



## *Investment Committee Agenda*

**REGULAR MEETING**

**TUESDAY, DECEMBER 10, 2019**

**TIME: 10:30 A.M. OR IMMEDIATELY FOLLOWING THE 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:	Lita Payne
Executive Assistant:	Ani Ghoukassian
Legal Counselor:	City Attorney's Office Public Pensions General Counsel 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 [REGULAR MEETING OF NOVEMBER 12, 2019](#) AND THE [SPECIAL MEETING OF DECEMBER 2, 2019](#) AND POSSIBLE COMMITTEE ACTION
- III. CHIEF INVESTMENT OFFICER VERBAL REPORT
- IV. [PRESENTATION BY NORTHERN TRUST REGARDING SECURITIES LENDING ACTIVITY REPORT FOR THE PERIOD JULY 1, 2018 TO JUNE 30, 2019](#)
- V. OTHER BUSINESS
- VI. NEXT MEETING: The next Regular Meeting of the Investment Committee is scheduled for Tuesday, January 14, 2020, in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.
- VII. ADJOURNMENT

## **Board of Administration Agenda**

### **SPECIAL MEETING**

**TUESDAY, DECEMBER 10, 2019**

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

### **MEETING LOCATION:**

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

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President:	Cynthia M. Ruiz
Vice President:	Michael R. Wilkinson
Commissioners:	Annie Chao Elizabeth Lee Sandra Lee Nilza R. Serrano Sung Won Sohn
Manager-Secretary:	Lita Payne
Executive Assistant:	Ani Ghoukassian
Legal Counsel:	City Attorney's Office Public Pensions General Counsel Division

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- VII. ADJOURNMENT

MINUTES OF THE SPECIAL MEETING  
**BOARD OF ADMINISTRATION**  
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

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

November 12, 2019

**Agenda of: Dec. 10, 2019**

**Item No: II**

1:40 p.m.

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PRESENT:	Chair:	Sung Won Sohn
	Committee Members:	Elizabeth Lee Nilza R. Serrano
	Commissioner:	Annie Chao
	Manager-Secretary:	Lita Payne
	Executive Assistant:	Ani Ghoukassian
	Legal Counselor:	(left at 3:07 p.m) Anya Freedman (arrived at 3:07 p.m.) Joshua Geller

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

Commissioner Chao was present, this is considered a Special Meeting of the Board of Administration. Any votes will be taken by Investment Committee members only.

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 SPECIAL MEETING OF OCTOBER 8, 2019 AND POSSIBLE COMMITTEE ACTION – A Motion to approve the minutes of October 8, 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.

III

CHIEF INVESTMENT OFFICER VERBAL REPORT – Rod June, Chief Investment Officer, handed out the 12-month forward calendar and upcoming RFP schedule.

IV

Deputy City Attorney Joshua Geller took over for Assistant City Attorney Anya Freedman at 3:07 p.m.

CONTINUED DISCUSSION OF THE PRIVATE EQUITY PROGRAM 2020 STRATEGIC PLAN AND POSSIBLE COMMITTEE ACTION – David Fann, President, Heidi Poon and Jeff Goldberger, Senior Vice Presidents, with TorreyCove presented this item to the Committee. Members of the Committee asked questions of the consultant and staff. The Committee discussed this item for 1 hour and 50 minutes, and Committee Member Serrano moved approval, and adopted by the following vote: Ayes, Committee Members Elizabeth Lee, Serrano and Chair Sohn –3; Nays, None.

V

OTHER BUSINESS – There was no other business.

VI

NEXT MEETING – The next Regular Meeting of the Investment Committee is scheduled for Tuesday, December 10, 2019, in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

VII

ADJOURNMENT – There being no further business before the Committee, Chair Sohn adjourned the Meeting at 3:35 p.m.

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Sung Won Sohn  
Chair

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Lita Payne  
Manager-Secretary

MINUTES OF THE SPECIAL MEETING  
**BOARD OF ADMINISTRATION**  
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

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

December 2, 2019

<b>Agenda of:</b> <u>Dec. 10, 2019</u>
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<b>Item No:</b> <u>II</u>
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9:02 a.m.

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PRESENT:	Chair:	Sung Won Sohn
	Committee Members:	Elizabeth Lee Nilza R. Serrano
	Commissioner:	Annie Chao
	Manager-Secretary:	Lita Payne
	Executive Assistant:	Ani Ghoukassian
	Legal Counselor:	Anya Freedman

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

Commissioner Chao was present, this is considered a Special Meeting of the Board of Administration. Any votes will be taken by Investment Committee members only.

