LACERS
LA CITY EMPLOYEES' RETIREMENT SYSTEM

Investment Committee Agenda

REGULAR MEETING

TUESDAY, MARCH 8, 2022

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

MEETING LOCATION:

In accordance with Government Code Section 54953, subsections (e)(1) and (e)(3), and in light of the State of Emergency proclaimed by the Governor on March 4, 2020 relating to COVID-19 and ongoing concerns that meeting in person would present imminent risks to the health or safety of attendees and/or that the State of Emergency continues to directly impact the ability of members to meet safely in person, the LACERS Investment Committee's March 8, 2022 meeting will be conducted via telephone and/or videoconferencing.

Important Message to the Public

Information to call-in to listen and/or participate:
Dial: (669) 254-5252 or (669) 216-1590
Meeting ID# 161 485 4304

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

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.

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).

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 FEBRUARY 8, 2022 AND POSSIBLE COMMITTEE ACTION

III. CHIEF INVESTMENT OFFICER VERBAL REPORT

IV. PRESENTATION BY LOOMIS, SAYLES & COMPANY, L.P. REGARDING THE MANAGEMENT OF AN ACTIVE HIGH YIELD FIXED INCOME PORTFOLIO

V. PRESENTATION BY SEGALL BRYANT & HAMILL REGARDING THE MANAGEMENT OF AN ACTIVE U.S. SMALL CAP VALUE EQUITIES PORTFOLIO

VI. PRIVATE EQUITY AND REAL ESTATE INVESTMENT POLICIES AND POSSIBLE COMMITTEE ACTION

VII. PRESENTATION ON COMPARISON BETWEEN REBALANCING POLICY AND ADAPTIVE ASSET ALLOCATION POLICY

VIII. INVESTMENT DIVISION RESOURCE NEEDS FOR FISCAL YEAR 2022-23

IX. OTHER BUSINESS

X. NEXT MEETING: The next Regular meeting of the Investment Committee is scheduled for Tuesday, April 12, 2022, at 10:30 a.m., or immediately following the Board Meeting, at LACERS, 202 West 1st Street, Suite 500, 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.

XI. ADJOURNMENT

Board of Administration Agenda

SPECIAL MEETING

TUESDAY, MARCH 8, 2022

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

MEETING LOCATION:

In accordance with Government Code Section 54953, subsections (e)(1) and (e)(3), and in light of the State of Emergency proclaimed by the Governor on March 4, 2020 relating to COVID-19 and ongoing concerns that meeting in person would present imminent risks to the health or safety of attendees and/or that the State of Emergency continues to directly impact the ability of members to meet safely in person, the LACERS Investment Committee's March 8, 2022 meeting will be conducted via telephone and/or videoconferencing.

Important Message to the Public

Information to call-in to listen and/or participate:
Dial: (669) 254-5252 or (669) 216-1590
Meeting ID# 161 485 4304

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

President:	Cynthia M. Ruiz
Vice President:	Sung Won Sohn
Commissioners:	Annie Chao Elizabeth Lee Sandra Lee Nilza R. Serrano Michael R. Wilkinson
Manager-Secretary:	Neil M. Guglielmo
Executive Assistant:	Ani Ghoukassian
Legal Counsel:	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 FEBRUARY 8, 2022 AND POSSIBLE COMMITTEE ACTION

III. CHIEF INVESTMENT OFFICER VERBAL REPORT

IV. PRESENTATION BY LOOMIS, SAYLES & COMPANY, L.P. REGARDING THE MANAGEMENT OF AN ACTIVE HIGH YIELD FIXED INCOME PORTFOLIO

V. PRESENTATION BY SEGALL BRYANT & HAMILL REGARDING THE MANAGEMENT OF AN ACTIVE U.S. SMALL CAP VALUE EQUITIES PORTFOLIO

VI. PRIVATE EQUITY AND REAL ESTATE INVESTMENT POLICIES AND POSSIBLE COMMITTEE ACTION

VII. PRESENTATION ON COMPARISON BETWEEN REBALANCING POLICY AND ADAPTIVE ASSET ALLOCATION POLICY

VIII. INVESTMENT DIVISION RESOURCE NEEDS FOR FISCAL YEAR 2022-23

IX. OTHER BUSINESS

X. NEXT MEETING: The next Regular meeting of the Investment Committee is scheduled for Tuesday, April 12, 2022, at 10:30 a.m., or immediately following the Board Meeting, at LACERS, 202 West 1st Street, Suite 500, 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.

XI. ADJOURNMENT

Agenda of:	**<u>Mar. 8, 2022</u>**
Item No:	**<u>II</u>**

MINUTES OF THE REGULAR MEETING

INVESTMENT COMMITTEE

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

In accordance with Government Code Section 54953, subsections (e)(1) and (e)(3), and in light of the State of Emergency proclaimed by the Governor on March 4, 2020 relating to COVID-19 and ongoing concerns that meeting in person would present imminent risks to the health or safety of attendees and/or that the State of Emergency continues to directly impact the ability of members to meet safely in person, the LACERS Investment Committee's February 8, 2022 meeting was conducted via telephone and/or videoconferencing.

February 8, 2022

12:30 p.m.

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

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** – Co-Chair Serrano asked if any persons wished to speak on matters within the Committee's jurisdiction, to which there was no response.

II

APPROVAL OF MINUTES FOR THE MEETING OF JANUARY 11, 2022 AND POSSIBLE COMMITTEE ACTION – Committee Member Elizabeth Lee moved approval, and adopted by the following vote: Ayes, Committee Member Elizabeth Lee and Co-Chair Serrano -2; Nays, None.

III

CHIEF INVESTMENT OFFICER VERBAL REPORT – Rod June, Chief Investment Officer, discussed the following items:

- Investment Committee Meeting Forward Calendar
- Updates on the Real Estate Consulting RFP and Passive Management RFP

- Staff working on several policies including the Emerging Manager Policy
- Several investment manager presentations at each of the March to June 2022 IC agendas

IV

PRESENTATION BY COPELAND CAPITAL MANAGEMENT, LLC REGARDING THE MANAGEMENT OF AN ACTIVE U.S. SMALL CAP CORE EQUITIES PORTFOLIO – Mark Giovanniello, Chief Investment Officer, and Charles Barrett, Director of Sales & Marketing, with Copeland Capital Management, LLC, presented and discussed this item with the Committee for 25 minutes.

V

INVESTMENT MANAGER CONTRACT WITH MFS INSTITUTIONAL ADVISORS, INC. REGARDING THE MANAGEMENT OF AN ACTIVE NON-U.S. EQUITIES DEVELOPED MARKETS GROWTH PORTFOLIO AND POSSIBLE COMMITTEE ACTION – Ellen Chen, Investment Officer I, presented this item to the Committee. Committee Member Elizabeth Lee moved approval, and adopted by the following vote: Ayes, Committee Member Elizabeth Lee and Co-Chair Serrano -2; Nays, None.

VI

REAL ESTATE CONSULTING CONTRACT WITH TOWNSEND HOLDINGS LLC AND POSSIBLE COMMITTEE ACTION – Eduardo Park, Investment Officer II, presented this item to the Committee. Committee Member Elizabeth Lee moved approval, adopted by the following vote: Ayes, Committee Member Elizabeth Lee and Co-Chair Serrano -2; Nays, None.

VII

SEMI-FINALISTS OF THE PASSIVE U.S., NON-U.S., AND GLOBAL INDEX STRATEGIES REQUEST FOR PROPOSAL AND POSSIBLE COMMITTEE ACTION – Bryan Fujita, Investment Officer III, Barbara Sandoval, Investment Officer II, and Carolyn Smith, Partner with NEPC, LLC presented and discussed this item with the Committee for 10 minutes. After discussion, Committee Member Elizabeth Lee moved approval, adopted by the following vote: Ayes, Committee Member Elizabeth Lee and Co-Chair Serrano -2; Nays, None.

Co-Chair Serrano recessed the meeting at 1:17 p.m. to convene in Closed Session discussion.

VIII

CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54956.81 TO CONSIDER A COMMITMENT TO TPG REAL ESTATE PARTNERS IV, L.P. AND POSSIBLE COMMITTEE ACTION

Co-Chair Serrano reconvened the meeting at 1:23 p.m.

IX

OTHER BUSINESS – Co-Chair Serrano requested an update on the Roark and Sonic issue.

X

NEXT MEETING: The next Regular Meeting of the Investment Committee is scheduled for Tuesday, March 8, 2022, at 10:30 a.m. or immediately following the Board Meeting, at LACERS, 202 West 1st Street, Suite 500, 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.

XI

ADJOURNMENT – There being no further business before the Committee, Co-Chair Serrano adjourned the meeting at 1:25 p.m.

Nilza R. Serrano
Co-Chair

Neil M. Guglielmo
Manager-Secretary

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

PRESENTED BY:
Todd Vandam, CFA
Vice President, Portfolio Manager

Stephanie S. Lord, CFA, CIC
Vice President, Senior Relationship Manager

LOOMIS | SAYLES

March 8, 2022

www.loomissayles.com | One Financial Center Boston, MA 02111
617 482-2450 | BOSTON CHICAGO DETROIT SAN FRANCISCO LONDON SINGAPORE UTRECHT

presented by:

TODD VANDAM, CFA

Vice President, Portfolio Manager

Todd Vandam is a vice president of Loomis, Sayles & Company and co-portfolio manager on the full discretion team. He co-manages a suite of high yield products, strategic alpha products and is the leader of the firm's high yield sector team. Todd has 27 years of investment industry experience.

Todd joined Loomis Sayles in 1994 as a member of the high yield trading desk and later became an investment strategist for the full discretion team. He was promoted to co-portfolio manager in 2009. Prior to joining Loomis Sayles, Todd completed the US Army Airborne and US Army Ranger Schools. He was a Field Artillery Officer in the US Army, most recently working as a Fire Support Officer stationed in Panama. He earned a BA from Brown University.

Todd is a member of CFA Society Boston. He is actively involved in the Loomis Sayles Undergraduate Women's Investment Network (UWIN) and Undergraduate Summer Internship Development (USID) Program as a mentor, as well as the firm's internal mentorship program.

STEPHANIE S. LORD, CFA, CIC

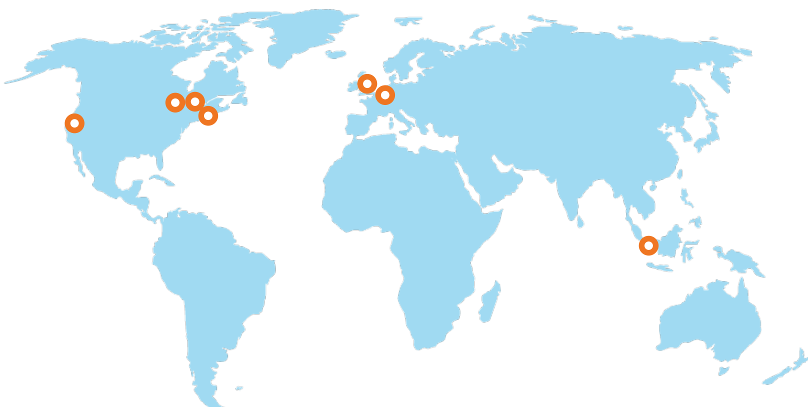
Vice President, Senior Relationship Manager

Stephanie Lord is a vice president and client relationship manager at Loomis, Sayles & Company. Stephanie began her investment industry career in 1987 when she joined Loomis Sayles as a fixed income trader. She was later promoted to fixed income portfolio manager. Stephanie earned a BBA from the University of Iowa.

contents

loomis sayles at a glance

Serving clients **with integrity** and a **global perspective** since **1926**



BOSTON • CHICAGO • DETROIT • SAN FRANCISCO

LONDON • SINGAPORE • UTRECHT

AUM by client base

- US institutional
- Non-US institutional
- US retail
- Non-US retail

Investment expertise across asset classes

Fixed income: **$256.3 B**   Equity: **$106.7 B**

- Investment Grade Corporates
- Equities
- Developed Country Treasurys
- Mortgage & Structured Finance
- High Yield Corporates
- Emerging Market Debt
- Municipals
- Other
- Bank Loans
- Convertible Bonds
- Government Related

As of 12/31/2021. The Utrecht office opened on November 1, 2020.
Due to rounding, pie chart total may not equal 100%.
Other includes cash & equivalents and derivatives.
Total AUM includes the assets of both Loomis, Sayles & Co., LP, and Loomis Sayles Trust Company, LLC. ($40.2 billion for the Loomis Sayles Trust Company).
Loomis Sayles Trust Company is a wholly owned subsidiary of Loomis, Sayles & Company, L.P.

loomis sayles update

ASSETS UNDER MANAGEMENT - $363.03 BILLION

Organizational Developments

- Keith Allman rejoined Loomis Sayles in December as the head of research and private credit for the mortgage and structured finance team. Previously, he was head of non-flow ABS at Mitsubishi UFJ Financial Group.
- Thu Ha Chow, a portfolio manager and senior credit strategist for the emerging markets debt team, departed Loomis Sayles in December to pursue another opportunity.
- Brad Mincke, head of municipal research, retired from Loomis Sayles in December.

Strategy Updates

- A Completion Management strategy funded on January 3, 2022
- NHIT: CLO Trust - New fund documents effective January 6, 2022

Awards

- 2021 US Lipper Award Recipients: Loomis Sayles High Income Opportunities in the High Yield, 10-year performance category and Nationwide Loomis Short Term Bond Fund in the Short Investment-Grade Debt Funds, 3-year performance category
- 2021 CAMRADATA Category: US Corporate Debt (USD) ranked in top position
- 2021 Investor's Business Daily Best Mutual Funds of the Year: Loomis Sayles Growth Fund in the Growth Stock Mutual Funds, Large-Cap Funds and US Diversified Mutual Funds categories; Loomis Sayles Small Cap Growth Fund in the Growth Stock Mutual Funds, Small-Cap Funds and US Diversified Mutual Funds categories; Loomis Sayles Global Bond Fund in the International Bond Funds category; Loomis Sayles High Income Opportunities Fund, Loomis Sayles High Income Fund and Loomis Sayles Core Plus Bond Fund in the US Taxable Bond Funds category
- 2021 Financial Advisor IQ Service Awards, Silver Medals: Portfolio Managers' Letters – Small Size Asset Manager, Macro Commentary – Small Size Asset Manager, Sales & Relationship Management Teams – Small Size Asset Manager, Product Lineup Management – Small Size Asset Manager

Includes assets managed by Loomis Sayles and its subsidiaries. This represents non-retail assets managed during the periods shown. Some assets may not be reflected for all periods due to account inception dates. Benchmark data is derived from third party sources.* ***Past performance is not indicative of future results.*
As of 12/31/2021

foundation for alpha

CREDIT RESEARCH	EQUITY	MACRO STRATEGIES	MORTGAGE & STRUCTURED FINANCE	QUANTITATIVE RESEARCH & RISK ANALYSIS
Alpha generation through differentiated insights	*Driving alpha through independent thinking*	*Focused insights for investment team impact*	*Opportunities outside traditional asset classes*	*Bringing together the art and science of investing*
Providing insight and differentiated perspectives across the credit classes, risk spectrum, and capital structure	Active long-term strategies built on differentiated non-consensus insight	Tailor-made research and data driven assessments of global macro investment conditions, opportunities and risks	Uncovering hidden alpha in complex structured markets	Generating signals that can identify risk patterns and opportunities

TRADING	ESG	INVESTMENT RISK OVERSIGHT	TECHNOLOGY	BUSINESS INFRASTRUCTURE
Beyond trade execution	*Integrate and engage*	*Ensuring investment teams are meeting client needs & expectations*	*Translating data into insight*	*Allowing investors to remain focused on alpha generation*
+50 trading professionals integrated within all investment processes every step of the way	Training and tools for investment teams to assess material ESG factors	A common foundation underlying all strategies: • Sound philosophy • Rigorous, repeatable process • Proprietary research • Disciplined portfolio construction • Integrated risk management	Tapping the power of our proprietary In2! technology platform, integrating more than 5 billion data points each day	Legal, compliance, distribution, marketing, relationship management, & client services

alpha engines

FIXED INCOME

ALPHA STRATEGIES	BANK LOANS	DISCIPLINED ALPHA	EMERGING MARKET DEBT	FULL DISCRETION	GLOBAL	MORTGAGE & STRUCTURED FINANCE	MUNICIPAL	PRIVATE CREDIT‡	RELATIVE RETURN
Credit Asset Emerging Market Debt Blended World Credit Asset Multi-Asset Income Inflation Protected (TIPS) Systematic Investing Strategies	Senior Loans Senior Floating Rate and Fixed Income CLOs	Core Intermediate Corporate Long Corporate Long Gov't Corp Long Credit Global Disciplined Alpha**	Corporate Local Currency Short Duration Asia Credit	Multisector Multisector Credit Core Plus Full Discretion High Yield Full Discretion Global High Yield US High Yield High Yield Conservative Strategic Alpha	Global Bond Global Credit Global Debt Unconstrained Global Disciplined Alpha**	Agency MBS Core Securitized IG Securitized Credit (ERISA) High Yield Securitized Credit Private Debt and Equity	Short Intermediate Medium Crossover†	Investment Grade Private Credit Opportunistic Private Credit	Short Duration Inter. Duration Core Core Plus IG Corporate IG Inter. Corp Long Corporate Long Credit Long Gov't/Credit Custom LDI
$11.3 B*	$5.0 B	$19.5 B	$3.4 B	$69.1 B	$34.8 B	$14.9 B*	$8.2 B	-	$102.5 B

EQUITY

GROWTH EQUITY STRATEGIES	GLOBAL EMERGING MARKETS EQUITY	GLOBAL EQUITY OPPORTUNITIES	SPECIALTY GROWTH STRATEGIES	SMALL CAP VALUE
All Cap Growth Global Growth International Growth Large Cap Growth Long/Short Growth Equity	Global Emerging Markets Equity Global Emerging Markets Equity Long/Short	Global Allocation Global Equity Opportunities	Small Cap Growth Small/Mid Cap Growth Mid Cap Growth	Small Cap Value Small/Mid Cap Core
$84.9 B	$153.4 M***	$10.6 B	$7.9 B	$3.2 B

As of 12/31/2021.
**Includes accounts that may also be counted as part of other strategies **Co-managed investment strategy ***Assets include seed money from our parent company. †Accounts may be co-managed along with other teams as appropriate.*
‡ The Private Credit team joined the firm in January 2022.

LOOMIS | SAYLES®

ESG advancement at loomis sayles

OUR APPROACH HAS BEEN FORMALIZED AND ENHANCED BY A NUMBER OF ESG INITIATIVES

2012
- Established ESG Policy and committee

2013
- Signed UK Stewardship Code

2015
- Signed UN PRI

2016
- Proprietary ESG engagement database

2017
- ESG in portfolio risk reviews

2018
- Appointed Director of ESG
- Created ESG Data Center

2020
- Guiding Principles on Climate Change
- Proprietary ESG fixed income scores
- Inaugural Sustainability Report

2021
- Added 3 dedicated ESG employees
- Accepted as signatory to 2020 UK Stewardship Code

As of 8/31/2021.

firm overview

REPRESENTATIVE PUBLIC FUND CLIENTS

- Alameda County Retirement Association Fund B, CA
- Arkansas Teacher Retirement System, AR
- Bay County Employees Ret System, MI
- BROS Reversionary Trust, DC
- City of Ann Arbor Employees' Retirement System, MI
- City of Annapolis Police and Fire Retirement Plan, MD
- City of Battle Creek Policemen & Firemen Pension Trust, MI
- City of Berkley Public Safety Retirement System, MI
- City of Cincinnati Retirement System, OH
- City of Ferndale Employees Retirement System, MI
- City of Inkster Police and Fire Retirement System, MI
- City of Livonia Employees Retirement System, MI
- City of Mount Clemens Employees Ret Sys, MI
- City of Pontiac MI Police and Fire Retiree Pre-Funded Health
- Commission de la Caisse Commune, QC
- DeKalb County Employee Retirement System, GA
- Fairfax County Educational Employees' Retirement, VA
- Fort Lauderdale General Employees Retirement System, FL
- Georgia Firefighters Pension Fund, GA
- Georgia Interlocal Risk Management Agency, GA
- High Yield PRIT, MA
- Industrial Commission of Arizona, AZ
- Jacksonville Police and Fire Pension Fund, FL
- Los Angeles City Employees Retirement System, CA
- Louisiana State Employees Retirement System
- Municipal Police Employees' Retirement System, LA
- MWRA Retirement System, MA
- North Dakota State Investment Board
- Oakland County Employees' Retirement System, MI
- Oakland County VEBA Trust, MI
- Ohio Bureau of Workers' Compensation, OH
- Ohio Police and Fire Pension Fund, OH
- Ohio Tuition Trust Authority, OH
- Parochial Employees Retirement of Louisiana, LA
- Pension Reserves Investment Trust, MA
- Rhode Island Employees Retirement Systems Pooled Trust, RI
- School Employees Retirement System of Ohio, OH
- State of Utah, School and Institutional Trust Funds, UT
- State Street, A/C 2381021
- Teachers Retirement System of Oklahoma, OK
- The City of Providence Employees Retirement System, RI
- The Health Plan of the Upper Ohio Valley, Inc., OH
- University of Houston System, TX
- Ventura County Employees' Retirement, CA
- Ville de Montrealm QC
- Washington Metro Area Transit Authority Police Retirement, DC

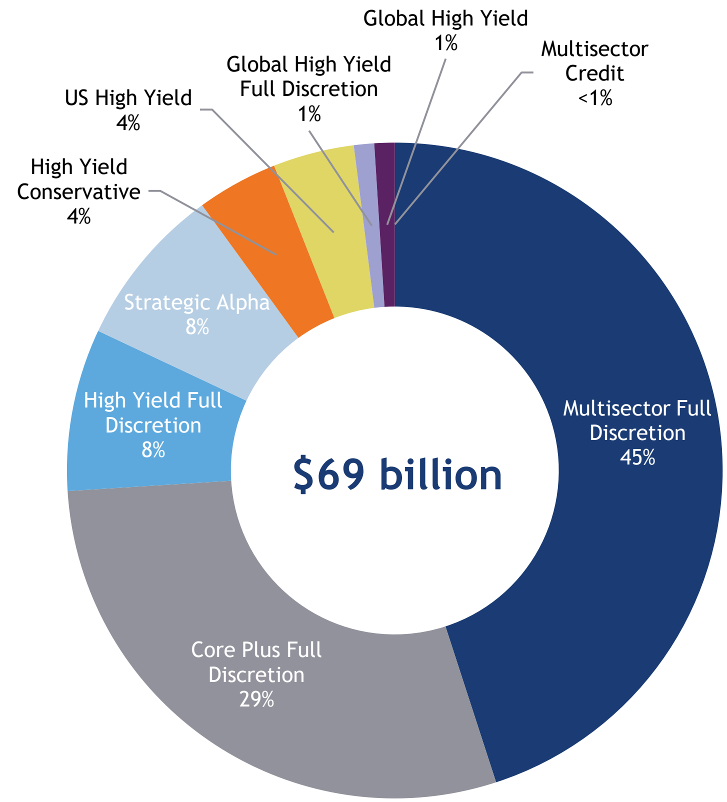
Slide updated as of 1/02/2020.
Confidential relationships prohibit the listing of certain clients. The foregoing list includes those clients of Loomis Sayles who have given us permission to use their names in marketing materials.
It is not known whether the clients listed approve or disapprove of Loomis Sayles or its advisory services.

full discretion product

LOOMIS SAYLES FULL DISCRETION TEAM ASSETS UNDER MANAGEMENT

$69 billion as of December 31, 2021

	ASSETS ($ millions)
Multisector Full Discretion	31,154
Core Plus Full Discretion	19,807
High Yield Full Discretion	5,489
Strategic Alpha	5,408
US High Yield	2,786
High Yield Conservative	2,991
Global High Yield	639
Global High Yield Full Discretion	376
Multisector Credit	162



As of 12/31/2021. Due to rounding, pie chart total may not equal 100%.

full discretion investing

TEAM BELIEFS

The market is inefficient at pricing specific risk.

Fundamental research paints a clearer picture of intrinsic value. We use this foundation to identify mispriced securities when markets are short-term focused, illiquid, or irrational due to factors including fear and greed.

A credit cycle view can help identify opportunities and risks.

We follow a disciplined top-down framework to analyze the factors driving the macroeconomic cycle, evaluate how they might affect asset valuations, and harvest credit risk premiums.

Risk management is integral, not an add-on.

We believe in a rigorous investment process that seeks to balances risk/reward tradeoffs effectively and integrates risk management at every step.

	MULTISECTOR				HIGH YIELD		
	STRATEGIC ALPHA	CORE PLUS FULL DISCRETION	MULTISECTOR CREDIT	MULTISECTOR FULL DISCRETION	US HIGH YIELD	GLOBAL HIGH YIELD	HIGH YIELD FULL DISCRETION
BENCHMARK	ICE BofA USD 3m LIBOR	BBG US Agg	BBG US Credit	BBG US Gov/Credit	BBG US Corp HY 2% Cap	ICE BofA Global High Yield	BBG US Corp High Yield
STYLE	Unconstrained	Opportunistic	Opportunistic	Opportunistic	Benchmark Aware	Benchmark Aware	Opportunistic
INCEPTION	2010	1989	2010	1989	2009	2016	1989

strategy overview

LOOMIS SAYLES U.S HIGH YIELD

- High conviction, active credit manager
- Benchmark aware, US high yield strategy
- Repeatable, deep value equity-like approach to fundamental research and issue selection
- Risk awareness tools overlay fundamental investment process

OBJECTIVE	BENCHMARK	RISK PROFILE*
Seeks to maximize total return through research driven security selection while managing downside risk through careful portfolio construction	Bloomberg U.S. Corporate High Yield Index	Expected volatility in line with high yield fixed income market

	SECTOR								REGION			DURATION	FX & DERIVATIVES	
PORTFOLIO EXPOSURE	Investment Grade Corps	High Yield Corps	Bank Loans	Converts	Preferreds	Equity	Securitized	US Treasury & Agency	US	Non-US Developed	Emerging Markets	Duration	Foreign Currency	Derivatives
TYPICAL RANGE	0-10%	75-90%	5-10%	0-5%	0-5%	0%	0%	0-5%	85-100%	0-10%	0-5%	+/- 2 yrs vs Bench	0%	For Hedging And Exposure Purposes

**Although the Investment Manager actively seeks to manage risk for a targeted risk level, there is no guarantee that the portfolio will be able to maintain its targeted risk level.*
All figures are approximate and apply under normal market conditions. They are based on guidelines that are subject to change.
There is no guarantee that investment objective will be realized or that the strategy will generate positive or excess return.
Commodity, interest and derivative trading involves substantial risk of loss.

Full Discretion^

investment team

HIGHLY EXPERIENCED TEAM SUPPORTED BY DEEP FIRM RESOURCES

PORTFOLIO MANAGEMENT (Years of Industry Experience/Years with the firm)

Matt Eagan, CFA	Brian Kennedy	Elaine Stokes	Todd Vandam, CFA
Portfolio Manager	Portfolio Manager	Portfolio Manager	Portfolio Manager
31 / 24	31 / 27	34 / 33	27 / 26

KEY SUPPORT

Strategists
Scott Darci, CFA
Bryan Hazelton, CFA
Brian Hess
Stephen Laplante, CFA
Vishal Patel, CFA
Chris Romanelli, CFA
Peter Sheehan

Investment Directors
Fred Sweeney, CFA
David Zielinski, CFA
Kristen Doyle

Investment Analysts
Shong Xiao, CFA
Chidiebere Okpoebo
Elizabeth Ditomasso*

Portfolio Specialists
Rigas Gartaganis
Boeurn Kan-Crawford
Matt Tierney
Modestas Ilkys
Amy Steede

SPECIALTY RESEARCH†

Convertibles
Rich Crable
Mark Ravanesi
Olga Tatar, CFA
Greg Jones, CFA
Kenneth Vallace

Distressed/Restructuring
Colin Wilson Murphy
Matt Sabourin

Customized
Nicole Ranzinger
Zachary South
Ryan Yackel

SECTOR TEAMS

- US Yield Curve
- Global Asset Allocation
- Developed Non-US Markets
- Investment Grade / Global Credit
- Mortgage & Structured Finance
- US Government
- High Yield/Bank Loans
- Emerging Markets
- Convertibles

FIRM RESOURCES

Macro Strategies
- 2 Directors
- Associate Director
- Chief US Economist
- 5 Senior Sovereign Analysts
- 2 Sovereign Analysts
- Senior Commodities Analyst
- Senior Research Analyst
- Research Analyst
- 2 Senior Research Associates

Credit Research
- Director
- 2 Associate Directors
- Head of Municipal Research
- Head of Convertibles Research
- 38 Senior Analysts
- 11 Analysts
- 10 Research Senior Associates
- 5 Research Associates

Mortgage & Structured Finance
- Head
- Head of Research and Private Credit
- 3 Portfolio Managers
- 3 Strategists
- 3 Senior Analysts
- Research Analyst
- 2 Senior Research Associates
- Director, MSF Trading
- 4 MSF Traders/Tas

Fixed Income Trading
- 26 Traders/TAs
- Director, Portfolio Implementation
- 18 Portfolio Specialists
- Director, Operational Trading Risk Mgt.
- Risk Analyst

Investment Risk and Strategy Management
- Chief Inv. Risk Officer
- Deputy Chief Inv. Risk Officer/Model Risk Officer
- Risk Engineer
- Investment Risk Manager
- Senior Inv. Risk Analyst
- 4 Inv. Risk Analysts
- Inv. Risk Associate

Quant. Research & Risk Analysis
- Director
- 2 Associate Directors
- 10 Quantitative Analysts

ESG
- Senior Analyst
- Marketing Manager
- Project Associate

As of 12/31/2021
**Investment Associate †Specialty Research resides within the Credit Research group.*
^Full Discretion Strategies managed by this team include: Strategic Alpha, Strategic Alpha Opportunistic, US High Yield, Global High Yield Full Discretion - EUR Hedged, and Global High Yield in EUR.

LOOMIS | SAYLES®

investment process

OUR RIGOROUS INVESTMENT PROCESS COMBINES A TOP DOWN FRAMEWORK, BOTTOM UP RESEARCH AND RISK ASSESSMENT

TOP DOWN

CREDIT CYCLE FRAMEWORK

- Credit Cycle Outlook
- Valuation Dashboard
- Credit Risk Premiums
- Sector
- Industry
- Quality Bias
- Duration

Establish Overall Risk Posture and Sectors that Appear Attractive

BOTTOM UP

INTENSIVE RESEARCH

- Fallen Angels
- Cheap For Rating
- Upgrade Candidates
- Stressed/Distressed
- Capital Preservation/Avoid Losers
- New Issue Premium

Primary Drivers of Excess Return

RISK ASSESSMENT

MULTI-FACETED ANALYTICAL TOOLS

- Research Intensity
- Regime Tool
- Scenario Analysis
- Portfolio Analytics
- Stress Testing
- Attribution

Full Risk Awareness

There is no guarantee that the investment objective will be realized or that the strategy will generate positive or excess return.
Any investment that has the possibility for profits also has the possibility of losses.

top down - credit cycle

UNDERSTANDING OF GLOBAL CREDIT CYCLES HELPS DRIVE PORTFOLIO RISK DECISIONS

CYCLE STAGE RETURNS BY SECTOR 12/31/01 - 9/30/21

	EXPANSION / LATE CYCLE	DOWNTURN	CREDIT REPAIR	RECOVERY	ENTIRE PERIOD
	AVG RETURN	AVG RETURN	AVG RETURN	AVG RETURN	AVG RETURN
US Treasury	4.42%	7.67%	6.03%	1.11%	3.98%
US Securitized	3.95%	5.93%	6.24%	2.33%	4.04%
US Corporate IG	5.71%	1.29%	11.77%	3.22%	5.70%
Bank Loans	3.91%	-6.80%	11.55%	6.28%	5.12%
US Corporate HY	5.65%	-4.03%	17.55%	10.08%	8.30%
EM Corp	5.84%	-2.38%	16.68%	6.68%	7.33%
Global Agg	3.78%	3.98%	10.78%	2.07%	4.68%
S&P 500	11.50%	-20.39%	12.42%	17.83%	10.51%

CHARACTERISTICS OF CYCLE STAGES

EXPANSION/LATE CYCLE	DOWNTURN	CREDIT REPAIR	RECOVERY
• Debt > Profit growth • Monetary policy is tight • Tight economic slack • Fading risk appetite • Liquidity tightening	• Profit contraction • Central bank is cutting rates • Recession • Liquidity and risk appetites are low	• Debt contraction • Easy monetary policy • Growth is rebounding • High liquidity • Improving risk appetite	• Profit > Debt growth • Monetary policy is about neutral • Growth near trend • Diminishing liquidity • Improving risk

Time period: 12/31/01 - 9/30/21
Average Return: annualized total return, average of all cycles.
Data source: Bloomberg
Economic cycles defined using Loomis Sayles proprietary models to assess historical data. Please see the Credit Cycle Regime Periods slide later in the book for more details. ***Diversification does not ensure a profit or guarantee against a loss.*** *Views and opinions are subject to change at any time without notice. Other industry analysts and investment personnel may have different views and opinions.*
Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.
Past performance is no guarantee of future results.

