Investment Management and asset management arm of life insurance company Prudential Financial). In 2004, QMA became a wholly-owned subsidiary of PGIM, Inc.

As of 6/30/2020, the firm managed approximately $106.1 billion. The firm employs approximately 63 investment professionals and is headquartered in Newark, New Jersey and has offices in San Francisco, California and London, United Kingdom. The Emerging Markets Core Equity platform has $1.48 billion in assets under management and is run by a 28-person Quantitative Equity team. The Emerging Markets Core Equity line of business has experienced outflows totaling nearly $966 million in the past two years.

On July 13, 2020, QMA announced organizational structure changes as part of a broad restructuring plan for their equity business. QMA appointed a new chief investment officer (CIO), a new quantitative equities co-head, and new Director of Research.

George Patterson, currently the firm's co-head of Quantitative Equities, will take over as CIO, overseeing both quantitative equity and multi-asset platforms at the firm. Roy Henriksson (prior CIO) will depart the firm at the end of October. Stacie Mintz, currently the firm's head of Equity Portfolio Management, is being promoted to co-head of the Quantitative Equities team, alongside existing co-head, Peter Xu. Both Ms. Mintz and Mr. Xu have been at QMA for over 20 years. Finally, Gavin Smith, currently a senior portfolio manager, is being promoted to Director of Research, while Joshua Livnat remains a senior advisor. Both Stacie Mintz and Gavin Smith will report to George Patterson.

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BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

NEPC's research team followed up with QMA on these changes. QMA has been internally debating for a couple of years whether or not to make restructuring changes with their team and investment process. The longer their strategies underperformed, the more pressure there was both internally and from clients to do something. Members of the QMA team wanted a clearer path for incorporating applied research ideas into their models. Additionally, they wanted to be able to implement any enhancement ideas on an accelerated timeline. Roy Henriksson was strongly against any restructuring so he ultimately resigned from the firm and he will be leaving at the end of this month.

QMA expects some fine tuning of their adaptive models to occur at a measured pace. The changes will not be drastic in nature. QMA expects slightly more emphasis on quality going forward and team members have been researching various topics. There is research into value catalysts, research into aggressive growth premia, research into applying natural language processing tools to areas beyond earnings calls and news, research to improve their country selection models and research on how best to implement ESG as a risk factor.

QMA believes that applying a systematic approach to fundamental metrics in emerging markets securities can add alpha in the long run. They believe that indicators of a security's future performance differ in effectiveness depending on the relative growth rate of companies within each sector. Their research team believes that valuation measures matter more for slow growing companies and indicators relating to future growth prospects matter more for fast growing companies.

The QMA team employs an active bottom-up, systematic stock selection strategy that is based on fundamentals. These metrics are: Valuation, News, Financial Momentum and Quality, which are evaluated systematically across 4,000 public companies in the MSCI Emerging Markets universe. A forecast of relative price appreciation for each company is produced in three main steps. First, classifying stocks within a sector by long-run growth rate. Second, calculation of expected excess returns and alpha. Step two incorporates an evaluation of: Valuation, defined as forward and historical earnings yield, book yield, sales yield, cash flow yield and dividend yield; News, defined as earnings estimate, cash flow estimate, and sales estimate revisions made by security analysts following a stock; Financial Momentum, defined as changes in dividends, earnings, sales, and gross cash flow; Quality, defined as a proprietary measurement of accruals to gauge the efficacy of the Income Statement, while Accounting Bloat is utilized to measure the stability of the Balance Sheet. Step three is construction of the portfolio using an internally developed algorithm with constraints limiting portfolio deviations from the benchmark with respect to sector, country, region, size, growth and individual concentration in names. The result is typically a portfolio that is tilted toward value while maintaining a similar beta and market capitalization profile versus the benchmark.

Performance

Referring to Exhibit 1, since May 1, 2014 (the first full month of performance after the account inception date of April 24, 2014), the QMA portfolio has underperformed the MSCI Emerging Markets Index by 0.38%, returning 3.75%, net of fees, through August 31, 2020. Referring to Exhibit 2, in the five-year period ended June 30, 2020, the portfolio underperformed the index by 1.17% (1.69% vs. 2.86%) and ranked in the 65th percentile in its peer group. In the one-year period ended June 30, 2020, the portfolio underperformed the benchmark by 2.75% returning -6.14% and ranked in the 63rd percentile in its peer group. The portfolio has an information ratio of -0.22 and active risk as measured by tracking error was 1.88% since inception ending June 30, 2020.

Referring to Exhibit 3, on a cumulative basis, the portfolio has been eroding its prior cumulative gains since the second quarter of 2018, resulting in underperformance against its benchmark in all trailing time periods. Portfolios built using fundamental factors like value and quality have been hard pressed to outperform their market capitalization-based benchmarks given the elevated risk appetite of investors seeking returns in an environment of very low and negative global interest rates. The QMA portfolio may typically underperform in periods when the riskiest value stocks and the lowest quality stocks outperform, as they have in past years.

NEPC performed a multi-factor attribution analysis on the QMA portfolio to understand the level of contribution to return derived from six factors, beta or index exposure, the size of companies in the portfolio (small cap versus large cap), style (value versus growth) and market exposure (developed markets versus emerging markets), momentum and quality. Referring to Exhibit 4, we note that in the past three years, size, style, momentum and quality did not significantly explain the negative alpha in the portfolio while the 0.96 beta acted as a slight headwind. We do note the underperformance versus benchmark and believe that fundamentals-based investing in emerging markets is prudent in the long-term on a risk-adjusted basis, though QMA's process has not been rewarded. Referring to Exhibit 5, we tested the alpha correlations of the emerging markets managers currently within the emerging markets program. This test is designed to provide quantitative insight into the drivers of alpha and identifies managers that are significantly similar in their alpha generation. We do note that alpha correlations of the managers within the line-up have strongly negative and zero alpha correlations and therefore conclude that the line-up should be expected to be diversified in its return exposures. Referring to Exhibit 6, the multi-factor attribution analysis identifies a strong relationship to the value factor in the LACERS Emerging Markets Composite which contributed -0.80% to underperformance in the three-year period ended June 30, 2020.

Active vs. Passive in Emerging Markets Equity

With the disappointing performance since inception of the QMA portfolio and the emerging markets composite overall, we revisit the question of whether active investment management in emerging markets is still warranted. Referring to Exhibit 7, NEPC tested the universe of investment managers against two tests. First, whether or not there is significant dispersion between manager returns and second whether the median manager beats the benchmark. Within the emerging markets large cap universe results are mixed with dispersion between managers in the universe tightening over the past five years and therefore failing our test. The median manager returns test affirms that active management does have a place in emerging markets large cap investing. Within small cap, both the manager dispersion test and median outperformance test affirm that active management is the preferred manner of implementation.

Fees

The QMA portfolio has an asset-based fee of 0.38% annually. The fee ranks in the 6th percentile among its peers in the eVestment Emerging Markets All Cap Core Equity Universe. In other words, 94% of the 125 products included in the peer universe have a higher fee than the LACERS account.

Conclusion

QMA has underperformed the index since inception ended August 31, 2020 and has experienced meaningful changes at the firm with several high-level departures and organizational changes. These changes coupled with the desire to reduce investment management fees leads us to recommend the termination of QMA and the addition of a MSCI Emerging Market Index fund in order to gain a core position within emerging markets.