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

FINALIST FIRMS OF THE ACTIVE U.S. SMALL CAP EQUITIES INVESTMENT MANAGER SEARCH AND POSSIBLE COMMITTEE ACTION – Bryan Fujita, Chief Operating Officer, Barbara Sandoval, Investment Officer II, Robert King, Investment Officer I, and Carolyn Smith with NEPC introduced and discussed this item with the Committee for 30 minutes.

Charles Barrett, Director of Sales & Marketing and Mark Giovanniello, Chief Investment Officer with Copeland Capital Management, LLC presented to the Committee and responded to questions for 37 minutes.

Chair Sohn recessed the Meeting at 10:08 a.m. for a break and reconvened the Meeting at 10:11 a.m.

Montie L. Weisenberger, Managing Director & Portfolio Manager for Small Cap Growth, Michele C. Rodrigues, Senior Associate and Product Specialist, and Frank P. Hurst, President and Managing Director of Marketing and Client Service with EAM Investors, LLC presented to the Committee and responded to questions for 43 minutes.

Chair Sohn recessed the Meeting at 10:54 a.m. for a break and reconvened the Meeting at 11:14 a.m.

Jane White, CEO, Drew Beja, Senior Vice President & Portfolio Manager, and Steve Sexeny, Senior Vice President – Business Development with Granahan Investment Management presented to the Committee and responded to questions for 43 minutes.

Chair Sohn recessed the Meeting at 11:57 a.m. for a break and reconvened the Meeting at 12:01 p.m.

Kevin Bernzott, Chairman & CEO, Thomas Derse, President/Portfolio Manager & Analyst, and Bart O'Connor, Head of Business Development with Bernzott Capital Advisors presented to the Committee and responded to questions for 30 minutes.

Chair Sohn recessed the Meeting at 12:31 p.m. for a break and reconvened the Meeting at 12:35 p.m.

Shaun P. Nicholson, Principal, Senior Portfolio Manager and Clark W. Koertner, Principal, Director of Institutional Sales with Segall Bryant & Hamill presented to the Committee and responded to questions for 40 minutes.

Chair Sohn recessed the Meeting at 1:15 p.m. for a break and reconvened the Meeting at 1:20 p.m.

Staff and Carolyn Smith with NEPC continued to discuss the presentations with the Committee members. The Committee did not take action on this item. Chair Sohn advised staff to return to the Committee with statistics from all the presenters on how they performed in a down market for further discussion.

### III

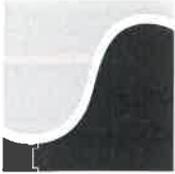
ADJOURNMENT – There being no further business before the Committee, Chair Sohn adjourned the Meeting at 2:07 p.m.

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Sung Won Sohn  
Chair

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Lita Payne  
Manager-Secretary



**REPORT TO INVESTMENT COMMITTEE**

**MEETING: DECEMBER 10, 2019**

**From: Lita Payne, Executive Officer**

**ITEM: IV**

*Lita Payne*

**SUBJECT: PRESENTATION BY NORTHERN TRUST REGARDING SECURITIES LENDING ACTIVITY REPORT FOR THE PERIOD JULY 1, 2018 TO JUNE 30, 2019**

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 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 high-quality, short-term investments of cash collateral. 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 program and served as the cash collateral investment manager.

The SLP is governed by the LACERS Securities Lending Policy (Policy) and customized investment manager guidelines (guidelines). Pursuant to the Policy, Northern Trust, with the assistance of staff, prepared the attached annual securities lending report. The report highlights LACERS' securities lending activity and earnings for the fiscal year ending June 30, 2019. The SLP is in compliance with the Policy and guidelines.

**Strategic Plan Impact Statement**

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

Prepared By: Eduardo Park, Investment Officer I, Investment Division.

RJ/BF/EP:sg

Attachment: 1. LACERS Securities Lending Report for the Period Ending June 30, 2019