LOOMIS | SAYLES®

FD0922
MALR027770
1599677752

top down - credit cycle

ANALYSIS OF GLOBAL INDUSTRY CREDIT CYCLE PROVIDES BASIS FOR IDENTIFYING VALUE

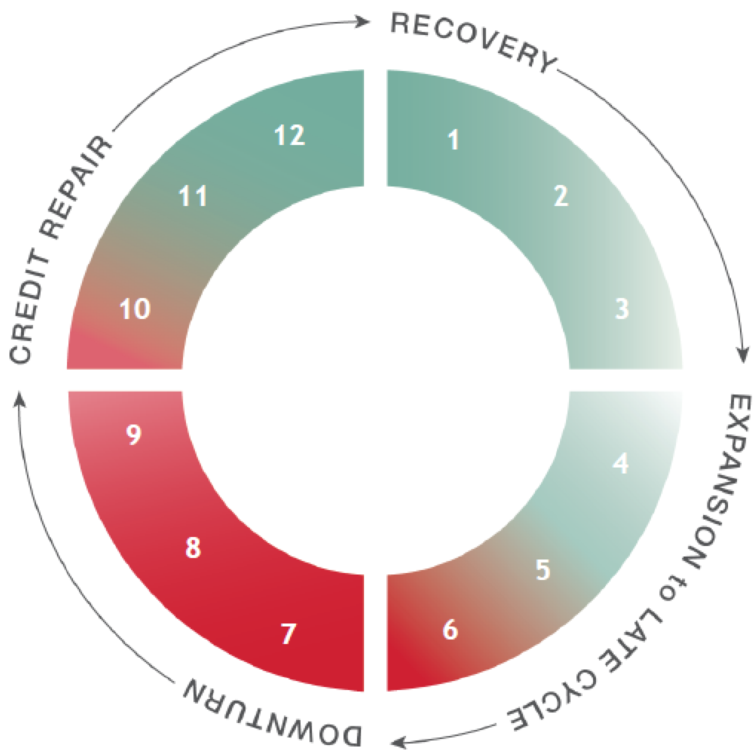
- Aerospace (12)
- Diversified Manufacturing (12)
- Airlines (12)
- Oil Field Services (12)
- US Banks (12.5)

- Life Insurance (1)
- Finance (1)
- Lodging (1)
- Refiners (1)
- REITs (1.5)

- Global Banks (2)
- Automotive (2)
- Construction Machinery (2.5)
- Midstream (2.5)

- Independent (3)
- Retailers, incl Specialty (3)
- Chemicals (3)
- Cable/Satellite (3)
- Telecom Wireline (3)
- Telecom Wireless (3)

- Metals & Mining (4)
- Restaurants (4)
- Supermarkets (4)
- Integrated (4)
- Home Construction (4.5)
- Defense (4.5)
- US Building Materials (4.5)
- Packaging (4.5)
- Environmental (4.5)
- Railroads (4.5)



- Technology (5)
- P&C (5)
- Paper (5)
- Healthcare (5)
- Consumer Products (5)
- Food & Beverage (5)
- Health Insurers (5)
- Pharmaceuticals (5)

- Tobacco (5.5)

- Media/Entertainment (6)
- Electrics (6)

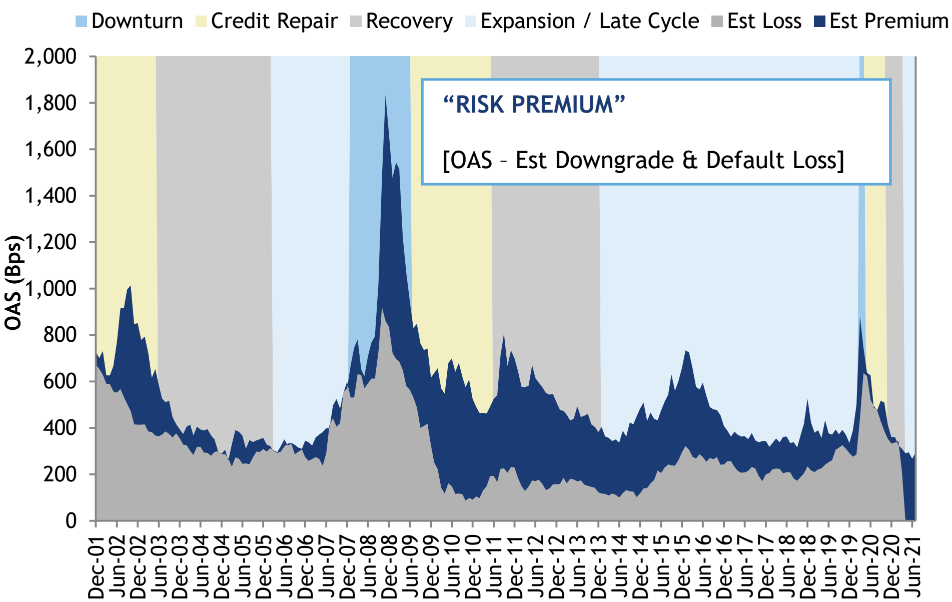
Views as of 12/31/2021. This material is provided for informational purposes only and should not be construed as investment advice. Investment decisions should consider the individual circumstances of the particular investor. This reflects the current opinions of the presenter and views are subject to change at any time without notice. Other industry analysts and investment personnel may have different views and opinions.

top down - credit risk premiums

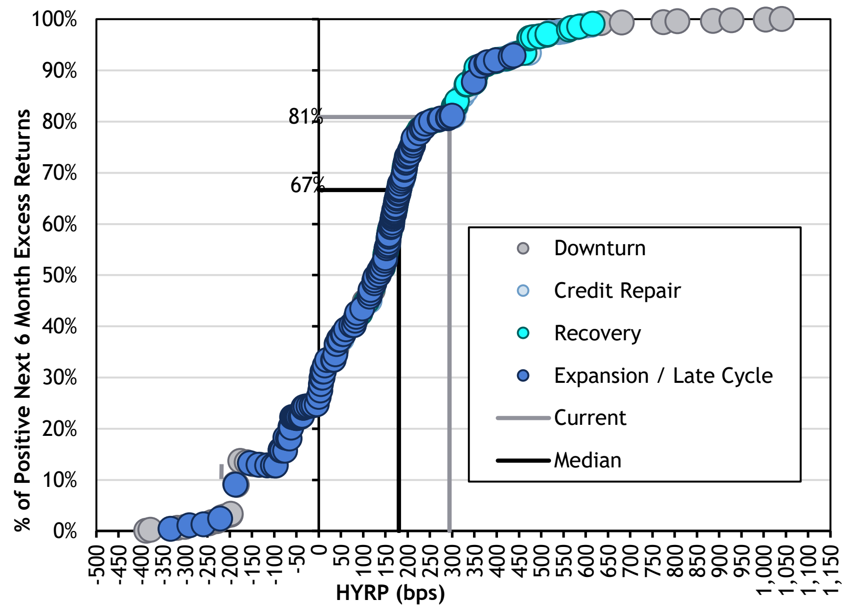
SEEK TO IDENTIFY BROAD ASSET CLASSES WITH FAVORABLE RISK PREMIUMS

- We separate spreads into 'default' and 'premium' components
- Credit risk premiums are calculated as spread less expected downgrade and default losses (left chart) and translated into a probability of positive excess returns over the next 6 months (right chart)

HIGH YIELD RISK PREMIUM COMPONENTS OVER TIME



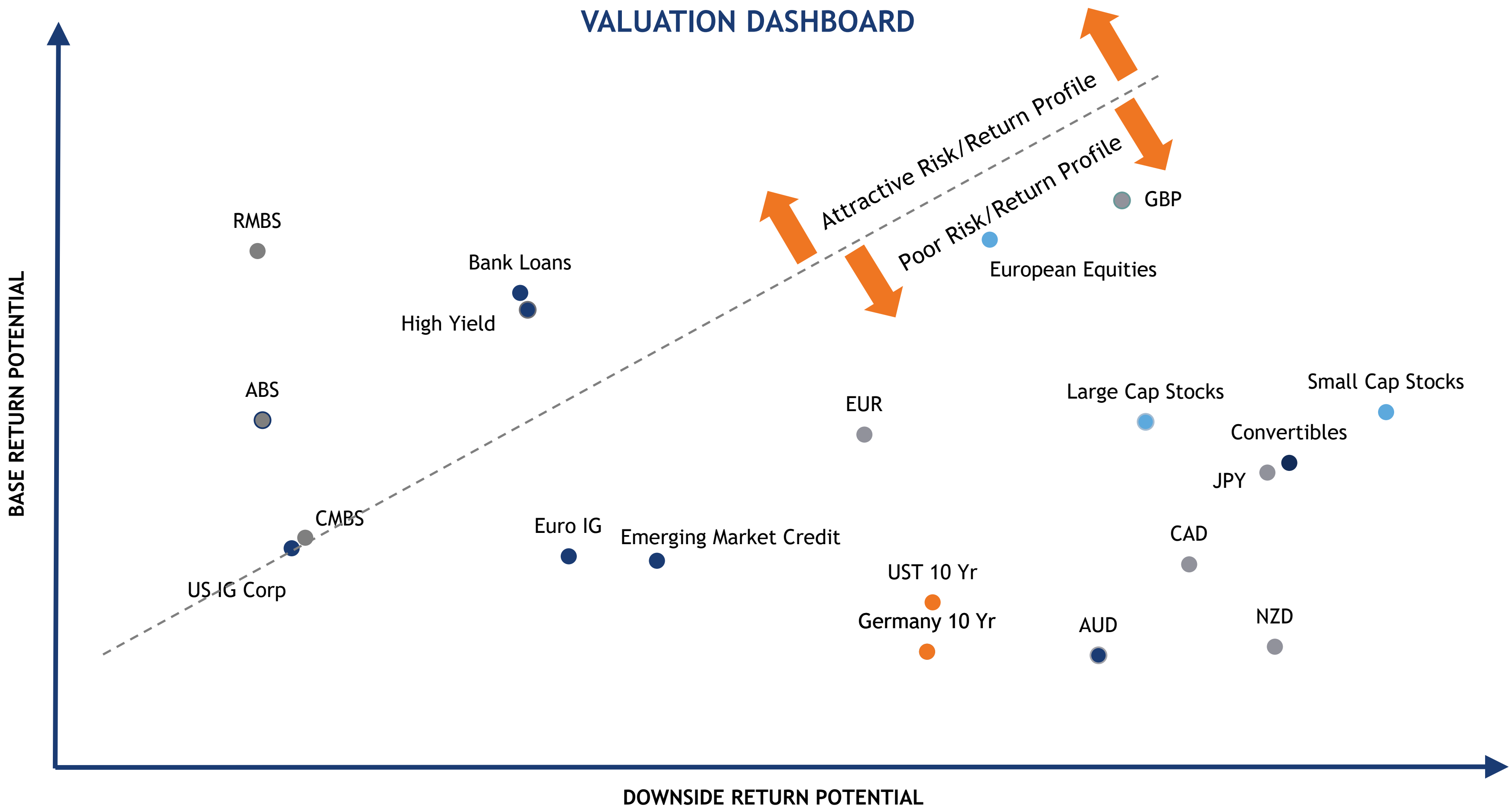
HIGH YIELD RISK PREMIUM & PROBABILITY OF POSITIVE EXCESS RETURN OVER NEXT 6 MONTHS



Source: Loomis Sayles
Past Performance is no guarantee of future results.
Charts are illustrative for presentation purposes only as a sampling of risk premium analysis. *Some or all of this information on these charts may be dated, and, therefore, should not be used as a basis to purchase or sell any securities. The information is not intended to represent any actual portfolio.*
While the analysis provided may be shared with one or more investment teams, it is not the only input into the investment process for any strategy and therefore should not be viewed as a primary source of investment decisions, which are a function of many variables. The analysis is based on historical data and does not predict future results. Therefore, the use of this type of information to make investment decisions has inherent limitations. There is no guarantee that future experience will be similar. The analysis reflected in this presentation is limited to certain periods. We make no representation that the experience of any other periods is comparable.
Please see the Disclosure for additional information about this analysis process.

top down – valuation dashboard

DETERMINE GLOBAL ASSET CLASSES WITH FAVORABLE REWARD/RISK POTENTIAL



Data Source: Loomis Sayles

Charts are illustrative for presentation purposes only as a sampling of risk management tool output. *The information is not intended to represent any actual portfolio. Some or all of the information contained in this chart may be dated, and therefore, this chart should not be the basis to purchase or sell any securities. Scenario analysis has inherent limitations and should not be viewed as predictive of future events. It relies on opinions, assumptions and mathematical models, which can turn out to be incomplete or inaccurate. Actual results will be different. The views do not represent the actual or expected future performance of any Loomis Sayles product. Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.*

Past performance is no guarantee of future results.

bottom up - core philosophy

WHAT DISTINGUISHES LOOMIS SAYLES FULL DISCRETION INVESTING

ENTERPRISE VALUE	• We follow an equity-like approach to valuation by focusing on long-term enterprise value and identifying risks to that value. • This gives us the conviction to buy in dislocated markets and take contrarian positions.
POSITIVE CONVEXITY	• We are deep value investors, targeting discount bonds backed by call protection and strong fundamentals. • By building positive convexity into our portfolios, we seek to maximize total return while minimizing downside risks.
REPEATABLE STRATEGIES	• Enterprise value and portfolio convexity are the core of what we do. • We consistently use six security selection strategies—each rooted in these core principles—to help identify and capitalize on mispricings throughout market cycles.

There is no guarantee that the objective will be realized or that the strategy will generate positive or excess return.

bottom up - pillars of security selection

A RIGOROUS, REPEATABLE PROCESS BUILT ON INTENSIVE FUNDAMENTAL RESEARCH

PROCESS

Drive excess return through our top ideas

RESEARCH

Deep research is key to uncovering mispriced securities

DEFINING VALUE

A common language for every investment idea is essential in a process that pursues multiple sources of alpha potential

FALLEN ANGELS	CHEAP FOR RATING	UPGRADE CANDIDATES	STRESSED/ DISTRESSED	AVOID LOSERS	NEW ISSUE PREMIUM
Forced selling by investment grade accounts pushes bonds below fair value and inflates the risk premium	Bonds trading cheap to fundamental credit risk tend to outperform	The market is often slow to price potential upgrades due to short time horizons and distortions created by passive investing	In our experience, prices for the lowest-quality bonds can become dislocated when the distressed ratio is elevated	Avoiding permanent principal losses associated with value traps can add significant alpha	New issues often come at a premium in order to attract investors to the primary market

portfolio construction

BOTTOM-UP ISSUE SELECTION HELPS DRIVE PORTFOLIO CONSTRUCTION

Implement our best bottom-up ideas

- High conviction ideas typically represent:
  - 15-30 issuers
  - 15-25% of the portfolio
  - 1-3% per issuer
- Typically 125-275 issuers across the entire portfolio

Incorporate top-down views

- Credit cycle views and fundamental valuations drive opportunistic sector weights
- Industry, quality, and duration tilts
- Seek to achieve all portfolio positions/tilts with active issue selection

Structural portfolio attributes

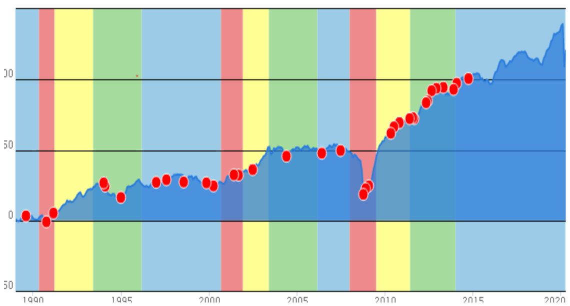
- High active share
- Yield advantage
- Positive convexity

risk awareness

PORTFOLIO RISK ASSESSMENT AND ANALYSIS ACROSS MULTIPLE DIMENSIONS

- Portfolio level risk assessment incorporates macro tools and outlooks
- Sector risk assessment examines contribution to risk at total portfolio and sub-sector levels
- Security risk assessment applies contribution to risk at individual security level with valuations and fundamentals

SCENARIO ANALYSIS



	Portfolio	residual	USD Parallel	USD Non Parallel	USD Carry	Securitized	Non US Dollar	Liquid Investments	Investment Grade Credit	High Yield Credit	Emerging Market Credit	Convertibles
Portfolio	1.00											
residual	-0.07	1.00										
USD Parallel	-0.16	-0.87	1.00									
USD Non Parallel	0.11	0.59	-0.55	1.00								
USD Carry	0.00	0.00	0.00	0.00	1.00							
Securitized	0.54	0.47	-0.65	0.41	0.00	1.00						
Non US Dollar	-0.26	-0.30	0.22	0.12	0.00	-0.08	1.00					
Liquid Investments	0.21	0.75	-0.75	0.55	0.00	0.53	-0.08	1.00				
Investment Grade Credit	0.50	0.54	-0.72	0.24	0.00	0.44	-0.37	0.72	1.00			
High Yield Credit	0.50	0.51	-0.72	0.19	0.00	0.38	-0.43	0.67	0.95	1.00		
Emerging Market Credit	0.34	0.25	-0.52	0.10	0.00	0.09	-0.11	0.28	0.67	0.74	1.00	

Upside Potential

1 **Late cycle recovery, thirst for yield**
Goldilocks growth, low vol and thirst for yield, drives credit spreads tighter

2 **Global profits "recovery'**
US & global profits surprise to the upside, lending picks up, capex revitalized, cycle extends, PE ratios advance

3 **Fiscal stimulus unleashed**
Germany, China, possibly the US increase fiscal stimulus to reflate

4 **More aggressive Chinese stimulus leads to EM revival**
Fiscal support, China pulls the property lever, commodities and EM rebound

5 **US-China "Phase 2" trade deal**
Tariff rollback, investment spending accelerates, PMI's up

6 **Weak dollar favors local EM and global reflation**
Relative EM growth picks up, easy fed, dollar falls 10%

Downside Potential

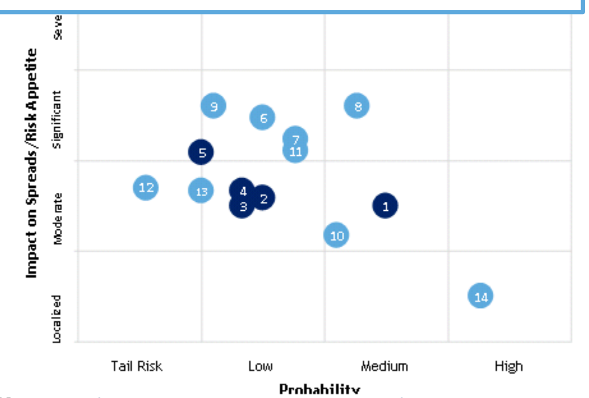
7 **PPI deflation deepens in China = harder NGDP landing like 2015**
PPI deflation will have negative effects on sentiment, nominal GDP growth, fiscal revenues, industrial profits and ultimately debt service

8 **Global profits down 10%, no PMI recovery**
Labor costs rise, econ momentum slowing

9 **US-Iran uncontrolled escalation, Straits of Hormuz closed**
Major disruption to global supply chain, increases recession risks

10 **Further escalation between the US and Iran without war**
Heightened risk, but without significant supply disruptions

MACRO RISKS

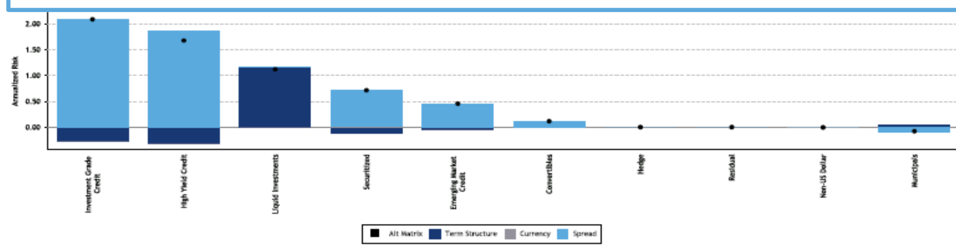


12 **Brent at $40 on OPEC deal breakdown or US-Iran détente**
Supply glut

13 **Brexit without trade deal**
More local pain with some contagion to credit spreads

...contagion

RELATIVE CONTRIBUTION TO RISK



As of 12/31/2021
Data Source: Loomis Sayles
Charts are illustrative for presentation purposes only as a sampling of risk management tool output.
Some or all of this information on these charts may be dated, and, therefore, should not be the basis to purchase or sell any securities. The information is not intended to represent any actual portfolio.

LOOMIS | SAYLES®

guideline summary

BENCHMARK

- Bloomberg U.S. Corporate High Yield 2% Issuer Capped Index

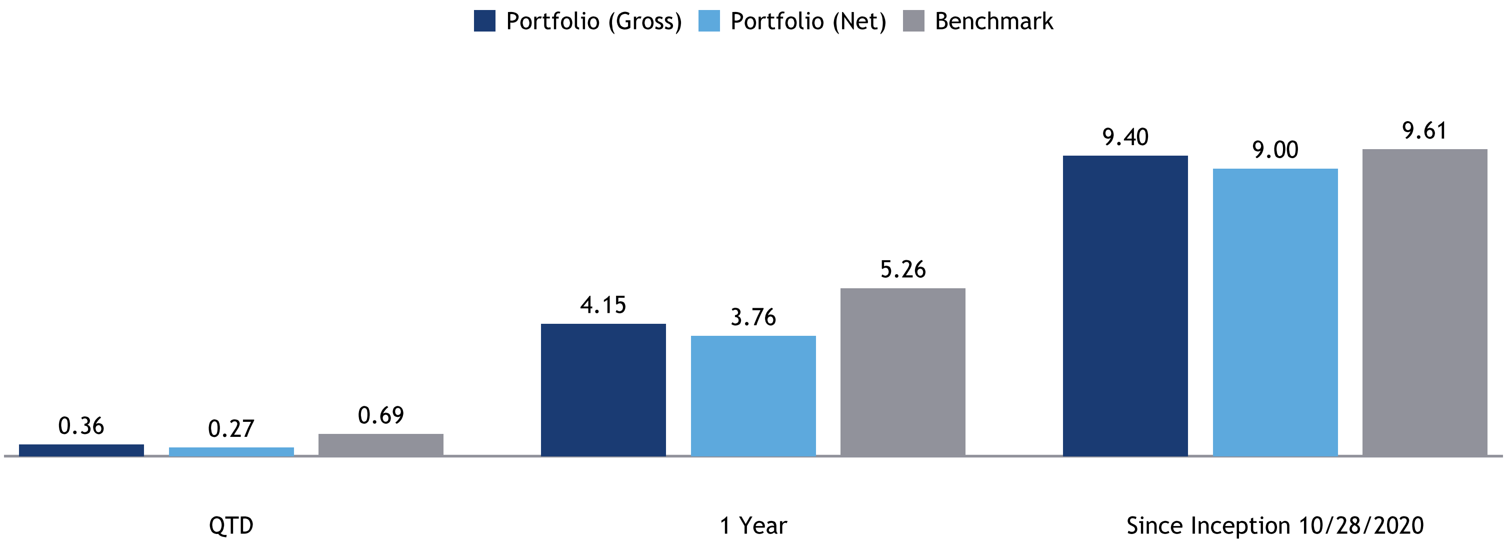
DIVERSIFICATION & LIMITATIONS

- Credit Quality: Account will maintain and average credit quality of B- or higher (S&P, Moody's, & Fitch). Loomis ratings can be used if not rated by S&P, Moody's, & Fitch
- Issuer: Except for U.S. government or agency issues and non-U.S. sovereign issues, no more than 3% of the portfolio MV or benchmark weighting plus 2% (whichever is greater), will be invested in securities of a single issuer at the time of purchase
- Industry: No more than 25% of the portfolio MV or benchmark weighting plus 15% (whichever is greater) will be invested in a single industry as defined by the Bloomberg Index at the time of purchase
- Account may hold no more than 10% MV in cash & cash equivalents.
- At lest 95% of the MV of the portfolio must be invested in U.S. dollar denominated instruments counting cash and cash equivalent toward the limit, at the time of purchase.
- Duration: Effective duration is +/- 2.0 years of Bloomberg U.S Corporate High Yield 2% Issuer Capped Index

Guideline summary is not a complete restatement of guidelines. The slide is intended to be a summary to aid in the review process.

performance

TRAILING RETURNS AS OF 12/31/2021 (%)



	QTD	1 Year	Since Inception 10/28/2020
Excess Return (Gross)	-0.33	-1.11	-0.21

PORTFOLIO VALUATION (USD)

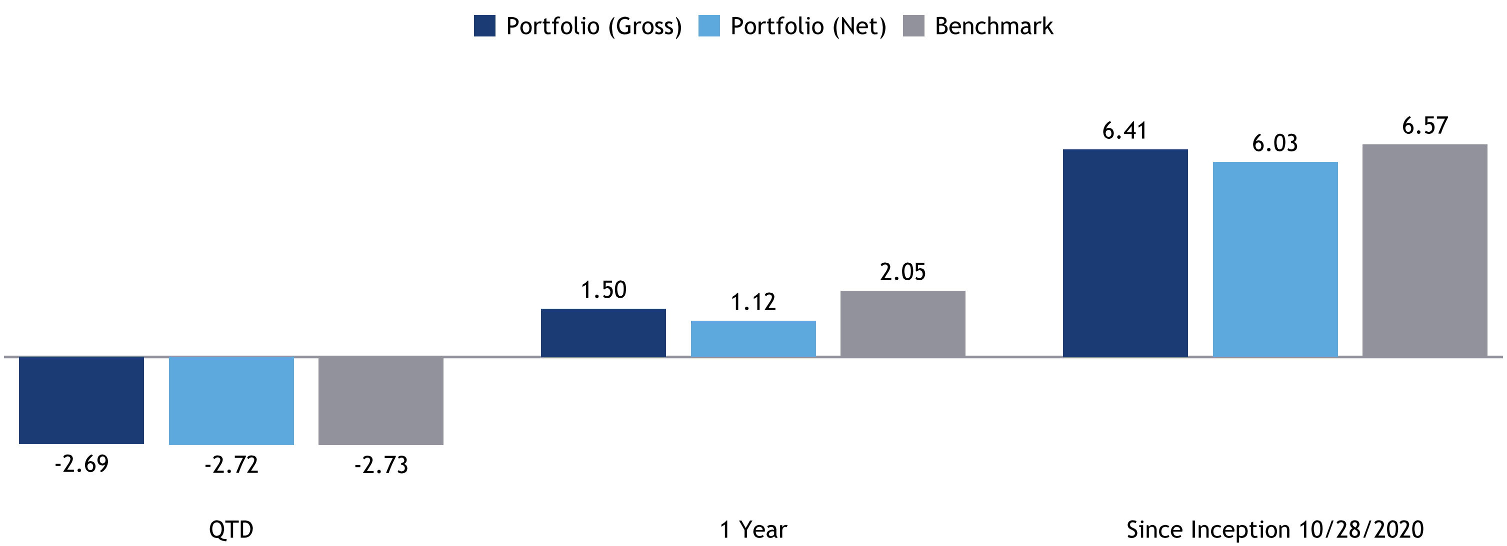
	Portfolio 9/30/2021	Portfolio 12/31/2021
Total	293,067,335	293,593,009

Benchmarks: BBG High Yield 2% Issuer Cap (10/28/2020 - 12/31/2021).
The current benchmark is Bloomberg High Yield 2% Issuer Capped Index.

Los Angeles City Employees' Retirement System

performance

TRAILING RETURNS AS OF 1/31/2022 (%)



	QTD	1 Year	Since Inception 10/28/2020
Excess Return (Gross)	+0.04	-0.55	-0.15

PORTFOLIO VALUATION (USD)

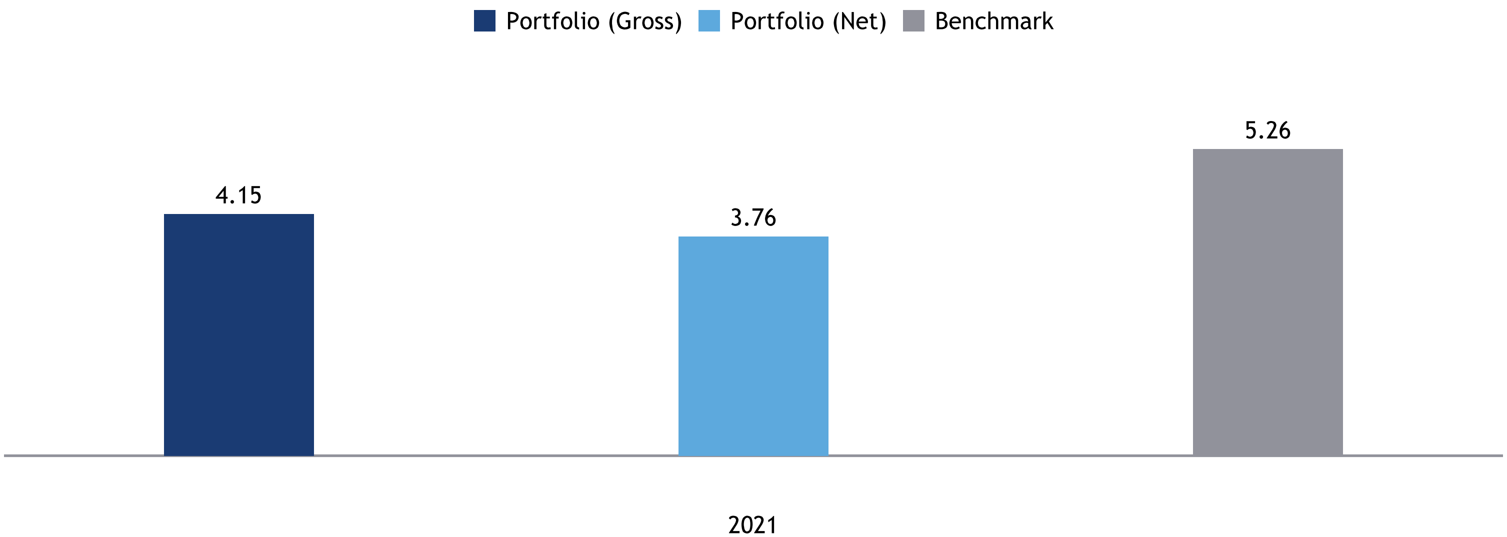
	Portfolio 12/31/2021	Portfolio 1/31/2022
Total	293,593,009	285,698,185

Benchmarks: BBG High Yield 2% Issuer Cap (10/28/2020 - 1/31/2022).
The current benchmark is Bloomberg High Yield 2% Issuer Capped Index.

Los Angeles City Employees' Retirement System

performance

CALENDAR YEAR RETURNS AS OF 12/31/2021 (%)



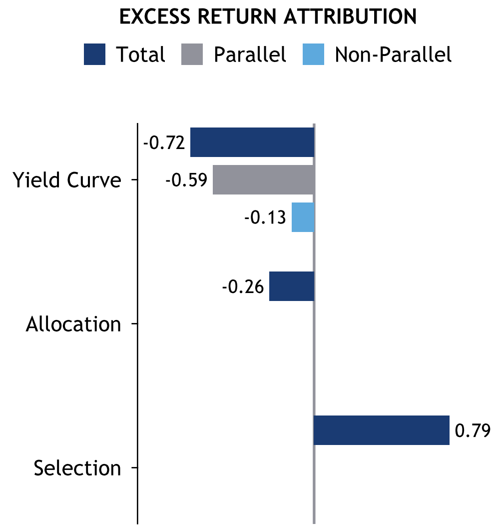
	2021
Excess Return (Gross)	-1.11

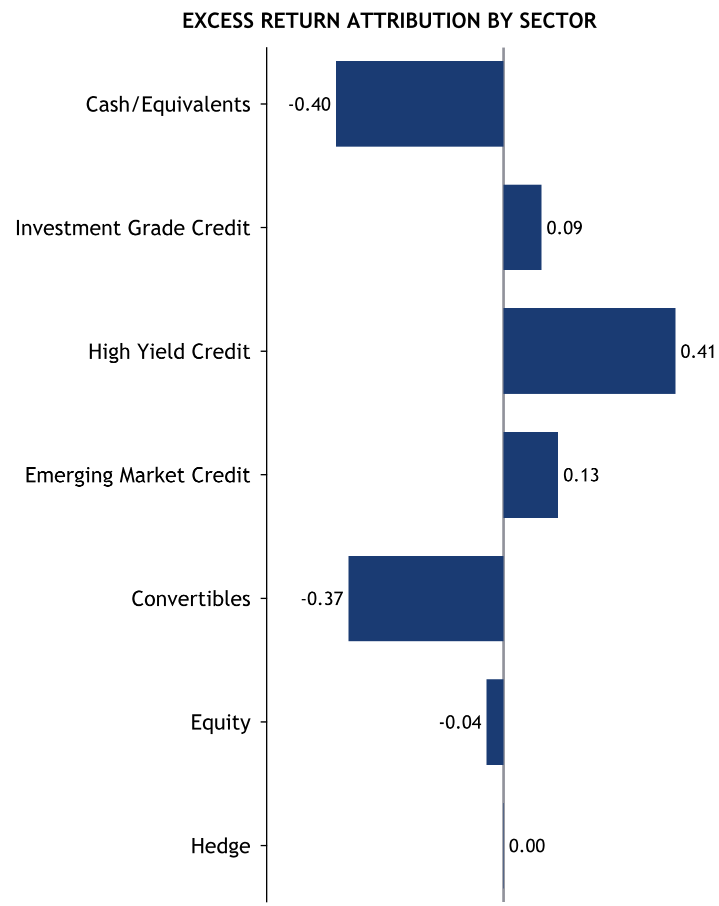
Benchmarks: BBG High Yield 2% Issuer Cap (10/28/2020 - 12/31/2021).
The current benchmark is Bloomberg High Yield 2% Issuer Capped Index.

attribution analysis

SINCE INCEPTION (10/28/2020) TO 12/31/2021

	Total Return
Portfolio Return	11.14
Benchmark Return	11.38
Excess Return	-0.24





Figures on the bar chart may not add up to total excess return as they exclude impact of trading and pricing differences.
The current benchmark is Bloomberg High Yield 2% Issuer Capped Index.

attribution analysis

SINCE INCEPTION (10/28/2020) TO 12/31/2021

SECTOR DISTRIBUTION

	Portfolio Final Weight	Benchmark Final Weight	Portfolio Average Weight	Benchmark Average Weight	Portfolio Return	Benchmark Return	Total Effect
High Yield Credit	84.44	98.85	83.76	98.97	11.99	11.47	0.41
Emerging Market Credit	4.18	0.99	4.21	0.98	13.34	5.33	0.13
Investment Grade Credit	0.74	0.16	1.90	0.04	15.21	-1.37	0.09
Hedge	0.00	0.00	0.00	0.00	0.34	11.40	0.00
Equity	0.00	0.00	1.28	0.00	7.11	11.40	-0.04
Convertibles	7.08	0.00	5.12	0.00	7.84	11.40	-0.37
Cash/Equivalents	3.55	0.00	3.72	0.00	0.04	11.40	-0.40

Total Effects are impacted by sector returns, allocation shifts and market timing. Total Effect includes yield curve impact.
The current benchmark is Bloomberg High Yield 2% Issuer Capped Index.

attribution analysis

SINCE INCEPTION (10/28/2020) TO 12/31/2021

TOP 10 INDUSTRIES BY TOTAL EFFECT

	Portfolio Weight	Benchmark Weight	Total Effect
Technology	6.14	6.54	0.22
Basic Industry	5.59	5.54	0.19
Consumer Cyclical	19.32	20.37	0.16
Capital Goods	7.17	8.67	0.14
Electric	1.29	2.72	0.08
Insurance	0.60	2.29	0.08
Reits	0.64	1.86	0.05
Communications	17.00	16.43	0.04
Banking	1.55	1.47	0.02
Brokerage Asset Managers Exchanges	0.05	0.51	0.01

BOTTOM 10 INDUSTRIES BY TOTAL EFFECT

	Portfolio Weight	Benchmark Weight	Total Effect
Energy	12.86	13.28	-0.31
Consumer Non Cyclical	14.12	13.66	-0.31
Financial Other	2.88	0.92	-0.09
Transportation	1.82	2.19	-0.05
Finance Companies	3.85	2.31	-0.04
Industrial Other	0.09	1.24	-0.01
Other	0.01	0.00	0.00
Brokerage Asset Managers Exchanges	0.05	0.51	0.01
Banking	1.55	1.47	0.02
Communications	17.00	16.43	0.04

Out-of-benchmark allocations defaulted to security selection.
The current benchmark is Bloomberg High Yield 2% Issuer Capped Index.

attribution analysis

SINCE INCEPTION (10/28/2020) TO 12/31/2021

TOP 10 ISSUERS BY TOTAL EFFECT

	Portfolio Weight	Benchmark Weight	Total Effect
Palo Alto Networks Inc	0.29	0.00	0.22
EnLink Midstream Partners LP	0.27	0.18	0.11
SM Energy Co	0.24	0.13	0.10
First Quantum Minerals Ltd	1.54	0.00	0.09
Shelf Drill Hold Ltd	0.05	0.00	0.08
Centene Corp	0.05	1.03	0.08
iHeartMedia Inc	0.93	0.23	0.07
General Motors Co	0.63	0.00	0.06
Telecom Italia SpA/Milano	0.06	0.41	0.06
Continental Resources Inc/OK	0.55	0.32	0.05

BOTTOM 10 ISSUERS BY TOTAL EFFECT

	Portfolio Weight	Benchmark Weight	Total Effect
Teladoc Health Inc	0.43	0.00	-0.21
2020 Cash Exch Trust	0.52	0.00	-0.19
Transocean Ltd	0.34	0.30	-0.11
Kraft Heinz Co/The	0.59	1.59	-0.08
Community Health Systems Inc	1.01	0.82	-0.06
CommScope Holding Co Inc	1.32	0.42	-0.06
Weatherford International PLC	0.09	0.16	-0.06
Southwest Airlines Co	0.31	0.00	-0.05
QUICKEN LOANS INC	0.77	0.12	-0.05
Global Air Lease Co Ltd	0.06	0.11	-0.05

The current benchmark is Bloomberg High Yield 2% Issuer Capped Index.

attribution analysis

SINCE INCEPTION (10/28/2020) TO 12/31/2021

CURRENCY DISTRIBUTION

	Portfolio Weight Pre-Hedge	Portfolio Weight Post-Hedge	Currency Contribution	Bond Contribution	Hedging Effect	Total Effect
US Dollar	100.00	100.00	0.00	-0.20	0.00	-0.20

Weights reflect end of period holdings. Effects are as of the entire period. Bond Contribution is the sum of Country Allocation and Local Market effects.
The current benchmark is Bloomberg High Yield 2% Issuer Capped Index.

portfolio summary

AS OF 12/31/2021

	Portfolio 12/31/2021	Benchmark 12/31/2021	Portfolio 10/28/2020	Benchmark 10/28/2020
Yield to Worst (%)	4.28	4.26	5.39	5.77
Effective Duration (years)	3.70	3.81	5.04	3.68
Effective Maturity (years)	4.86	4.73	7.07	4.94
OAS * (bps)	274	286	457	507
Coupon (%)	5.44	5.67	5.63	6.05
Current Yield (%)	5.10	5.50	5.61	6.09
Average Quality	B1	B1	B1	B1
Number of Securities	497	2,242	390	2,139
Number of Issuers	329	972	224	887

Quality	Portfolio 12/31/2021	Benchmark 12/31/2021	Portfolio 10/28/2020	Benchmark 10/28/2020
AAA	5.23	0.00	0.00	0.00
AA	0.28	0.00	0.00	0.00
BAA	1.28	0.16	8.05	0.00
BA	37.80	52.32	47.84	53.99
B	40.66	35.88	29.76	32.85
CAA	13.85	11.40	14.23	12.24
CA	0.15	0.20	0.11	0.48
C	0.00	0.06	0.00	0.37
NR	0.75	0.00	0.00	0.07

** OAS is option adjusted spread.*
Client Guideline Quality Methodology presented.
The current benchmark is Bloomberg High Yield 2% Issuer Capped Index.