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

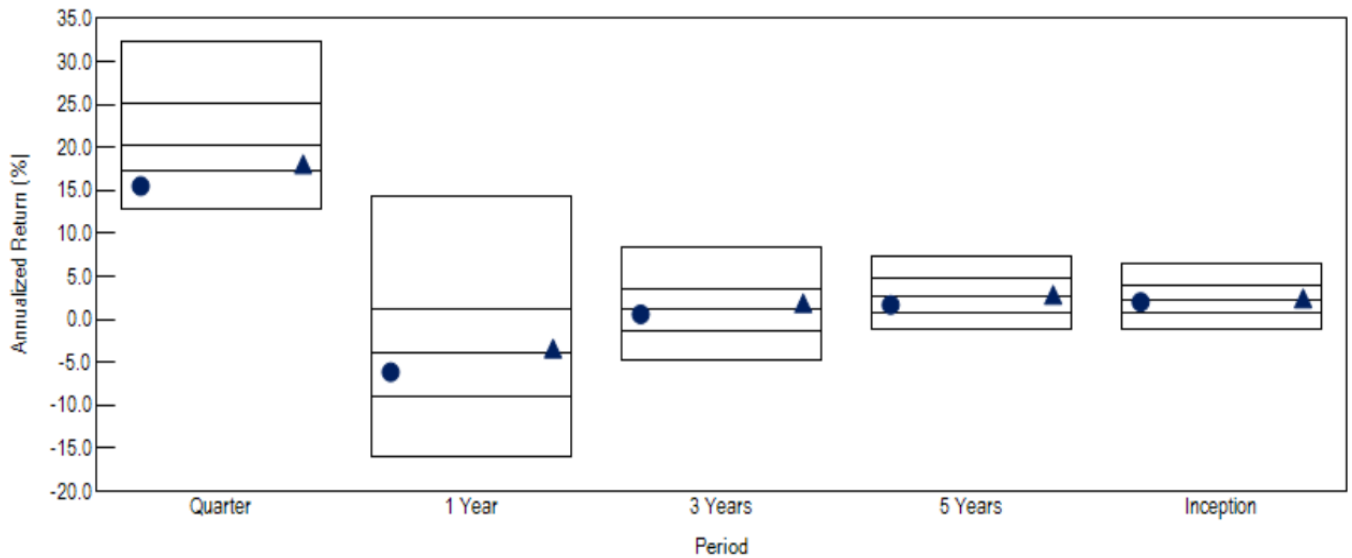
Please let us know if you would like to discuss further.

Exhibit 1: Tailing Performance Net of Fees Ending August 31, 2020

	Ending August 31, 2020 Market Value($)	1 Mo(%)	3 Mo(%)	YTD(%)	Fiscal YTD(%)	1 Yr(%)	3 Yrs(%)	5 Yrs(%)	Inception(%)
QMA Emerging Markets	465,566,740	1.35	18.14	-1.11	11.55	12.32	1.41	7.42	3.75
MSCI Emerging Markets		*2.21*	*19.53*	*0.45*	*11.34*	*14.49*	*2.83*	*8.66*	*4.13*
Excess		-0.86	-1.39	-1.56	0.21	-2.17	-1.42	-1.24	-0.38

NEPC, LLC

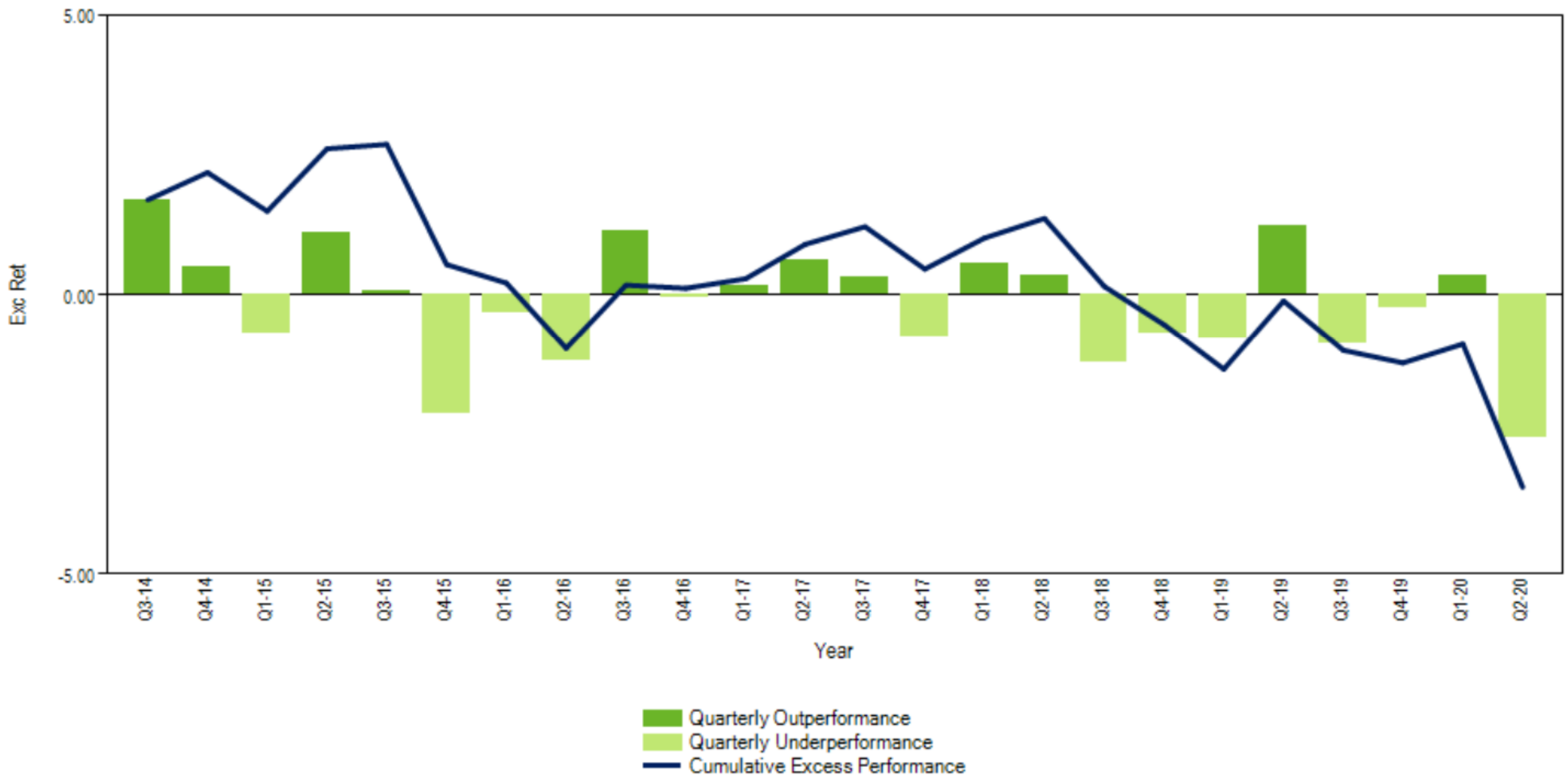
Exhibit 2



	Return (Rank)									
5th Percentile	32.40		14.24		8.39		7.41		6.54	
25th Percentile	25.16		1.28		3.57		4.86		3.88	
Median	20.35		-3.98		1.15		2.77		2.33	
75th Percentile	17.33		-8.92		-1.31		0.76		0.79	
95th Percentile	12.86		-16.06		-4.71		-1.20		-1.07	
# of Portfolios	225		225		204		180		161	
● QMA Emerging Markets	15.52	(87)	-6.14	(63)	0.59	(56)	1.69	(65)	2.03	(57)
▲ MSCI Emerging Markets	18.08	(68)	-3.39	(48)	1.90	(41)	2.86	(49)	2.44	(49)