NORTHERN TRUST

# LACERS

## Securities Lending Activity Report

For the Period July 1, 2018 to June 30, 2019

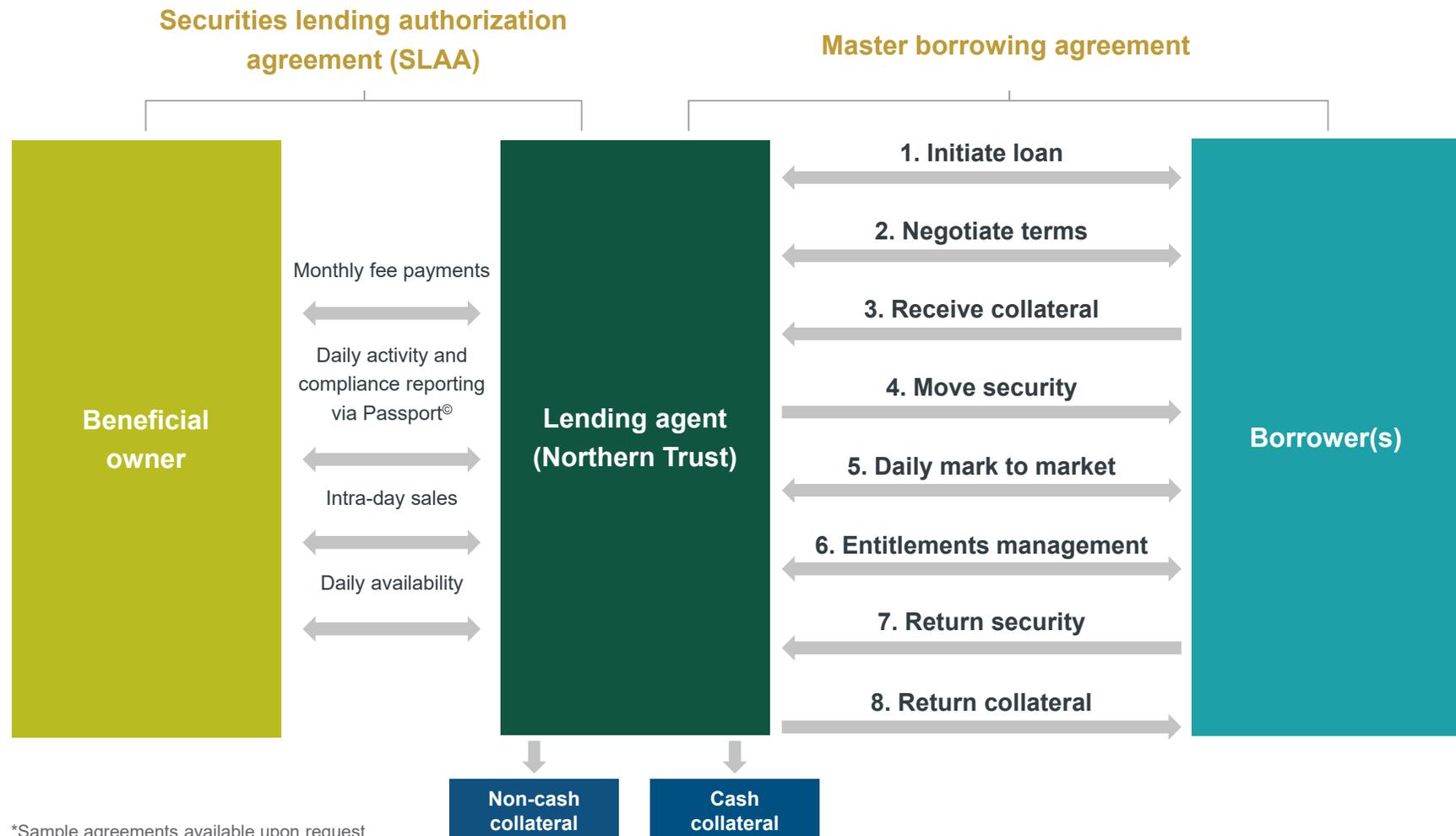
**Don Anderson**  
Senior Vice President  
Global Securities Lending