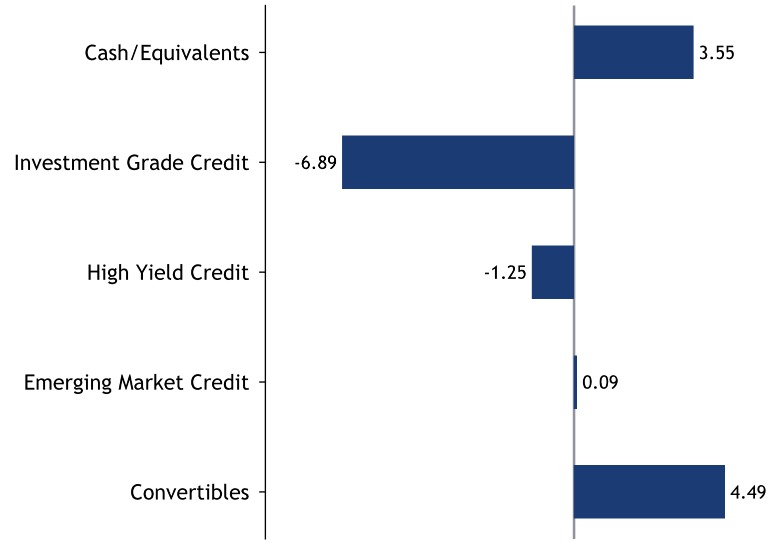
sector allocation

SINCE INCEPTION (10/28/2020) TO 12/31/2021 (%)

SECTOR DISTRIBUTION

	Portfolio 12/31/2021	Over/Under Weight
Cash/Equivalents	3.55	3.55
Investment Grade Credit	0.74	0.59
High Yield Credit	84.44	-14.42
Emerging Market Credit	4.18	3.19
Convertibles	7.08	7.08

SECTOR ALLOCATION CHANGE



The current benchmark is Bloomberg High Yield 2% Issuer Capped Index.

country of risk allocation

AS OF 12/31/2021

Total Developed Countries Exposure	Portfolio Weight %	Benchmark Weight %
Developed	95.72	99.01
Americas	89.69	91.81
United States	86.63	88.25
Canada	2.94	3.45
Cayman Islands	0.12	0.11
Asia	0.55	0.16
Japan	0.55	0.16
Europe	4.52	6.59
United Kingdom	1.16	1.92
Netherlands	0.82	0.83
Luxembourg	0.81	0.59
Germany	0.67	0.83
Italy	0.59	1.01
France	0.20	0.72
Switzerland	0.16	0.13
Spain	0.11	0.14
Other	0.00	0.42
Oceania	0.96	0.36
Australia	0.96	0.36
Other	0.00	0.08
Other	0.00	0.08

Total EM Countries Exposure (USD & Non USD)	Portfolio Weight %	Benchmark Weight %
Emerging Markets *	4.28	0.99
Africa	1.46	0.00
Zambia	1.46	0.00
Americas	0.13	0.00
Mexico	0.13	0.00
Asia	0.99	0.99
Macau	0.59	0.56
Hong Kong	0.30	0.33
China	0.10	0.00
Other	0.00	0.10
Middle East	1.71	0.00
Israel	1.71	0.00
Total	100.00	100.00

Non Dollar Exposure	Portfolio Weight %	Benchmark Weight %
Total Non USD †	0.00	0.00

** Emerging markets includes countries with middle or low income economies, as designed by the World Bank, also taking into consideration capital market liquidity and accessibility.*
*** Supranational includes debt from an entity sponsored by a combination of multiple governments to promote economic development.*
† Values shown include impact of hedging, if utilized.
Due to active management, country and currency allocation will evolve over time. Due to rounding, totals may not equal 100%.
The current benchmark is Bloomberg High Yield 2% Issuer Capped Index.

FULL DISCRETION

macroeconomic environment and outlook

YEAR-END FORECAST	US DOMESTIC		GLOBAL		WESTERN EUROPE		ASIA PACIFIC		LATIN AMERICA	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Real GDP Growth	3.6%	2.7%	4.3%	3.6%	4.0%	2.4%	5.0%	4.5%	2.0%	2.4%
Headline CPI Inflation	5.4%	2.4%	4.4%	3.0%	3.2%	1.7%	2.4%	2.3%	12.2%	8.8%
Current Account Balance (% GDP)	-3.4%	-3.1%	-	-	-	-	-	-	-	-
Interest Rates (10-year); End Of Year	2.3%		-	-	-	-	-	-	-	-

ABOVE TREND US GROWTH EXPECTED IN 2022

- Though growth has been slowing after a robust recovery in 2021, we currently expect strong, above-trend real GDP near 3.6% for 2022 and expect solid growth near 2.7% in 2023.
- Q1 may be relatively weak given impacts from the Omicron variant, but we expect to see strong activity in Q2 and Q3.
- Unemployment is currently at 4.0%, suggesting that the economy is approaching (or has already reached) the Fed's maximum employment goal despite the fact that labor market is still almost 3 million jobs below pre-pandemic levels.
- US inflation surprised to the upside in January and have been at historic levels (CPI at 7.5% in Dec.). We expect inflation to peak in Q1, but recognize that we may not see a sharp drop back towards trend. If we do not see inflation trending downwards by mid-year, we could be in store for more aggressive Fed policy.

GLOBAL GROWTH SOLID, BUT BUMPY

- Global GDP appears past peak, but we expect solid global growth moving forward. PMIs could stabilize towards the end of 2022 and indicate a strong expansionary backdrop.
- Supply disruptions have remained prevalent, but indicators including supplier delivery times PMIs suggest that pressure may be starting to ease.
- Chinese growth has been losing momentum and may continue to struggle in the near term. However, we do not anticipate a "hard landing" scenario and expect policymakers to curb downside risks.

CORPORATE FUNDAMENTALS, PROFITS LOOK STRONG

- We are likely past peak earnings growth, but still expect strong S&P 500 earnings in the plus 10% range to be delivered in 2022, driven largely by strong economic momentum and elevated nominal GDP.
- Supply-chain issues remain top of mind. It seems like many firms are able to pass higher input prices on to consumers, but margins could be under pressure if that trend changes.
- Very low default rates (low single digits) expected over the next year given the strong economic outlook and corporate fundamentals, which help support spreads at low levels.

MONETARY POLICY AND INTEREST RATES

- Elevated inflation and further improvements in the labor market have given the Fed the green light to begin a hiking cycle. The Fed (along with other global central banks) has turned more hawkish as they try to anchor longer term inflation expectations and prepare the market for rate hikes.
- We now anticipate five rate hikes in 2022, beginning in March. We believe tapering will likely wrap up by the end of Q1, while QT could begin over the summer.
- We expect US rates to continue to move upwards provided that the market prices in higher expectations for the terminal Fed Funds rate.

Data as of 2/11/2022. Loomis Sayles Macro Strategies Group. This material is provided for informational purposes only and should not be construed as investment advice. The forecasted views and opinions expressed reflect those of the authors and do not necessarily reflect the views of Loomis, Sayles & Company L.P. All statements are made as of the date of the presentation and are subject to change at any time without notice.

credit cycle

INDUSTRIES

- Aerospace (12)
- Diversified Manufacturing (12)
- Airlines (12)
- Oil Field Services (12)
- US Banks (12.5)

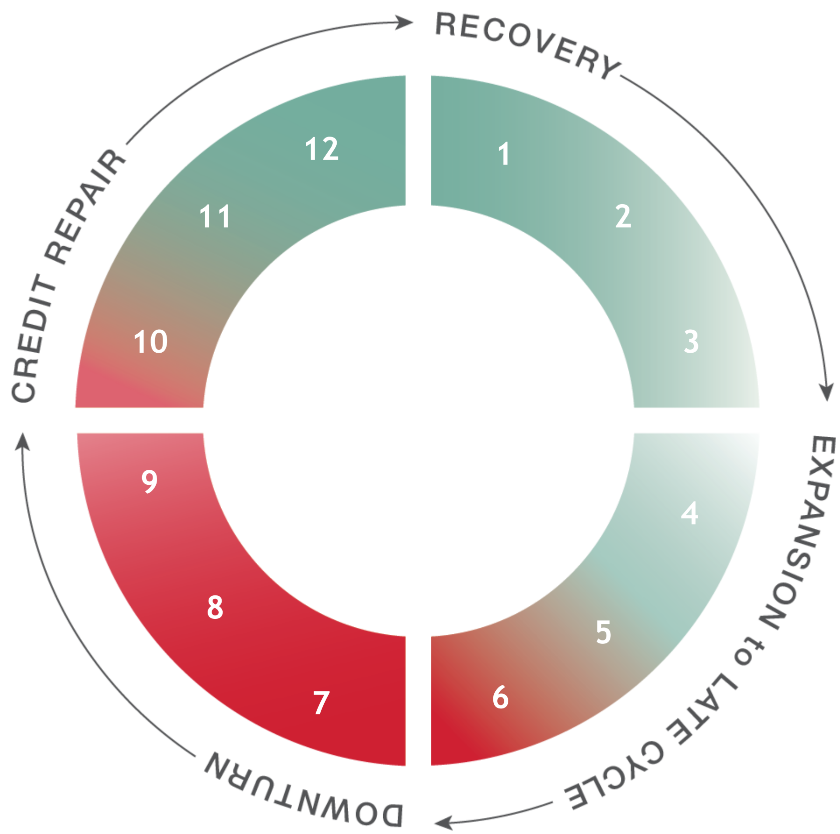
- Life Insurance (1)
- Finance (1)
- Lodging (1)
- Refiners (1)
- REITs (1.5)

- Global Banks (2)
- Automotive (2)
- Construction Machinery (2.5)
- Midstream (2.5)

- Independent (3)
- Retailers, incl Specialty (3)
- Chemicals (3)
- Cable/Satellite (3)
- Telecom Wireline (3)
- Telecom Wireless (3)

- Metals & Mining (4)
- Restaurants (4)
- Supermarkets (4)
- Integrated (4)
- Home Construction (4.5)
- Defense (4.5)
- US Building Materials (4.5)
- Packaging (4.5)
- Environmental (4.5)
- Railroads (4.5)

- Technology (5)
- P&C (5)
- Paper (5)
- Healthcare (5)
- Consumer Products (5)
- Food & Beverage (5)
- Health Insurers (5)
- Pharmaceuticals (5)



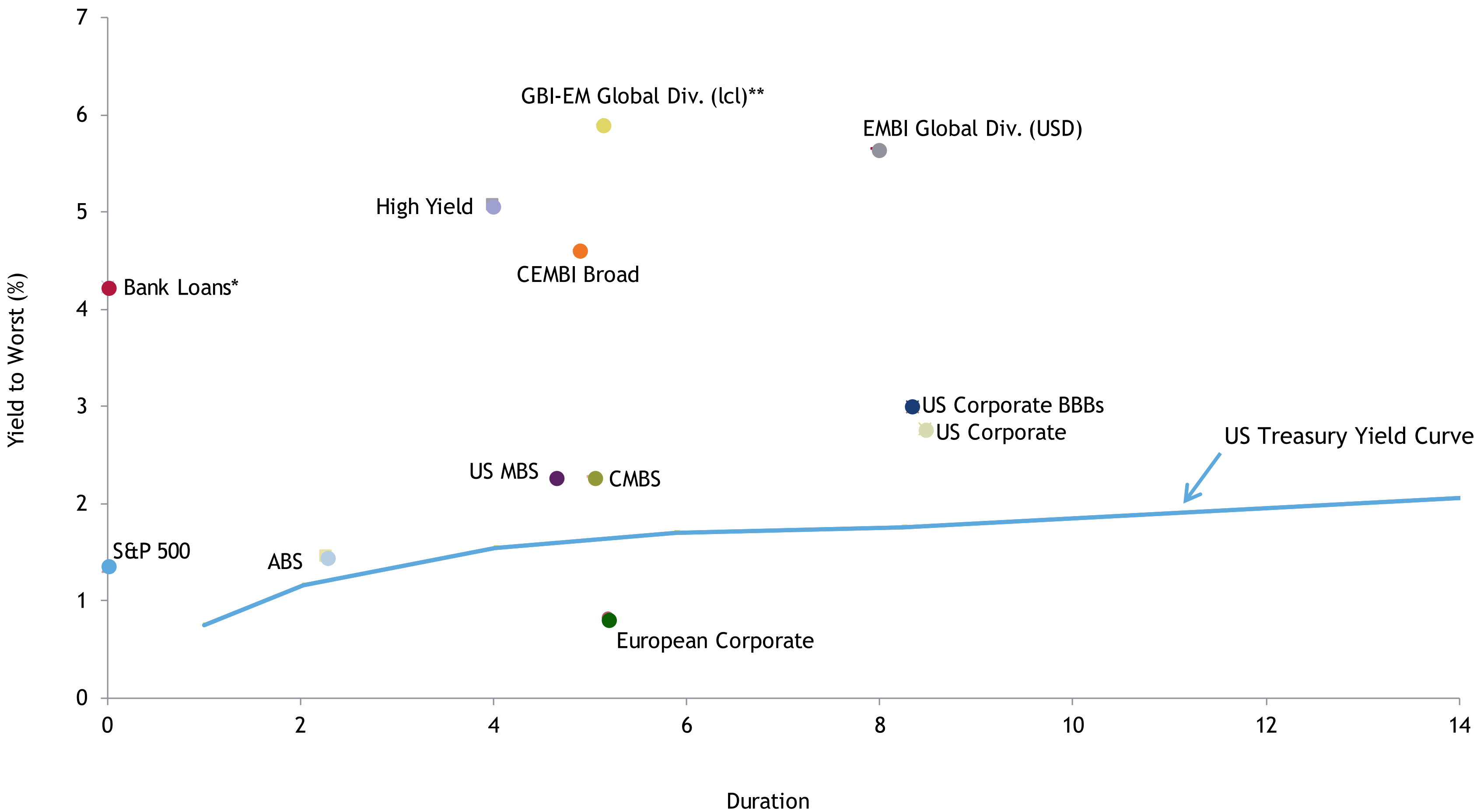
- Tobacco (5.5)

- Media/Entertainment (6)
- Electrics (6)

Views as of 1/19/2022. This material is provided for informational purposes only and should not be construed as investment advice. Investment decisions should consider the individual circumstances of the particular investor. This reflects the current opinions of the presenter and views are subject to change at any time without notice. Other industry analysts and investment personnel may have different views and opinions.

multisector flexibility is key

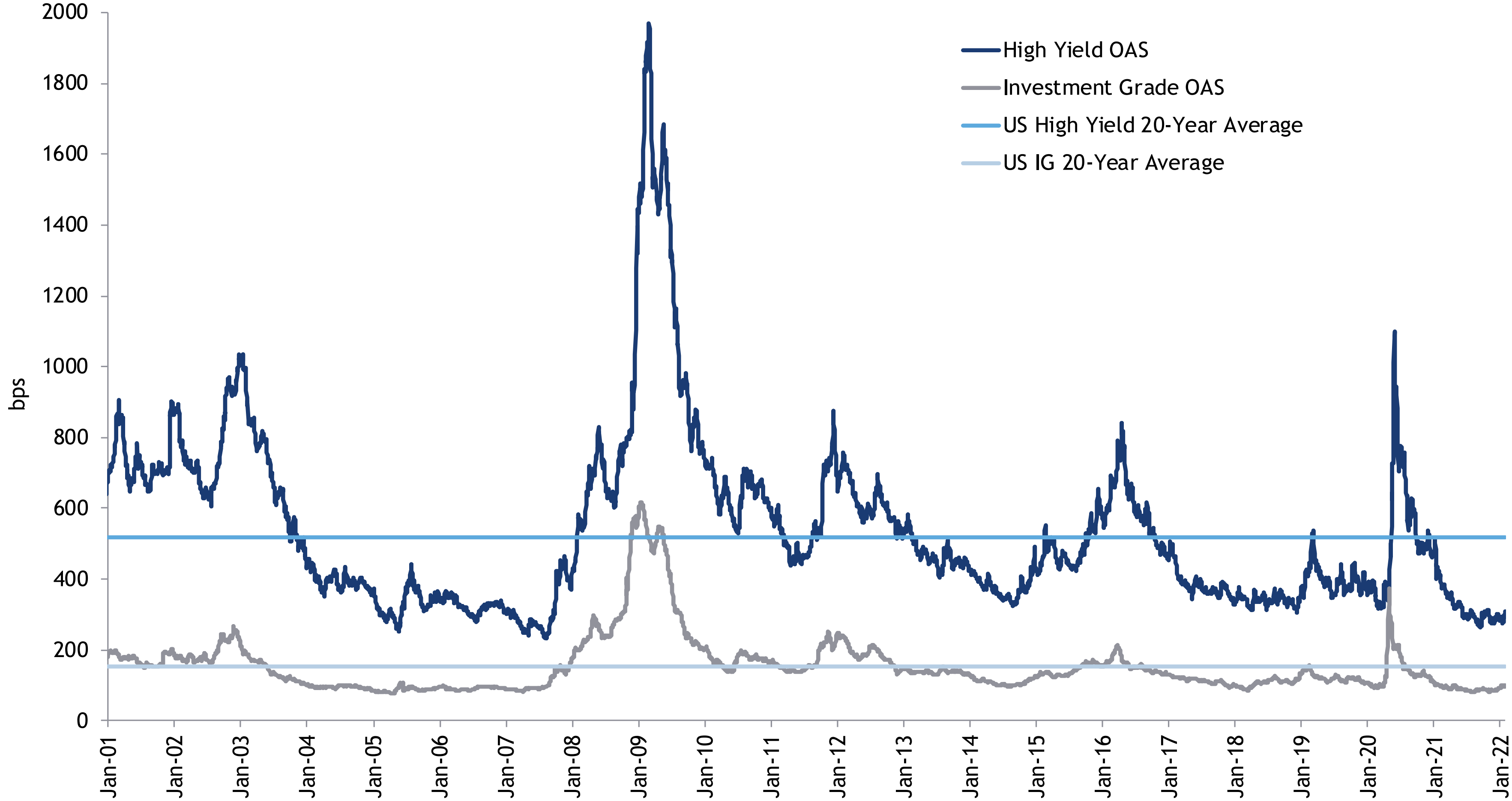
SECTOR YIELDS VS. LIKE DURATION TREASURYS YTD



Sources: JPMorgan, Bloomberg. As of 1/31/2022.
**Bank loan effective yield and S&P dividend yield replace YTW. Bank Loan effective yield is as of 1/31/2022.*
***GBI-EMYTM replaces YTW.*
Past performance is no guarantee of future results.
Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.

bond market environment

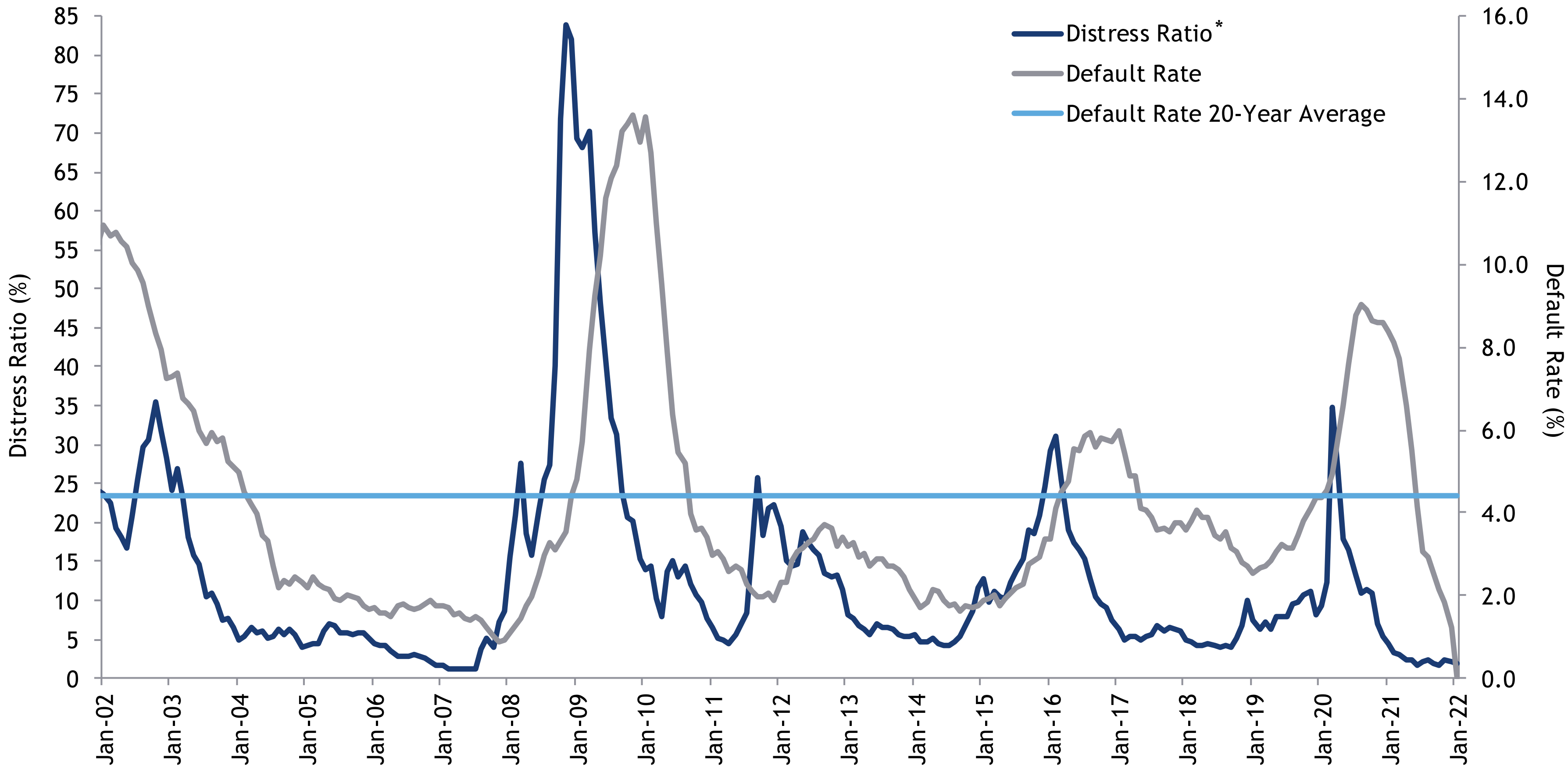
US INVESTMENT GRADE AND HIGH YIELD OPTION-ADJUSTED SPREADS



Source: Barclays. As of 1/31/2022.
Past performance is no guarantee of future results.
Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.

bond market environment

“DISTRESSED” SECURITIES AND DEFAULT RATES HAVE DECREASED SINCE EARLY 2010



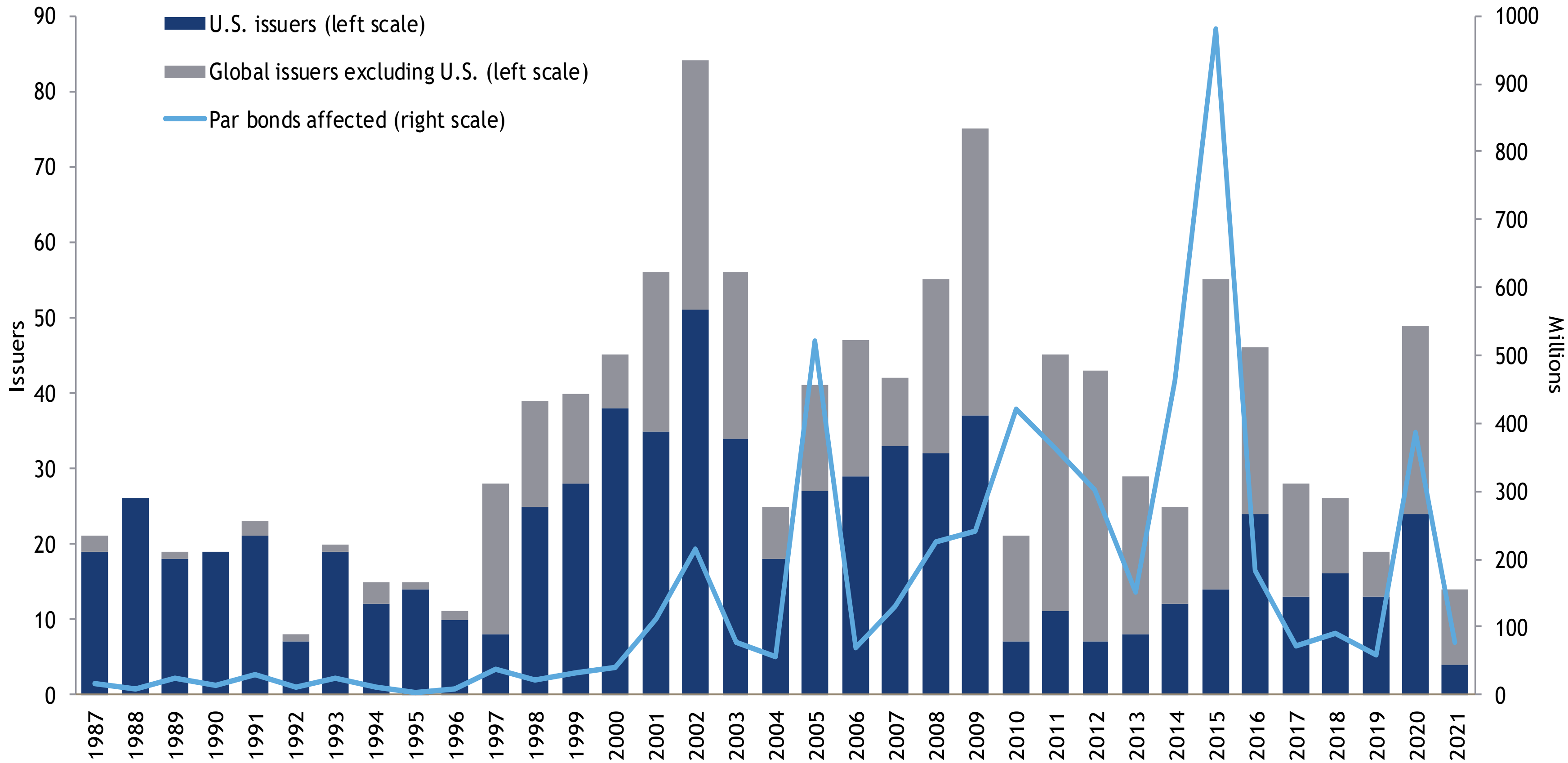
‘Distressed’ securities reached pre-Lehman levels in December 2009.

Source: Bloomberg, Merrill Lynch, Moody’s. As of 1/31/2022.
**Percent of bonds in Merrill Lynch High Yield Master Index with Spreads 1000 bps over Treasurys.*
Past market experience is no guarantee of future results.

LOOMIS | SAYLES®

bond market environment

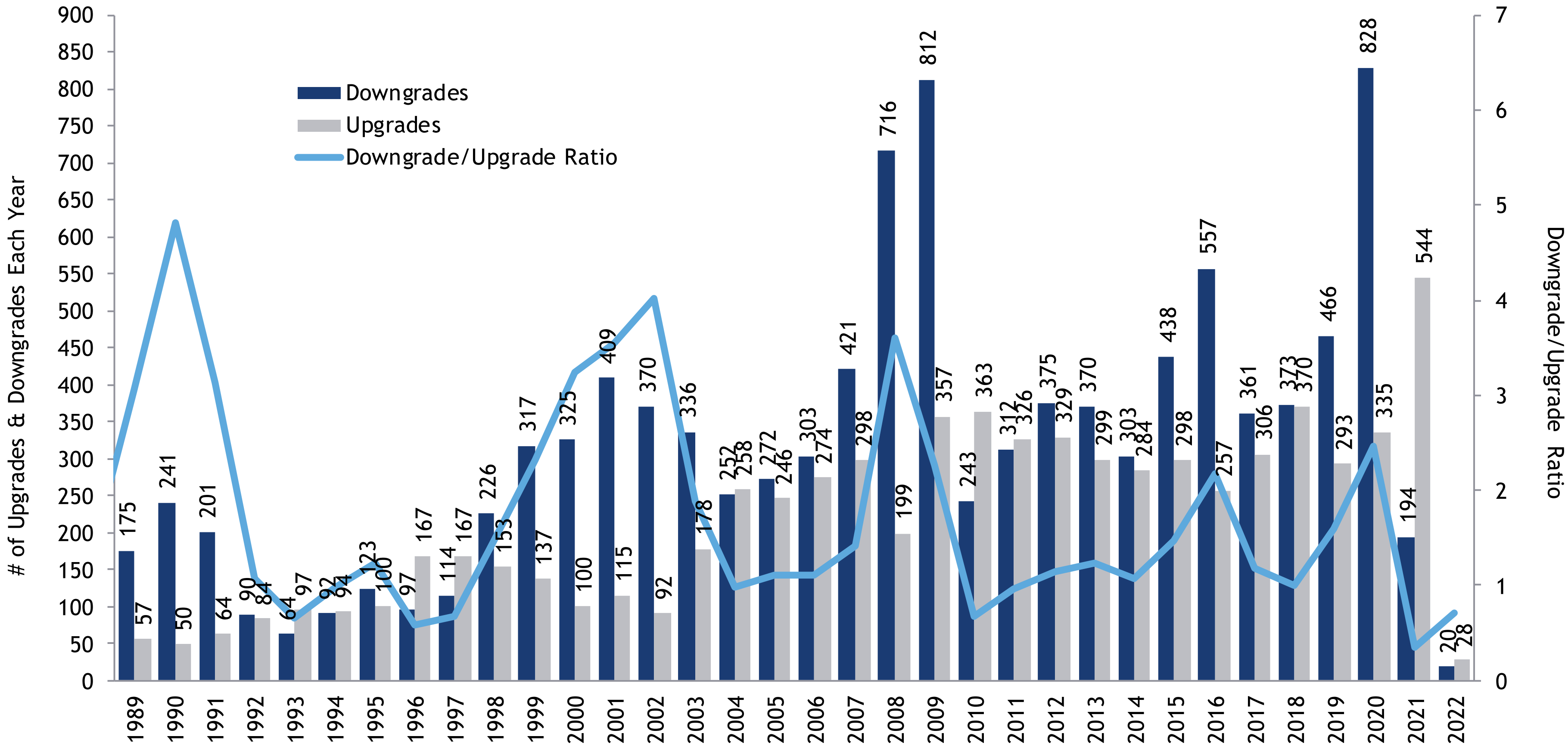
GLOBAL AND US "FALLEN ANGELS" AS OF 8/25/2021



Source: S&P.
Number of issuers in a given year whose rating has fallen from investment grade to speculative grade.

bond market environment

US HIGH YIELD CREDIT QUALITY TRENDS YTD

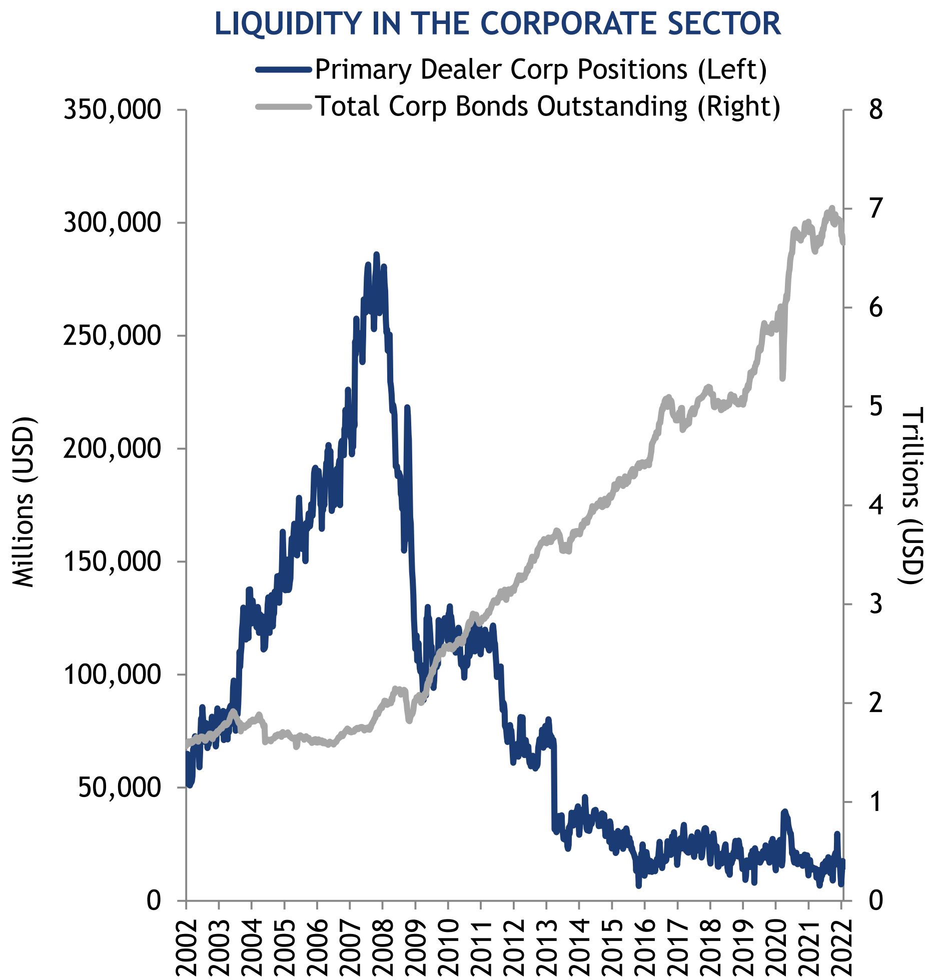


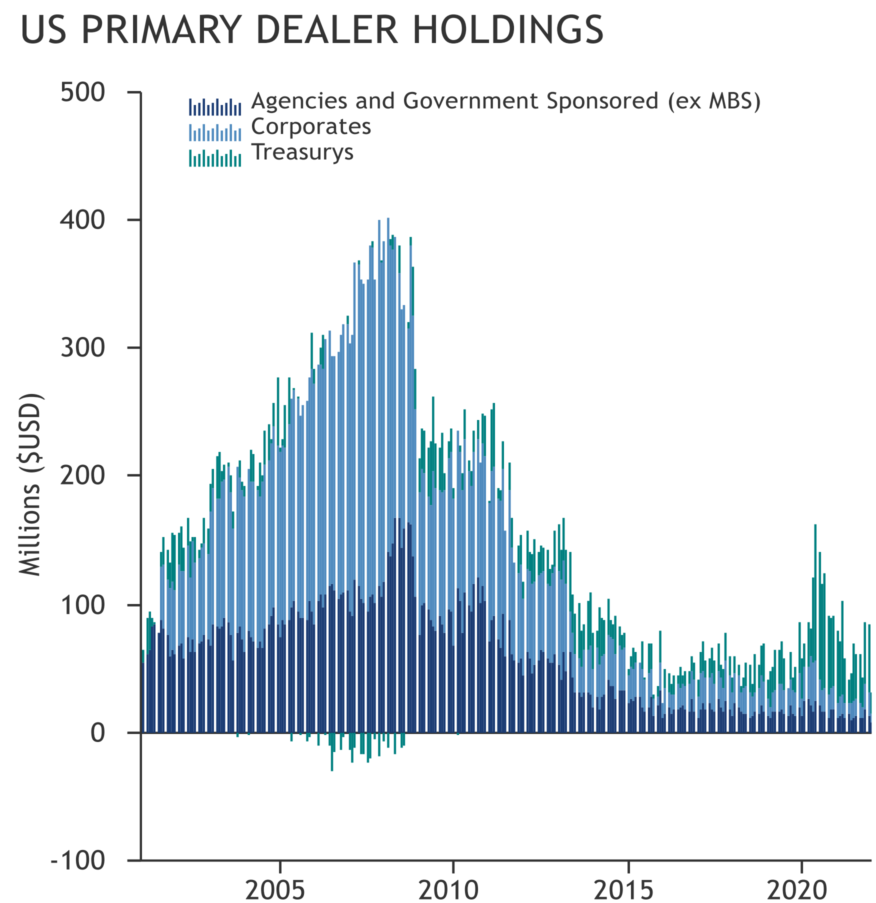
Source: Moodys. ***As of 1/31/2022.***
Trends are based on historical data.
Past market experience is no guarantee of future results.