Exhibit 3

Quarterly and Cumulative Excess Performance



NEPC, LLC

Exhibit 4

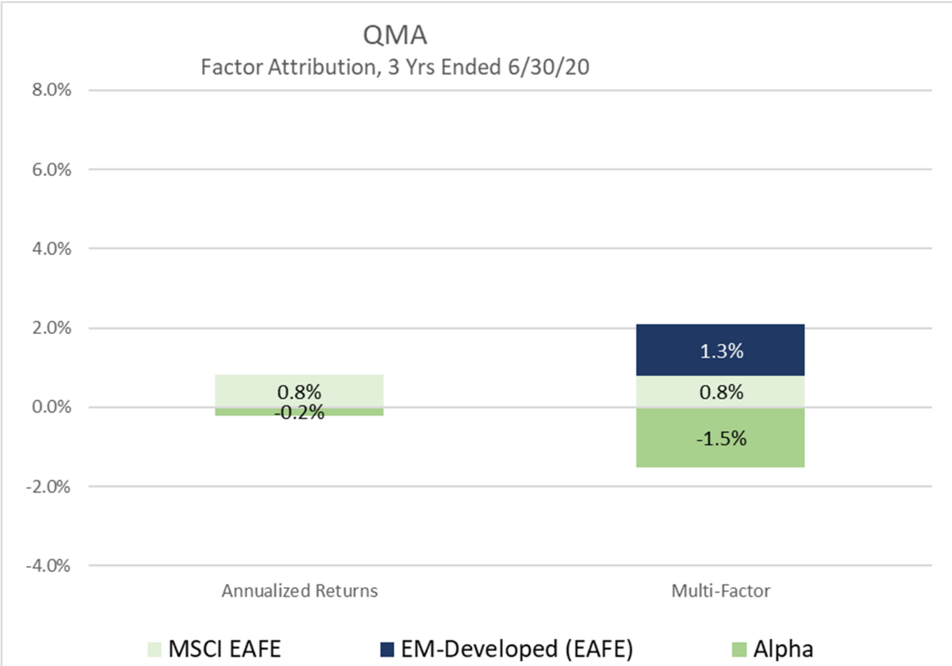
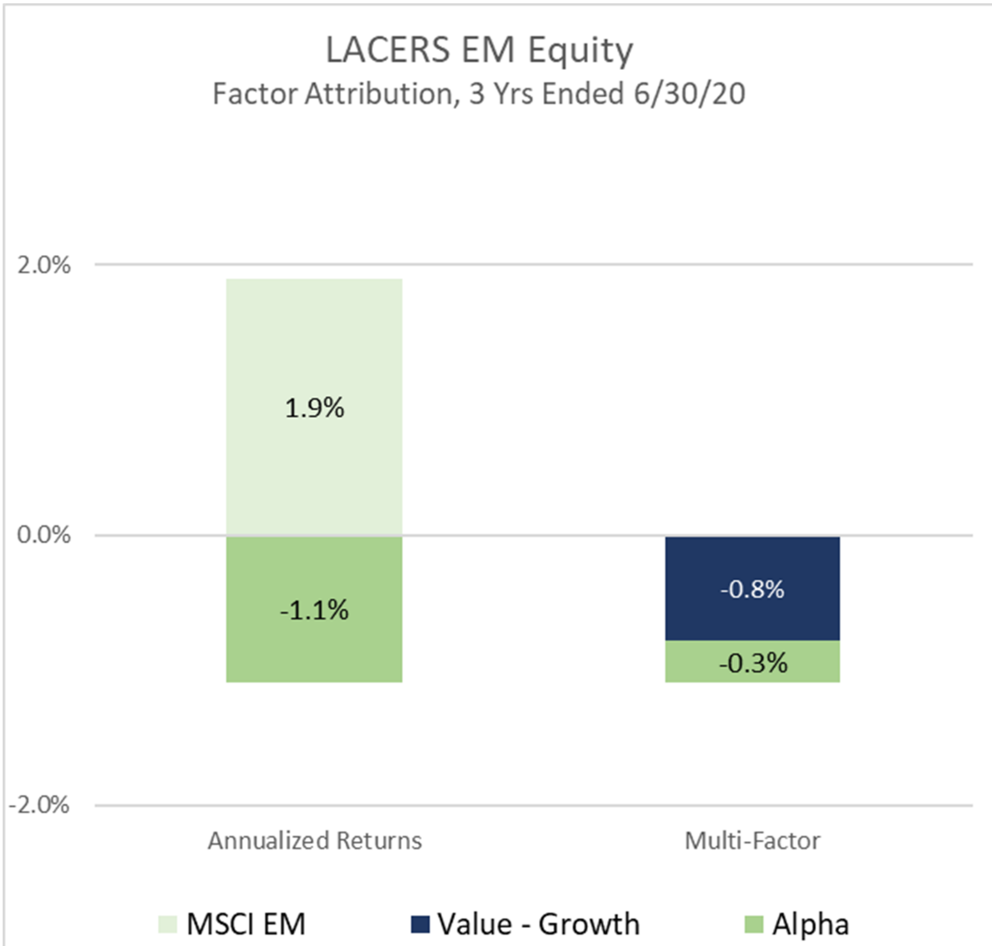


Exhibit 5

Longest Common Date: Alpha Correlations	Axiom	DFA	QMA
Axiom	**1.00**	**-0.47**	**-0.25**
DFA	**-0.47**	**1.00**	**0.00**
QMA	**-0.25**	**0.00**	**1.00**

Exhibit 6


LACERS EM Equity
Factor Attribution, 3 Yrs Ended 6/30/20
2.0%
0.0%
-2.0%
1.9%
-1.1%
-0.8%
-0.3%
Annualized Returns
Multi-Factor
MSCI EM
Value - Growth
Alpha

NEPC, LLC

Exhibit 7

EMERGING MARKETS EQUITY LARGE CAP

NEPC Active Management Views			
Asset Class	Median Fee	Test 1 Dispersion	Test 2 Median Outperf
EM Large Cap	80 bps		