NORTHERN TRUST

# SECURITIES LENDING TRANSACTION PROCESS

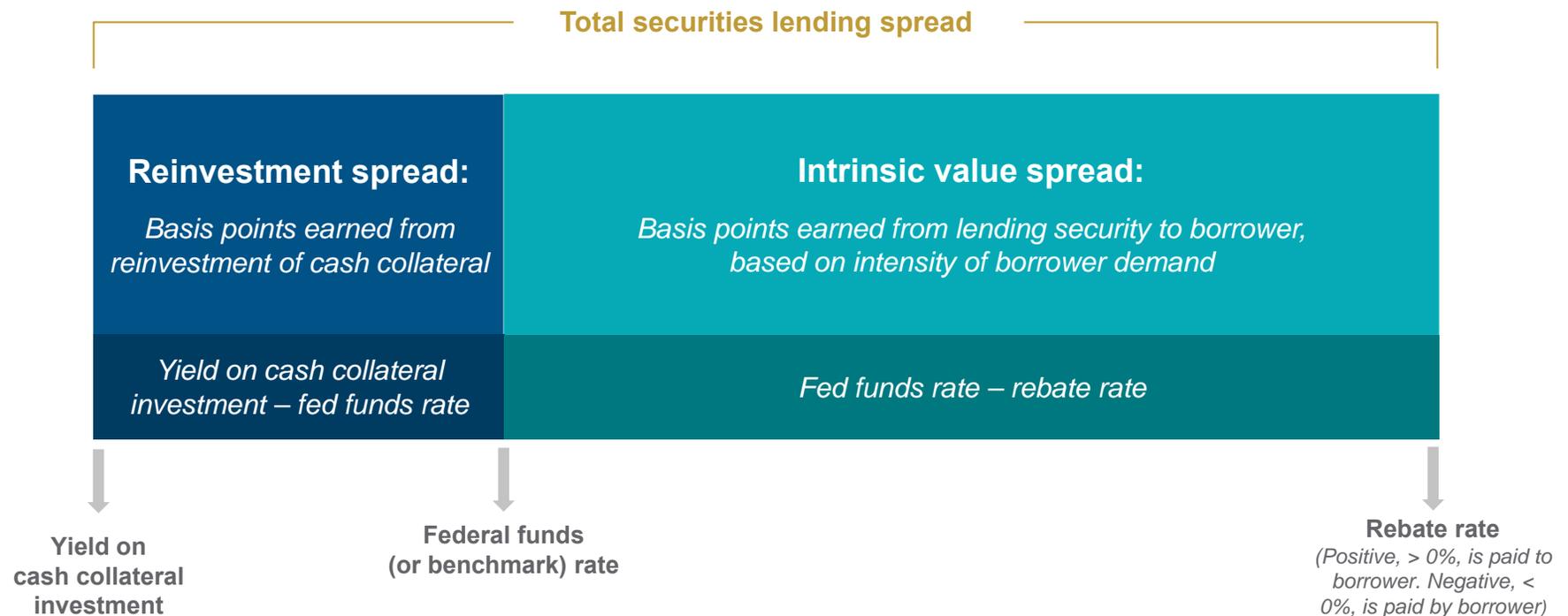
*The life cycle of a loan*



\*Sample agreements available upon request

# SECURITIES LENDING INCOME COMPONENTS

*Understanding how securities lending income is generated.*



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 <b>\$25,500,000</b> (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 (@ 30%)	<u>\$1,250</u>
5	<b>Net client earnings</b>	<b>\$2,917</b>

## Cash Loan

The \$25 million market value loan is for 30 days collateralized with cash (federal funds at 2.00%)

1	Receive cash collateral valued at <b>\$25,500,000</b> (102%)	
2	Cash collateral invested in a collateral pool at yield of 2.10%	\$44,625
3	Rebate paid to borrower at rate of 1.80%	\$(38,250)
4	Gross Revenue (gross spread 30 bps)	\$6,375
5	Monthly lender's fee (@ 30%)	<u>\$1,913</u>
6	<b>Net client earnings</b>	<b>\$4,462</b>

*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.

- 452 clients from 31 countries
- \$1.3 trillion of lendable securities\*
- \$175 billion of loans outstanding\*
- 73 approved borrowers at parent level

## 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

## Who We Serve

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



\*Average for September 2019, 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

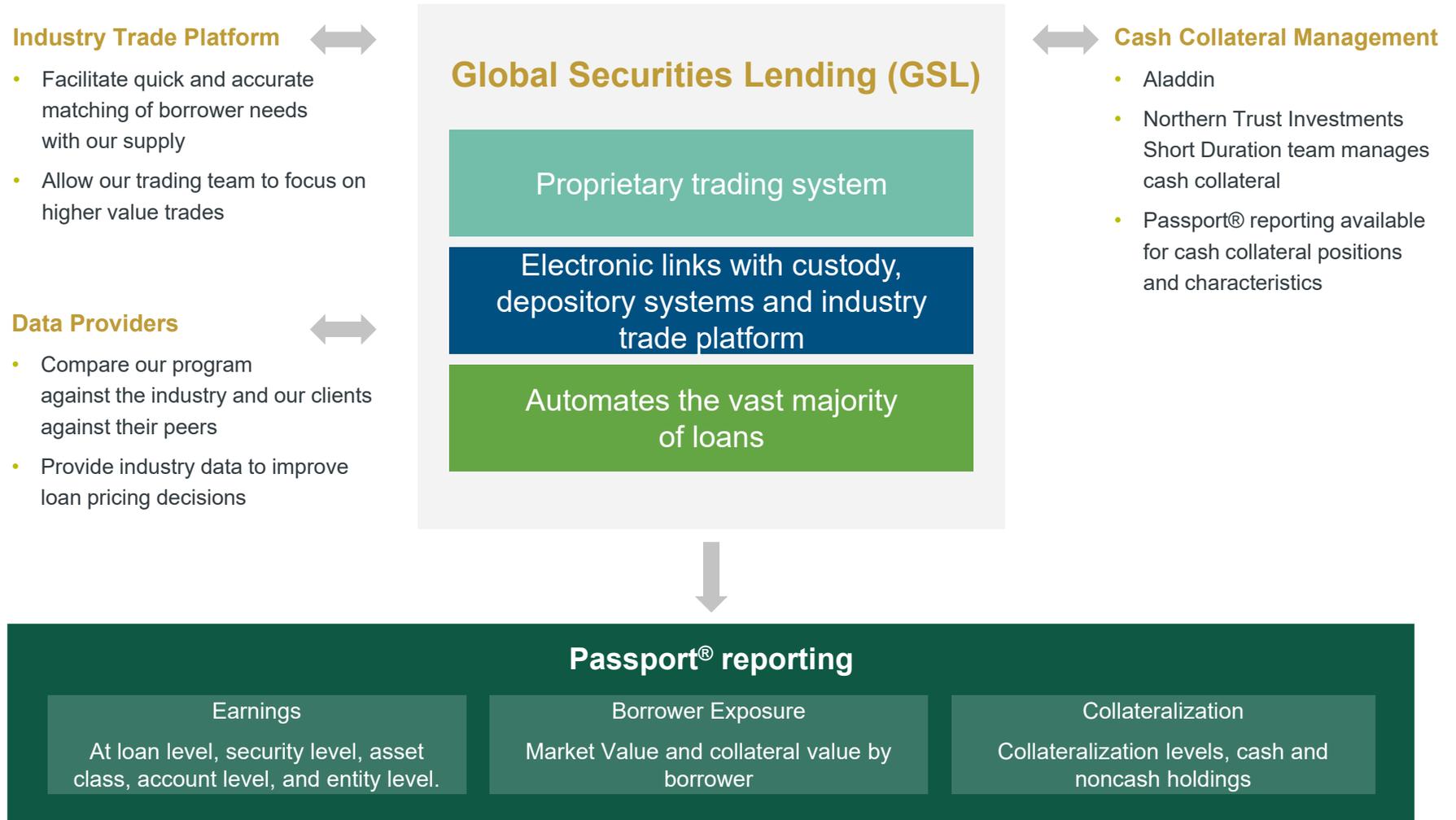
- Monitors the financial viability of borrowers
- Sets limits for Northern Trust's balance sheet and securities lending program
- Approves limits for counterparty groups, counterparties and specific products