LOOMIS | SAYLES®

XSC031
MALR027092
8111111031

market illiquidity remains a concern





Source: Refinitiv Datastream, data as of 1/26/2022.

Data: Bloomberg, as of 1/26/2022.
Used with permission from Bloomberg Finance L.P.
Past market experience is no guarantee of future results.

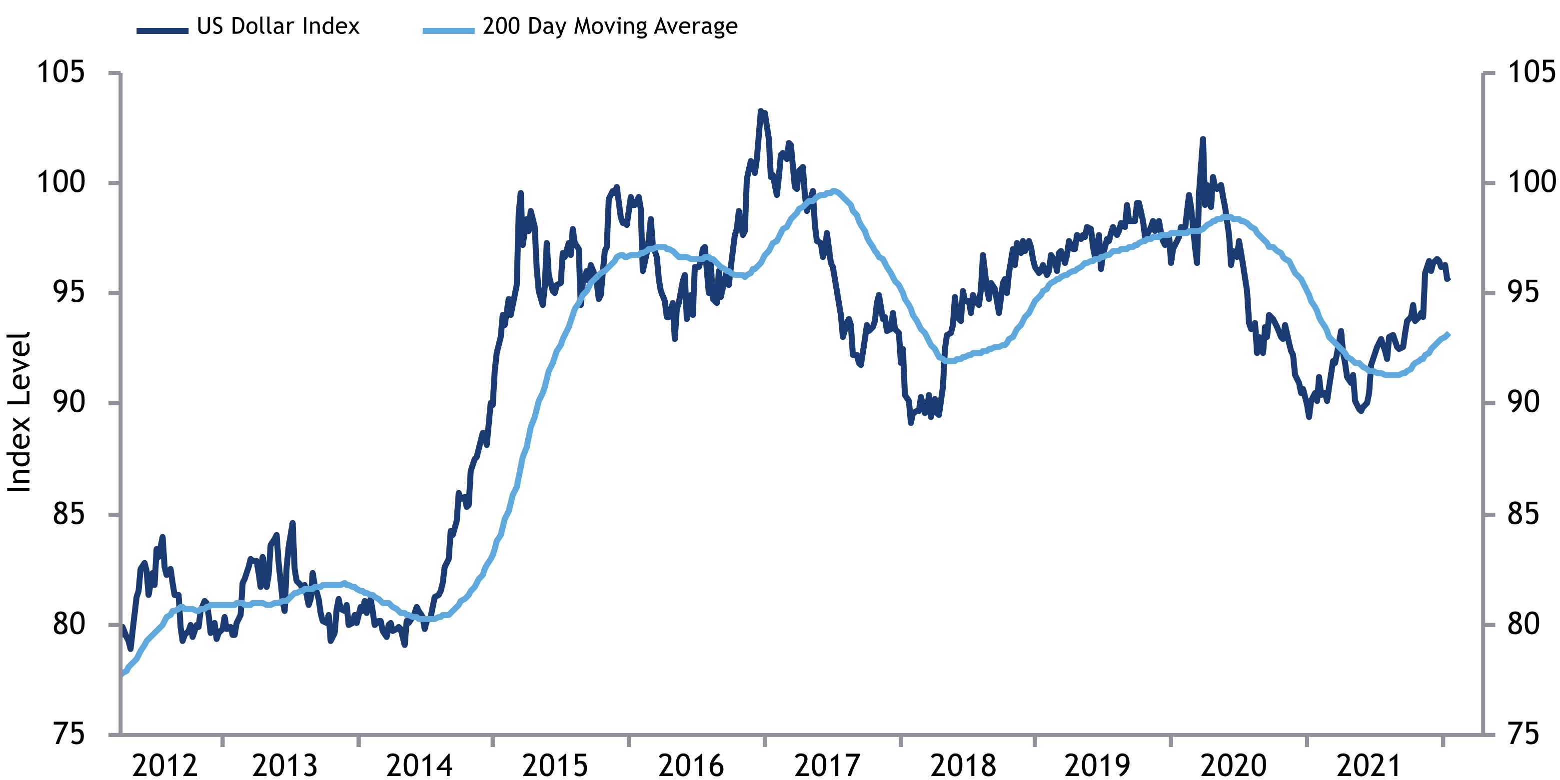
LOOMIS | SAYLES®

XFD005
MALR028257
8555555005

2021 brought a stronger dollar

A MORE HAWKISH FED AND POTENTIAL BUMPS IN THE GLOBAL GROWTH OUTLOOK MAKE IT DIFFICULT TO ARGUE FOR SIGNIFICANT DOLLAR WEAKNESS IN THE NEAR-TERM

DXY Index



Source: Refinitiv Datastream, data as of 1/19/2022

All indices are unmanaged and do not incur fees. You cannot invest directly in an index.
Any opinions or forecasts contained herein reflect the current subjective judgments and assumptions of the presenter only, and do not necessarily reflect the views of Loomis, Sayles & Company, L.P. This information is subject to change at any time without notice.

risk management

RISK OVERSIGHT PROVIDES IMPORTANT INDEPENDENT "BOUNDARIES" FOR THE INVESTMENT PROCESS

As of 12/31/2021.

investment strategy & risk management group

DEDICATED STAFF

- Chief Investment Risk Officer (CIRO)
- Deputy Chief Investment Risk Officer & Model Risk Officer
- 1 Risk Engineer
- 1 Investment Risk Manager
- 1 Senior Investment Risk Analyst
- 4 Investment Risk Analysts
- 1 Risk Associate

INDEPENDENT RISK OVERSIGHT & ANALYSIS

- Independent oversight function
- Focus on monitoring investment related risk exposures and their impact
- Seek to ensure portfolios are constructed for best risk adjusted return potential

FIRM WIDE RESOURCE

- In-depth understanding of products, instruments, and risk management techniques

As of 12/31/2021.

risk oversight

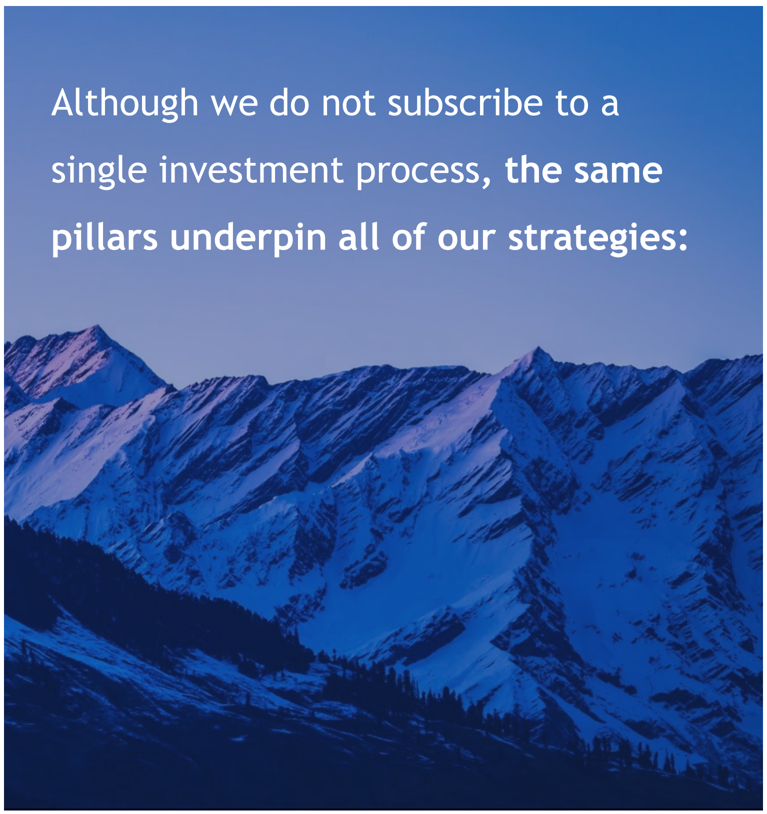
KEY COMPONENTS TO INVESTMENT RISK OVERSIGHT PROCESS

1. **CIO Review:** Formalization of the alpha thesis and 5 pillars
2. **Investment Risk Review:** Semiannual check-in with portfolio management teams to review portfolio positioning, risk, and performance
3. **Risk Management Committee:** Quarterly committee meeting to discuss current and future risks facing the firm and products, and what is being done to help mitigate them
4. **Daily Monitoring:** Analysts review portfolio positioning, risk, and performance; each product is assigned a primary and secondary analyst
5. **Topical Research and Analysis:** Larger risk management projects and enhancements, development of new tools and techniques, investment strategy research

risk oversight

CIO REVIEW PROCESS

Evaluate and ensure all products meet the foundation of a Loomis Sayles product



A Sound Philosophy

A Rigorous, Repeatable Process

Disciplined Portfolio Construction

Proprietary Research

Incorporated ESG Factors

Integrated Risk Management

risk oversight

INVESTMENT RISK REVIEW – ANSWERING 4 KEY QUESTIONS

1. WHAT IS YOUR ALPHA THESIS?

Identify structural or tactical advantages that can lead to long term excess return

2. WHERE ARE THE OPPORTUNITIES?

Which alpha drivers offer the best risk adjusted return

3. HOW TO BEST TAKE ADVANTAGE OF EACH OPPORTUNITY?

Our preferred implementation of each alpha driver

4. WHAT IS THE RISK RETURN PROFILE OF THE RESULTING PORTFOLIO?

Portfolio construction, risk attribution, & scenario analysis

risk oversight

RISK MANAGEMENT COMMITTEE

Quarterly review of investment risks across the firm

- Current risks to monitor or address
- Potential risks to products or firm on the horizon
- Current initiatives to address and mitigate identified risks

Risk Management

risk oversight

Risk Management

Daily Monitoring

- Leverage technology to identify and monitor performance and risk
- Investigate outliers and discuss with appropriate team members
- Escalate high risk issues to senior management if necessary

Topical Risk analysis and research

- Larger risk measurement and monitoring projects
  - Liquidity
  - Model Risk Management
  - LIBOR Transition
- Ad hoc work on specific topics for portfolio management teams
  - Alpha Thesis testing
  - Strategy research
- Firm wide risk management resource

LOOMIS | SAYLES®

full discretion ESG statement

The Full Discretion team believes that fundamental and quantitative research can offer our best approach to identifying attractive investment opportunities. Successful strategy development, portfolio construction and investment implementation can be best achieved through our disciplined, collaborative team process. Central to this approach is a relative value-oriented, long-term, flexible strategy that focuses on where the market may be mispricing risk across a range of sectors, industries and issues. In addition, a consistent application of our investment approach can enable us to capitalize on potential opportunities in most sets of market conditions.

ESG considerations are embedded within this process, with the ultimate goal to provide superior long-term risk-adjusted investment results for our clients.

- We take a long term sectoral view of ESG by investigating environmental, social and governance factors and trends, and the overall effect of ESG issues on the valuation of the underlying business.
- ESG is integrated throughout many steps of our investment process, including our proprietary fundamental research, effective engagement, and robust valuation work.
- Our investment analysts focus on material ESG factors; this has been a consistent aspect of our deep internal research team for many years. What has changed, however, is the acceleration of external data providers, global frameworks, and sophisticated ESG and climate tools to help us measure and better evaluate these factors.
- Climate change has material implications for investing, and we are incorporating new carbon data and climate scenario analysis tools as part of our efforts to both manage risk and identify carbon transition opportunities.

There is no guarantee that the investment objective will be realized or that strategy will generate positive or excess return.

our approach to ESG

PRACTICAL, AUTHENTIC AND WITH AN EYE TOWARD THE FUTURE

LOOMIS SAYLES "THE FIRM"	ESG WITHIN OUR INVESTMENT TEAMS	ESG RELATED REQUESTS AND COLLABORATION
Governance	Integration	Clients
Fiduciary Duty	Engagement	Consultants
ESG Values	Infrastructure	Industry

ESG at loomis sayles

INTEGRATION OF ESG FACTORS IN THE INVESTMENT PROCESSES

Our investment teams each use a tailored approach to incorporate ESG factors and engage with issuers and companies to meet our clients' objectives. We do not view ESG as an overlay to our investment processes. We view it as an integral component throughout.

ESG RESEARCH

External ESG data and research is used to supplement our own proprietary ESG research across asset classes.

ESG ENGAGEMENT

Preference is given to engagement with company management and government policy makers on ESG issues, rather than divestment.

ESG STRUCTURE

The ESG integration efforts are supported by the Director of ESG and a committee structure that draws on contributions from across the firm.

ESG advancement at loomis sayles

OUR APPROACH HAS BEEN FORMALIZED AND ENHANCED BY A NUMBER OF ESG INITIATIVES

2012
- Established ESG Policy and committee

2013
- Signed UK Stewardship Code

2015
- Signed UN PRI

2016
- Proprietary ESG engagement database

2017
- ESG in portfolio risk reviews

2018
- Appointed Director of ESG
- Created ESG Data Center

2020
- Guiding Principles on Climate Change
- Proprietary ESG fixed income scores
- Inaugural Sustainability Report

2021
- Added 3 dedicated ESG employees
- Accepted as signatory to 2020 UK Stewardship Code

As of 8/31/2021.

ESG structure

STRATEGIC DECISION TO EMBED ESG THROUGHOUT THE ORGANIZATION

ESG ADVISORY BOARD

Includes senior management and portfolio managers

ESG COMMITTEE

Subcommittee of the Loomis Sayles board's Risk Management Committee

ESG WORKING COMMITTEE

- Director of ESG
- General Counsel
- Deputy General Counsel
- Associate Director, Credit Research
- Associate Director, Macro Strategies
- RFP Manager
- ESG Marketing Manager
- Strategy Development Manager
- Senior ESG Analyst
- ESG Project Associate
- Director of Product Management, Growth Equity Strategies

Subcommittees are led by working committee members and include participants from across the firm

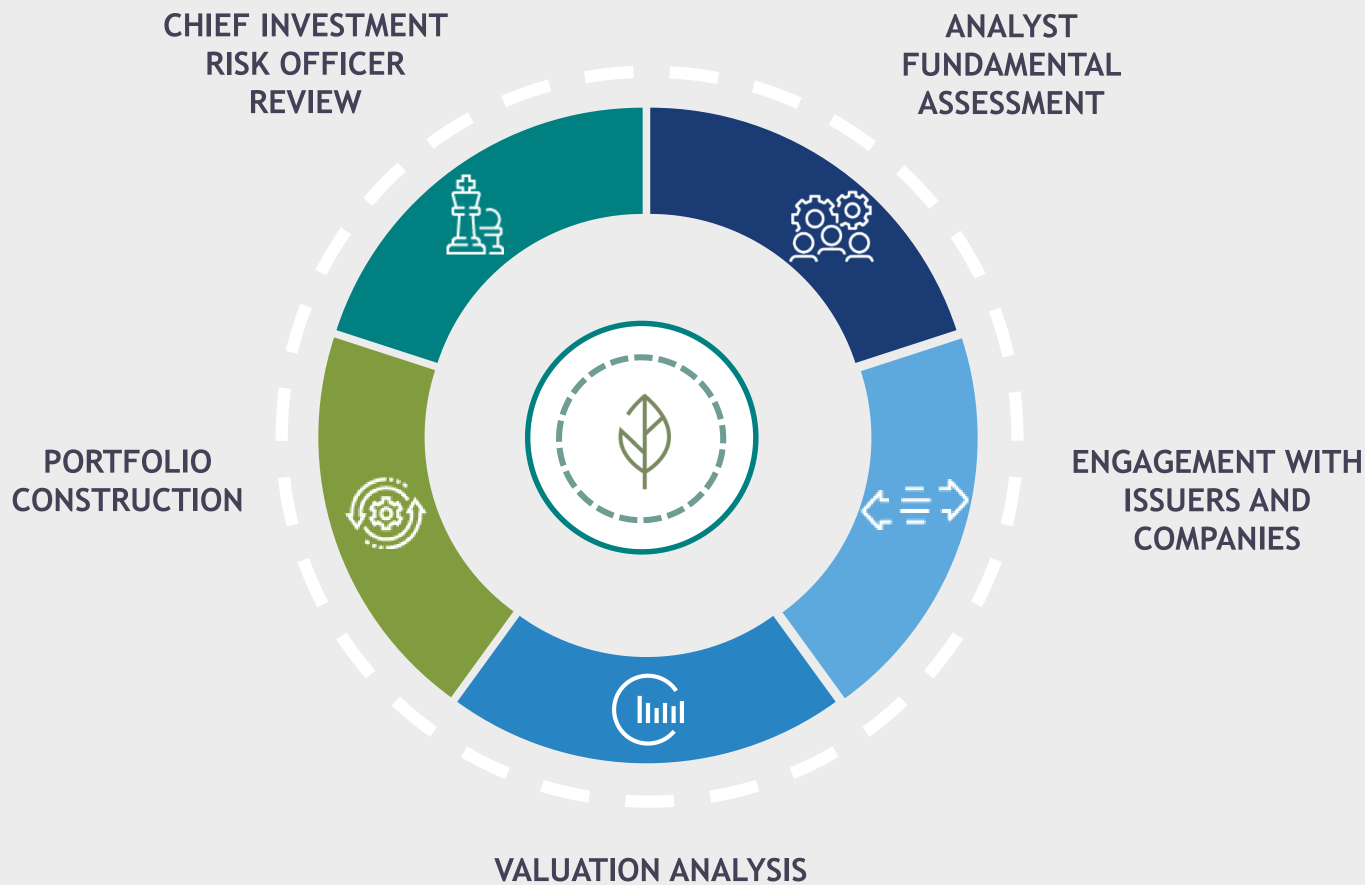
- FI Best Practices
- PRI
- Marketing
- Technology
- Climate Change
- Reporting
- Engagement

ESG WORK DRAWS ON CONTRIBUTIONS FROM ACROSS THE FIRM

- Research
- Portfolio Management
- Institutional Services
- Compliance
- Risk
- Legal
- Technology
- Marketing
- Operations
- Trading
- Finance
- Human Resources

ESG integration

AT LOOMIS SAYLES ESG CAN BE INTEGRATED WITHIN ALL STEPS OF AN INVESTMENT PROCESS



ESG research

LOOMIS SAYLES INTEGRATES ESG INTO FUNDAMENTAL RESEARCH ACROSS ALL ASSET CLASSES

We recognize the important role that environmental, social and governance issues play in the global economy, financial markets and society at large.

ESG ISSUES

Our fundamental research considers ESG issues as part of our investment analysis and recommendations

ESG PERFORMANCE

Our analysts strive to develop a thorough understanding of an issuer's track record, governance, management strength and strategy, its use of, and impact on, human and natural resources, as well as regulatory and political risks

ENGAGEMENT

We draw on discussions with company management teams and sovereign officials regarding ESG issues, as well as subscribing to and utilizing third party ESG Research

INDEPENDENT ESG VIEWS

Analysts develop independent views of material factors impacting fundamentals in their valuation assessments of equity, credit, sovereign, municipal, and securitized assets.

contacts

RELATIONSHIP MANAGEMENT

Stephanie S. Lord, CFA, CIC
Vice President, Senior Relationship Manager
630-684-8759
slord@loomissayles.com

Colleen Jones
Vice President, Associate Director,
Client Administraiton
617-535-5343
cjones@loomissayles.com

Jason Dempsey
Client Portfolio Analyst
617-603-7323
jdempsey@loomissayles.com

Risa Y. Sampson
Senior Administrative Assistant
415-364-5326
rsampson@loomissayles.com

John Meyer, CFA, CAIA, FRM
Vice President
617-346-9753
john.meyer@loomissayles.com

SEGALL BRYANT & HAMILL

LACERS

A Differentiated Approach to Investing

Small Cap Value Strategy

Presented by:

Shaun P. Nicholson
Senior Portfolio Manager

Clark W. Koertner
Director of Institutional Sales

March 8, 2022

Biographies

Shaun P. Nicholson
Senior Portfolio Manager

Shaun Nicholson is Senior Portfolio Manager for Segall Bryant & Hamill's Small Cap strategies. He is the lead Portfolio Manager for our Small Cap Value Select strategy and the Co-Portfolio Manager for our Small Cap Value strategy. Mr. Nicholson is responsible for research related to materials, autos/transports, industrials, regional banks, and energy within the respective portfolios.

He joined SBH in 2011 after having spent more than six years at Kennedy Capital Management. Prior to Kennedy, Mr. Nicholson's experience was as an associate portfolio manager at U.S. Bancorp Asset Management and as a financial analyst at The Boeing Company. Mr. Nicholson earned a B.S. from Seton Hall University and earned an MBA from the University of Missouri-St. Louis. He has been in the investment industry since 2002.

Clark W. Koertner
Director of Institutional Sales

Clark Koertner leads Segall Bryant & Hamill's Institutional Relations efforts. His primary responsibilities include all external facing communication channels, including Client Service, Sales and Consultant Relations. Prior to joining SBH in 2004, Mr. Koertner was a consultant at Stratford Advisory Group and Mercer Investment Consulting, concentrating on asset allocation and manager research decisions.

Mr. Koertner is a graduate of Miami University's Robert T. Farmer School of Business, where he attained a B.S. in Finance and Management Information Systems. Mr. Koertner is also a graduate of the University of Chicago Booth School of Business CMI program. He has been in the institutional investment industry since 2001 and holds Series 6 and 63 securities licenses. Mr. Koertner is active in his local Cystic Fibrosis Foundation, and is on the Big Shoulders Fund Chairmen's Council, whose mission is to provide support to inner-city schools which provide a quality, values-based education for Chicago's children.

An Introduction to Segall Bryant & Hamill

SBH At-a-Glance

- **Active niche investment strategies** designed to deliver alpha in many of the most inefficient areas of the market
- **Consistent, autonomous team-oriented investment approach** focused on high quality, proprietary research
- **Diverse equity offerings** spanning the globe and across market capitalizations within public and private markets
- **A full lineup of fixed income strategies** and customized solutions
- **Integration of ESG** into investment philosophy and process; signatory of United Nations' Principles for Responsible Investment (UNPRI)
- **Wholly owned subsidiary of CI Financial,** an independent Canadian investment firm

120	59	28 Years	66%	$26B
person team	investment professionals across all aspects of investment management	average experience for portfolio managers	percentage of investment professionals that are CFA® charterholders	AUM/AUA*

*AUA/AUM as of 12/31/21 is $26.1 billion. Model UMA assets of approximately $433 million are included in the AUA portion of the AUM/AUA total. CFA® and Chartered Financial Analyst® are registered trademarks owned by CFA Institute.

SBH Vision Statement

Since the firm's inception in 1994, Segall Bryant & Hamill has demonstrated its enduring commitment to the essential values established by its founders Ralph Segall, Al Bryant, Jon Hamill and Jeff Slepian. These include Integrity, Trust, Humility, Curiosity and Inclusion. As we move forward, it is imperative that we have clarity of purpose and vision, and cohesion in our approach to achieve that vision. Ultimately, our goal is to serve clients to the best of our ability through strong investment research, creative investment solutions and a dedication to exceeding their expectations.

Overall, we will seek to be a premier investment firm sought out by investors and employees alike. We will be known nationally for providing clients relevant, value-add investment and financial solutions and high touch personalized client service to help them exceed their financial objectives. In doing so, we will provide our employees an inclusive culture in which to thrive, defined by professional growth, diversity of thought, collaboration and integrity.

Spring 2019

Ralph M. Segall, CFA, CIC
Chief Investment Officer

Philip L. Hildebrandt, CFA
Chief Executive Officer

SBH Guiding Principles

As We Build Toward the Future, We Will Do So Based on Several Guiding Principles

Client Focused	We will put our clients first by acting in their best interests, exhibiting the highest ethical standards and serving them through a commitment to excellence. We will enlist our collective intellectual talents to think creatively and seek out unique investment and financial solutions for our clients. We will strive to exceed their expectations in every possible way.
Value-Added Investment Solutions	We will remain committed to providing our clients with world class investment research delivered through effective investment strategies and customized solutions. We will be disciplined, consistent and intensely research focused. We will continue to integrate environmental, social and governance (ESG) factors into our research to ensure our investment decisions take into consideration the risks that unsustainable business practices pose to economic outcomes.
Autonomy and Accountability	We will hire talented professionals, provide concise, clear job responsibilities, trust that they will act in the best interests of our clients and hold them accountable for the results. This Guiding Principle must be established and reinforced at every level of our organization.

SBH Guiding Principles

As We Build Toward the Future, We Will Do So Based on Several Guiding Principles

Decentralized Management	While structure is necessary to maintain a stable business environment, we will avoid unnecessary bureaucracy and strive to maintain simplicity. Decision making will continue to be pushed down, consistent with our principles of autonomy and accountability. This will allow us to remain nimble and encourage our employees to think creatively. We will acknowledge when our employees achieve success and coach them when decisions they make are not within the spirit of our vision.
Diversity & Inclusion	We believe diverse thinking and inclusive principles will allow us to find the best outcomes for both our clients and our employees. As a result, we will seek the best talent from diverse employment sources and provide an open environment free of any harassment or biases based on race, gender, sexual orientation, or disability.
Employee Development	We will work to develop our diverse talent by providing our employees the opportunity to show initiative and assume responsibility. We will invest in our employees through training, direct feedback and mentoring. We will encourage and incent them to remain curious and stretch the boundaries of their potential.

Our Team

Deep Experience Promotes Disciplined Decision-Making

Average Industry Experience 18 Years / Average Tenure with SBH 11 Years
Total AUM/AUA Managed: $3,943 million

Team Member	Yrs Experience | At Firm	Research Coverage	
Mark Dickherber, CFA, CPA *Director of Small Cap Strategies; Lead, Small Cap Value*	24 | 15	**Sectors:**	Health Care, Utilities, REITs, Generalist
Jeffrey C. Paulis, CFA *Senior Portfolio Manager; Lead, SMID Cap; Lead, Small Cap Core*	21 | 19	**Sectors:**	Industrials, Generalist
Shaun P. Nicholson *Senior Portfolio Manager; Lead, Small Cap Value Select*	20 | 11	**Sectors:**	Financials, Industrials, Materials, Generalist
Zachary T. Rosenstock, CFA *Senior Equity Analyst, Assistant Portfolio Manager*	17 | 11	**Sectors:**	Information Technology, Health Care
Eric Hines, CFA *Equity Analyst*	15 | 9	**Sectors:**	Consumer Staples, Consumer Discretionary
Michelle Waller* *Equity Analyst*	9 | <1	**Sectors:**	Generalist

Leverages Shared Firm Resources

ESG Analysis
Suresh Rajagopal, CFA
Director of ESG Research

Trading
Gordon Gary
Head Equity Trader
3 team members, 30 yrs avg experience

Quantitative Research
Alan Polansky, CFA
Director of Research
3 team members, 11 yrs avg experience

AUM/AUA data as of 12/31/21. Model UMA assets of $77.1 million are included in the AUA portion of the AUM/AUA total. CFA® and Chartered Financial Analyst® are registered trademarks owned by CFA Institute. *Michelle Waller joined SBH effective 11/29/21.

An Introduction to Segall Bryant & Hamill

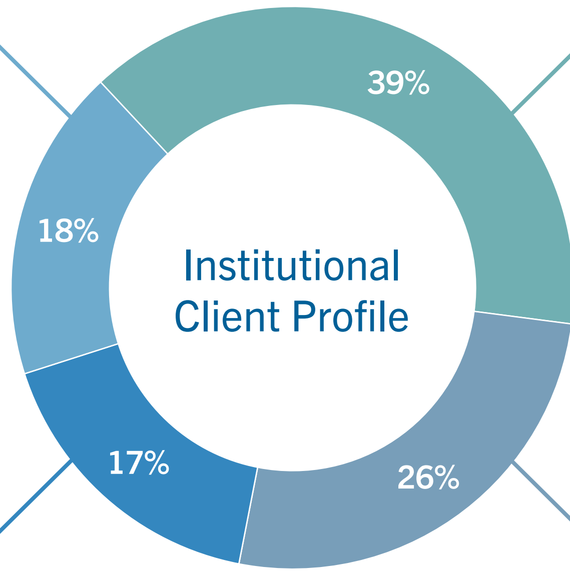
Diverse Client List

Nonprofit/Health Care

- ADV Midwest Radiology
- Baptist Health
- Bronson Healthcare
- Choctaw Nation of Oklahoma
- Delta Upsilon
- Denver Kids
- Dominican Sisters of Springfield, IL
- Hawaii Medical Service Association
- Illinois College of Optometry
- Indian Community School of Milwaukee
- Jewish Community Foundation
- Sisters of St. Francis
- The Archdiocese of San Francisco

Public

- Adams County Retirement Plan
- City of Aurora General Employees' Retirement System
- City of Ocala General Employees' Retirement System
- City of Phoenix
- Dallas Fort Worth International Airport**
- Frederick County Employees' Retirement Plan
- Lexington-Fayette Urban County Govt.
- Michigan Municipal Risk Management Authority
- Municipal Employees' Annuity & Benefit (Chicago)
- New Hampshire Retirement System
- New Jersey Transit
- Omaha Police & Fire Retirement System
- Retirement System of Tulsa County Employees



Corporate

- The ACT Reserve Fund
- Ameren Corporation
- Avangrid
- Bemis Manufacturing Company
- Blue Cross & Blue Shield of Nebraska
- Cox Enterprises
- Eversource Energy*
- Exelon Corporation
- Farmers Mutual Insurance
- First Financial Insurance Company
- Kentucky Insurance Guaranty Authority
- Pinnacle West Capital Corporation
- Valero Energy Corporation

Taft-Hartley

- Boilermakers National Health & Welfare Fund
- Central Laborers Pension Fund
- Central Pennsylvania Teamsters
- Chicago Carpenters Welfare Fund
- Indiana Electrical Workers Pension Trust
- International Painters Pension Fund
- IUOE Local 825 Pension Fund
- Massachusetts Laborers' Annuity Fund
- Michigan Laborers' Annuity Fund
- NECA IBEW Welfare Trust Fund
- Northern California Cement Masons
- Teamsters Local 639
- Wisconsin Laborers Pension Fund

* Partial client list shown. Clients were selected based upon a combination of several criteria including Assets Under Management/Assets Under Advisement (AUM/AUA) geographical location, strategy and industry. Total AUM/AUA as of 12/31/21. This list contains a representative sample of Segall Bryant & Hamill's clients that have investment agreements in force as of 12/31/21. Account performance was not a factor in compiling this list. It is not known whether the listed clients approve or disapprove of Segall Bryant & Hamill or the advisory services provided.

** SEI Trust Company (the "Trustee") serves as the Trustee of the Fund and maintains ultimate fiduciary authority over the management of, and the investments made, in the Fund. The Fund is part of a Collective Investment Trust (the "Trust") operated by the Trustee. The Trustee is a trust company organized under the laws of the Commonwealth of Pennsylvania and wholly owned subsidiary of SEI Investments Company (SEI). The Segall Bryant & Hamill International Small Cap Trust and the Segall Bryant & Hamill Emerging Markets Trust (the "SBH Trusts") are trusts for the collective investment of assets or participating tax qualified pension and profit sharing plans and related trusts, and governmental plans as more fully described in the Declaration of Trust. As bank collective trusts, the SBH Trusts are exempt from registration as an investment company. The SBH Trusts are managed by SEI Trust Company, the trustee, based on the investment advice of Segall Bryant & Hamill, the investment adviser to the trusts.

ROIC Small Cap Value Investment Philosophy & Process

- SBH relies on its in-depth proprietary research to uncover investments that have the potential to offer **consistent returns** over the long term and **downside protection** through market cycles.
- Our **experienced** small cap equity investment team conducts **bottom-up research**, looking for companies with management teams that are focused on **sustainable** and/or **improving** return on invested capital **(ROIC)** and low embedded expectations.
- These **efficient allocators of capital** typically service **niche** markets and have defendable competitive advantages.