Rolling 3 Year Excess Returns

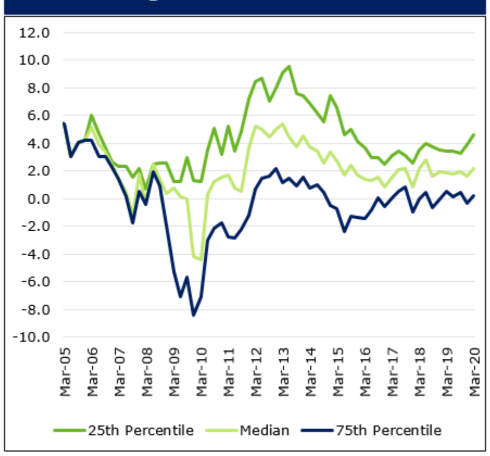
Benchmark Rank within Each Universe

Data is net of fees; EM Large Cap Core vs. MSCI EM Index.
Source: eVestment

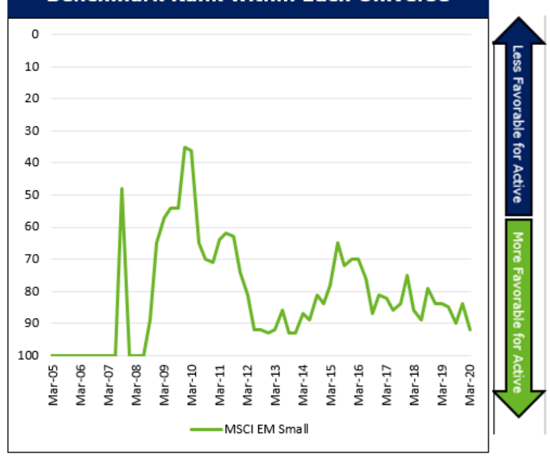
EMERGING MARKETS SMALL CAP EQUITY

NEPC Active Management Views			
Asset Class	Median Fee	Test 1 Dispersion	Test 2 Median Outperf
EM Small Cap	100 bps		

Rolling 3 Year Excess Returns



Benchmark Rank within Each Universe



Data is net of fees; EM Small Cap Core vs. MSCI EM SC Index.
Source: eVestment

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

REPORT TO INVESTMENT COMMITTEE **MEETING: OCTOBER 13, 2020**
From: Neil M. Guglielmo, General Manager **ITEM: VI**

SUBJECT: **PRESENTATION BY NORTHERN TRUST REGARDING SECURITIES LENDING PROGRAM FOR THE PERIOD JULY 1, 2019 TO JUNE 30, 2020**

ACTION: ☐ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☒

Recommendation

That the Investment Committee receive and file this report.

Discussion

The LACERS Securities Lending Program (SLP) seeks to generate income for LACERS' investment portfolio by lending public markets securities owned by LACERS to qualified borrowers. Securities loans are fully collateralized based on the fair value of the borrowed securities; collateral may consist of cash or securities. Income is generated from fees paid by borrowers and the investment of cash collateral in high-quality, short-term investments. The program involves risks, notably cash collateral investment risk, that may result in principal losses to LACERS. Since 1991, The Northern Trust Company (Northern Trust), LACERS' Master Custodian Bank, has administered the SLP and has served as the cash collateral investment manager.

The SLP is governed by the LACERS Securities Lending Policy (Policy) and customized investment manager guidelines. Pursuant to the Policy, Northern Trust, with the assistance of staff, has prepared the attached annual securities lending report for the Board. The report highlights LACERS' securities lending activity and earnings for the fiscal year ending June 30, 2020 and includes the impact of the temporary risk-reducing modifications to the SLP cash and non-cash collateral guidelines, as approved by the Board on April 28, 2020. The report will be presented by Northern Trust.

Strategic Alignment

LACERS' participation in the SLP aligns with the Strategic Plan Goal to optimize long-term risk adjusted investment returns (Goal IV). The presentation and discussion of the policy, guidelines, and performance information aligns with the Strategic Plan Goal to uphold good governance practices which affirm transparency, accountability, and fiduciary duty (Goal V).

Prepared by: Jeremiah Paras, Investment Officer I, Investment Division.

NMG/RJ/BF/JP

Attachment: 1. Northern Trust Securities Lending Report for July 1, 2019 to June 30, 2020

NORTHERN TRUST

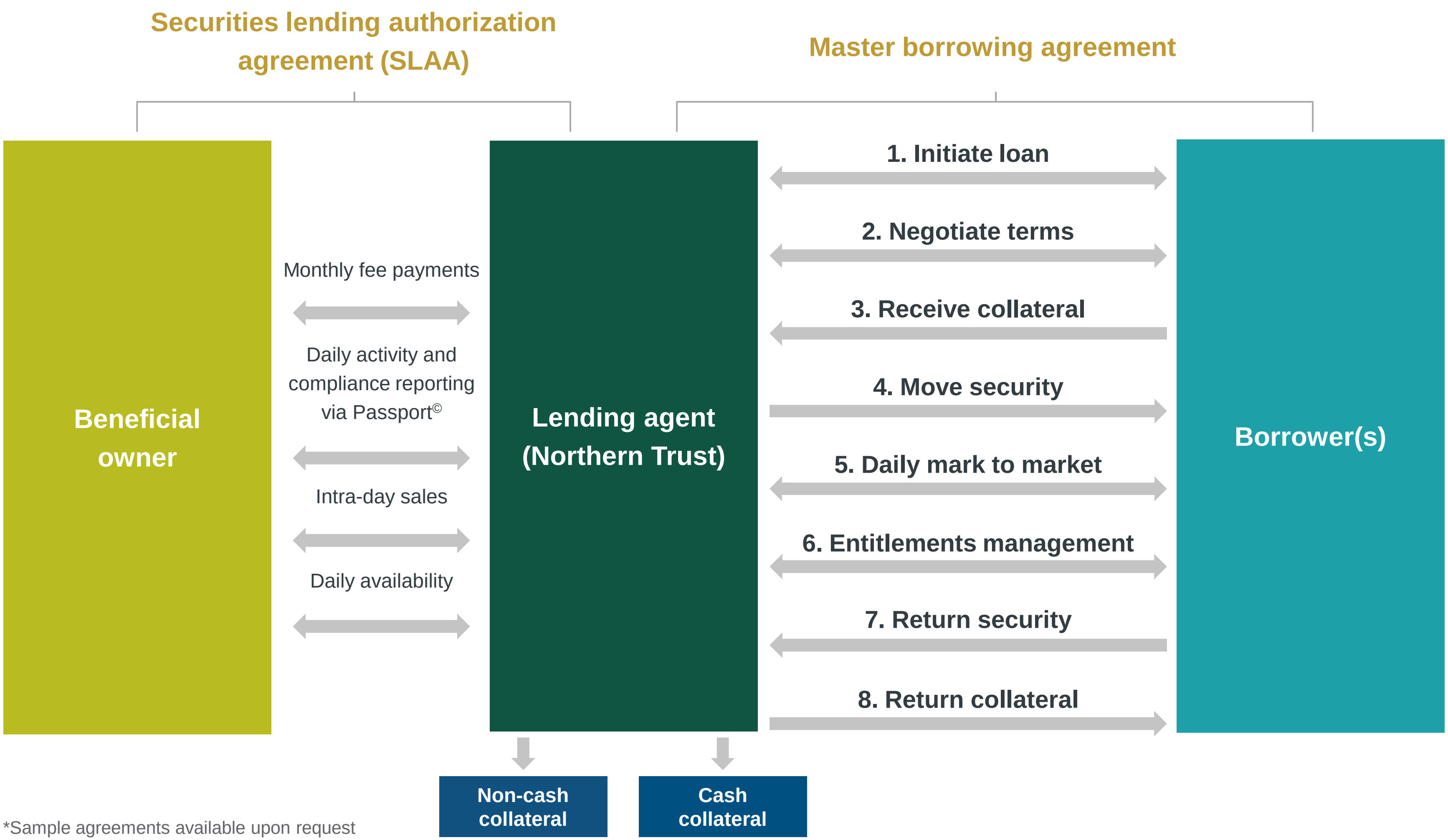
LACERS
Securities Lending Activity Report
For the Period July 1, 2019 to June 30, 2020

Don Anderson
Senior Vice President
Global Securities Lending

NORTHERN TRUST

SECURITIES LENDING TRANSACTION PROCESS

The life cycle of a loan



*Sample agreements available upon request

SECURITIES LENDING INCOME COMPONENTS

Understanding how securities lending income is generated.