## 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*



# 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
  - 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

- As signs of slowing persist, central banks took steps to bolster growth in global economies
- Despite a strong US jobs market, the FOMC used the September meeting to deliver the second 25bps rate cut in 2019. Chair Powell refrained from committing to further cuts, though the market favors another move lower in the fourth quarter
- In order to alleviate liquidity concerns, the Federal Reserve appear willing to purchase more Treasuries in order to increase the level of reserves in the banking system
- Low inflation and subdued growth expectations have maintained dovish ECB rhetoric. In September the central bank lowered the deposit rate by 10bps to -0.50% and announced the resumption of asset purchases
- Brexit uncertainties and the rising chances of no-deal scenario continue to pressure UK growth. However, buoyant jobs market should provide the BoE with comfort to maintain interest rate
- In Asia, ongoing Sino-American trade disputes in addition to geo-political tensions in Hong Kong, have depressed markets leading to disappointing regional economic data

## INDUSTRY TRENDS

### Trading

- Regulation and balance sheet requirements continue to drive demand for government bonds
- Global equity loan volumes softened as leveraged investors reduced exposures due to uncertainty relating to the US/China trade tensions, and shifting global central bank policy
- Directional demand for corporate bonds and equities is dominated by key sector trends (e.g. Consumer Discretionary, Technology, Healthcare, Industrials, Financials)
- Borrower constraints and changes in tax reclaim legislation continue to negatively impact yield enhancement demand globally
- Strong directional demand for American depository receipts (ADRs) and exchange traded funds (ETFs) with direct exposure in China

### 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
- **Term** - Increased demand to source supply on a term basis to help meet funding and liquidity ratios
- **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

# CENTRAL BANKING ACTIVITY

*Concerns of a broad-based global slowdown remain a key focus of central banks and policy makers*

## U.S. Federal Reserve (FED)

- Fed cut rates in July and September by 25 basis points apiece
- Future cuts are unclear in terms of both timing and number, but markets are pricing in one to two more cuts in the near term
- Economic data such as GDP and other growth variables are slowing but still in a positive range
- Labor conditions remain impressive with unemployment at 50 year lows, but inflation metrics remain subdued
- Concerns of a global slowdown and trade wars affecting future business and consumer spending is the main focus of policy makers

## The European Central Bank (ECB)

- Eurozone economic momentum continues to slow
- Inflation remains muted and is expected to decline
- Reinstatement of a key central bank lending program called Targeted Long-Term Refinancing Operations (TLTRO) – third iteration intended to stimulate lending
- Resumption of Quantitative Easing (QE) – Asset Purchases - by the ECB intended to stimulate growth
- Rate cuts from the ECB in September were well expected by the market and highlight economic concerns