Four Key Pillars

1. Focus on Return on Invested Capital (ROIC)
2. Focus on strong management teams
3. Attractive reward/risk ratios
4. Niche market companies with a defendable competitive advantage

ROIC Small Cap Investment Philosophy & Process

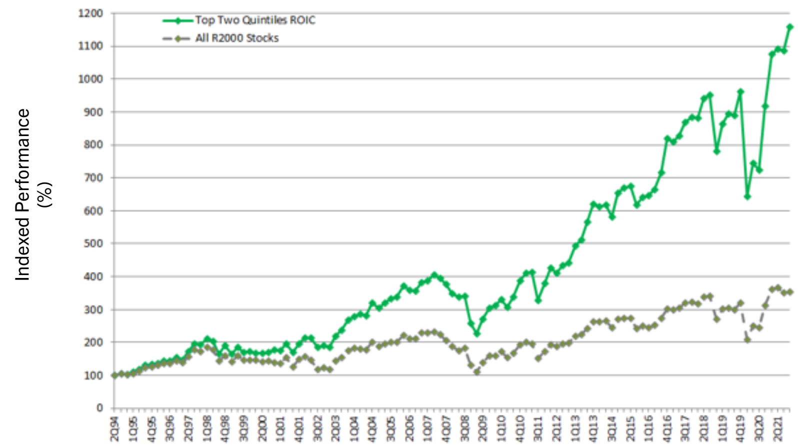
The SBH Difference: Return on Invested Capital

Our experienced team employs a disciplined ROIC focus, which often helps us discover catalysts for change that the Street has not identified and may be overlooked by our competitors. During the last 20 years, Russell 2000 companies with the **highest ROICs have outperformed** their peers on a quarterly basis **72% of the time.**[1]

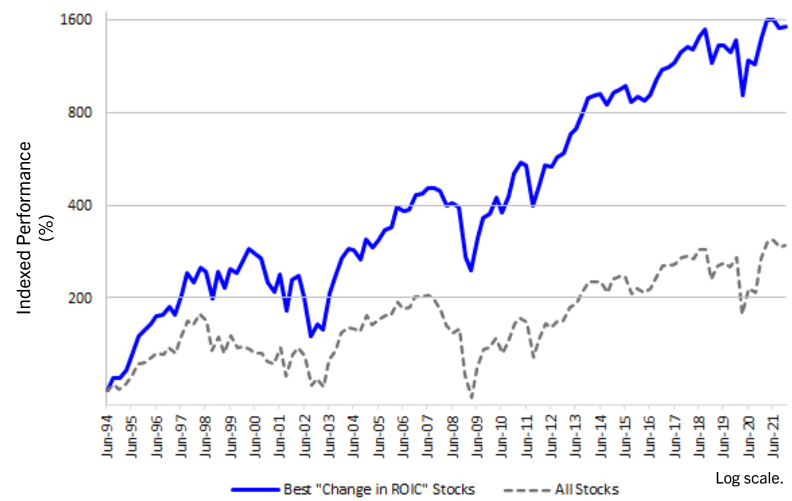
Early identification of companies with the potential to show improving ROIC has generated strong returns over time.

$$\frac{\text{Net Operating Profit After Tax (NOPAT)}}{\text{Invested Capital}} = \textbf{Return on Invested Capital (ROIC)}$$

High Return on Invested Capital



Improving Return on Invested Capital



[1]Represents performance of Russell 2000 companies ranked in the top two quintiles in terms of ROIC.
Sources: Furey Research Partners, FactSet. Chart utilizes median return for each grouping. Data as of 12/31/21.
Top chart represents Top Two ROIC Quintiles Indexed Performance vs. All R2000 Stocks. Bottom chart represents R2000 Best "Change in ROIC" Quintile – Indexed Performance. **Past performance is not indicative of future results.**

ROIC Small Cap Value Investment Philosophy & Process

Rigorous Investment Process Overview

Screening & Idea Generation	ROIC Dashboard Due Diligence	Risk Mitigation	Portfolio Construction
▪ Automated decile-ranked proprietary screens ▪ Collaborate across an experienced team ▪ Take a contrarian approach in most cases ▪ Utilize ROIC Dashboard	▪ Leverage proprietary Dashboard to identify sustainable or improving ROIC situations ▪ Identify a catalyst for change ▪ Meet with management ▪ ESG factors incorporated into process	▪ Valuation ▪ Trading ▪ Diversification ▪ Sell discipline	▪ Final decisions made by portfolio managers ▪ Buy decisions are ROIC-focused

ROIC Small Cap Value Investment Philosophy & Process

Screening & Idea Generation

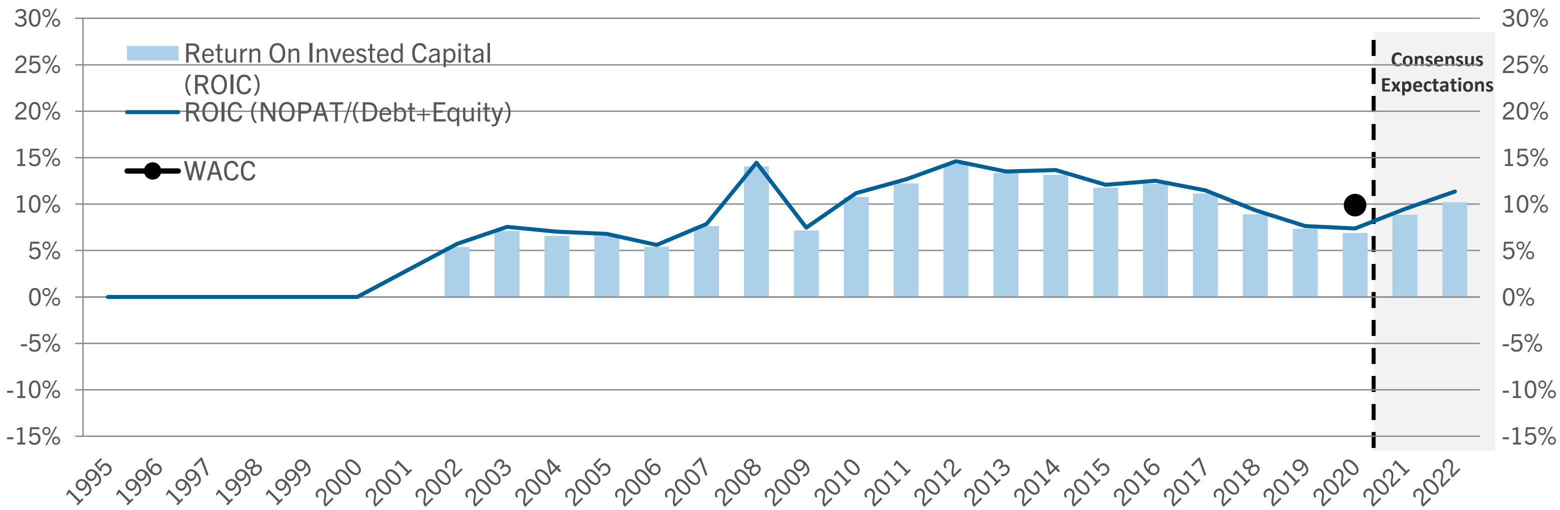
- Companies are ranked quantitatively by sector using fundamental factors based on respective universe (Core, SMID, Value)
- For Core and SMID, we focus on companies with low embedded expectations, higher potential returns and the ability to grow assets at a high ROIC
- For Value, we focus specifically on companies with substantial relative underperformance versus peers and with the potential to significantly improve ROIC
- We take a contrarian approach. Our analysts are sector specialists that look to identify niche markets and competitive advantages through fundamental research. This includes attending research conferences, performing office visits/company onsites, and talking directly with executives, which allow our analysts to uncover opportunities for ROIC improvements that our peers have not yet identified or priced in.
- The goal is to create a number of stocks for in-depth due diligence using the ROIC Dashboard across the platform

ROIC Small Cap Investment Philosophy & Process

The SBH Difference: ROIC Dashboard

SBH's proprietary ROIC Dashboard provides insight into the Street's expectations and identifies significant potential changes in the ROIC profile, including:

- Management/culture changes
- New product cycles
- Implementing operational efficiencies and improving returns
- Underappreciated growth opportunities
- Undervalued business segments
- Divestiture of underperforming business units

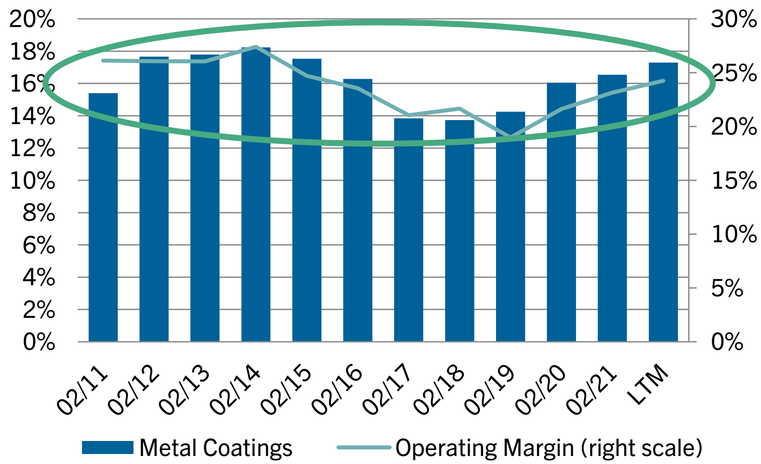


Note: For illustrative purposes only. Source: FactSet

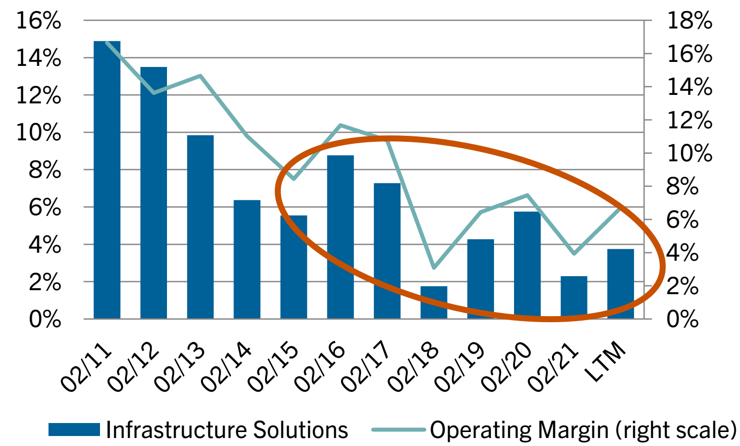
ROIC Small Cap Investment Philosophy & Process

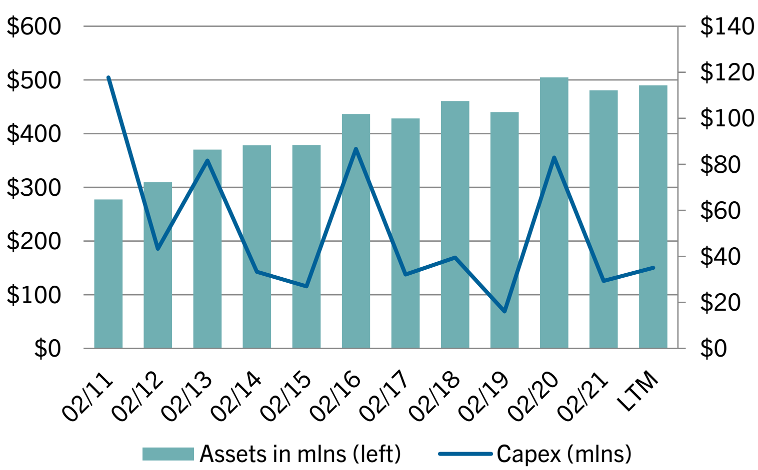
ROIC Dashboard: Due Diligence

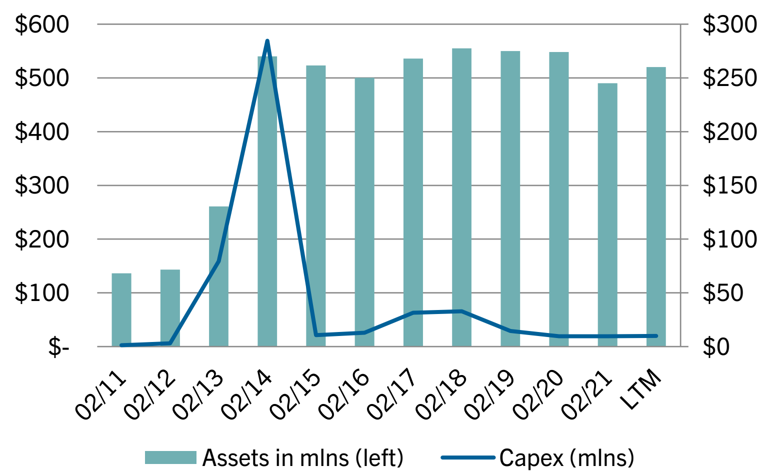
Segment 1



Segment 2







- Dashboard provides insight into capital allocation decisions that drive working capital efficiency, uses of cash and overall returns down to a segment level
- We look to identify areas of potential ROIC improvement that we believe other investors overlook

Segment 1: **High ROIC segment** receiving **increased capital investment/allocation** = **healthy business + creating value**

Segment 2: **Consistently declining ROIC** while **investing in the asset base** = **RED FLAG, requires further due diligence**

Note: For illustrative purposes only. Source: FactSet

The SBH Difference

The Power of SBH Security Selection

- The Small Cap investment team applies a **consistent** research process focused on Return on Invested Capital **(ROIC),** with our historical **outperformance** due primarily to **security selection**.
- The Small Cap Value strategy has added value via **security selection** in **79%** of calendar years and in **100%** of sectors since 2008 inception.

Sector Performance Attribution

Small Cap Value vs. Russell 2000 Value
12/31/07 to 12/31/21
U.S. Dollar

	Allocation Effect	Selection Effect	Total Effect
Total	**-3.93**	**234.43**	**230.50**
Health Care	8.69	76.99	85.68
Consumer Discretionary	-4.11	53.06	48.95
Industrials	6.05	38.88	44.92
Information Technology	5.44	11.14	16.58
Communication Services	4.95	11.56	16.51
Consumer Staples	1.67	11.64	13.31
Utilities	3.87	4.67	8.54
Financials	2.76	3.19	5.95
Energy	-8.15	12.43	4.27
Materials	-8.45	9.77	1.32
Real Estate	-5.55	1.12	-4.43

Source: FactSet.

Data as of 12/31/21. Attribution figures represent annual returns. Data is holdings based.
This information is supplemental to the fully compliant presentation. See specific performance disclosure pages at the end of the presentation. Attribution analysis is based on average portfolio weightings and not actual weights. Attribution results will vary due to end of day pricing versus actual pricing and does not take cash weighting into account. **Past performance cannot guarantee future results.**

ROIC Small Cap Investment Philosophy & Process

Risk Mitigation

Valuation	▪ Seek 3:1 upside to downside ratio at initiation ▪ Scenario and sensitivity analysis ▪ Match position size with fundamental conviction
Diversification	▪ 70 to 85 positions diversified across industries ▪ Sector weights 0 to +125% versus benchmark ▪ Maximum 5% in any one security
Ongoing Reviews	▪ Quarterly review of investment theses and relative valuations ▪ Continual review of improvements or declines in Dashboard

ROIC Small Cap Value Investment Philosophy & Process

Portfolio Construction

Additions to Portfolio

- Portfolio manager Mark Dickherber has final say on all buy/sell decisions
- Buying out-of-favor companies tends to allow for easier accumulation without disrupting liquidity

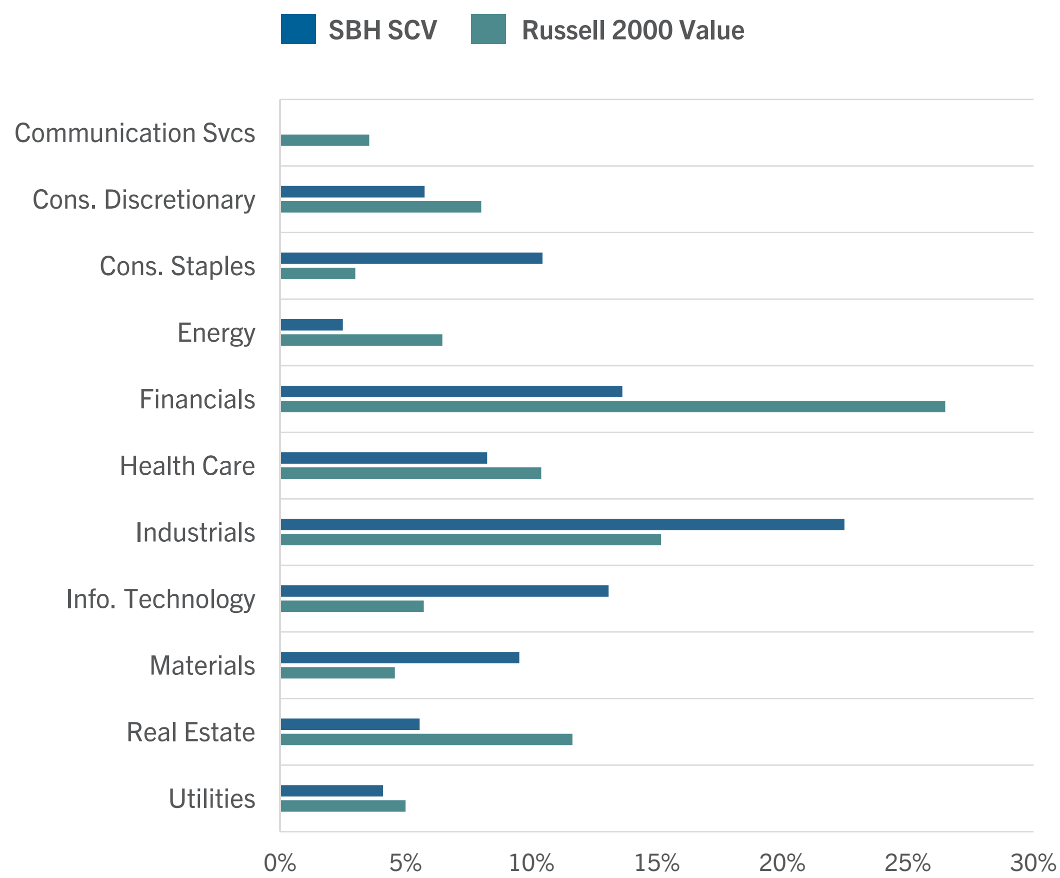
Sells Can Be Triggered By

- A change in one or more of the following: underlying investment thesis, fundamentals, competitive environment, key executives, culture or financial philosophy
- Security reaches intrinsic valuation
- More attractive replacement security identified

ROIC Small Cap Value

Representative Account Construction

Sector Allocation (%)



Top 10 Holdings[1]

Company	% of total
Coty Inc. Class A	5.7
Regal Rexnord Corporation	4.3
Hain Celestial Group, Inc.	4.0
Equity Commonwealth	3.7
NCR Corporation	3.7
Compass Minerals International, Inc.	3.0
Progress Software Corporation	3.0
Orthofix Medical, Inc.	2.7
SPX Corporation	2.2
FARO Technologies, Inc.	2.2

Analyst Coverage

Mark Dickherber, CFA, CPA – Health Care, Utilities, REITs
Jeff Paulis, CFA – Industrials
Shaun Nicholson – Financials, Industrials, Materials
Zachary Rosenstock, CFA – Information Technology, Health Care
Eric Hines, CFA – Consumer Staples, Consumer Discretionary
Michelle Waller – Generalist

All data as of 12/31/21. This information is supplemental to the fully compliant presentation.
Source: FactSet. [1]Top ten holdings are reported based on the market value of individual positions in the portfolio. Holdings are subject to change, vary over time and should not be considered a recommendation to buy or sell. It should not be assumed that future holdings will be profitable or equal the performance of these holdings.

ROIC Small Cap Value

Representative Account Statistics

Valuation Measures	Small Cap Value	Russell 2000 Value Index
Projected Price/Earnings (12 months)	19.2x	16.8x
Price/Cash Flow	14.5x	13.4x
Profitability Measures		
Return on Investment	8.3%	7.0%
Projected Growth (12 months)	10.3%	6.5%
Portfolio Characteristics		
Weighted Average Market Cap ($M)	$3,477	$2,954
Median Market Cap ($M)	$2,467	$1,050
Dividend Yield	1.0%	1.5%
Number of Holdings	76	1,451
**Market Cap (%) ** **		
Greater than $3 billion	52%	41%
$500 million - $3 billion	48%	55%
Less than $500 million	0%	4%
Total	100%	100%

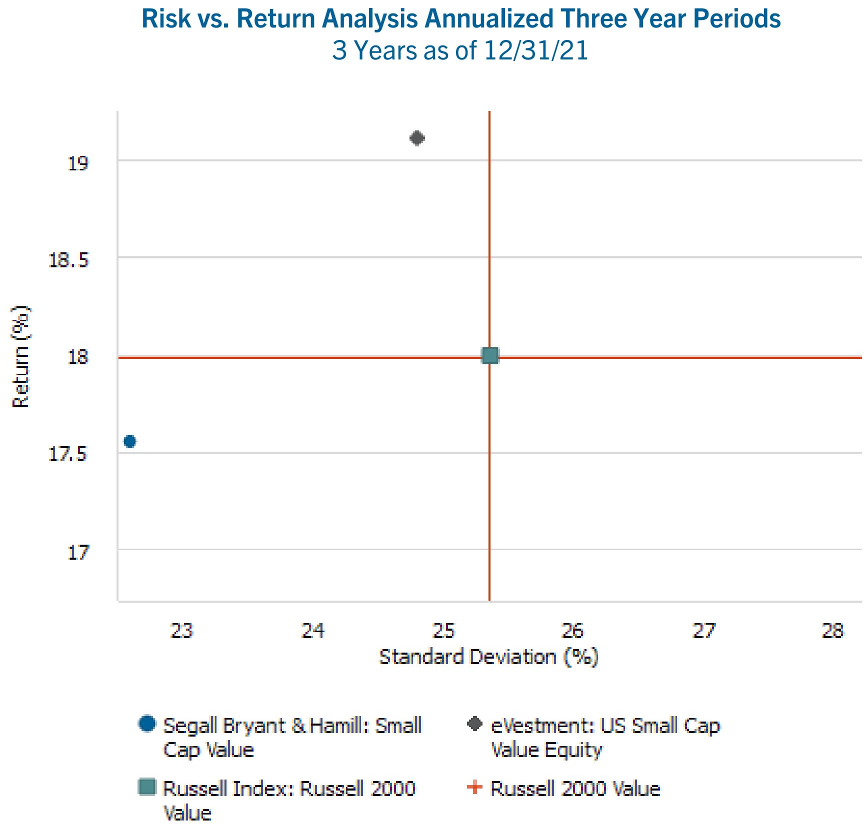
All data as of 12/31/21. This information is supplemental to the fully compliant presentation. **Past performance cannot guarantee future results.** See specific performance disclosure pages at the end of the presentation. Source: FactSet **Percentage of portfolio for SBH

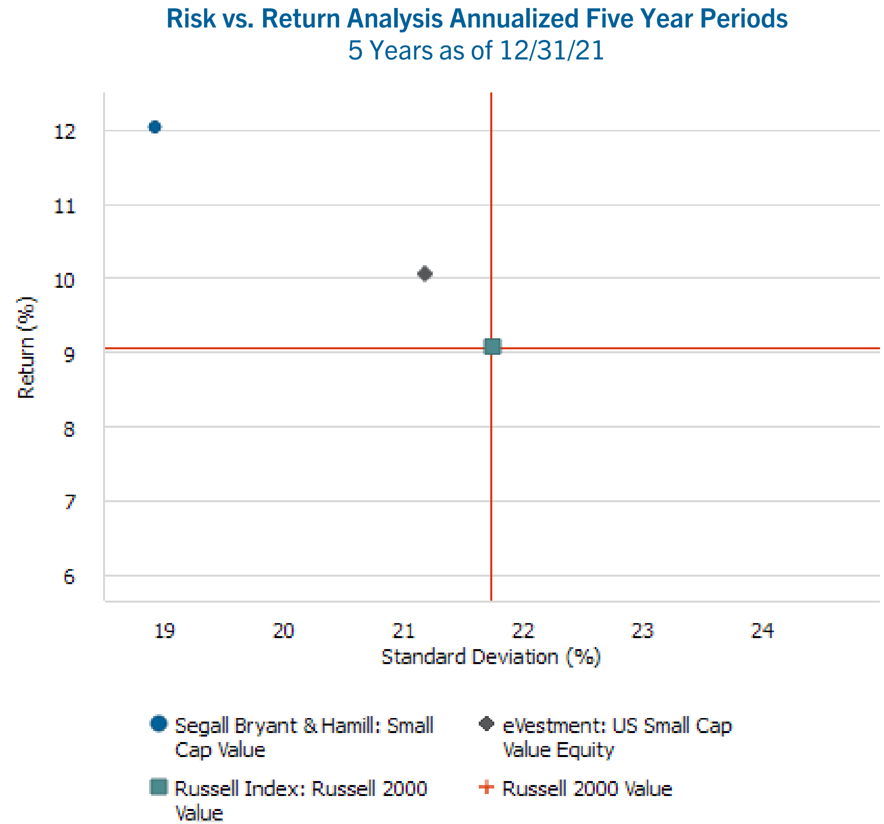
+Criteria for PSN Top Guns Award (Small-Mid Value Universe): The PSN universes were created using the information collected through the PSN investment manager questionnaire and use only gross of fee returns. Mutual fund and commingled fund products are not included in the universe. PSN Top Guns investment managers must claim that they are GIPS compliant. Products must have an R-squared of 0.80 or greater relative to the style benchmark for the 10-year period ending 12/31/20. Moreover, products must have returns greater than the style benchmark for the 10-year period ending 12/31/20, and also standard deviation less than the style benchmark for the 10-year period ending 12/31/20. At this point, the top 10 performers for the latest 10-year period ending 12/31/20 become the PSN Top Guns Manager of the Decade.

6 Star Category (Small Cap Value Universe): The peer groups were created using the information collected through the PSN investment manager questionnaire and uses only gross of fee returns. PSN Top Guns investment managers must claim that they are GIPS compliant. Products must have an R-squared of 0.80 or greater relative to the style benchmark for the recent 5-year period. Moreover, products must have returns greater than the style benchmark for the three latest 3-year rolling periods. Products are then selected which have a standard deviation for the 5-year period equal or less than the median standard deviation for the peer group. The top 10 information ratios for the latest 5-year period then become the TOP GUNS.

ROIC Small Cap Value

Risk/Return Profile



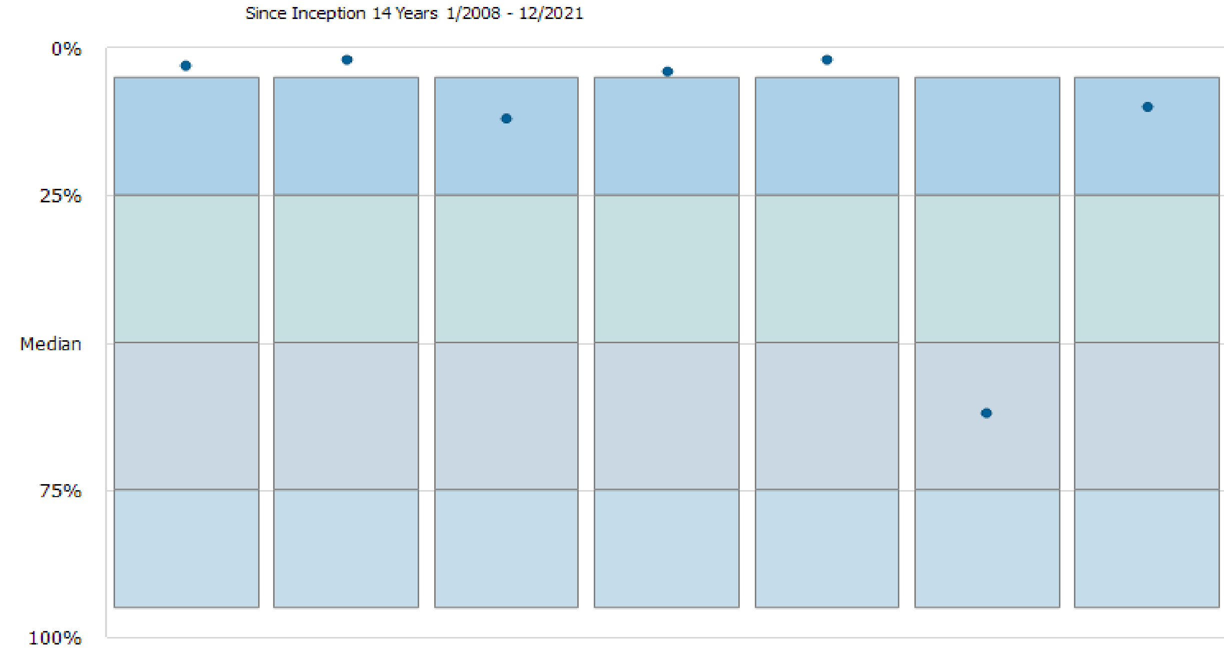


Market Capture	3 Years		5 Years	
	Upside Capture Ratio	Downside Capture Ratio	Upside Capture Ratio	Downside Capture Ratio
SBH Small Cap Value	83.2	85.8	85.8	78.6
Russell 2000 Value Index	100.0	100.0	100.0	100.0

All data as of 12/31/21. Returns are gross of fees. **Past performance cannot guarantee future results**. See specific performance disclosure pages at the end of the presentation.
Source: eVestment. Based on monthly data.

ROIC Small Cap Value Composite Statistics

Historically Consistent Excess Returns Without Unnecessary Risk



Universe: eVestment US Small Cap Value Equity

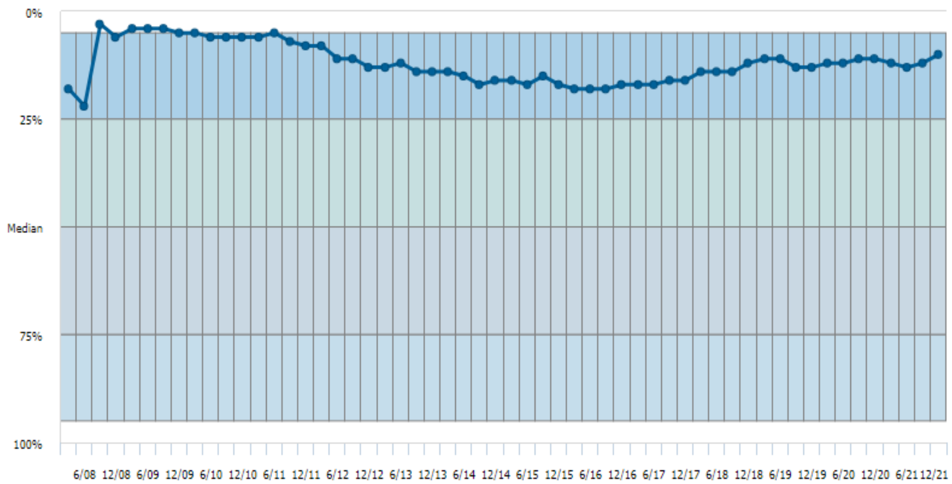
	VT	RM	Annualized Alpha Since Inception 14 Years	Rk	Excess Returns Since Inception 14 Years	Rk	Standard Deviation Since Inception 14 Years	Rk	Information Ratio Since Inception 14 Years	Rk	Sharpe Ratio Since Inception 14 Years	Rk	Upside Market Capture Since Inception 14 Years	Rk	Downside Market Capture Since Inception 14 Years	Rk
5th percentile			4.47		4.13		17.87		0.70		0.60		115.18		79.87	
25th percentile			2.85		2.89		19.69		0.47		0.51		104.50		88.66	
Median			1.97		1.67		20.87		0.29		0.46		97.66		94.12	
75th percentile			1.25		0.82		22.34		0.15		0.41		92.15		98.74	
95th percentile			0.21		-0.66		25.13		-0.11		0.33		82.58		105.58	
# of Observations			159		159		159		159		159		159		159	
Segall Bryant & Hamill: Small Cap Value	SA	GF	5.05	3	4.36	2	18.82	12	0.77	4	0.65	2	95.07	62	83.60	10

All data as of 12/31/21. Returns are gross of fees. **Past performance cannot guarantee future results.** See specific performance disclosure pages at the end of the presentation.
Source: eVestment. Based on monthly data.

ROIC Small Cap Value

Preserving Capital and Adding Value

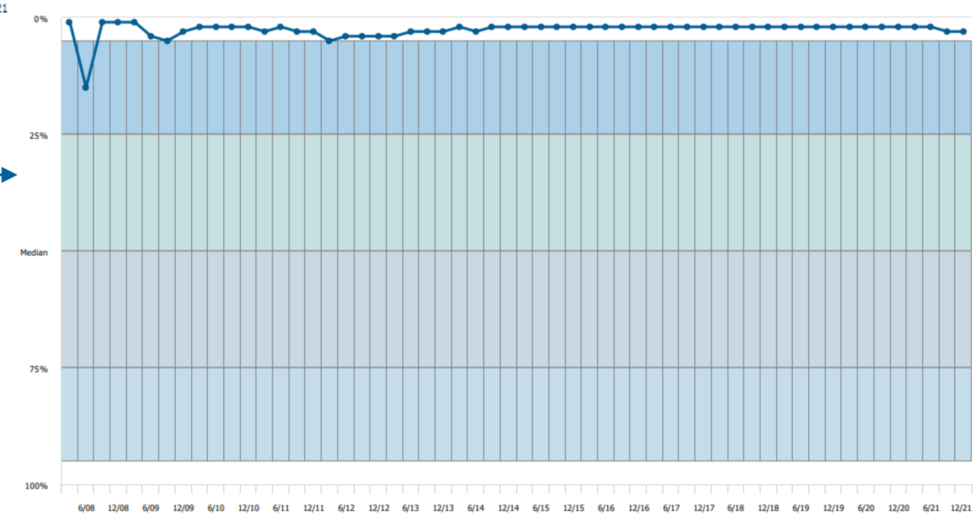
Downside Market Capture Peer Group Ranking



Consistent downside protection historically over multiple market cycles versus peer group*

Annualized Alpha Peer Group Ranking

Consistent top of class alpha generation historically versus peer group*

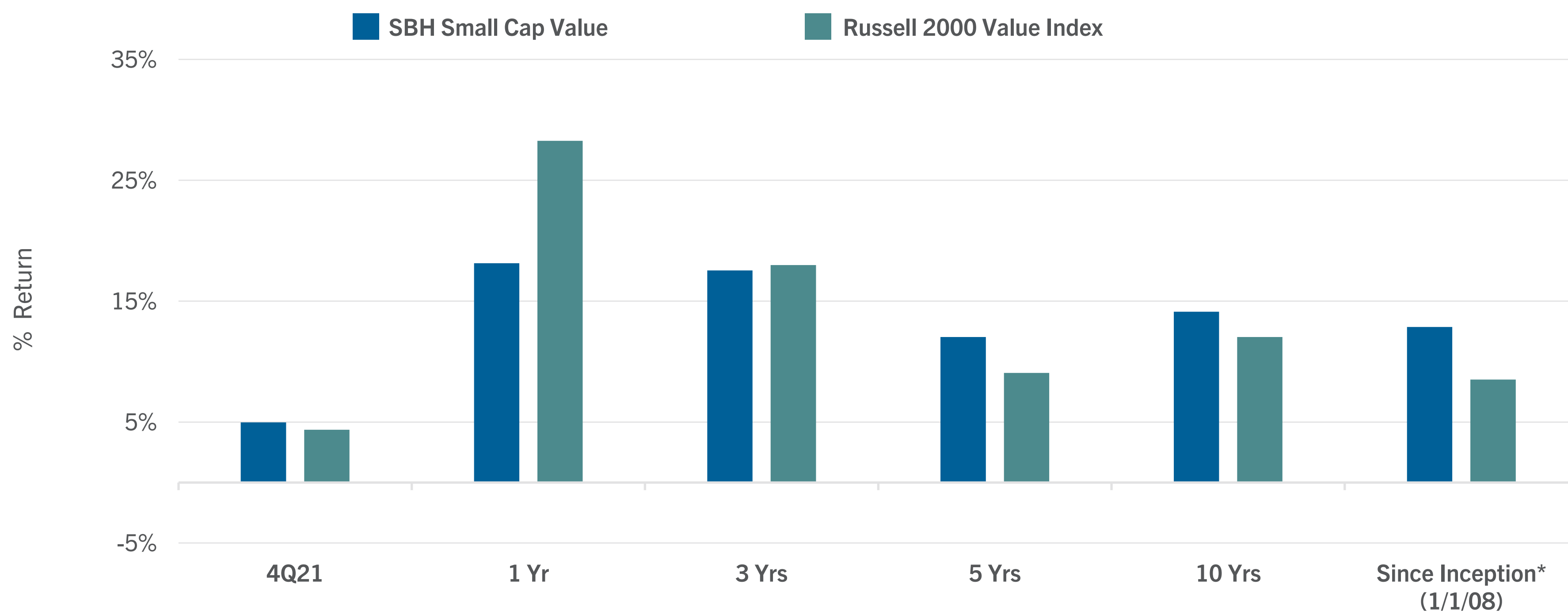


*Peer group represented by eVestment U.S. Small Cap Value Equity
Time period is from strategy's inception to 12/31/21. Downside Capture and Annualized Alpha chart periods are presented in quarterly intervals since inception.
Returns are gross of fees. **Past performance cannot guarantee future results.** See specific performance disclosure pages at the end of the presentation. Source: eVestment

ROIC Small Cap Value

Composite Performance

Annualized Returns

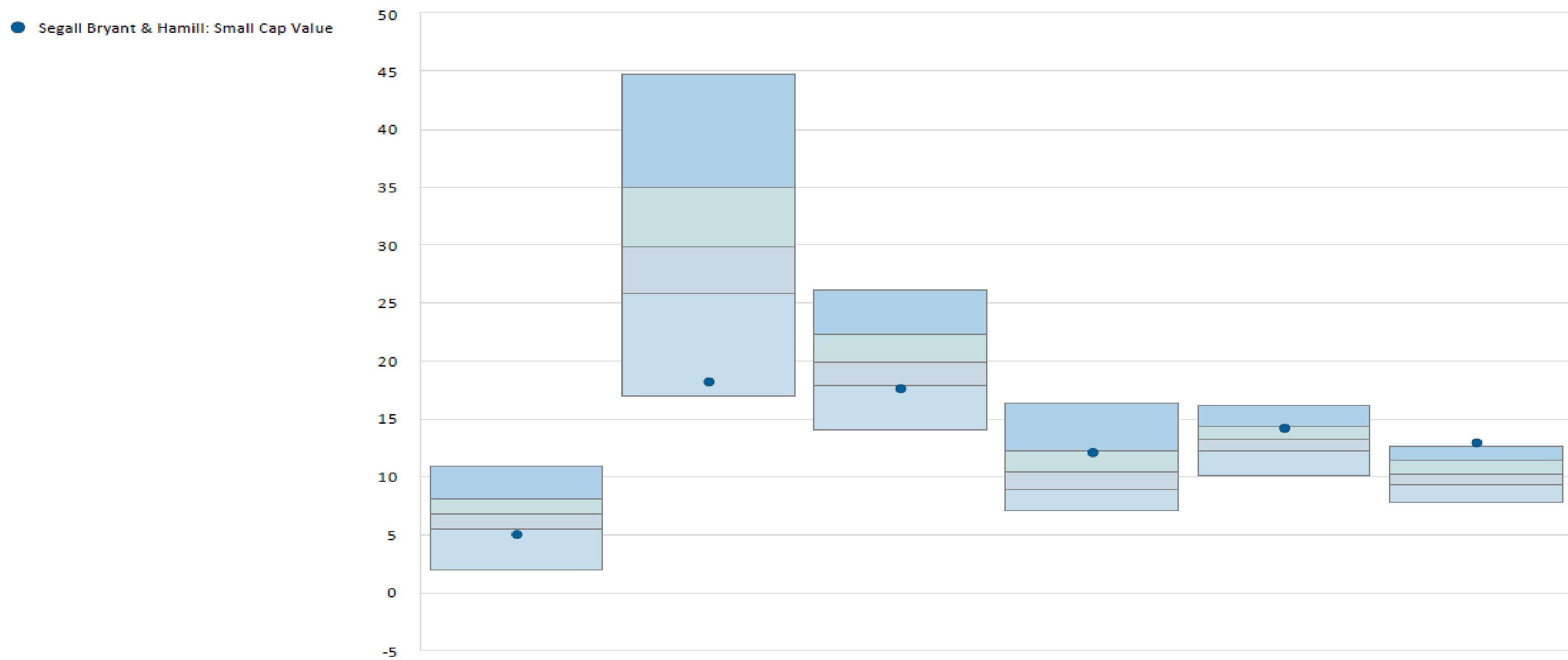


	4Q21	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception* (1/1/08)
SBH Small Cap Value	4.97	18.14	17.54	12.03	14.13	12.87
Russell 2000 Value	4.36	28.27	17.99	9.07	12.03	8.52

All data as of 12/31/21. Composite performance is preliminary. Periods greater than one year are annualized. Performance is gross of fees. **Past performance cannot guarantee future results.** See specific performance disclosure pages at the end of the presentation.
*As of 01/01/2008.