Total securities lending spread

Reinvestment spread:	Intrinsic value spread:
Basis points earned from reinvestment of cash collateral	*Basis points earned from lending security to borrower, based on intensity of borrower demand*
Yield on cash collateral investment – fed funds rate	*Fed funds rate – rebate rate*

Yield on cash collateral investment

Federal funds (or benchmark) rate

Rebate rate
(Positive, > 0%, is paid to borrower. Negative, < 0%, is paid by borrower)

Reinvestment spread + Intrinsic value spread = **Total securities lending spread**
Total securities lending spread x Loan volume = **Total gross securities lending income**

HOW REVENUE IS GENERATED

Example: Northern Trust lends $25 million of US Equity

Non-Cash Loan

The $25 million market value loan is for 30 days collateralized by a US Treasury.

1	Receive non-cash collateral valued at **$25,500,000** (102%)	
2	Fee charged to borrower on the value of the loan (20 bps)	$4,167
3	Gross revenue (gross spread 20 bps) credited to client monthly	$4,167
4	Monthly lender's fee (@ 15%)	$625
5	**Net client earnings**	**$3,542**

Cash Loan

The $25 million market value loan is for 30 days collateralized with cash (federal funds at 0.25%)

1	Receive cash collateral valued at **$25,500,000** (102%)	
2	Cash collateral invested in a collateral pool at yield of 0.35%	$7,437.50
3	Rebate paid to borrower at rate of 0.05%	$(1,062.50)
4	Gross Revenue (gross spread 30 bps)	$6,375
5	Monthly lender's fee (@ 15%)	$956
6	**Net client earnings**	**$5,419**

Gross Spread = Lending Spread + Investment Spread
Lending Spread = Fed Funds – Rebate Rate
Investment Spread = Reinvestment Yield – Fed Funds

GLOBAL SECURITIES LENDING

Designed to enhance the return of an overall investment program without interfering with the investment strategy

We strive to extract the highest amount of intrinsic value from each loan, while mitigating risk for the benefit of our clients.

Who We Are

A core business within Northern Trust and an industry leader in terms of size, scale and innovation.

- 467 clients from 31 countries
- $1.3 trillion of lendable securities*
- $161 billion of loans outstanding*
- 74 approved borrowers at parent level

Who We Serve

- Corporations
- Endowments and Foundations
- Public Funds
- Mutual Funds
- Insurance
- Government
- Taft Hartley

What We Do

- Cash Management
- Risk Management
- Customized participation and collateral selection
- Lend in 35 countries and 54 markets worldwide Equity & Fixed Income markets
- 24-hour trading
  - — *Supported by our single, multi-currency proprietary platform*
  - — *Locations in Hong Kong, London, Toronto, Sydney and Chicago*

*Average for June 2020, Source: Northern Trust

MANAGING RISK

Risk management is instrumental to our program

Borrower

Borrower defaults and collateral is not sufficient to cover

Mitigating factors:

- Credit review of borrowers
- Over-collateralization
- Daily marking
- Indemnification
- Risk analysis tools

Trade Settlement

Fund sells securities and borrower doesn't return in time for trade to settle

Mitigating Factors:

- Timely communication
- Automated reallocations
- Trade settlement protection

Cash Collateral Reinvestment

Cash collateral investment becomes impaired or decreases in value

Mitigating Factors:

Client approved guidelines
Dedicated team of fixed income research analysis
Daily automated compliance

Interest Rate

Loan rebate rate exceeds earnings on cash collateral investments

Mitigating Factors:

- Weekly gap analysis
- Shared risk and stress testing of portfolio

RISK MANAGEMENT OVERSIGHT

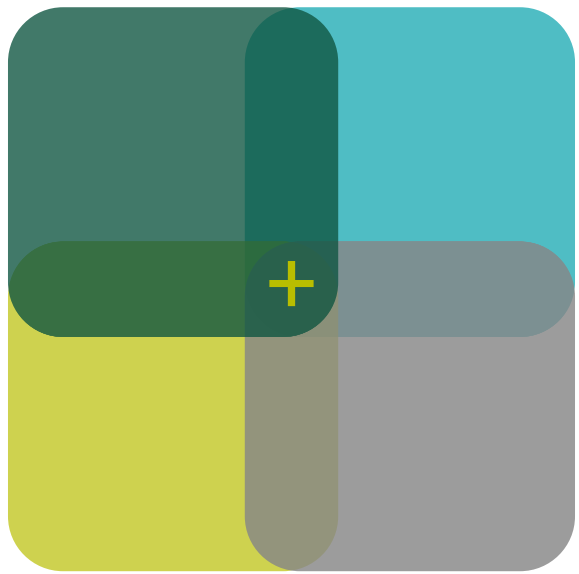
Risk management begins at the business level supported by senior level independent groups

Securities Lending Risk Council

- Provides senior management business oversight. Responsible for risk, compliance and control governance activities.
- Also monitors loan allocation process, cash collateral NAV, interest rate risk and loan/collateral stress testing.

Collateralized Product Risk Committee

- Approves all collateral types, margin levels, and credit risk factors. Reviews borrower exposures and risk profiles.
- Establishes loan/collateral product limits and undertakes periodic stress testing.



Capital Markets Credit Committee

- Monitors the financial viability of borrowers
- Sets limits for Northern Trust’s balance sheet and securities lending program
- Approves limits for counterparty groups, counterparties and specific products

Credit & Liquidity Risk Management Committee, Securities Approval Group

- Approves cash investment credit issuers, counterparties, and instruments
- Provides guidance and oversight of investment risk associated with cash reinvestment activity

TECHNOLOGY

Strong performance achieved through a single, global trading platform

Industry Trade Platform

- Facilitate quick and accurate matching of borrower needs with our supply
- Allow our trading team to focus on higher value trades

Data Providers

- Compare our program against the industry and our clients against their peers
- Provide industry data to improve loan pricing decisions

Global Securities Lending (GSL)

- Proprietary trading system
- Electronic links with custody, depository systems and industry trade platform
- Automates the vast majority of loans

Cash Collateral Management

- Aladdin
- Northern Trust Investments Short Duration team manages cash collateral
- Passport® reporting available for cash collateral positions and characteristics

Passport® reporting

Earnings	Borrower Exposure	Collateralization
At loan level, security level, asset class, account level, and entity level.	Market Value and collateral value by borrower	Collateralization levels, cash and noncash holdings

CUSTOMIZED TO MEET YOUR RISK AND RETURN OBJECTIVES

Collateral options tailored to LACERS' risk level

- Cash: Separately Managed Account
  - Principal preservation, liquidity management, competitive yield
  - Guidelines updated June 2020
  - Managed by Northern Trust Asset Management
- Non-cash: held in a separate account
  - Includes: US Treasuries and Agencies, highly rated OECD debt, major equity indices

Reporting

- Quarterly market update calls
- Monthly borrower ratings update
- Annual GASB Reporting

Additional Customization Alternatives

- Asset class, country limits, seasonal restrictions, minimum return parameters
- Borrower-specific caps or restricting certain borrowers from your program entirely

KEY MARKET TRENDS AND OBSERVATIONS

MACRO ECONOMIC TRENDS

Market Developments

- Global central banks have responded to the spread of COVID-19, and subsequent deterioration in economic growth, with ultra-accommodative monetary policy and funding operations
- Actions by the Federal Reserve continue to underpin current market dynamics and alleviate liquidity concerns. Dollar swap lines, term repo facilities and CP purchase programmes reflect the perception that the Fed stand ready to ease market stress, while remaining comfortable with rates as zero bound
- While policy rates were maintained over the quarter, the ECB maintained significant accommodation. Asset purchase programmes remain vast in size and varied in eligibility criteria, while recent repo operations injected €550 billion into the system
- Amid falling inflation and weak economic prospects, The Bank of England announced a £100 billion expansion in quantitative easing during the quarter. Governor Bailey made it clear the bank must begin reversing QE before hiking interest rates from record lows
- In Asia, The Bank of Japan signalled that interest rates will be on hold for the foreseeable future, whilst capping 10-year JGB yields at zero, and maintaining ETF purchases. Other central banks across the region maintained low policy rates in order to soften the impact of COVID-19 and rising geopolitical tensions.