## The Bank of England (BOE)

- The next interest rate action by the Monetary Policy Committee (MPC) is unknown given Brexit uncertainty
- Brexit remains the critical unknown for the near term future of the UK economy, as it has for past 3 years
- Chances of a 'hard-Brexit' increasing as the political landscape becomes even more unclear than it had been
- UK labor market still strong but signs of softening on the horizon
- Inflation expected to oscillate around the BOE's 2% target, although underperforming of late

# COLLATERAL REINVESTMENT TRENDS

*How market dynamics affect our cash portfolio positioning*

## Market dynamics

- Treasury yields continue to compress across all durations – with yields currently inverted when considering 3 month US treasury bills out to the 10 year portion of the curve
- Credit spreads may continue to trade at current levels as competing pressures of additional short duration cash entering the markets push yields down while year-end funding pressures may push yields up
- General yield curve inversion makes tactical portfolio positioning critical

## Current portfolio positioning

- Taking longer duration view generally as rate cuts are priced into market expectations
- Retaining strong overnight liquidity positions focused on repurchase agreements and time deposits of high quality financial institutions
- Decision-making on fixed rate versus floating rate trades being done on a tactical basis evaluating value in the context of the changing certainty/likelihood of future cuts and their timing

# INVESTMENT PROFILE: LACERS CUSTOM CASH COLLATERAL FUND

JUNE 30, 2019

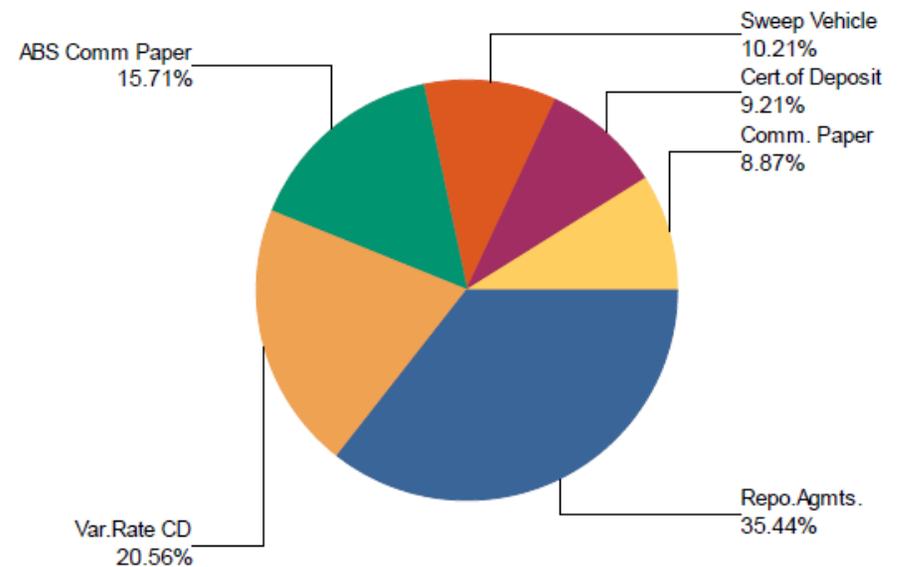
## ◆ Asset Allocation & Characteristics Report

### LACERSCF - LACERS Custom Fund - USD

Characteristics		
Total Book Value (in USD)	705,399,681	
Weighted Average Maturity (Interest Reset Date)	35 Days	
Weighted Average Maturity (Maturity Date)	56 Days	
Average Equivalent Quality Rating	A1+	
Total Number of Issues	28	
Quality Distribution		
	Percentage	
A1+ (SHORT TERM)	77.63%	
A1 (SHORT TERM)	22.37%	
Maturity Breakdown Distribution		
	Interest Reset	Maturity Date
Overnight	45.61%	42.07%
16 - 30 Days	9.91%	2.27%
31 - 60 Days	24.65%	17.42%
61 - 97 Days	12.61%	24.50%
98 - 180 Days	5.67%	5.67%
181 - 270 Days	0.00%	6.52%
271 - 366 Days	1.56%	1.56%

Industry/Sector Distribution	Percentage
Banking Ind.	47.32%
Broker/Dealer	36.97%
Finance & Ins	15.71%