ROIC Small Cap Value

Performance Rankings



Universe: eVestment US Small Cap Value Equity

	VT	RM	MRQ	Rk	1 Year	Rk	3 Years	Rk	5 Years	Rk	10 Years	Rk	Since Inception 14 Years[1]	Rk
5th percentile			10.88		44.72		26.12		16.29		16.13		12.59	
25th percentile			8.05		34.91		22.27		12.19		14.26		11.36	
Median			6.79		29.79		19.83		10.39		13.15		10.15	
75th percentile			5.43		25.78		17.85		8.83		12.17		9.30	
95th percentile			1.87		16.95		14.00		7.08		10.11		7.71	
# of Observations			237		237		230		220		194		166	
Segall Bryant & Hamill: Small Cap Value	S A	G F	4.97	80	18.14	93	17.55	80	12.03	28	14.14	26	12.88	2

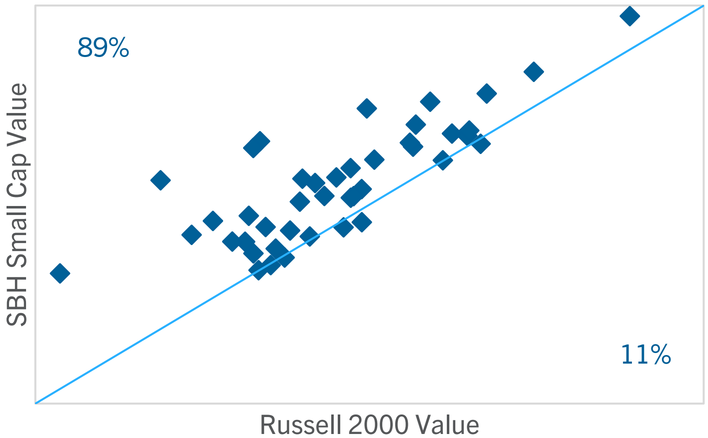
[1] 01/2008 - 12/2021

All data as of 12/31/21. Returns are gross of fees. **Past performance cannot guarantee future results.** See specific performance disclosure pages at the end of the presentation.
Source: eVestment. Based on monthly data.

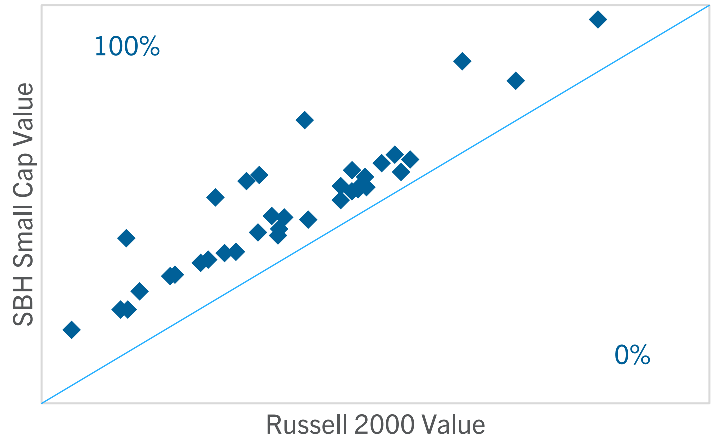
ROIC Small Cap Value

Long-Term Track Record

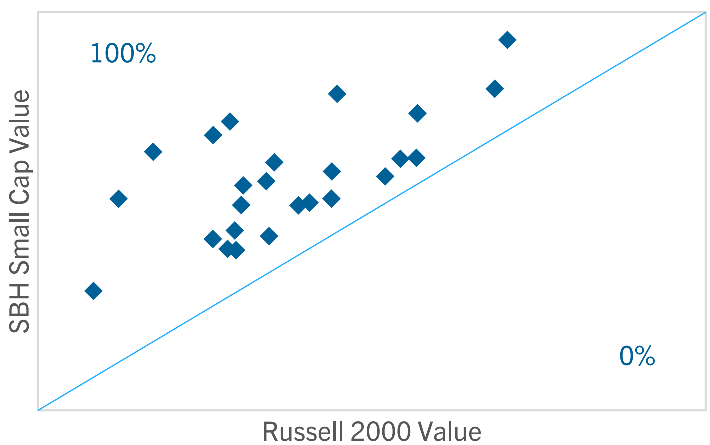
Rolling 3-Year Returns



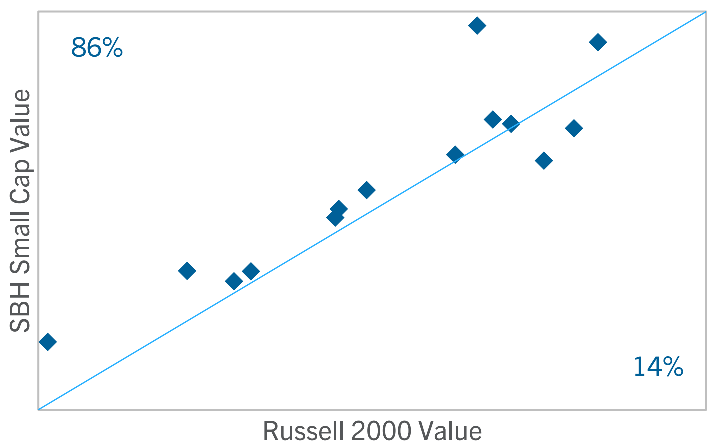
Rolling 5-Year Returns



Rolling 7-Year Returns



Calendar Year Returns



All data as of 12/31/21. Returns are gross of fees. **Past performance cannot guarantee future results**. See specific performance disclosure pages at the end of the presentation.
Source: eVestment. Based on monthly data.

Appendix

Account Reconciliation and Performance

LACERS

9/30/2020 Initial Market Value:	$	72,529,888
Net Cashflows:	$	(15,599,874)
Adjusted Value:	$	56,930,014
12/31/2021 Market Value (with accrued income):	$	94,450,930
Net Change in Value:	$	37,520,916

	QTD (%)	1 Yr (%)	SI (%)
LACERS (gross of fees)	**4.92**	**17.65**	**38.85**
LACERS (net of fees)	**4.76**	**16.92**	**38.16**
Russell 2000 Value Index	**4.36**	**28.27**	**53.54**

All periods over one year are annualized.

4Q21 Performance Attribution

ROIC Small Cap Value vs. Russell 2000 Value Index

	SBH Small Cap Value Model			Russell 2000 Value			Attribution Analysis		
	Port. Average Weight	Port. Total Return	Port. Contrib To Return	Bench. Average Weight	Bench. Total Return	Bench. Contrib. To Return	Allocation Effect	Selection Effect	Total Effect
Total	**100.00**	**4.91**	**4.91**	**100.00**	**4.38**	**4.38**	**1.93**	**-1.40**	**0.54**
Consumer Staples	10.43	18.14	1.68	2.83	13.63	0.36	0.67	0.38	1.04
Communications Services	--	--	--	3.94	-12.01	-0.51	0.68	--	0.68
Health Care	8.06	-2.88	-0.13	10.46	-6.16	-0.59	0.28	0.25	0.53
Industrials	22.03	9.53	1.77	15.16	9.22	1.27	0.31	0.02	0.33
Energy	3.27	-10.66	-0.32	7.00	-5.09	-0.31	0.34	-0.20	0.14
Consumer Discretionary	5.41	7.47	0.34	8.01	5.44	0.37	-0.04	0.12	0.08
Materials	8.97	4.69	0.39	4.59	6.89	0.31	0.13	-0.21	-0.08
[Cash]	5.10	0.01	0.00	--	--	--	-0.28	--	-0.28
Information Technology	13.69	4.31	0.62	5.54	10.33	0.53	0.49	-0.77	-0.28
Utilities	3.24	6.25	0.22	4.73	12.46	0.57	-0.12	-0.19	-0.31
Financials	14.31	2.21	0.39	26.45	5.12	1.36	-0.09	-0.35	-0.44
Real Estate	5.29	0.53	0.04	11.28	8.98	1.01	-0.26	-0.45	-0.71

As of 12/31/21. **Past performance cannot guarantee future results.** See specific performance disclosure pages at the end of the presentation.

Performance Attribution – 1 Year

ROIC Small Cap Value vs. Russell 2000 Value Index (12/31/20 – 12/31/21)

	SBH Small Cap Value Model			Russell 2000 Value			Attribution Analysis		
	Port. Average Weight	Port. Total Return	Port. Contrib To Return	Bench. Average Weight	Bench. Total Return	Bench. Contrib. To Return	Allocation Effect	Selection Effect	Total Effect
Total	**100.00**	**18.09**	**18.09**	**100.00**	**28.29**	**28.29**	**-2.21**	**-7.99**	**-10.20**
Consumer Staples	9.37	27.21	2.11	3.10	25.42	0.85	0.05	0.09	0.14
Communications Services	--	--	--	3.47	34.11	0.56	0.07	--	0.07
Utilities	3.67	10.22	0.39	4.38	10.49	0.44	-0.08	0.01	-0.07
Health Care	9.75	5.87	1.02	8.73	5.63	-0.06	0.43	-0.86	-0.43
Financials	13.93	23.18	3.51	26.49	29.29	7.84	-0.06	-0.50	-0.55
Industrials	18.18	20.42	3.25	15.97	27.86	4.59	0.32	-1.11	-0.79
Materials	7.97	17.03	1.15	5.50	30.65	1.87	0.10	-0.94	-0.84
Energy	3.24	32.69	1.34	5.83	66.47	2.77	-0.32	-0.77	-1.09
Consumer Discretionary	6.48	25.54	2.09	10.87	37.75	5.18	-0.62	-0.62	-1.24
[Cash]	5.11	0.04	0.00	--	--	--	-1.57	--	-1.57
Information Technology	13.74	15.88	2.25	5.66	27.18	1.64	0.06	-1.77	-1.72
Real Estate	5.37	-0.73	-0.03	9.99	31.32	2.63	-0.22	-1.64	-1.86

As of 12/31/21. **Past performance cannot guarantee future results.** See specific performance disclosure pages at the end of the presentation.

4Q21 Market Commentary

ROIC Small Cap Value

Market Overview and Strategy Performance

While the combination of easy monetary policy and the continued tailwind of fiscal policies helped the overall market in the first half of 2021, they proved to be major headwinds—on a relative basis—for the strategy. These factors abated on a rate of change basis in the second half of the year. For the fourth quarter, the strategy outperformed its benchmark, returning 4.97%* vs 4.36% for the Russell 2000® Value Index, notwithstanding the impact of supply chain disruptions and inflation which we believe impact our holdings versus the benchmark disproportionately, given the strategy's tilt toward more asset-intensive versus asset-light businesses.

Contributors to Return

The three sectors that contributed most to the strategy's performance relative to its benchmark in the quarter were Consumer Staples (driven by allocation and selection), Communication Services (driven by allocation) and Health Care (driven by allocation and selection). Consumer Staples holding Coty Inc. (COTY) was a top contributor on an individual stock basis. The company has continued to demonstrate success in proving out its transformation strategy under a newer top-tier management team. They have met or exceeded expectations and continue to enhance the overall franchise of the business by refocusing the business via ROI principles across individual brands, product innovation, SKU management, R&D spend, and marketing spend, while simultaneously attacking a bloated cost structure, which was never integrated from historical M&A. Additionally, after attending COTY analyst day in November, we came away impressed not only with the company's continued opportunity set to drive further value over the next several years, but also with the speed and pace at which they are creating this value as the cultural shift at the company has been solidified. The outperformance of Regal Rexnord (RRX) was due to continued strong execution in its business during a time defined by massive supply chain issues, inflation, and labor challenges across the Industrial markets. With the combination of Regal Beloit and Rexnord PMC now complete, we believe significant extraction of value and ROIC improvement can occur at the company over the next several years.

Detractors from Return

The three sectors that detracted most from the strategy's performance relative to its benchmark in the quarter were Real Estate (driven by allocation and selection), Financials (driven by selection), and Utilities (driven by allocation and selection). On an individual stock basis, Materials holding Compass Minerals (CMP) was a top detractor. The primary reason for the relative underperformance was a decision by the management team to cut the sizeable dividend to reallocate capital towards what could be a game-changing lithium asset for the company. While frustrating to many shareholders who held the stock solely to receive the high dividend payout, as long-term shareholders, we

*Preliminary returns

Continued on next page

4Q21 Market Commentary

ROIC Small Cap Value

Detractors from Return (continued)

understood this very tough decision and the potential value that could be created at the company over the next decade. The lithium asset, if effectively executed, carries with it at least a $1 billon opportunity, which we do not believe is reflected in the stock. We believe the headwinds the company has faced—higher logistics costs due to the labor and supply chain challenges that exist in the economy currently—should resolve themselves over time. Health Care holding Orthofix (OFIX) was also a top detractor during the fourth quarter. OFIX continued to suffer from the surgical volume impacts resulting from the virus waves, though we continue to see good execution on aspects of the business that are within management's control. With a strong balance sheet, diverse product mix, and growing new product pipeline, we remain encouraged with the team and our position.

Outlook and Positioning

We believe it is prudent to maintain a risk-adjusted view of the world, investing with managements that can improve returns by becoming more efficient, divesting businesses not deemed core, and improving overall culture and governance matters at their respective companies. Over the past several months, we've been encouraged by the market's move to start rewarding companies with improving fundamentals and more prudent and disciplined management teams.

We enter 2022 highly encouraged with our management teams and confident in our investments. They have handled with remarkable success the myriad issues with which they were faced in 2021—from pandemic challenges, supply chain issues, employment difficulties, and inflationary pressures, among others. Our years of experience managing the strategy have taught us the value, particularly during challenging times, of focusing our investments toward companies with newer management teams – those that have better discipline and integrity, and the ability to improve returns and governance even in the face of challenging environments. This approach gives us confidence that the strategy can perform even during tough times such as that which we experienced in the first half of 2021.

We are grateful for the opportunity to be stewards of your capital in these interesting times and markets. We have the great fortune of working with so many clients and partners, which is something not all active, buy side managers can say these days. For this, we want to extend our heartfelt thanks for the trust and confidence you have placed in our team.

Portfolio Activity Report: ROIC Small Cap Value

Consumer Discretionary

Consumer Discretionary	Port. Beginning Weight	Port. Average Weight	Port. Ending Weight
Harley-Davidson, Inc.	1.44	1.33	1.22
Six Flags Entertainment Corporatioı	1.46	1.18	1.15
Gildan Activewear Inc.	0.97	0.97	1.03
Quotient Technology Incorporated	0.62	0.74	0.89
Under Armour, Inc. Class A	0.57	0.59	0.54
Papa John's International, Inc.	0.38	0.36	0.37
Modine Manufacturing Company	--	0.25	0.56

Consumer Staples	Beg Wgt	Avg Wgt	End Wgt
Coty Inc. Class A	4.83	5.38	5.73
Hain Celestial Group, Inc.	4.38	4.04	3.99
Inter Parfums, Inc.	0.67	0.56	0.26
TreeHouse Foods, Inc.	0.51	0.46	0.48

Energy	Beg Wgt	Avg Wgt	End Wgt
PDC Energy, Inc.	1.34	1.20	0.85
Dril-Quip, Inc.	0.89	0.74	0.67
Helmerich & Payne, Inc.	0.67	0.64	0.53
Range Resources Corporation	0.63	0.56	0.46
NexTier Oilfield Solutions, Inc.	0.20	0.13	--

Financials	Beg Wgt	Avg Wgt	End Wgt
Umpqua Holdings Corporation	2.07	1.67	1.53
National Bank Holdings Corporatio	1.59	1.58	1.58
United Community Banks, Inc.	1.58	1.55	1.58
Seacoast Banking Corporation of Fl	1.42	1.39	1.36
Lakeland Financial Corporation	1.13	1.06	0.86
Glacier Bancorp, Inc.	1.11	1.05	1.04
Pacific Premier Bancorp, Inc.	0.89	0.95	0.93
Community Bank System, Inc.	0.96	0.94	0.95
eHealth, Inc.	1.04	0.92	0.91
WesBanco, Inc.	0.88	0.84	0.83
Enterprise Financial Services Corp	0.81	0.79	0.77
First Busey Corporation	0.65	0.64	0.65
Renasant Corporation	0.65	0.63	0.62
Investors Bancorp Inc	0.39	0.31	--

Health Care	Port. Beginning Weight	Port. Average Weight	Port. Ending Weight
Orthofix Medical, Inc.	3.64	2.99	2.75
ICU Medical, Inc.	1.72	1.59	1.60
Arena Pharmaceuticals, Inc.	1.06	1.08	1.52
MEDNAX, Inc.	0.90	0.78	0.79
AngioDynamics, Inc.	0.53	0.52	0.51
Alkermes Plc	0.58	0.46	0.40
Evolent Health Inc Class A	0.43	0.37	0.35
Surmodics Inc	0.17	0.18	0.33
Magellan Health, Inc.	0.55	0.08	--
Chembio Diagnostics, Inc.	0.04	0.02	--

Industrials	Beg Wgt	Avg Wgt	End Wgt
Regal Rexnord Corporation	--	4.04	4.30
SPX Corporation	2.12	2.22	2.17
REV Group, Inc.	2.07	1.76	1.56
AZZ Inc.	1.67	1.57	1.58
SP Plus Corporation	1.55	1.44	1.35
Apogee Enterprises, Inc.	1.25	1.37	1.51
CIRCOR International, Inc.	1.45	1.31	1.18
KBR, Inc.	1.23	1.27	1.36
EnerSys	1.13	1.19	1.29
Sterling Construction Company, Inc.	1.04	1.04	1.06
Astec Industries, Inc.	0.92	0.99	1.08
Quanex Building Products Corporation	0.96	0.92	1.01
AAR CORP.	0.90	0.91	0.99
Beacon Roofing Supply, Inc.	0.87	0.86	0.85
Columbus McKinnon Corporation	0.81	0.74	0.70
Huron Consulting Group Inc.	0.54	0.48	0.47

KEY

NEW POSITION
NO CHANGE
BOUGHT & SOLD
INCREASE
DECREASE
COMPLETE SALE

Information Technology	Port. Beginning Weight	Port. Average Weight	Port. Ending Weight
NCR Corporation	4.21	4.10	3.65
Progress Software Corporation	3.38	3.16	3.04
FARO Technologies, Inc.	2.22	2.24	2.16
Belden Inc.	1.78	1.76	1.83
CSG Systems International, Inc.	0.99	1.01	1.08
Conduent, Inc.	0.90	0.79	0.71
Sierra Wireless Inc.	0.66	0.64	0.61

Materials	Beg Wgt	Avg Wgt	End Wgt
Compass Minerals International, Inc.	3.08	3.12	3.05
Glatfelter Corporation	1.68	1.83	1.87
Silgan Holdings Inc.	1.13	1.12	1.16
Element Solutions Inc	0.94	1.10	1.24
Summit Materials, Inc. Class A	0.82	0.88	0.95
Pretium Resources Inc.	0.35	0.42	0.47
Schnitzer Steel Industries, Inc. Class A	0.30	0.32	0.32
Coeur Mining, Inc.	0.14	0.12	0.10
Alamos Gold Inc.	--	0.08	0.37

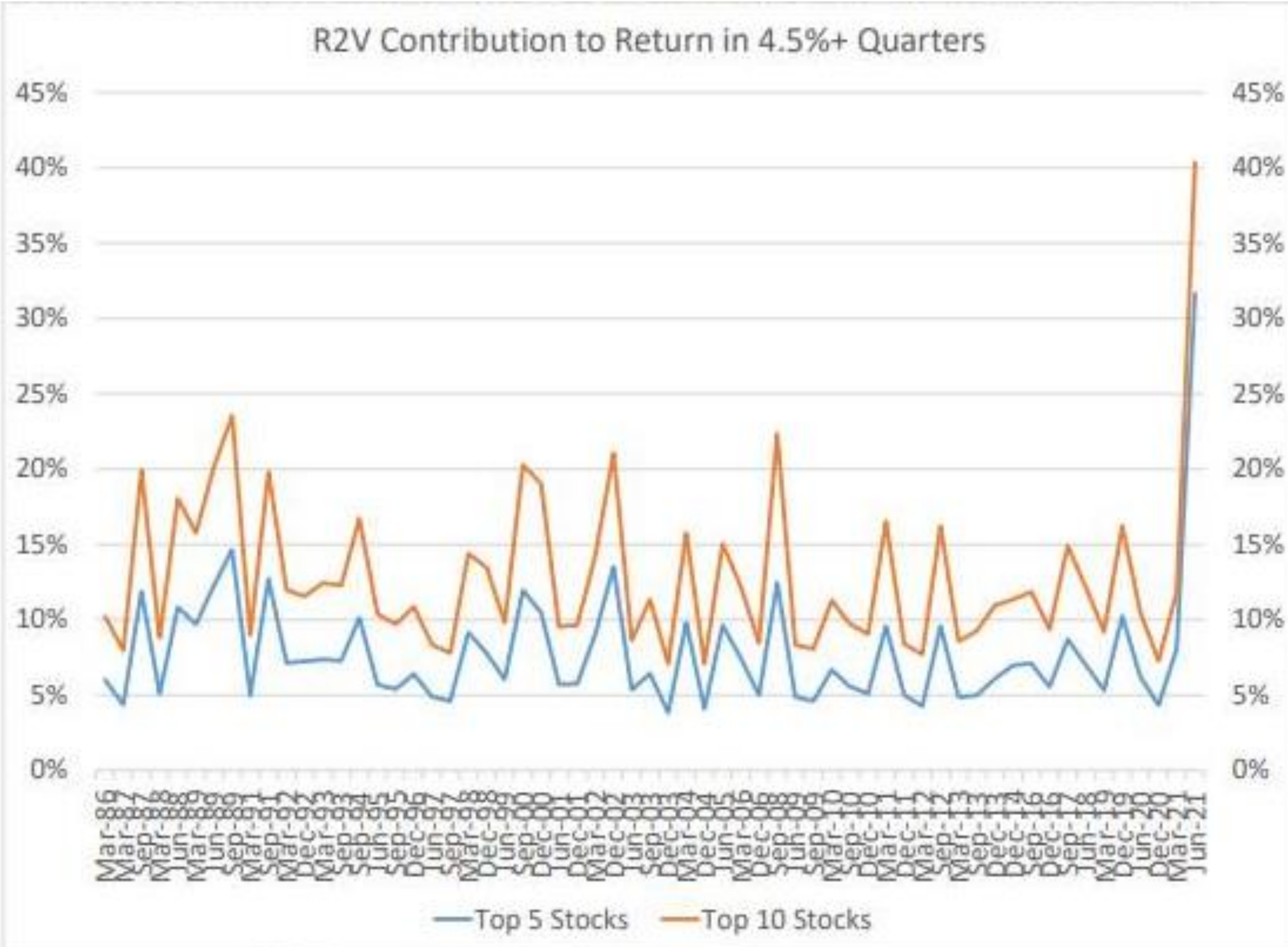
Real Estate	Beg Wgt	Avg Wgt	End Wgt
Equity Commonwealth	3.86	3.66	3.70
Physicians Realty Trust	0.77	0.74	0.75
Empire State Realty Trust, Inc. Class A	0.54	0.50	0.44
Cousins Properties Incorporated	0.41	0.41	0.67

Utilities	Beg Wgt	Avg Wgt	End Wgt
PNM Resources, Inc.	1.36	1.22	1.15
New Jersey Resources Corporation	0.89	0.93	1.06
ALLETE, Inc.	0.92	0.92	1.09
OGE Energy Corp.	--	0.11	0.80
California Water Service Group	0.45	0.08	--

As of 12/31/21. This information is supplemental to the fully compliant presentation.
Source: FactSet. Holdings are reported based on the market value of individual positions in the portfolio. Holdings are subject to change, vary over time and should not be considered a recommendation to buy or sell. It should not be assumed that future holdings will be profitable or equal the performance of these holdings.

Market Dynamics

In 2Q21, the top 5 and top 10 Russell 2000 value stocks contributed 4x what they normally do



Source: Furey Research Partners, FactSet. Returns as of 6/30/21.

Market Dynamics: High Quality Factors Led the Way

	2021 Absolute Return (%)					2021 Relative Return (%)				
Russell 2000 Value	1Q	2Q	3Q	4Q	CY	1Q	2Q	3Q	4Q	CY
Extremely Shorted	66.5	103.0	(22.9)	26.5	229.6	45.3	98.4	(19.9)	22.1	201.4
Defensive	18.1	2.0	(4.0)	10.2	27.5	(3.0)	(2.5)	(1.0)	5.8	(0.8)
Cyclical Industrial	19.4	1.4	(3.7)	9.3	27.6	(1.7)	(3.1)	(0.7)	4.9	(0.7)
Low Beta	12.3	2.5	(0.4)	8.4	24.3	(8.8)	(2.0)	2.6	4.0	(3.9)
Profitable	18.4	2.6	(1.8)	8.1	29.0	(2.8)	(2.0)	1.2	3.7	0.7
Tech/Telco	14.5	5.4	(4.0)	8.1	25.1	(6.7)	0.8	(1.0)	3.7	(3.1)
High ROE	21.0	1.8	(0.6)	7.5	31.6	(0.2)	(2.8)	2.4	3.1	3.3
High Quality	15.3	2.5	(1.1)	7.2	25.3	(5.9)	(2.0)	1.9	2.8	(3.0)
Rate Sensitive	17.0	1.5	0.4	7.0	27.5	(4.2)	(3.1)	3.4	2.7	(0.7)
Low Valuation	24.1	4.1	(1.3)	6.6	36.0	3.0	(0.5)	1.7	2.2	7.7
Low Volatility	15.8	2.0	(2.1)	6.6	23.1	(5.4)	(2.6)	0.8	2.2	(5.2)
High Momentum	21.4	2.9	(2.8)	6.6	29.4	0.3	(1.7)	0.2	2.2	1.1
High ROIC	19.9	2.8	(2.3)	6.2	27.9	(1.2)	(1.8)	0.7	1.8	(0.4)
Dividend Payers	22.0	4.9	(2.3)	6.1	32.6	0.8	0.3	0.6	1.7	4.3
Stock Repurchasers	23.3	4.1	(1.7)	6.1	33.8	2.1	(0.5)	1.3	1.7	5.6
Low Sales Grw	21.1	2.6	(2.4)	5.2	27.5	(0.1)	(1.9)	0.6	0.8	(0.7)
Index	**21.2**	**4.6**	**(3.0)**	**4.4**	**28.3**					
High Leverage	29.0	11.1	(6.0)	2.9	38.5	7.8	6.6	(3.0)	(1.5)	10.3
Stock Issuers	17.7	4.2	(4.6)	2.4	19.8	(3.4)	(0.4)	(1.6)	(2.0)	(8.5)
High Beta	25.6	7.9	(3.1)	1.6	33.5	4.5	3.4	(0.1)	(2.7)	5.3
Low Momentum	24.7	6.7	(2.9)	1.3	30.9	3.5	2.2	0.1	(3.1)	2.6
Low Quality	25.7	6.4	(4.9)	1.1	28.6	4.6	1.8	(1.9)	(3.3)	0.4
Low ROE	25.5	4.7	(4.4)	0.6	26.3	4.3	0.1	(1.5)	(3.8)	(2.0)
High Volatility	27.3	9.1	(4.1)	0.5	33.9	6.2	4.6	(1.1)	(3.9)	5.7
Low Leverage	15.3	1.9	(4.4)	0.1	12.3	(5.9)	(2.7)	(1.4)	(4.2)	(15.9)
Cyclical Commodity	30.4	11.0	(0.4)	(0.4)	43.7	9.3	6.4	2.6	(4.7)	15.4
Low ROIC	21.5	8.6	(5.2)	(0.4)	24.7	0.4	4.0	(2.2)	(4.8)	(3.6)
Cyclical Consumer	34.4	13.3	(11.7)	(0.4)	34.0	13.3	8.8	(8.7)	(4.8)	5.7
High Sales Grw	26.9	8.0	(4.0)	(0.6)	30.8	5.7	3.4	(1.0)	(5.0)	2.5
Micro-caps	29.2	6.2	(2.9)	(2.4)	30.1	8.1	1.6	0.1	(6.7)	1.8
High Valuation	22.1	7.5	(5.0)	(2.4)	21.8	0.9	3.0	(2.0)	(6.7)	(6.5)
Highly Shorted	39.9	20.7	(6.6)	(3.6)	52.0	18.8	16.1	(3.7)	(7.9)	23.8
SPAC Birth	5.2	5.7	(16.3)	(3.9)	(10.6)	(16.0)	1.1	(13.3)	(8.3)	(38.9)
Penny Stocks	44.5	13.2	(15.0)	(6.0)	30.6	23.3	8.7	(12.0)	(10.4)	2.4
Low Share Price	36.0	13.0	(9.7)	(6.2)	30.2	14.8	8.5	(6.7)	(10.6)	1.9
Zombie Stocks *	32.2	23.1	(6.7)	(6.6)	41.8	11.0	18.6	(3.8)	(10.9)	13.5
Unprofitable ex. HC/Tech	32.3	13.8	(4.6)	(7.2)	33.3	11.1	9.2	(1.6)	(11.5)	5.0
Unprofitable	29.3	11.7	(6.0)	(8.0)	24.9	8.1	7.1	(3.0)	(12.3)	(3.4)
Long Duration	15.1	1.7	(7.1)	(9.5)	(1.5)	(6.0)	(2.8)	(4.1)	(13.8)	(29.8)
Recent IPO/Spinoff	8.6	(0.3)	(7.1)	(11.6)	(11.1)	(12.5)	(4.8)	(4.2)	(16.0)	(39.3)

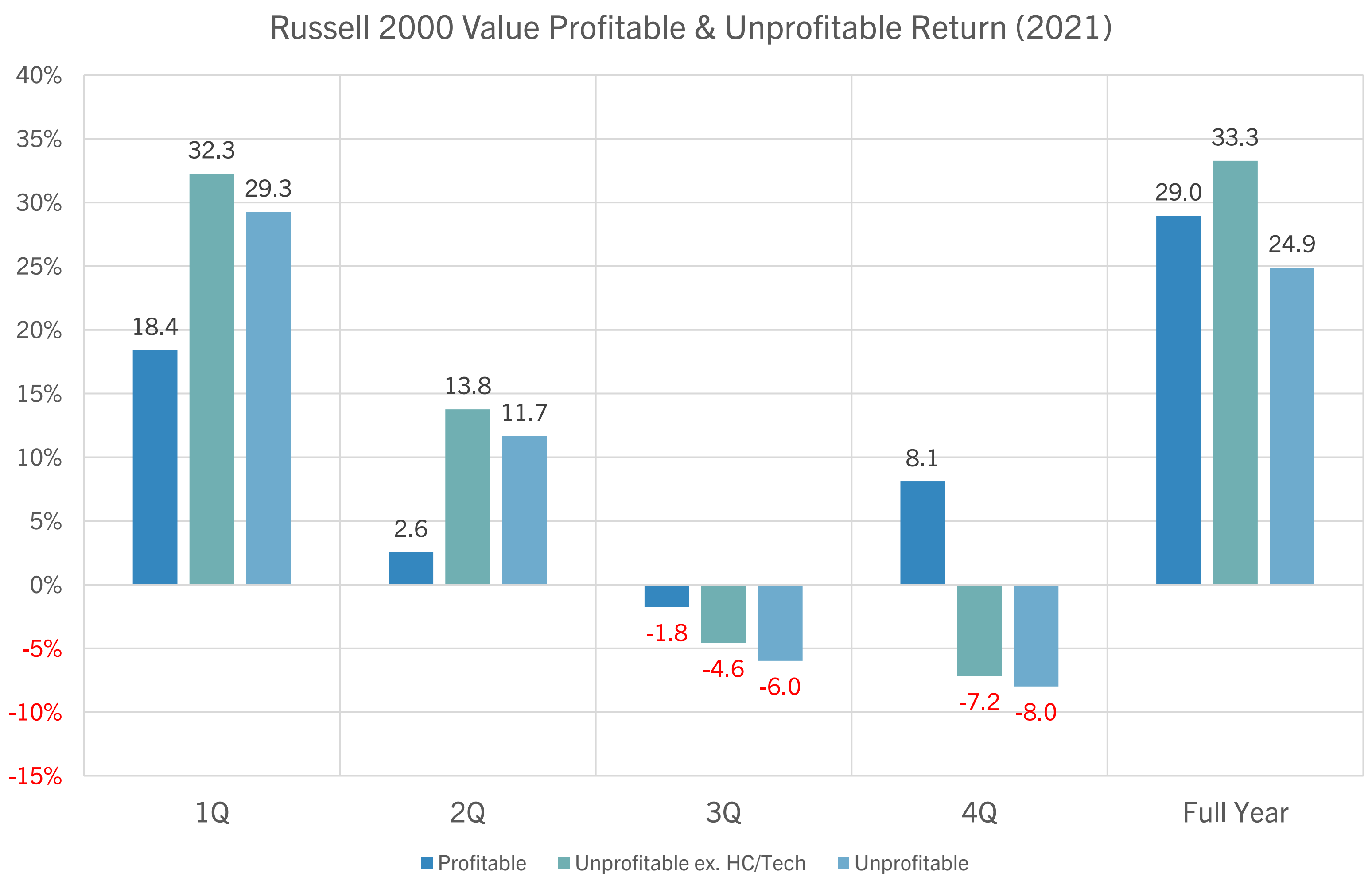
- 1H21 was very challenging as those stocks with extremely high short interest or high short interest as well as unprofitable and zombie stocks significantly outperformed the broader index
- 2H21 saw signs of a small unwind to these factors except extremely high short interest, which continued to show sizeable outperformance
- Encouraged by 2H21 fund relative performance as these factors began to slowly reverse

Source: Furey Research Partners, FactSet and Morningstar. Returns as of 12/31/21. Sorted by 4Q21 return. **Past performance cannot guarantee future results.**
*"Zombie" companies are those with low or negative ROIC, significant debt, and/or requiring bailouts.