INDUSTRY TRENDS

Trading

- Regulation and balance sheet requirements continue to drive demand for government bonds. More recently, appetite for safe-havens has eased following significant global liquidity injections
- Directional demand for Corporate and Emerging Market bonds following outbreak of COVID-19 and subsequent ratings downgrade/default threats. Unwind in leverage and sharp declines in asset prices resulted in pockets of illiquidity
- Strong short interest in sectors most exposed to the effects of COVID-19 (Airlines, Cruise lines, Travel & Tourism, Energy and Industrials). A reduction in global mobility, along with supply chain disruption has been the main underlying demand driver.
- New capital raising activity generated borrower demand with several companies announcing placements, exchangeable bonds and convertible bonds to generate liquidity and strengthen balance sheets through the pandemic period.
- Directional demand US ETFs which track Chinese indices remain in demand. Borrowers looked to gain short exposure to China given the fall out of COVID-19 in the region.
- Pressure from regulators, along with weaker corporate earnings, is resulting in the widespread cancellation of many company's 2020 dividend payments. This will negatively impact SL demand linked to these distributions.

Regulatory

The regulatory environment continues to influence borrower demand. Key trends include:

- **"HQLA"** - Elevated demand for High Quality Liquid Assets (HQLA), particularly over sensitive reporting periods and times of market stress
- **Term** - Increased demand to source supply on a term basis to help meet funding and liquidity ratios, and benefit from currency arbitrage opportunities
- **Regulatory Capital** - New regulatory capital efficient trade structures – for example, pledged collateral and central clearing models (CCPs)
- **Beneficial Owners** - Entity type and jurisdiction are increasingly relevant as these impact borrowers' regulatory capital usage
- **Short Selling Bans** – Equity market volatility resulted in selected countries introducing temporary bans on short selling. The bans have prevented investors from increasing net short positions. In some instances, SL flows in these markets have reduced modestly.

COVID-19 CASH IMPACTS

Central Banks and Governments

- All major central banks have announced numerous, substantial monetary policy programs to ensure proper market liquidity and functioning
- Interest rates have been slashed worldwide with many having either moved more deeply negative than prior to the crisis or are now pinned to the effective zero lower bound
- Governments across the globe have announced fiscal programs aimed at directly supporting individuals and businesses affected by the economic slowdown
- Tax deferrals, significant new treasury debt issuance, expanding Central Bank balance sheets, and future economic fallout will impact the Fixed Income markets meaningfully for a long time to come
- Global recession ongoing but length and depth is unknown and will be related to the path of the virus in larger economies

Market Implications for US Dollar Investments

- Overnight rates are at the zero lower bound, which has a yield depressive effect on the nominal yield given the large portion of our portfolios that are maturing overnight
- Secondary liquidity has returned to a more normalized environment
- Term credit, as evidenced by benchmarks such as 1-month and 3-month LIBOR has moved to long term averages – reflecting a restored balance of credit issuance and investor interest
- We maintain a longer duration strategic view given the expectation of lower rates for a very long time
- Even with a long bias, we are being very cautious in which credits we buy out the curve with a focus solely on the highest quality names

INVESTMENT PROFILE: LACERS CUSTOM CASH COLLATERAL FUND

JUNE 30, 2020

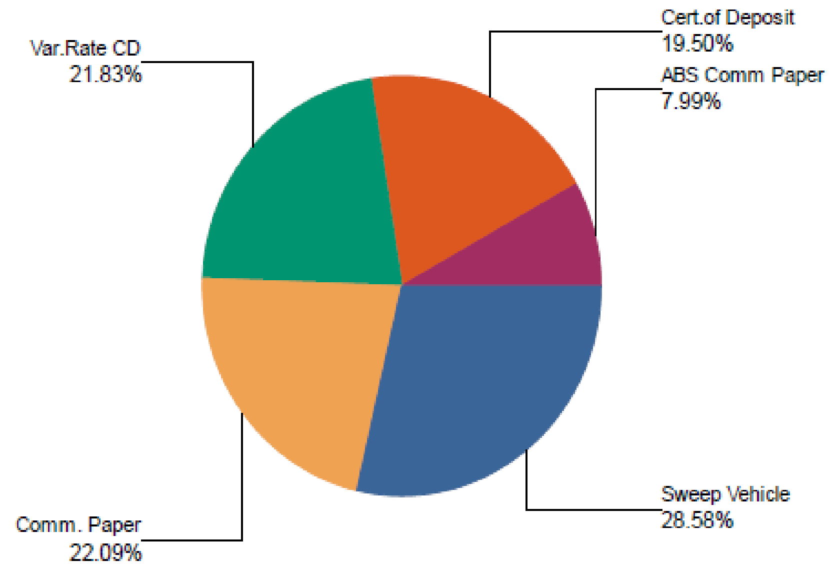
◆ Asset Allocation & Characteristics Report

LACERSCF - LACERS Custom Fund - USD

Characteristics		
Total Book Value (in USD)	325,169,017	
Weighted Average Maturity (Interest Reset Date)	47 Days	
Weighted Average Maturity (Maturity Date)	77 Days	
Average Equivalent Quality Rating	A1+	
Total Number of Issues	21	
Quality Distribution	**Percentage**	
A1+ (SHORT TERM)	89.26%	
A1 (SHORT TERM)	10.75%	
Maturity Breakdown Distribution	**Interest Reset**	**Maturity Date**
Overnight	28.56%	28.56%
2 - 15 Days	7.84%	0.00%
16 - 30 Days	10.14%	4.92%
31 - 60 Days	26.43%	13.37%
61 - 97 Days	17.51%	17.51%
98 - 180 Days	4.92%	24.89%
181 - 270 Days	4.61%	10.76%

Industry/Sector Distribution	Percentage
Banking Ind.	85.25%
Finance & Ins	5.84%
Finance Conduit	2.15%
Govt Agencies	6.76%