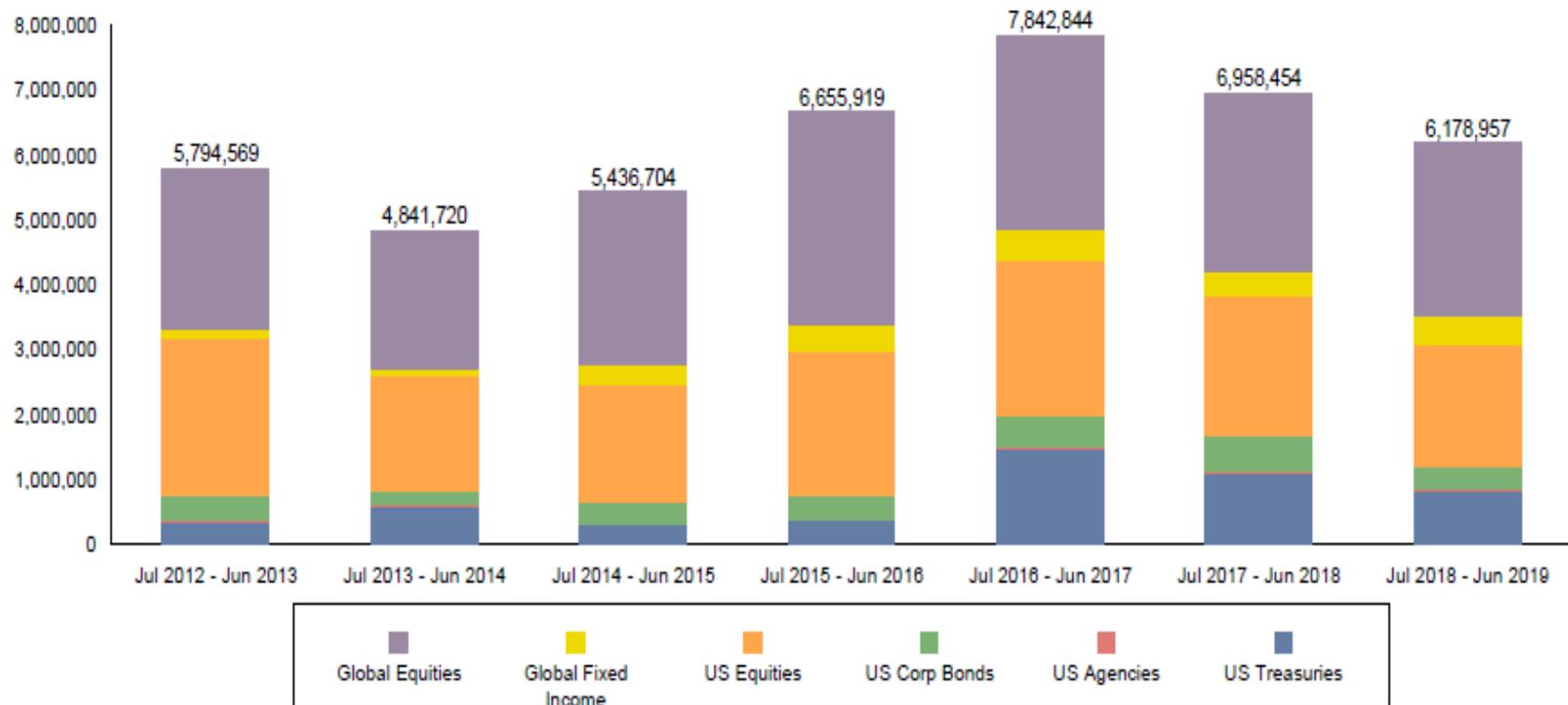
## Cash Collateral Asset Class Breakdown



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, 2018 to June, 2019

( USD ) \*\*

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#### ◆ LOS ANGELES CITY EMPLOYEES

Security Type	Market Value ( USD )		% on Loan	Gross Earnings ( USD )			Spread (bps)			Gross BP Return (bp) *	Net Earnings ( USD )		
	Avg. on Loan	Avg. Available		Lending	Investment	Total	Lending	Investment	Overall		Lending	Investment	Total
US Treasuries	738,956,002	1,469,727,668	50.3%	-219,668	1,195,213	975,546	-2.9	16.0	13.0	6.5	-186,731	1,015,970	829,239
US Agencies	16,402,592	129,074,050	12.7%	-17,982	40,977	22,994	-10.8	24.6	13.8	1.8	-15,286	34,831	19,546
US Corp Bonds	89,579,517	774,447,676	11.6%	245,413	176,117	421,530	27.0	19.4	46.4	5.4	208,623	149,725	358,349
US Equities	543,896,358	4,438,017,681	12.3%	1,701,387	522,710	2,224,096	30.9	9.5	40.3	4.9	1,446,946	444,599	1,891,544
Global Sovereign	50,539,760	262,077,691	19.3%	240,557	77,595	318,152	46.9	15.1	62.1	12.0	204,482	65,959	270,441
Global Agencies	4,187,977	37,035,582	11.3%	9,038	6,412	15,450	21.3	15.1	36.4	4.1	7,683	5,450	13,133
Global Corp Bonds	40,368,077	295,334,403	13.7%	105,499	69,455	174,954	25.8	17.0	42.7	5.8	89,681	59,043	148,725
Global Equities	462,305,921	4,423,109,652	10.5%	2,845,773	269,162	3,114,935	60.7	5.7	66.5	6.9	2,419,151	228,830	2,647,980
<b>Total</b>	<b>1,946,236,204</b>	<b>11,828,824,403</b>	<b>16.5%</b>	<b>4,910,017</b>	<b>2,357,641</b>	<b>7,267,658</b>	<b>24.9</b>	<b>11.9</b>	<b>36.8</b>	<b>6.1</b>	<b>4,174,549</b>	<b>2,004,408</b>	<b>6,178,957</b>