SEGALL BRYANT & HAMILL

Market Dynamics

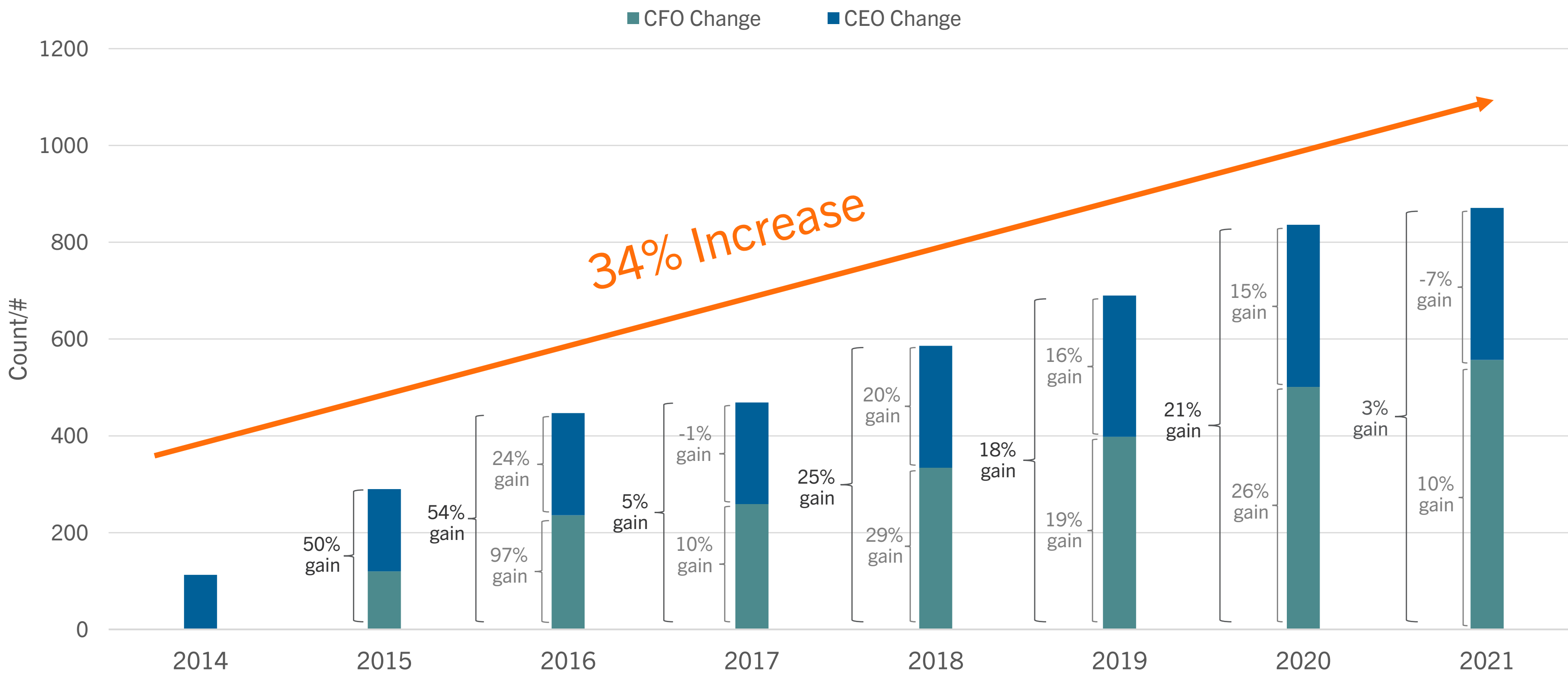
Profitable made a strong comeback in 2H21 within Value



Source: Furey Research Partners and FactSet. Performance is preliminary. Data as of 12/31/21. **Past performance cannot guarantee future results.**

CEO and CFO Changes by Year

Turnover at the executive level provides opportunities for us to find potential change agents, which could drive renewed value creation



	2014	2015	2016	2017	2018	2019	2020	2021
CEO Changes	113	170	211	210	252	292	335	313
CFO Changes	—**	120	236	259	334	398	501	552
Total	113	290	447	469	586	690	836	865

** No data provided for 2014

Source: FactSet. Data as of 12/31/21. 2014 CEO Change and 2015 CFO Change figures annualized. The current screen looks at U.S. companies by geography and exchange and is looking at a universe of 4,993 total securities. U.S. Company and U.S. Exchange listed securities with market cap between $100M - $7B. CEO Changes by Year, 3/2014 – 12/2021. CFO Changes by Year, 5/2015 – 12/2021. Percentages are rounded.

Firm Approach to ESG Investing

Focused on incorporating ESG factors into our investments

Our research teams have integrated ESG factors into the firm's research process to ensure our investment decisions are conscious of the risk that unsustainable business practices pose to economic outcomes.

We understand that a company's relationships with its stakeholders—customers, suppliers, employees, communities, governments, creditors, shareholders, and the broader environment—can have meaningful implications on its financial profile and future investment value.

As such, we methodically review the existing and potential externalities resulting from the corporate behavior of companies within the investable market.

PRI Principles for Responsible Investment

SBH is a signatory of the United Nations' Principles for Responsible Investment (PRI). Signing the internationally recognized PRI shows our commitment to responsible investment within a global community, seeking companies that exhibit positive stewardship in their environmental, social, and corporate governance practices.

Small Cap Value Strategy – Approach to ESG

ESG Factors

ESG & Value Creation	We believe value creation occurs via improvements in returns and better utilization of assets and that the sustainability of these improvements can only be achieved with an appropriate ESG consideration in the mix.
Importance of Management	We believe companies generating high return on invested capital (ROIC) are run by operators who avoid unsustainable business practices. Further, we believe focusing on companies with new management teams often offers opportunities for material improvements at both an ESG and ROIC level.
ESG & Due Diligence	Given our bottom-up, fundamentally driven process, key tenets of ESG are, by default, part of the due diligence process and risk assessment for each company.
ESG Metrics, Materiality and Trends	ESG analysis is incorporated into the development of each investment thesis. In evaluating ESG factors at the company level, we leverage ESG data from MSCI and analyze the materiality of ESG exposures, and subsequently incorporate our findings into the scenario analysis.

SBH Diversity, Equity & Inclusion

Vision: At Segall Bryant & Hamill (SBH), we know the power of diversification is not restricted to financial portfolios. We are committed to a culture that continuously champions diversity in all its forms, ensures equity, inspires inclusion, and safeguards fair accessibility. This is based on our wholehearted belief that people should be treated with respect. As a result, SBH both welcomes and desires team members across gender and sexual identities, race and ethnicities, religious beliefs and diverse abilities. We seek to be leaders in the bold march toward change and accountability in our industry, and we are committing, in real ways, to the diverse path forward.

Purpose/Mission: Foster a diverse and inclusive workforce and work environment in which individuals from varied backgrounds are brought together, supported, and valued so that the firm and its employees, clients and community benefit from a strong culture, diversity of thought and robust decision making.

Firm Commitment: The DE&I Committee is comprised of volunteer representatives from all parts of the organization, including senior management, equally and without regard to color, ethnic or religious identity, or gender identity.

SBH manages the Workplace Equality Strategy, which provides investors with the opportunity to own publicly traded shares of corporations doing business in the U.S. with progressive workplace policies that treat all employees equally—regardless of sexual orientation, gender, ethnicity, religion and other preferences.

SBH Diversity, Equity & Inclusion Programs

Being a Part of the Solution

Empowerment Network

- Speakers and employee engagement around Diversity & Inclusion topics such as Unconscious Bias and Avoiding Stereotypes
- LGBTQ Chamber of Denver events
- WIP (Women Investment Professionals of Chicago) and WIIIN (Women in Institutional Investments Network of Los Angeles) events

Recruiting Efforts

- Internship program giving students with diverse socioeconomic and academic backgrounds a chance to explore a career in investment management
- Expanded recruiting to more diverse organizations and schools
- More inclusive job descriptions

Cultural Events

- Events and firm communications intended to share, experience and celebrate diversity, such as Día de Los Muertos and Lunar New Year celebrations

Employee Development

- Diversity & Inclusion employee survey
- SBH Financial Literacy Events, featuring SBH University

Educational Outreach

- GOAL: To introduce the investment industry, investment career paths and SBH to students with varied interests and backgrounds while promoting a culture of inclusion and community involvement to SBH employees
- SBH "Career Day" for college, high school and middle school students
- SBH Investment Professional presentations at local schools and universities
- CEO presentations at historically black colleges

Community Outreach

- Tutor elementary school students in underserved schools through Reading Partners Denver and Working in the Schools Chicago
- Habitat for Humanity
- Pride Parade – Denver
- Provide employees two days of paid leave to volunteer in the community
- Significant employee involvement with non-profit organizations through volunteering and Board appointments

SBH ROIC Small Cap Value

Composite Performance

Small Cap Value

Quarterly & Annual Returns
Period Ending: 12/31/2021

Annualized Cumulative Returns

Annualized	SBH Gross (%)	SBH Net (%)	Russell 2000 Value (%)
1 Year	18.14	17.37	28.27
3 Years	17.54	16.73	17.99
5 Years	12.03	11.21	9.07
10 Years	14.13	13.33	12.03

3 Year Ex-Post Standard Deviation

	SBH (%)	Russell 2000 Value (%)
2011	22.24	26.04
2012	18.21	19.89
2013	15.51	15.82
2014	13.09	12.79
2015	13.71	13.45
2016	14.38	15.50
2017	12.75	13.97
2018	12.88	15.76
2019	12.78	15.68
2020	22.60	26.12
2021	22.28	25.00

Period		1Q (%)	2Q (%)	3Q (%)	4Q (%)	YTD (%)	# of Accounts	Std Dev. (%)	Composite Market Value ($ mil)	Total Firm Market Value
2011	Gross of Fee	5.75	-0.22	-19.20	13.44	-3.28	2	nm	$16.3	$7,866.5
	Net of Fee	5.62	-0.34	-19.30	13.31	-3.75				
	Russell 2000 Value	6.60	-2.65	-21.47	15.97	-5.49				
2012	Gross of Fee	9.30	-3.23	6.61	5.79	19.29	2	nm	$18.5	$8,936.6
	Net of Fee	9.22	-3.30	6.48	5.59	18.75				
	Russell 2000 Value	11.59	-3.01	5.67	3.22	18.05				
2013	Gross of Fee	12.03	3.40	10.35	10.31	41.01	3	nm	$35.8	$9,468.1
	Net of Fee	11.84	3.21	10.15	10.11	40.00				
	Russell 2000 Value	11.63	2.47	7.59	9.30	34.51				
2014	Gross of Fee	2.03	2.56	-5.68	8.55	7.14	5	nm	$117.8	$9,729.0
	Net of Fee	1.84	2.38	-5.85	8.35	6.36				
	Russell 2000 Value	1.78	2.38	-8.58	9.40	4.22				
2015	Gross of Fee	2.51	1.47	-9.36	0.56	-5.19	8	0.11	$130.8	$9,592.2
	Net of Fee	2.32	1.29	-9.52	0.38	-5.87				
	Russell 2000 Value	1.98	-1.20	-10.73	2.88	-7.46				
2016	Gross of Fee	2.51	3.37	7.45	9.27	24.41	14	0.10	$200.0	$11,171.6
	Net of Fee	2.33	3.18	7.25	9.06	23.49				
	Russell 2000 Value	1.70	4.31	8.87	14.07	31.74				
2017	Gross of Fee	0.29	1.36	5.26	4.88	12.23	18	0.11	$207.2	$12,466.3
	Net of Fee	0.10	1.16	5.06	4.68	11.36				
	Russell 2000 Value	-0.13	0.67	5.11	2.05	7.84				
2018	Gross of Fee	-0.28	6.46	4.97	-13.12	-3.19	21	0.18	$282.0	$18,587.0
	Net of Fee	-0.48	6.21	4.77	-13.30	-3.98				
	Russell 2000 Value	-2.64	8.30	1.60	-18.67	-12.86				
2019	Gross of Fee	14.52	2.16	-0.05	8.04	26.34	22	0.48	$353.1	$19,522.9
	Net of Fee	14.33	1.97	-0.24	7.83	25.41				
	Russell 2000 Value	11.93	1.37	-0.57	8.49	22.39				
2020	Gross of Fee	-30.69	18.95	2.97	28.17	8.81	34	0.68	$866.3	$22,890.8
	Net of Fee	-30.83	18.75	2.80	27.98	8.06				
	Russell 2000 Value	-35.66	18.91	2.56	33.36	4.63				
2021	Gross of Fee	15.53	0.20	-2.78	4.97	18.14	46	0.20	$1,393.6	$25,642.3
	Net of Fee	15.35	0.04	-2.95	4.80	17.37				
	Russell 2000 Value	21.17	4.56	-2.98	4.36	28.27				

Composite performance is preliminary.
nm: composite held five or fewer accounts for the entire year. Internal dispersion (standard deviation) is not presented for this period.

SBH ROIC Small Cap Value

Composite Performance

Segall Bryant & Hamill (SBH) is a Registered Investment Adviser established in 1994. SBH provides fee-based management of fixed income and equity portfolios for institutional clients and high net worth individuals. On June 30, 2015, SBH acquired Philadelphia International Advisors (PIA). Prior to the acquisition, PIA was a privately held investment management firm whose sole focus was the management of international equities. The group that was formerly PIA manages all SBH's international composites which have been a part of SBH since the acquisition. On May 1, 2018, SBH acquired Denver Investment Advisors LLC (aka Denver Investments). As a result of the Denver Investments acquisition, SBH added several new Portfolio Managers and composites to the overall firm. The Small Cap Value composite was created in January, 2011. The composite's performance inception date is January 1, 2008. The Small Cap Value composite is an equity strategy consisting of companies with a market capitalization that typically does not exceed the largest market capitalization company in the Russell 2000 Value® Index. Accordingly, the composite is benchmarked against the Russell 2000 Value® Index. The Russell 2000 Value® Index is a subset of the Russell 3000® and measures the performance of the 2000 small cap value companies. These companies generally have a weighted average market value of $2.5 billion. The Small Cap Value composite is comprised of all fee paying, discretionary accounts managed to this investment approach which have assets greater than $500,000 and one full quarter returns. Accounts falling below the $500,000 threshold are not eligible for inclusion in the composite. Prior to 2009, the minimum threshold was $750,000. In addition, accounts that have a significant cash flow, defined as 25% of the market value, will be removed from the composite until the next reconciliation and calculation period. Gross results are shown net of trading costs and include the reinvestment of all dividends and interest. Net results are shown net of management fees as well as trading costs and include the reinvestment of all dividends and interest. Net results reflect actual fees paid. The current fee schedule applicable to the Small Cap Value Equity accounts is 0.80% on the first $25 million of assets, 0.70% on the next $25 million of assets and 0.65% over $50 million of assets.. Actual fees will vary. All information is based on US dollar values. Dispersion of returns is measured by an equal weighted standard deviation of all the accounts in the composite for a full year period. Composite dispersion and three year standard deviation are calculated using gross returns. Neither the composite nor the benchmark returns reflect the withholding of any taxes for ordinary income or capital gains. Segall Bryant & Hamill claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Segall Bryant & Hamill has been independently verified for the periods January 1, 2000 through December 31, 2020. The verification report is available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report. It should be noted that principal risk is taken and that historical performance can not guarantee future results. A complete list and description of the firm's composites and pooled funds, as well as additional information regarding policies for valuing investments, calculating performance and preparing GIPS Reports, is available upon request from SBH. GIPS® is a registered trademark of the CFA Institute. The CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

LACERS
LA CITY EMPLOYEES' RETIREMENT SYSTEM

REPORT TO INVESTMENT COMMITTEE **MEETING: MARCH 8, 2022**
From: Neil M. Guglielmo, General Manager **ITEM: VI**

SUBJECT: **PRIVATE EQUITY AND PRIVATE REAL ESTATE INVESTMENT POLICIES AND POSSIBLE COMMITTEE ACTION**

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

Recommendation

That the Committee consider and provide comments regarding proposed revisions to:

1. The Private Equity Investment Policy to increase the maximum commitment thresholds for new and existing general partnership relationships to $150 million; and

2. The Private Equity and Private Real Estate Investment Policies to change the frequency of the Board's review of portfolio performance reports from quarterly to semi-annually.

Executive Summary

Under the current Private Equity Investment Policy, the private equity consultant, with staff concurrence, has the discretion to invest up to and including $50 million for new partnerships, and up to and including $100 million for follow-on funds without pre-approval from the Board. This report, prepared at the request of the Investment Committee, considers whether to adjust these maximum allowable commitment amounts, which have remained unchanged since February 2019.

Separately, staff also proposes an administrative revision the Private Equity and Private Real Estate Investment Policies to change the frequency of performance presentations to the Board from quarterly to semi-annually for the Private Equity and Private Real Estate portfolios, consistent with a Board action taking on May 8, 2012 and with current practice.

Discussion

Background
The Investment Committee requested staff to consider whether changes are warranted to the private equity commitment thresholds specified in the Private Equity Investment Policy. The current policy states that in conjunction with the private equity consultant, staff may invest up to and including $50 million for new partnerships, and up to and including $100 million for follow-on funds without Board approval. These commitment limits were adopted by the Board on February 12, 2019 as part of a comprehensive review of the Investment Policy Manual.

Adjustment Commensurate with Portfolio Size

As of February 12, 2019, the approximate value of LACERS' total portfolio was $17.1 billion and the 14.0% target private equity allocation in effect at the time represented approximately $2.4 billion of total plan assets. As of January 31, 2022, nearly three years after the thresholds were established, LACERS' total portfolio was valued at approximately $23.2 billion, and the current 16.0% target private equity allocation represents approximately $3.7 billion of total plan assets. Therefore, the target private equity portfolio allocation has increased approximately 54.2% since the $50 million and $100 million thresholds were adopted. Adjusting these current commitment thresholds for this growth, they increase to $77.1 million and $154.2 million as presented in the following table.

Threshold for new GP Relationship	Threshold for Existing GP Relationship	Adoption Date	Target Strategic PE Asset Allocation on Adoption Date	Value of Target PE Allocation on Adoption Date	% Change in Value of Target PE Allocation since prior Adoption Date	Threshold for new GP Relationship Adjusted for % Change in Target Portfolio	Threshold for existing GP Relationship Adjusted for % Change in Target Portfolio
$25 million	$40 million	10/24/2017	12.0%	$2.0 B	NA	NA	NA
$50 million	$100 million	2/12/2019	14.0%	$2.4 B	+20.0%	$30.0 M	$48.0 M
$150 million	*$150 million*	*TBD*	*16.0%*	*$3.7 B*	*+54.2%*	*$77.1 M*	*$154.2 M*

Italics represents proposed new threshold amounts.

Staff Review of Policies for other Public Plans

Staff also examined private equity investment policies of seven California public plans -- Los Angeles Fire and Police Pensions (LAFPP), Los Angeles Water and Power Employees' Retirement Plan (WPERP), Los Angeles County Employees Retirement Association (LACERA), Orange County Employees Retirement System (OCERS), San Francisco Employees Retirement System (SFERS), the California State Teachers' Retirement System (CalSTRS), and the California Public Employees' Retirement System (CalPERS) -- as well as several plans outside of the state. The review provided the following general findings:

- Unlike LACERS, only one public plan was found to make any distinction between commitment thresholds for new General Partner (GP) relationships as compared to existing GP relationships.
- Few plans have absolute PE commitment limitations formally stated in their investment policy. Based on conversations with investment staff from some of the plans without formal commitment limitations, the commitment thresholds are not set in stone as they are based on internal discussions between of staff and consultants based on the plan's needs and the investment opportunity set at the time.
- In cases where plan policy made any distinction between new and existing GP relationships, this applied to direct co-investments only.

Proposed Revisions to Commitment Thresholds for Consideration

Based on the research conducted by staff and discussions with Aksia TorreyCove Partners LLC (Aksia), LACERS' Private Equity Consultant, staff proposes to raise the existing GP relationship commitment threshold from $100 million to $150 million and eliminate the lower $50 million threshold for new GP relationships as compared to existing GP relationships. This will result in one investment maximum threshold of $150 million for new or existing GP relationships.

Anticipated Benefits of the Proposed Changes

- Greater access to in-demand managers new to LACERS: Eliminating the lower commitment threshold for new GP relationships will allow LACERS greater access to highly sought-after managers that rarely have capacity to bring on new investors as well as to highly qualified teams that spin out from established firms.
- Greater access to high-conviction managers when re-upping: Oversubscribed and highly sought-after GPs often use the Limited Partner (LP) commitment size in the prior fund as a starting point to determine how much to allocate to the LP in a new fund. Eliminating the lower threshold for new GP relationships allows LACERS to make larger investments to new relationships, which will give LACERS access to larger commitment sizes when committing to the GPs next fund.
- Access to Separately Managed Accounts: The capacity to make larger commitments makes it more feasible for LACERS to meet the minimum requirements of separately managed accounts (SMAs) versus investing in comingled vehicles. Potential benefits of SMAs include fee discounts and increased customization options. Access to SMAs can also help advance LACERS' efforts to develop a successful direct co-investment program.
- Build stronger relationships with GPs: The ability to make larger commitments makes it easier to manage the number of GP relationships. With fewer relationships, staff can develop deeper and more meaningful relationships, which is especially important as LACERS considers direct co-investments.
- Additional benefits and rights: Larger commitment sizes can potentially grant additional benefits such as more extensive legal protection (e.g. Most Favored Nation) and membership on the LP Advisory Committee.

Frequency of Formal Board Review of Private Equity and Private Real Estate Performance
Staff also proposes an administrative revision to the Private Equity and Private Real Estate Investment Policies to change the frequency of portfolio performance presentations made to the Board from quarterly to semi-annually, consistent with a Board action taken on May 8, 2012 and with current practice.

Strategic Plan Impact Statement

Revising the Private Equity and Private Real Estate policy is consistent with the Strategic Plan Goals to optimize long-term risk adjusted investment returns (Goal IV), to uphold good governance practices which affirm transparency, accountability, and fiduciary duty (Goal V), and to maximize organizational effectiveness and efficiency (Goal VI).

Prepared By: Clark Hoover, Investment Officer I, Investment Division

NMG/RJ/BF/WL/CH:jp

Attachments: 1. Private Equity and Private Real Estate Investment Policies – Proposed Revisions (Redline Version)
2. Private Equity and Private Real Estate Investment Policies – Proposed Revisions (Clean Version)
3. Private Equity and Private Real Estate Investment Policies – Current Board Approved Version

Section 5 PRIVATE EQUITY INVESTMENT POLICY

X. PRIVATE EQUITY INVESTMENT POLICY

A. Introduction

This Private Equity Investment Policy ("Private Equity Policy") sets forth guidelines that provide a general framework for selecting, building, and managing LACERS' investments in private equity, including corporate finance/buyout, special situations (including distressed debt, distressed turnaround and mezzanine strategies), venture capital and growth equity, co-investments, secondary market transactions, and other privately structured investments with the return and risk characteristics of private equity.

B. Investment Objectives

1. Return

On a relative basis, the return objective for the LACERS' private equity portfolio ("Private Equity Portfolio") is 300 bps over the Russell 3000 Index net of fees, expenses, and carried interest.

Returns are measured over the life of the partnership and become meaningful for periods past the J-Curve. The valuation methodology used by general partners should conform to industry and regulatory standards. Performance will be measured using standard industry metrics such as IRR (internal rate of return), TVPI (total value to paid in capital), and MOIC (multiple on invested capital.) Additionally, the IRR performance in the first few years of a partnership's life may be negative due to the J-curve effect.

2. Risk

Private equity investments are illiquid and have a long-term holding period. When invested alongside publicly traded assets, the asset class increases diversification and reduces risk at the System level. Nonetheless, LACERS expects that the Private Equity Consultant will take all appropriate measures to assume risks that are sufficiently compensated by expected return. Such measures include, but are not limited to, diversification (as detailed in Section X.D.3 below) and due diligence.

C. Scope

The Private Equity Consultant, with Staff concurrence, shall select new investments, monitor and advise on the sale of existing private equity investments, and provide recommendations and program advice in accordance with the Private Equity Policy. The Private Equity Policy establishes the framework for the management of the Private Equity Portfolio. The Private Equity Consultant will be evaluated annually as consultant and investment manager for the Private Equity Portfolio based upon the following factors: portfolio performance; quality of analytical and technical work; expertise in the private equity asset class; responsiveness to requests from the LACERS Board of Administration ("Board") and LACERS Investment Staff ("Staff"); availability to attend Board meetings and meetings with Staff with reasonable advance notice; consulting and advising on LACERS' portfolio, including information on

selected private equity related topics; identifying and mitigating risks; and proactively informing Staff of new investment opportunities or risks in the marketplace.

The Private Equity Consultant will evaluate and recommend investment transactions pursuant to the roles and responsibilities defined in Section X.F. With Staff concurrence on a recommendation from the Private Equity Consultant, LACERS may effect investments in ~~new~~ partnerships up to and including $150 million~~ and for all follow-on partnerships up to and including $100 million~~. With Staff concurrence, recommended investments in excess of these amounts must be presented to the Board for approval. Non-U.S. dollar commitments to private equity partnerships shall be equal or less than the maximum U.S. dollar-equivalent limits as of the day Staff concurs with the Private Equity Consultant. However, non-U.S. dollar commitments to private equity partnerships may exceed the U.S. dollar currency equivalent maximum commitment limits after the date of Staff's concurrence due to foreign currency exchange rate fluctuations, and require no further Board approval.

D. **Investment Guidelines**

1. **Eligible Investments**

LACERS will invest in limited partnership interests of pooled vehicles as well as separate accounts, funds of one (or similar structures together with a limited number of other LPs), special purpose vehicles (SPVs), and other investment structures such as limited liability companies, investment trusts, separate accounts, and other corporate structures (unless otherwise stated in this Policy) covering the broad spectrum of private investments as follows:

a) Private equity partnerships – Investments in corporate finance/buyout, special situations, venture capital and growth equity, secondaries, and co-investment funds. Special situations is a broad investment strategy, which includes mezzanine and distressed debt partnerships, fund-of-funds (both direct and secondary), industry-focused, and multi-stage partnerships;

b) Direct co-investments – Investments made alongside general partners directly in underlying assets and securities, usually with discounted management fees and carried interest. Co-investments may be structured as securities held directly by LACERS ("direct co-investments") or as an interest in a vehicle managed by a General Partner that invests in such underlying assets and securities.

Direct co-investments shall be made on the same or better terms as provided to the Limited Partnership that is investing in the same transaction.

Co-investing can increase concentration risk because the company in which the limited partner is investing directly may also be a company held in a private equity fund in which the limited partner has also invested. Therefore, the Private Equity Consultant will monitor co-investments for concentration risk and recommend adjustments in the private equity portfolio as needed in order

to adequately manage such risk. The Private Equity Consultant will address concentration risk in the Annual Private Equity Strategic Plan.

It may be necessary for LACERS to incur due diligence costs, expenses (including legal counsel), and break-up fees on potential Co-investments. The estimated magnitude of these items shall be 1) reasonable and consistent with industry standards as determined by the Private Equity Consultant; and, 2) approved by the Chief Investment Officer in advance of any commitment.

c) Secondary market purchases – purchases of private equity related interests in which one or more of the original parties sells their ownership stake(s) or interests, as a single interest or a pool of interests. Such interests can take the form of: 1) Limited Partnership Interests; 2) Co-investments; 3) General Partner interests; 4) Separately Managed Accounts; 5) Direct Ownership of Portfolio Companies; or 6) a combination of the above.

   It may be necessary for LACERS to incur due diligence costs, expenses (including legal counsel and broker-dealers), and break-up fees on potential secondary transactions. The estimated magnitude of these items shall be 1) reasonable and consistent with industry standards as determined by the Private Equity Consultant; and, 2) approved by the Chief Investment Officer in advance of any commitment.

d) LACERS will also consider sales of partnership fund interests on the secondary market or to other limited partner(s) or potential buyer(s).

e) Other privately structured investments deemed appropriate within LACERS' risk profile as determined by the Private Equity Consultant.

2. **Limitation on Percent of Partnership's Total Commitment**

LACERS' commitment to any given partnership shall not exceed 20% of total commitments (by all limited partners and any other investors including the GP, excluding any co-investments) in that partnership. Any commitments in excess of this threshold will require pre-approval by the Board.

These limitations shall not apply to specially constructed partnerships (such as a fund of one or two); or separately managed accounts (SMAs) where LACERS is the sole limited partner.

3. **Diversification**

The Private Equity Consultant, on behalf of LACERS, will seek to appropriately diversify the Private Equity Portfolio in order to manage risk based on the following guidelines:

a) Up to 15% of the Private Equity Portfolio's total exposure (fair market value plus unfunded commitments) may be attributable to partnerships by the same manager at the time the commitment is made.

b) Up to 25% of the Private Equity Portfolio's total exposure (fair market value plus unfunded commitments) may consist of co-investments and secondary opportunities.

c) The Private Equity Consultant shall appropriately diversify the Portfolio across vintage years when possible.

d) The Private Equity Consultant shall appropriately diversify the Portfolio with respect to geographic distribution.

e) The Private Equity Consultant shall monitor Portfolio investments with respect to GICS industry sector exposure as compared to the Cambridge Associates US Private Equity Index with the understanding that industry sector exposure at an investment fund level will be managed at the discretion of the general partner.

f) Private Equity Sub-asset Classes

   (1) Assets committed to venture capital shall be appropriately diversified across the stages of venture capital (e.g., early-stage, mid-stage, late-stage, and growth equity).

   (2) Assets committed to corporate finance/buyouts shall be appropriately diversified by target company size (e.g., mega, large, mid, and small).

In addition to the diversification criteria listed above, LACERS' Board will adopt optimal sub-asset allocation targets, which will be updated pursuant to the Annual Private Equity Strategic Plan.

4. **Illiquidity**

Private equity investments are not designed to meet the short-term liquidity needs of LACERS. The investments in this asset class are illiquid until the general partner, subject to the provisions of the partnership agreement, decides to sell fund investments and distribute proceeds to limited partners.

5. **Distributions**

Staff is responsible for the final disposition of distributions from partnerships.

E. **Review of Investment Guidelines**

The Private Equity Consultant and Staff periodically will review the above private equity investment guidelines and recommend changes if necessary.

Section 5 PRIVATE EQUITY INVESTMENT POLICY

F. Roles and Responsibilities

	Role of the Board	Role of Staff	Role of the Private Equity Consultant
Strategy/Policy	• Select Private Equity Consultant. • Approve asset class funding level. • Review and approve the Private Equity Annual Strategic Plan which includes allocation targets and ranges.	• In consultation with Private Equity Consultant and General Fund Consultant, develop policies, procedures, guidelines, allocation targets, ranges, assumptions for recommendation to the Board.	• Help develop policies, procedures, guidelines, allocation targets, ranges, assumptions for recommendation to the Board.
Investment Management and Monitoring	• Review ~~quarterly~~semi-annual, annual, and other periodic monitoring reports and plans. • Review Commitment Notification Reports.	• Review quarterly, annual and other periodic monitoring reports prepared by the Private Equity Consultant. • Conduct meetings with existing managers periodically. • Attend annual partnership meetings when appropriate. • Fund capital calls and manage distributions. • Review Private Equity Consultant's recommendations on partnership amendments and consents. • Execute partnership amendments and consents. • Manage and approve the wind-down and/or dissolve private equity fund investment(s) with private equity consultant's concurrence. • Manage and execute the sale of partnership interest on the secondary market or to other limited partner(s) or potential buyer(s). • Prepare Commitment Notification Reports for Board.	• Maintain regular contact with existing managers in the portfolio to ascertain significant events within the portfolio. • Recommend amendments and consents to Staff for approval. • Provide quarterly, annual, and other periodic monitoring reports and plans.

Section 5 PRIVATE EQUITY INVESTMENT POLICY

	Role of the Board	Role of Staff	Role of the Private Equity Consultant
Investment Selection	• Review investment analysis reports. • Review and approve investments in ~~new~~ partnerships of amounts greater than $150 million prior to investment. • ~~Review and approve investments in follow-on partnerships of amounts greater than $100 million prior to investment.~~ • Review and approve direct co-investment opportunities that exceed $50 million. • Review and approve the sale of any one existing partnership fund on the secondary market exceeding $50 million in Fair Market Value. • Review and approve a simultaneous sale of multiple partnership fund interests in a packaged structure.	• Refer investments and forward to Private Equity Consultant for preliminary screening. • Conduct meetings with prospective or existing general partners representing new investment opportunities. • Conduct due diligence with general partners to better ascertain risk and return profile, as determined by the Chief Investment Officer. • In conjunction with Private Equity Consultant, invest up to and including $150 million ~~for new~~in partnerships~~, and up to and including $100 million for follow-on funds~~ without Board approval. If Staff opposes and Private Equity Consultant disagrees, refer to Board for decision. • In conjunction with Private Equity Consultant, make recommendations to Board for approval for investments over $150 million~~ in new partnerships, or over $100 million in follow-on funds~~. • In conjunction with Private Equity Consultant, review and concur with direct co-investment opportunities up to and including $50 million. • In conjunction with Private Equity Consultant, review and concur with the approval of sale of existing partnership funds on the secondary market up to and including $50 million in Fair Market Value. • General Manager or designee with signature authority will execute agreements and other legal or business documents to effectuate the transaction closing. • Ensure review of relevant fund documents by the City Attorney and/or external legal counsel.	• Conduct appropriate analysis and due diligence on investments. • Prepare investment reports for Board consideration on investments exceeding $150 million~~ for new managers, or exceeding $100 million in follow-on funds~~. • With Staff concurrence, approve investments of up to and including $150 million~~ for new partnerships, and up to and including $100 million in follow-on funds~~. • With Staff concurrence, approve direct co-investment opportunities up to and including $50 million. • Present to Staff recommendations pertaining to the sale of existing partnership funds on the secondary market exceeding $50 million in Fair Market Value. Such transactions shall be brought to the Board for review and approval. • Provide investment analysis reports for each new investment and for sales of partnership fund interest on the secondary market or to other limited partner(s) or potential buyer(s). • Communicate with Staff regarding potential investment opportunities undergoing analysis and due diligence. • Coordinate meetings with general partners at the request of Staff. • Advise on and negotiate investment terms.

XI. PRIVATE REAL ESTATE INVESTMENT POLICY

This Real Estate Investment Policy sets forth a general framework for managing LACERS' investments in real estate. This policy provides that the LACERS' real estate program shall be planned, implemented, and monitored through the coordinated efforts of the Board, the General Fund Consultant, Staff, the Real Estate Consultant, and the Investment Managers. Additionally, this policy is subject to the guidelines set forth by LACERS in the Ethical Contracting Compliance Policy and in the Third Party Marketing and Referrals Disclosure Policy, as amended from time to time by the Board, or as stated under applicable laws or regulations.

The Real Estate Consultant, along with Staff, shall prepare an Annual Real Estate Strategic Plan, as defined below, to be considered and acted upon by the Board that will address the specific goals and guidelines to be achieved and followed in the Real Estate Portfolio each year. The Annual Real Estate Strategic Plan shall be consistent with the guidelines set forth in this policy.

A. Real Estate

For purposes of this policy, real estate shall be defined to include investments that are private equity or debt positions in real property. Investments may be leveraged or unleveraged. As further set forth in this policy, LACERS will invest primarily in discretionary commingled funds (e.g., limited liability companies, real estate investment trusts, and limited partnerships) owned with other suitable institutional investors (e.g., pension funds, endowments, foundations, and sovereign funds). As further set forth in this policy, LACERS also may invest in real estate assets on a direct ownership basis through a discretionary separate account vehicle. Such investments will be evaluated on a case by case basis, but at a minimum, need to provide a compelling opportunity, which is consistent with the Real Estate Portfolio's investment objectives and overrides or outweighs the benefits of commingled fund investments.

B. Fiduciary Standards

The investment and management of the Real Estate Portfolio shall be accomplished in a manner consistent with the "prudent person" standard of fiduciary care. This level of care requires that all LACERS' fiduciaries act reasonably to accomplish the stated investment objectives and to safeguard the System on behalf of LACERS' participants and their beneficiaries. The implementation of this Real Estate Policy, including the selection of investment managers, shall be completed in a manner that enhances the Real Estate Portfolio's diversification, thereby reducing risk by limiting exposure to any one investment, manager, real estate property type, geographic region, or other defined risk factor.

C. Scope

This Real Estate Policy sets forth the objectives, policies, and processes and procedures related to the implementation and oversight of the Real Estate Portfolio. Specifically, the objectives outlined herein define the desired risk level and return expectations governing the Real Estate Portfolio; the policies provide guidelines governing investment styles to manage defined risk exposures within the asset class; the investment processes and procedures and roles and responsibilities describe the investment process and allocation of duties among the Board, Staff, the Managers, and the Real Estate Consultant.

LACERS has engaged the Real Estate Consultant on a non-discretionary basis to assist the Board and Staff to implement and revise this policy when necessary. The Real Estate Consultant's duties and responsibilities, which are further defined in Section XI.H include selecting Managers, including performing due diligence and recommending new investments; monitoring existing investments; and generally providing advice to Staff and the Board with respect to the Portfolio. The Real Estate Consultant shall conduct a review of this policy, in conjunction with the Board and Staff, at a minimum of once per year, and set forth any strategic and tactical recommendations in the Annual Real Estate Strategic Plan.