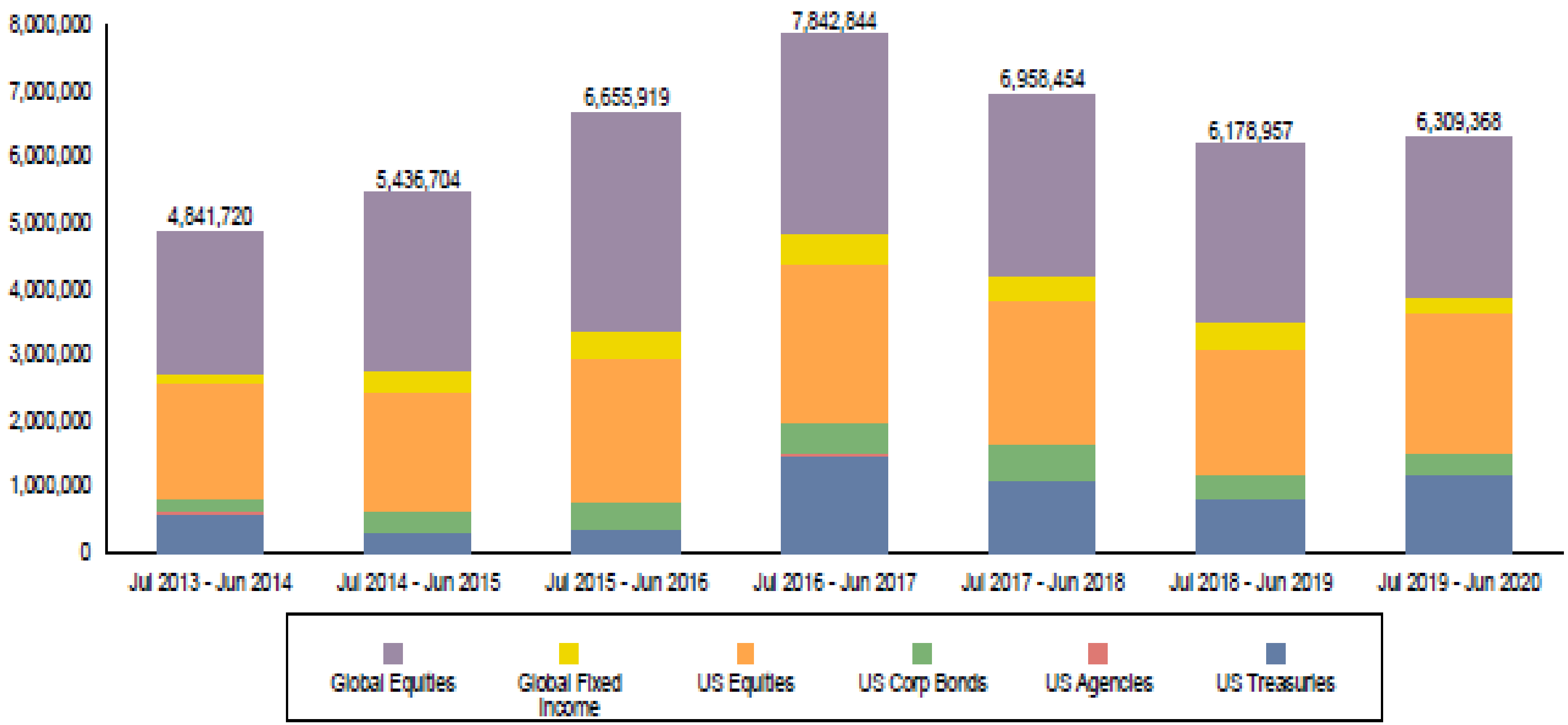
Cash Collateral Asset Class Breakdown



NOTE: This information was created using the best unaudited data available to us and may not be completely reliable, accurate, or timely. Data is prepared on a settled basis, which may differ from traded basis data on the Cash Collateral Holdings report. "Traded Basis" reflects pending trades.

HISTORICAL EARNINGS SUMMARY

- LOS ANGELES CITY EMPLOYEES



PERFORMANCE SCORECARD: LENDING & INVESTMENT BREAKDOWN

Northern Trust Securities Lending

Performance Scorecard - Lending and Investment Breakdown

From July, 2019 to June, 2020 (USD) **

Page 1 of 1

♦ LOS ANGELES CITY EMPLOYEES

	Market Value (USD)		% on	Gross Earnings (USD)			Spread (bps)			Gross BP Return	Net Earnings (USD)		
Security Type	Avg. on Loan	Avg. Available	Loan	Lending	Investment	Total	Lending	Investment	Overall	(bp) *	Lending	Investment	Total
US Treasuries	666,023,815	1,705,896,962	39.0%	210,364	1,192,663	1,403,027	3.1	17.6	20.7	8.1	178,813	1,013,795	1,192,608
US Agencies	8,247,089	143,167,550	5.8%	3,227	25,504	28,730	3.8	30.4	34.3	2.0	2,743	21,679	24,421
US Corp Bonds	68,439,654	862,869,368	7.9%	114,306	253,588	367,894	16.4	36.4	52.9	4.2	97,174	215,593	312,767
US Equities	603,165,167	4,461,869,133	13.5%	1,928,607	566,567	2,495,174	31.5	9.2	40.7	5.5	1,640,210	481,924	2,122,134
Global Sovereign	34,959,021	300,289,749	11.6%	67,535	65,122	132,657	19.0	18.3	37.3	4.3	57,411	55,359	112,770
Global Agencies	1,974,320	31,362,681	6.3%	3,523	3,438	6,961	17.6	17.1	34.7	2.2	2,995	2,923	5,917
Global Corp Bonds	27,042,178	292,252,191	9.3%	47,086	86,235	133,321	17.1	31.4	48.5	4.5	40,027	73,307	113,335
Global Equities	322,005,785	4,419,076,795	7.3%	2,623,849	229,248	2,853,097	80.1	7.0	87.2	6.4	2,230,501	194,914	2,425,415
Total	**1,731,857,049**	**12,216,784,448**	**14.2%**	**4,998,497**	**2,422,364**	**7,420,862**	**28.4**	**13.8**	**42.1**	**6.0**	**4,249,873**	**2,059,495**	**6,309,368**

When cash is taken as collateral on applicable loans, Rebates are based on an Industry [standard] overnight benchmark rate.

* Gross Basis Point Return equals On Loan Spread multiplied by % on Loan. GBPR is the measure of total return on a given asset class or portfolio.

PERFORMANCE SCORECARD: DATE RANGE COMPARISON

Northern Trust Securities Lending

Performance Scorecard - Client (Date Range Comparison)