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 ) \*\***

Page 1 of 2

◆ **LOS ANGELES CITY EMPLOYEES**

Security Type	Market Value ( USD )		% on Loan	Gross Earnings ( USD )	On Loan Spread (bp)	Gross BP Return (bp) *	Net Earnings ( USD )
	Avg. on Loan	Avg. Available					
<b>From July, 2018 to June, 2019</b>							
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
<b>Total</b>	<b>1,946,236,204</b>	<b>11,828,824,403</b>	<b>16.5%</b>	<b>7,267,658</b>	<b>36.8</b>	<b>6.1</b>	<b>6,178,957</b>
<b>From July, 2017 to June, 2018</b>							
US Treasuries	828,045,628	1,186,962,890	69.8%	1,283,208	15.3	10.7	1,090,764
US Agencies	20,011,362	142,057,808	14.1%	30,100	14.8	2.1	25,586
US Corp Bonds	102,120,706	822,695,647	12.4%	648,077	62.6	7.8	550,908
US Equities	537,196,223	4,386,940,854	12.2%	2,563,123	47.1	5.8	2,179,584
Global Fixed Income	75,853,687	587,545,305	12.9%	429,999	55.9	7.2	365,523
Global Equities	465,169,406	4,678,254,683	9.9%	3,230,387	68.5	6.8	2,746,089
<b>Total</b>	<b>2,028,397,011</b>	<b>11,804,457,187</b>	<b>17.2%</b>	<b>8,184,894</b>	<b>39.8</b>	<b>6.8</b>	<b>6,958,454</b>
<b>Variance</b>							
US Treasuries	-89,089,626	282,764,778	-19.5%	-307,662	-2.3	-4.1	-261,525
US Agencies	-3,608,769	-12,983,759	-1.4%	-7,106	-1.0	-0.3	-6,040
US Corp Bonds	-12,541,189	-48,247,971	-0.8%	-226,547	-16.2	-2.4	-192,560
US Equities	6,700,135	51,076,828	0.0%	-339,027	-6.7	-0.8	-288,040
Global Fixed Income	19,242,127	6,902,371	3.1%	78,557	-3.2	1.2	66,776
Global Equities	-2,863,485	-255,145,031	0.5%	-115,451	-2.0	0.1	-98,109
<b>Total</b>	<b>-82,160,807</b>	<b>24,367,217</b>	<b>-0.7%</b>	<b>-917,236</b>	<b>-3.0</b>	<b>-0.8</b>	<b>-779,497</b>

# PERFORMANCE SCORECARD: TOP TEN EARNING SECURITIES

## Northern Trust Securities Lending

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### Top 10 Net Earnings Report

From July 2018 To June 2019

#### ◆ 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	EQUINOR ASA NOK2.50	7133608	74,828.58	1.21	4,278,521.40	21.25	205.06
2	RUSSIAN (FED OF) 12.75% BD 24/6/28	5485743	72,225.31	1.17	3,965,848.58	84.29	207.27
3	AFTERPAY TOUCH GRP NPV	BF5L8B9	72,195.47	1.17	2,698,099.23	72.55	309.04
4	ADR ALIBABA GROUP HOLDING LTD SI	01609W102	70,004.16	1.13	36,973,732.32	85.71	21.58
5	ENGIE COMSTK	B0C2CQ3	65,651.94	1.06	2,104,419.28	15.74	349.28
6	ELI LILLY & CO COM	532457108	62,019.36	1.00	1,881,079.34	12.05	376.93
7	MICRONIC MYDATA AB NPV	5262849	59,222.01	0.96	306,170.07	85.71	2,147.88
8	EVOLUS INC COM	30052C107	53,933.99	0.87	225,029.46	89.20	2,720.06
9	AURORA CANNABIS IN COM NPV	BTGWJY9	53,197.99	0.86	396,832.06	91.68	1,488.13
10	VISA INC COM CL A STK	92826C839	50,590.59	0.82	39,117,882.50	99.47	15.03
<b>Sub Total Of Top 10 Securities</b>			633,869.40	10.26	91,947,614.24	65.19	79.30
<b>All Other</b>			5,545,087.40	89.74	1,854,288,605.18	15.87	34.17
<b>Total</b>			6,178,956.80	100.00	1,946,236,219.42	16.45	36.29

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