(USD) **

◆ LOS ANGELES CITY EMPLOYEES

Security Type	Market Value (USD) Avg. on Loan	Market Value (USD) Avg. Available	% on Loan	Gross Earnings (USD)	On Loan Spread (bp)	Gross BP Return (bp) *	Net Earnings (USD)
From July, 2019 to June, 2020							
US Treasuries	666,023,815	1,705,896,962	39.0%	1,403,027	20.7	8.1	1,192,608
US Agencies	8,247,089	143,167,550	5.8%	28,730	34.3	2.0	24,421
US Corp Bonds	68,439,654	862,869,368	7.9%	367,894	52.9	4.2	312,767
US Equities	603,165,187	4,461,869,133	13.5%	2,495,174	40.7	5.5	2,122,134
Global Fixed Income	63,975,519	623,904,620	10.3%	272,939	42.0	4.3	232,022
Global Equities	322,005,785	4,419,076,795	7.3%	2,853,097	87.2	6.4	2,425,415
Total	**1,731,857,049**	**12,216,784,448**	**14.2%**	**7,420,862**	**42.1**	**6.0**	**6,309,368**
From July, 2018 to June, 2019							
US Treasuries	738,956,002	1,469,727,668	50.3%	975,546	13.0	6.5	829,239
US Agencies	16,402,592	129,074,050	12.7%	22,994	13.8	1.8	19,546
US Corp Bonds	89,579,517	774,447,676	11.6%	421,530	46.4	5.4	358,349
US Equities	543,896,358	4,438,017,681	12.3%	2,224,096	40.3	4.9	1,891,544
Global Fixed Income	95,095,814	594,447,676	16.0%	508,556	52.7	8.4	432,299
Global Equities	462,305,921	4,423,109,652	10.5%	3,114,935	66.5	6.9	2,647,980
Total	**1,946,236,204**	**11,828,824,403**	**16.5%**	**7,267,658**	**36.8**	**6.1**	**6,178,957**
Variance							
US Treasuries	-72,932,187	236,169,314	-11.2%	427,481	7.7	1.5	363,370
US Agencies	-8,155,504	14,093,500	-6.9%	5,736	20.4	0.2	4,876
US Corp Bonds	-21,139,862	88,421,692	-3.6%	-53,636	6.5	-1.2	-45,581
US Equities	59,268,828	23,851,452	1.3%	271,078	0.4	0.6	230,590
Global Fixed Income	-31,120,295	29,456,944	-5.7%	-235,617	-10.8	-4.1	-200,277
Global Equities	-140,300,136	-4,032,857	-3.2%	-261,838	20.7	-0.6	-222,565
Total	**-214,379,155**	**387,960,045**	**-2.3%**	**153,204**	**5.3**	**-0.1**	**130,411**

PERFORMANCE SCORECARD: TOP TEN EARNING SECURITIES

Northern Trust Securities Lending

Top 10 Net Earnings Report

From July 2019 To June 2020

◆ LOS ANGELES CITY EMPLOYEES

Rank	Security Name	CUSIP/SEDOL	Net Earnings	% Of Total Net Earnings	Market Value On Loan (USD)	Average % Utilization	Average Spread
1	NASPERS N ZAR0.02	6622691	488,994.30	7.75	788,849.67	6.03	5,845.33
2	AURELIUS EQUITY OP NPV	B17NLM7	163,781.45	2.60	763,296.13	79.53	2,449.98
3	CANOPY GROWTH CORP COM NPV	BYTN3W0	87,275.20	1.38	402,782.70	96.76	2,494.67
4	EQUINOR ASA NOK2.50	7133608	79,671.06	1.26	8,232,821.47	56.74	111.85
5	UNITED STATES TREAS NTS 2.875% DI	9128284N7	64,679.78	1.03	30,886,384.92	71.09	24.01
6	VISA INC COM CL A STK	92826C839	59,908.67	0.95	40,599,609.91	92.06	17.08
7	UNITED STATES TREAS INFL INDEXED	912828Y38	56,005.89	0.89	18,930,262.39	34.82	33.82
8	AURORA CANNABIS IN COM NPV	BTGWJY9	50,036.32	0.79	190,334.27	98.12	2,907.58
9	UNITED STATES OF AMER TREAS NOT	912828XR6	45,838.60	0.73	14,661,742.58	68.76	35.52
10	UNITED STATES TREAS INFL INDEX NT	9128283R9	39,215.89	0.62	48,418,495.58	83.09	10.33
Sub Total Of Top 10 Securities			1,135,407.16	18.00	163,874,579.62	65.37	81.93
All Other			5,173,960.94	82.00	1,567,982,486.21	13.10	37.71
Total			6,309,368.10	100.00	1,731,857,065.83	14.18	41.77

IMPORTANT INFORMATION

REPORT TO INVESTMENT COMMITTEE | **MEETING: OCTOBER 13, 2020**
From: Neil M. Guglielmo, General Manager | **ITEM: VII**

SUBJECT: **BROKERAGE ACTIVITY REPORT FOR THE PERIOD JULY 1, 2019 TO JUNE 30, 2020**

ACTION: ☐ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☒

Recommendation

That the Committee receive and file this report.

Executive Summary

This reports summarizes LACERS' brokerage activity for the period of July 1, 2019 to June 30, 2020.

Discussion

The LACERS Investment Policy, Section 1.V.C, states:

> Brokerage Policy
> The Board directs all investment managers trading public securities to utilize brokers who shall fulfill brokerage transactions for System assets in accordance with best execution. Subsequently, all LACERS public equity managers are to utilize commission recapture brokers on a best efforts basis. Commission recapture is a program designed to reduce fund expenses and increase cash flow by returning a portion of the commissions that external investment managers pay to brokers. Staff will provide to the Board an annual report summarizing commission and recapture activity for the fiscal year. The report will be presented within four months following the end of the fiscal year.

LACERS' investment managers are directed by policy and contract to use brokerage services that reduce trading costs and paid commissions that impact net performance. Commission recapture brokers are utilized to the extent that such brokers' costs are equal or less than the net cost of non-recapture broker. LACERS' brokerage commissions paid and amounts recaptured for the period July 1, 2019 to June 30, 2020 are presented in Attachment 1 to this report.

Strategic Alignment

Reviewing brokerage commissions is required by the Investment Policy and aligns with the Strategic Plan Goal to uphold good governance practices which affirm transparency, accountability, and fiduciary duty (Goal V).

Prepared by: Barbara Sandoval, Investment Officer II, Investment Division.

NMG/RJ/BF/BS:jp

Attachment: 1. LACERS' Commissions Paid and Recaptured, July 1, 2019 to June 30, 2020

LACERS' COMMISSIONS PAID AND RECAPTURED
July 1, 2019 to June 30, 2020

Asset Class/Manager	Strategy	Total Commissions Paid ($)	Recaptured Commissions ($)
Domestic Equities			
AJO, LP	Large Cap Value	3,514	
EAM Investors, LLC	Small Cap Growth	437,430	
PanAgora Asset Management, Inc.	Small Cap Value	2,811	144
Principal Global Investors, LLC	Mid Cap Core	19,039	
RhumbLine Advisers Limited Partnership	S&P 500 Index	74,115	
	Russell 1000 Growth Index	13,747	
	Russell 2000 Index	19,639	
	Russell 2000 Growth Index	12,154	
	Russell 2000 Value Index	23,603	
Sub-total		**$606,052**	**$144**
Non-U.S Equities			
AQR Capital Management, LLC	Small Cap Core	54,726	
Axiom International Investors, LLC	Emerging Markets Growth	472,023	3,311
Barrow, Hanley, Mewhinney & Strauss, LLC	Developed Markets Value	350,626	
Dimensional Fund Advisors, LP	Emerging Markets Value	35,811	
Lazard Asset Management, LLC	Developed Markets Core	376,051	
MFS Institutional Advisors, Inc.	Developed Markets Growth	70,964	
Oberweis Asset Management, Inc.	Small Cap Core	890,375	
Quantitative Management Associates, LLC	Emerging Markets Core	476,745	
State Street Global Advisors	MSCI World ex-U.S. Index	21,898	
Sub-total		**$2,749,219**	**$3,311**

Asset Class/Manager	Strategy	Total Commissions Paid ($)	Recaptured Commissions ($)
Credit Opportunities			
Aegon USA Investment Management, LLC	U.S. High Yield	35	
Sub-total		**$35**	
Public Real Assets			
CenterSquare Investment Management, LLC	U.S. REITS	376,318	
Sub-total		**$376,318**	
Other			
Liquidation of Stock Distributions		17,698	
Portfolio Transitions/Restructurings		163,547	
Sub-total		**$181,245**	
Combined total		**$3,912,869**	**$3,455**