D. **Investment Objectives**

The main investment objective with respect to the Real Estate Portfolio is to maximize returns given the defined level of risk, as determined by the Board. While it is necessary to use active asset management strategies to maximize total investment returns (i.e., income and appreciation returns), investment principal is to be safeguarded within the Portfolio's framework of prudence and managed risk. Although real estate investments are illiquid and have a long-term holding period, investing in this asset class should improve the System's fund level risk-adjusted returns by enhancing overall diversification, which reduces total portfolio risk. Specifically, the objectives of LACERS with respect to the Real Estate Portfolio include the following:

1. **Attractive Risk-Adjusted Returns**

To obtain superior risk-adjusted returns by taking advantage of the inefficiencies of real estate as compared to other asset classes. Active management, value creation and opportunistic strategies, as well as the prudent use of third-party debt, are approved methods for generating expected returns. As discussed in Section XI.G below, the benchmarks for the Portfolio will be the NFI-ODCE Index plus 80 basis points.

2. **Increased Portfolio Diversification/Reduced Portfolio Risk**

To use real estate to enhance overall diversification and, in turn, reduce overall risk of the System's assets, given the historically low to negative return correlations that exist between real estate and other asset classes.

3. **International Investments**

To access international real estate markets through private equity and debt real estate investments. By so doing, the Real Estate Portfolio will obtain exposure to diverse economies, populations, and currencies.

4. **Significant Current Cash Yields**

To invest in real estate assets, which will generate a significant cash return based primarily on current rental income. In general, as a portion of total investment return, higher levels of current income are expected from core and value than opportunistic investments; in contrast, higher levels of appreciation are expected from opportunistic than value add and core investments.

5. **Inflation-Hedge**

To make investments primarily in real estate equity investments that are likely to provide a reasonable hedge against price inflation.

6. **Preservation of Principal**

To achieve meaningful risk-adjusted returns without undue exposure to loss of investment principal.

E. **Investment Guidelines**

LACERS shall establish a long-term target allocation to real estate (the "Target Allocation"). The Target Allocation will fluctuate according to the relative values among the Real Estate Portfolio and the allocations to other asset classes of LACERS. To accomplish and maintain the Target Allocation, the Real Estate Consultant may recommend committing in excess of the Target Allocation percentage in order to meet full allocation objectives. The Real Estate Portfolio allocation percentage actually achieved quarterly may vary from the Target Allocation within a reasonable range as determined by the Board and Staff from time to time.

Eligible real estate funds will range from core open-end funds to opportunistic closed-end funds, and may also include separate investment accounts with selected fund managers; however, the Real Estate Portfolio will be comprised primarily of commingled fund vehicles. Separate accounts represent opportunities wherein LACERS would be the sole or significant equity sponsor for an investment manager pursuing a specifically targeted opportunity or defined strategy. As the sole or significant equity sponsor, LACERS would likely be entitled to voting and control rights generally not available to commingled fund investors.

The following investment guidelines set forth investment parameters consistent with the risk and return objectives of the Real Estate Portfolio.

1. **Portfolio Composition – Risk Strategy Mix**

The Real Estate Portfolio shall be comprised of two different but complementary risk/return categories or risk strategies. These categories or risk strategies are referred to as core and non-core, as defined below. These categories or risk strategies generally define the risk and return levels as low, medium, and high risk associated with institutional real estate investments.

a) **Core and Core Plus**

Core

Equity investment in operating and substantially-leased (i.e., at least at market occupancy levels) institutional quality real estate in the traditional property types (i.e., apartment, office, retail, industrial, and hotel). Core investments may also include high-quality, non-traditional property types (i.e. student housing, medical office, and self-storage) that produce stable income with low risk. Assets are located in significant metropolitan markets with reasonable population sizes and economies. Net returns historically have been in the 6% to 9% range (net of fees) with annual standard deviation near 8.0%. Of note, core investments typically feature current income as a large portion of overall return (i.e., up to 70%), and appreciation that generally matches or exceeds inflation. Low leverage is utilized (i.e., 50% or less on a portfolio basis). Core debt investments include first mortgage loans secured by the previously defined core equity real estate assets. Such mortgage loans are either newly originated or are existing but performing loans with reasonable borrowers (e.g., credit), reasonable terms (e.g., loan to value of less than 50% and debt service coverage of 1.25 or greater) and institutional-quality management (e.g., an institutional investment manager with reasonable experience and track record in managing first mortgage loan investments). During periods of market illiquidity, core equity investments can provide high going-in income returns and provide a reasonable inflation-hedge so long as markets are not over-supplied.

Core Plus

Core Plus investments typically will target a higher leverage ratio (around 50% on a loan-to-value basis) and allocate slightly more to non-operating real estate investments, around 20%.

b) **Non-Core**

Value Add

Value add investments are functional, high quality assets with specific property issues, such as high vacancy, significant upcoming lease expirations, or below market rents. These are debt or equity investments that typically require rehabilitation, redevelopment, development, lease-up, and/or repositioning. Levered returns historically have been in the 10% to 14% range (net of fees). Value add investments also typically feature both current income and appreciation as components of overall return, and frequently involve the repositioning of distressed assets (i.e., not fully leased and operating) and potentially the purchase of interests in real estate operating companies (“REOCs”). Value add investments typically are expected to generate above-core returns through the leasing-up of a property, which increases the end value by increasing in-place income and, in many cases, ultimately decreasing the capitalization rate upon disposition. Value add investments are typically more dependent on appreciation returns than core investments, with purchase prices based on in-place income or asset replacement cost (i.e., at a discount to replacement cost). During periods of market illiquidity, value equity investments can provide high going-in income returns and pricing at significant discounts to replacement costs. During periods of market liquidity, value equity investments include new development projects (i.e., acquire land, obtain entitlements, construct building and lease or sell), which require significant expertise and underwriting. Moderate leverage is utilized for these investments (i.e., targeting 50% to 65% on a portfolio basis).

Opportunistic

Equity or debt investment in real estate properties, operating companies, and other investment vehicles involving significant investment risk, including real estate, financial restructuring, and non-real estate risk. Levered returns have been 15% or higher (net of fees) with significant annual standard deviation. Opportunistic investing includes distressed assets, financial restructurings, and/or financial engineering opportunities (e.g., foreclosing on a mortgage and selling the equity interest) and potentially the purchase of REOCs. Opportunistic investments typically have even greater appreciation potential than value add investments (e.g., 50% of total returns); correspondingly, these investments offer a higher return potential and a higher risk profile than core or value add investments. In many cases, since appreciation is the primary goal of opportunistic investing, many are originated with little if any in-place income and therefore less current income as a portion of total return. These investments historically have experienced higher return performance during periods of market illiquidity (e.g., early 1990's in the U.S.). Higher leverage is used (i.e., up to 80% with some funds).

Core and core plus and non-core exposure targets shall be evaluated at a minimum of once per year and set forth in an Annual Real Estate Strategic Plan and approved by the Board. When making investment recommendations, the Real Estate Consultant shall evaluate the impact of the prospective investment on the Real Estate Portfolio's risk/return exposures based on the existing portfolio net asset value.

2. **Risk Mitigation**

a) **Leverage**

Leverage is a significant risk factor that shall have exposure guidelines and monitoring requirements, as set forth in Section XI.E.7 of this Real Estate Policy.

b) **Diversification**

Diversification is an important tool in reducing real estate portfolio risk and accomplishing superior risk-adjusted returns. The Real Estate Portfolio shall be diversified by risk factors which can be reduced through diversification (e.g., geographic region and property type). Diversification reduces the impact on the portfolio of any one investment or any single investment manager to the extent that an adversity affecting any one particular area will not impact a disproportionate share of the total portfolio.

It is expected that at various points in time, the Real Estate Portfolio may have a significant exposure to a single property type or location to take advantage of opportunities available in the market which are projected to generate superior returns. When making investment recommendations, the Real Estate Consultant shall consider as part of its investment recommendation the impact on Real Estate Portfolio diversification and risk and return. As part of the Annual Real Estate Strategic Plan, the Real Estate Consultant shall provide annually, or more frequently when market conditions require, the risk factor (e.g., property type and region) ranges which it believes provide reasonable diversification given the expected market conditions. The following describe the various diversification guidelines that will be utilized.

Property Type

Diversification policy ranges are based on the universe of available real estate investments, institutional investor portfolio information, and industry indices' diversification. Property type portfolio exposure levels have had a significant impact on institutional investor returns since property types have performed differently during economic cycles.

Real estate investments may include investments other than the traditional property types, such as healthcare facilities, manufactured housing, infrastructure, timber and farmland. The Real Estate Consultant shall include a section in each Annual Real Estate Strategic Plan, reviewing the Real Estate Portfolio's property-type exposures and investment objectives relating thereto.

Geographic Region

Diversification policy ranges are based on the universe of available real estate investments, institutional investor portfolio information and industry indices' diversification. The importance of location to the long-term value of real estate is based on local economic fundamentals and the other risk attributes (e.g., weather, earthquake and local government impact) of regional areas.

The Real Estate Consultant shall include in each Annual Real Estate Strategic Plan investment guidelines and targets related to the Real Estate Portfolio's allocation to geographic regions.

3. **Investment Life Cycle**

Investment life cycle refers to the stage of development of a real estate investment. The stages of development include the following: (1) land or pre-development (i.e., un-entitled or partially entitled land); (2) development/redevelopment (i.e., in process of entitling or constructing improvements); (3) leasing (i.e., less than full or market occupancy); and (4) operating (i.e., greater than market occupancy). As a result of the risks associated with development, at no time shall the Real Estate Portfolio have an exposure exceeding 30% to total non-operating investments (i.e., the total of pre-development/land, development/redevelopment and leasing). Also, the Real Estate Consultant shall monitor the Real Estate Portfolio's exposure to different life cycles through the quarterly performance report, which shall indicate the Real Estate Portfolio's non-operating investment exposure and whether a non-compliance issue exists.

4. **Permissible Investment Structures/Vehicles and Private Allocations**

The Real Estate Portfolio may include private real estate equity and debt investments. Private equity real estate investments may include any investment made in equity interests in real estate assets (i.e., land and assets deriving most of their income return from rents paid by tenants subject to lease agreements) or companies through private placements, including REOCs and Real Estate Investment Trusts ("REITs"). Typical property types include the following: office, retail, rental apartments, for sale residential, industrial and hotel. Private debt investments may include structured investments, which provide for stated preferred returns, which may be accrued or paid on a current basis. Private debt investments may also include loans secured by senior or junior mortgage or deed of trust agreements.

5. **Investment Vehicles**

Investment vehicle exposure ranges shall be used to mitigate portfolio risk including enhancing portfolio liquidity. The following discussion provides a summary of the advantages and disadvantages of the investment vehicles, which shall be used in developing the Real Estate Portfolio.

a) **Open-End Commingled Funds**

The open-end fund investments shall be made primarily to provide (1) reasonable property type and geographic diversification, (2) exposure to larger properties (i.e., over $50 million) or certain countries, and (3) reasonable liquidity (i.e., ability to redeem within 90 days). The Real Estate Consultant shall complete reasonable due diligence in evaluating open-end commingled funds consistent with this policy. Open-end commingled fund vehicles may include, but are not limited to, insurance company separate accounts, group trusts, limited liability companies, single purpose corporations or any other vehicle that is determined by the Real Estate Consultant to be consistent with the Real Estate Policy.

b) **Closed-End Commingled Funds**

The closed-end fund investments shall be made primarily to obtain exposure to reasonably diversified portfolios of value add and opportunistic investments. The primary advantages of closed-end funds are that they provide access to talented management teams with focused niche value add and opportunistic strategies. Also, management teams typically co-invest and rely on incentive fees, which combined enhance the alignment of investor and manager interests. The Real Estate Consultant shall complete reasonable due diligence in selecting closed-end fund investments. Co-investment by the manager of a fund or by investors in the fund is acceptable providing: (1) the co-investor(s) have similar investment objectives regarding risk/return exposures and holding periods, (2) control and voting rights with respect to investment decisions are deemed reasonable, and (3) reasonable buy/sell or other agreements exist to allow for the resolution of investor disagreements. Closed-end funds typically have terms of no less than seven years and are therefore illiquid.

c) **Separate Account Vehicles**

Separate accounts may be used to make private equity/debt investments. Separate accounts offer the primary advantage of control over the manager, the strategy, the asset investment and sales decisions, and the capital. The Real Estate Consultant shall complete reasonable due diligence in selecting the Managers for direct investment separate accounts.

Direct Investments

LACERS may make direct equity/debt investments using separate account vehicles; however, such investments require careful consideration. Transaction costs and management expenses are high and there may be a significant time commitment by the Staff. Separate account direct investments shall be made only when the opportunity is compelling, as determined by the Staff, the Real Estate Consultant, and the Board. To be compelling, a direct investment needs to: (1) be in compliance with this Real Estate Policy; (2) be consistent with the strategic needs of LACERS, as set forth in the Annual Real Estate Strategic Plan; and (3) present an investment opportunity that provides benefits to LACERS that outweigh or override those provided by commingled funds, as previously described. The Real Estate Consultant shall assist the Staff with any direct investments by recommending a Manager and by completing an independent report, which summarizes and evaluates the manager due diligence completed. The report shall include a summary of findings and conclusions and shall be retained by the Staff on file for review.

Direct investments shall also include any private REOC investments. These include full or joint venture ownership of an operating company, which may be used to acquire a single asset, to implement a niche investment strategy or to serve another purpose as defined by the Real Estate Consultant and approved by the Staff and the Board.

Each direct investment strategy, fee structure and level of investment discretion shall be defined by the Real Estate Consultant and approved by the Staff and the Board. The Manager shall complete an annual budget review, as defined by the Real Estate Consultant, and a hold/sell analysis, for each direct investment. Since the sale or refinancing of a direct investment interest is required to return invested capital, such investments are considered illiquid.

6. **Manager/Investment Concentration**

LACERS shall limit its exposure to any single Manager or investment, and be subject to other investment restrictions to reduce risk, as further defined below.

a) **Maximum Manager Allocation**

No single manager (including any allocation to pooled funds and/or separate accounts) shall be allocated more than thirty percent (30%) of the Real Estate Portfolio's total allocation at the time of the prospective investment commitment. The allocation amount calculation shall include all of the Real Estate Portfolio's investment commitments remaining to the Manager plus the net asset value of the existing investments at the time of measurement or at the time of a prospective investment allocation.

b) **Maximum Investment Commitment**

The Real Estate Portfolio's maximum investment commitment to a non-core commingled fund or a separate account Manager shall be limited to fifteen percent (15%) of the Real Estate Portfolio's allocation to real estate at the time of the prospective investment commitment.

c) **Commingled Fund Guidelines**

The Real Estate Portfolio's investment in a single open-ended commingled fund shall not exceed twenty percent (20%) of the total net market value of the commingled fund at the time of the prospective investment. The Real Estate Portfolio's investment in a single closed-end commingled fund shall not exceed twenty percent (20%) of the total investor commitments to the fund at the time of closing of the commitment period of the prospective investment. LACERS shall not consider investments in a commingled fund that has less than $150 million in committed capital inclusive of LACERS pending commitment.

d) **Maximum Individual Separate Account Investment**

The Real Estate Portfolio's maximum investment in any single separate account investment shall be limited to a maximum of ten percent (10%) of the Real Estate Portfolio's total allocation to real estate at the time of the prospective separate account investment, unless otherwise approved by the Board.

The Real Estate Consultant and the Staff shall be responsible for reviewing separate account allocations and commingled fund terms to ensure they are consistent with or have incorporated the applicable restrictions previously described. Even though a prospective commingled fund or separate account allocation may be in compliance with the Real Estate Policy restrictions, the Real Estate Consultant shall complete reasonable due diligence with respect to each prospective investment to determine whether it is appropriate for recommendation to the Staff and the Board. The Real Estate Consultant may consider a number of factors in determining whether investments are reasonable and appropriate for institutional investors, including the following: the level of investment by institutional investors (e.g., pension funds, endowments, foundations, and sovereign funds); the size of the organization; the experience of key personnel; the track record of key personnel in investments comparable to the strategy to be undertaken; and the financial condition of the firm.

7. **Leverage**

Leverage is a significant risk factor, the importance of which is magnified during an economic downturn when decreasing property values and stricter lending terms can lead to unexpected increased leverage levels and decreased equity interests. The Real Estate Consultant shall set forth reasonable leverage targets given market conditions in the Annual Real Estate Strategic Plan. When making a new investment recommendation, the Real Estate Consultant shall consider the impact on the Portfolio's leverage guidelines and targets at the time of the prospective investment.

Additionally, the Real Estate Consultant shall monitor the Real Estate Portfolio's leverage to evaluate compliance with the above stated guidelines through the quarterly performance report.

8. **Specialized Investments**

LACERS has in the past, and as determined by the Staff, the Board, and the Real Estate Consultant, may continue to allocate to unique investment strategies and/or investment firms, as further described below.

a) **Unique Investment Strategies**

Unique investment strategies include those that have collateral benefit objectives, which include job creation, community development, green or environmental objectives (e.g., reduce the use of carbon based fuels), and underserved market initiatives (e.g., defined by geography such as urban or inner city and by demographics such as minority or lower income areas). While such strategies offer attractive benefits, the Real Estate Consultant shall focus its evaluation on whether the expected return projected for the investment is reasonable given the level of risk. To recommend such an investment to the Staff and the Board, the Real Estate Consultant needs to demonstrate that the expected risk and return of the prospective investment allocation is reasonable and consistent with that of a comparable real estate strategy not providing the same collateral benefits.

b) **Unique Managers**

Unique Managers include those that are Emerging Managers pursuant to the LACERS Emerging Investment Manager Policy. To recommend such an investment to the Staff and the Board, the Real Estate Consultant needs to demonstrate that the expected risk and return of the prospective investment allocation to the unique Manager is reasonable. In so doing, the Real Estate Consultant needs to evaluate comprehensively any factors of the unique Manager that may adversely affect investment performance and conclude that such factors are not likely to affect return performance materially and adversely.

A. **Investment Processes And Procedures**

1. **Real Estate Manager Selection Process**

Section 12 GLOSSARY

The following discussion describes the process by which LACERS selects Managers and investments.

a) **Universe of Potential Manager Candidates**

The Real Estate Consultant, pursuant to the Annual Real Estate Strategic Plan, will initiate a Manager search by creating a global list of potential candidates for selection based on the Staff and Real Estate Consultant's initial search criteria. The Real Estate Consultant shall provide information from its databases regarding the candidates to be reviewed with the Staff. The Staff will set forth any additional candidates to be considered. The Real Estate Consultant and the Staff will consolidate their lists to create a single list of potential candidates.

b) **Minimum Manager Qualifications**

The Manager requirements include that the Manager have $200 million of assets at a minimum under management and no less than three (3) years of real estate investment experience or a demonstrable track record of three (3) years of real estate investment experience.

c) **Manager Candidate Summaries**

The Real Estate Consultant shall complete a brief summary of the Manager candidates, including descriptions of their meeting Manager criteria established by the Real Estate Consultant and the Staff relating to the Managers' organization, track record, personnel, alignment of interests, terms and fees. The Real Estate Consultant will screen these summaries and recommend the finalists for further due diligence to the Staff.

d) **Due Diligence**

After the Staff and the Real Estate Consultant select the finalists, the Real Estate Consultant shall complete a comprehensive due diligence review. The comprehensive due diligence review includes an in-depth analysis of the firm's background, organization, personnel, strategy and other related factors. The Real Estate Consultant shall invite the Staff to participate in completing due diligence activities.

e) **Selection and Approval**

After completing the due diligence report, the Staff and Real Estate Consultant will recommend a candidate for consideration to the Board, which will make the final decision.

f) **Term Negotiation**

The Staff, Real Estate Consultant and the legal counsel will negotiate the Manager contract and propose a side letter if necessary. The final contract shall be executed by LACERS' General Manager or the appropriate party or parties authorized by the Board.

2. **Monitoring Process and Performance Measurement**

The Real Estate Consultant and the Staff, when available, will meet with managers on a periodic basis to determine the progress being made in the fund. These discussions may occur at annual investor meetings or in face-to-face or telephone meetings either at the Manager's or the Real Estate Consultant's offices.

Investment Managers will send financial reports and capital account statements on a regularly scheduled basis to the Real Estate Consultant and LACERS. ~~Quarterly~~ Semi-annual Portfolio Performance Review Reports ("PPR") shall be prepared by the Real Estate Consultant and formally presented to the Board. The PPR is a comprehensive reporting and evaluation system addressing each investment. The PPR system shall provide such information as may be required by LACERS to understand and administer its investments and shall include attributes for both the Managers and the total portfolio. These attributes include: income, appreciation, gross and net returns for the portfolio and each manager, cash flow, internal rate of return calculations, diversification, comparisons to relevant industry performance indices, and information reporting standards.

G. **Benchmark Returns**

While no return objectives are stated by strategy, relative performance comparisons will be made to various indices to provide additional perspective on performance and/or facilitate attribution analysis. The return objectives are as follows:

LACERS' Real Estate Portfolio Benchmark Guideline	
Strategy	**Return Objectives Over Rolling 5-year Periods**
Core Real Estate	NFI-ODCE Index
Non-Core Real Estate	NFI-ODCE Index + 200 basis points
Timber	NCREIF Timberland Index, gross of fees

Portfolio Benchmark

With respect to private real estate investments, The Real Estate Consultant, the Staff and the Board shall use the NFI-ODCE plus 80 basis points over a rolling 5-year period as its benchmark.

H. **Roles and Responsibilities**

The following duties have been established to manage the risks involved with investing in real estate. Set forth below is the delegation of the major roles and responsibilities of each participant:

1. **Duties of the Board**

   a) Establish the role of the real estate investment program in light of the total System objectives.

b) Consider and act upon the allocation to real estate and approve any adjustments to the allocation which may from time to time be necessary.

c) Review, consider, and act upon the Annual Real Estate Policy (objectives, policies and procedures) and the Annual Real Estate Strategic Plan for the real estate program.

d) Interview, consider, and act upon the Staff recommendations for selection, retention and removal of the Managers and/or the Real Estate Consultant and the selection of Manager investments.

e) Review the real estate portfolio on a ~~quarterly~~ semi-annual basis to evaluate the investment performance and to ensure compliance with policy guidelines and approved Annual Real Estate Strategic Plan.

2. **Duties of the Staff**

a) Update and communicate with the Board and Investment Managers on issues and matters of the Policy.

b) Provide the Board with education and analysis that is independent from the Real Estate Consultant to the extent time and resources allow.

c) Be familiar with the asset class and stay informed of developments in industry as they occur.

d) Oversee the Real Estate Consultant's preparation of the Annual Real Estate Strategic Plan for the real estate program. Present and recommend, along with the Real Estate Consultant, the Real Estate Policy and Annual Real Estate Strategic Plan to the Board.

e) Oversee and review the performance of the Real Estate Consultant and the Managers on a periodic basis and discuss findings with the Board.

f) Bring any non-conforming items or significant issues to the attention of the Board.

g) Document and monitor funding procedures.

h) Complete any other activity as directed by the Board.

i) Conduct or assist in conducting due diligence on prospective investment opportunities as LACERS' resources permit.

j) Prepare investment documentation with the Real Estate Consultant.

3. **Duties of the Manager**

a) Adhere to reporting and performance measurement standards and comply with generally accepted accounting principles ("GAAP") applied on a fair market value basis.

b) Execute and perform its duties under the terms of the investment vehicle documents.

c) Provide timely requests for capital contributions.

d) Provide quarterly financial statements, annual reports and other investment information requested by the Staff and/or the Real Estate Consultant.

e) Conduct annual meetings to discuss important developments regarding investment and management issues.

4. **Duties of the Real Estate Consultant**

LACERS engaged the Real Estate Consultant on a non-discretionary basis to select new investments, to monitor existing investments, and to provide advice in accordance with the investment objectives for the real estate portfolio. The Real Estate Consultant's services to LACERS may include but are not limited to the following:

a) Report directly to the Board and Staff on matters of policy.

b) Bring any non-conforming items or significant issues to the attention of the Staff and the Board.

c) Complete due diligence on potential investments and preparation of the due diligence report.

d) Monitor the performance of the real estate portfolio and compliance with approved policy.

e) Prepare the Annual Real Estate Strategic Plan for the real estate program, in consultation with the Staff, and present the Annual Real Estate Strategic Plan to the Board for review.

f) Review proposed real estate investments and recommend prudent investments, structure and controls. Monitor investments and ventures through completion and disposition, including satisfaction of conditions to funding, partnership and financial issues.

g) Assist Staff with the review and preparation of documents related to new investments approved by the Board consistent with the Real Estate Consultant's recommendation.

h) Prepare reports on a periodic basis for the Board to evaluate investment performance and to ensure compliance with policy guidelines and approved Annual Real Estate Strategic Plan. The evaluation system shall provide such information as may be required by LACERS to understand and administer its investments.

i) Assist the Staff in the Annual Real Estate Strategic Plan portfolio review.

j) Provide Board and Staff with topical research and education on investment subjects that are relevant to LACERS.

k) Review the Real Estate Policy annually and notify LACERS if any revisions are needed thereto.

l) Monitor and report on risk.

m) Provide ongoing real estate education information and seminars to the Board.

Section 12 GLOSSARY

5. **Duties of Legal Counsel**

The legal counsel selected by LACERS along with the Office of the Los Angeles City Attorney will represent LACERS and will review all real estate related documents and provide advice for special investment situations as needed.

X. PRIVATE EQUITY INVESTMENT POLICY

A. Introduction

This Private Equity Investment Policy ("Private Equity Policy") sets forth guidelines that provide a general framework for selecting, building, and managing LACERS' investments in private equity, including corporate finance/buyout, special situations (including distressed debt, distressed turnaround and mezzanine strategies), venture capital and growth equity, co-investments, secondary market transactions, and other privately structured investments with the return and risk characteristics of private equity.

B. Investment Objectives

1. Return

On a relative basis, the return objective for the LACERS' private equity portfolio ("Private Equity Portfolio") is 300 bps over the Russell 3000 Index net of fees, expenses, and carried interest.

Returns are measured over the life of the partnership and become meaningful for periods past the J-Curve. The valuation methodology used by general partners should conform to industry and regulatory standards. Performance will be measured using standard industry metrics such as IRR (internal rate of return), TVPI (total value to paid in capital), and MOIC (multiple on invested capital.) Additionally, the IRR performance in the first few years of a partnership's life may be negative due to the J-curve effect.

2. Risk

Private equity investments are illiquid and have a long-term holding period. When invested alongside publicly traded assets, the asset class increases diversification and reduces risk at the System level. Nonetheless, LACERS expects that the Private Equity Consultant will take all appropriate measures to assume risks that are sufficiently compensated by expected return. Such measures include, but are not limited to, diversification (as detailed in Section X.D.3 below) and due diligence.

C. Scope

The Private Equity Consultant, with Staff concurrence, shall select new investments, monitor and advise on the sale of existing private equity investments, and provide recommendations and program advice in accordance with the Private Equity Policy. The Private Equity Policy establishes the framework for the management of the Private Equity Portfolio. The Private Equity Consultant will be evaluated annually as consultant and investment manager for the Private Equity Portfolio based upon the following factors: portfolio performance; quality of analytical and technical work; expertise in the private equity asset class; responsiveness to requests from the LACERS Board of Administration ("Board") and LACERS Investment Staff ("Staff"); availability to attend Board meetings and meetings with Staff with reasonable advance notice; consulting and advising on LACERS' portfolio, including information on

selected private equity related topics; identifying and mitigating risks; and proactively informing Staff of new investment opportunities or risks in the marketplace.

The Private Equity Consultant will evaluate and recommend investment transactions pursuant to the roles and responsibilities defined in Section X.F. With Staff concurrence on a recommendation from the Private Equity Consultant, LACERS may effect investments in partnerships up to and including $150 million. With Staff concurrence, recommended investments in excess of these amounts must be presented to the Board for approval. Non-U.S. dollar commitments to private equity partnerships shall be equal or less than the maximum U.S. dollar-equivalent limits as of the day Staff concurs with the Private Equity Consultant. However, non-U.S. dollar commitments to private equity partnerships may exceed the U.S. dollar currency equivalent maximum commitment limits after the date of Staff's concurrence due to foreign currency exchange rate fluctuations, and require no further Board approval.

D. **Investment Guidelines**

1. **Eligible Investments**

LACERS will invest in limited partnership interests of pooled vehicles as well as separate accounts, funds of one (or similar structures together with a limited number of other LPs), special purpose vehicles (SPVs), and other investment structures such as limited liability companies, investment trusts, separate accounts, and other corporate structures (unless otherwise stated in this Policy) covering the broad spectrum of private investments as follows:

a) Private equity partnerships – Investments in corporate finance/buyout, special situations, venture capital and growth equity, secondaries, and co-investment funds. Special situations is a broad investment strategy, which includes mezzanine and distressed debt partnerships, fund-of-funds (both direct and secondary), industry-focused, and multi-stage partnerships;

b) Direct co-investments – Investments made alongside general partners directly in underlying assets and securities, usually with discounted management fees and carried interest. Co-investments may be structured as securities held directly by LACERS ("direct co-investments") or as an interest in a vehicle managed by a General Partner that invests in such underlying assets and securities.

Direct co-investments shall be made on the same or better terms as provided to the Limited Partnership that is investing in the same transaction.

Co-investing can increase concentration risk because the company in which the limited partner is investing directly may also be a company held in a private equity fund in which the limited partner has also invested. Therefore, the Private Equity Consultant will monitor co-investments for concentration risk and recommend adjustments in the private equity portfolio as needed in order

to adequately manage such risk. The Private Equity Consultant will address concentration risk in the Annual Private Equity Strategic Plan.

It may be necessary for LACERS to incur due diligence costs, expenses (including legal counsel), and break-up fees on potential Co-investments. The estimated magnitude of these items shall be 1) reasonable and consistent with industry standards as determined by the Private Equity Consultant; and, 2) approved by the Chief Investment Officer in advance of any commitment.

c) Secondary market purchases – purchases of private equity related interests in which one or more of the original parties sells their ownership stake(s) or interests, as a single interest or a pool of interests. Such interests can take the form of: 1) Limited Partnership Interests; 2) Co-investments; 3) General Partner interests; 4) Separately Managed Accounts; 5) Direct Ownership of Portfolio Companies; or 6) a combination of the above.

It may be necessary for LACERS to incur due diligence costs, expenses (including legal counsel and broker-dealers), and break-up fees on potential secondary transactions. The estimated magnitude of these items shall be 1) reasonable and consistent with industry standards as determined by the Private Equity Consultant; and, 2) approved by the Chief Investment Officer in advance of any commitment.

d) LACERS will also consider sales of partnership fund interests on the secondary market or to other limited partner(s) or potential buyer(s).

e) Other privately structured investments deemed appropriate within LACERS' risk profile as determined by the Private Equity Consultant.

2. **Limitation on Percent of Partnership's Total Commitment**

LACERS' commitment to any given partnership shall not exceed 20% of total commitments (by all limited partners and any other investors including the GP, excluding any co-investments) in that partnership. Any commitments in excess of this threshold will require pre-approval by the Board.

These limitations shall not apply to specially constructed partnerships (such as a fund of one or two); or separately managed accounts (SMAs) where LACERS is the sole limited partner.

3. **Diversification**

The Private Equity Consultant, on behalf of LACERS, will seek to appropriately diversify the Private Equity Portfolio in order to manage risk based on the following guidelines:

a) Up to 15% of the Private Equity Portfolio's total exposure (fair market value plus unfunded commitments) may be attributable to partnerships by the same manager at the time the commitment is made.

b) Up to 25% of the Private Equity Portfolio's total exposure (fair market value plus unfunded commitments) may consist of co-investments and secondary opportunities.

c) The Private Equity Consultant shall appropriately diversify the Portfolio across vintage years when possible.

d) The Private Equity Consultant shall appropriately diversify the Portfolio with respect to geographic distribution.

e) The Private Equity Consultant shall monitor Portfolio investments with respect to GICS industry sector exposure as compared to the Cambridge Associates US Private Equity Index with the understanding that industry sector exposure at an investment fund level will be managed at the discretion of the general partner.

f) Private Equity Sub-asset Classes

   (1) Assets committed to venture capital shall be appropriately diversified across the stages of venture capital (e.g., early-stage, mid-stage, late-stage, and growth equity).

   (2) Assets committed to corporate finance/buyouts shall be appropriately diversified by target company size (e.g., mega, large, mid, and small).

In addition to the diversification criteria listed above, LACERS' Board will adopt optimal sub-asset allocation targets, which will be updated pursuant to the Annual Private Equity Strategic Plan.

4. **Illiquidity**

Private equity investments are not designed to meet the short-term liquidity needs of LACERS. The investments in this asset class are illiquid until the general partner, subject to the provisions of the partnership agreement, decides to sell fund investments and distribute proceeds to limited partners.

5. **Distributions**

Staff is responsible for the final disposition of distributions from partnerships.

E. **Review of Investment Guidelines**

The Private Equity Consultant and Staff periodically will review the above private equity investment guidelines and recommend changes if necessary.

Section 5 PRIVATE EQUITY INVESTMENT POLICY

F. Roles and Responsibilities

	Role of the Board	Role of Staff	Role of the Private Equity Consultant
Strategy/Policy	• Select Private Equity Consultant. • Approve asset class funding level. • Review and approve the Private Equity Annual Strategic Plan which includes allocation targets and ranges.	• In consultation with Private Equity Consultant and General Fund Consultant, develop policies, procedures, guidelines, allocation targets, ranges, assumptions for recommendation to the Board.	• Help develop policies, procedures, guidelines, allocation targets, ranges, assumptions for recommendation to the Board.
Investment Management and Monitoring	• Review semi-annual, annual, and other periodic monitoring reports and plans. • Review Commitment Notification Reports.	• Review quarterly, annual and other periodic monitoring reports prepared by the Private Equity Consultant. • Conduct meetings with existing managers periodically. • Attend annual partnership meetings when appropriate. • Fund capital calls and manage distributions. • Review Private Equity Consultant's recommendations on partnership amendments and consents. • Execute partnership amendments and consents. • Manage and approve the wind-down and/or dissolve private equity fund investment(s) with private equity consultant's concurrence. • Manage and execute the sale of partnership interest on the secondary market or to other limited partner(s) or potential buyer(s). • Prepare Commitment Notification Reports for Board.	• Maintain regular contact with existing managers in the portfolio to ascertain significant events within the portfolio. • Recommend amendments and consents to Staff for approval. • Provide quarterly, annual, and other periodic monitoring reports and plans.

Section 5 PRIVATE EQUITY INVESTMENT POLICY

	Role of the Board	Role of Staff	Role of the Private Equity Consultant
Investment Selection	• Review investment analysis reports. • Review and approve investments in partnerships of amounts greater than $150 million prior to investment. • Review and approve direct co-investment opportunities that exceed $50 million. • Review and approve the sale of any one existing partnership fund on the secondary market exceeding $50 million in Fair Market Value. • Review and approve a simultaneous sale of multiple partnership fund interests in a packaged structure.	• Refer investments and forward to Private Equity Consultant for preliminary screening. • Conduct meetings with prospective or existing general partners representing new investment opportunities. • Conduct due diligence with general partners to better ascertain risk and return profile, as determined by the Chief Investment Officer. • In conjunction with Private Equity Consultant, invest up to and including $150 million in partnerships without Board approval. If Staff opposes and Private Equity Consultant disagrees, refer to Board for decision. • In conjunction with Private Equity Consultant, make recommendations to Board for approval for investments over $150 million. • In conjunction with Private Equity Consultant, review and concur with direct co-investment opportunities up to and including $50 million. • In conjunction with Private Equity Consultant, review and concur with the approval of sale of existing partnership funds on the secondary market up to and including $50 million in Fair Market Value. • General Manager or designee with signature authority will execute agreements and other legal or business documents to effectuate the transaction closing. • Ensure review of relevant fund documents by the City Attorney and/or external legal counsel.	• Conduct appropriate analysis and due diligence on investments. • Prepare investment reports for Board consideration on investments exceeding $150 million. • With Staff concurrence, approve investments of up to and including $150 million. • With Staff concurrence, approve direct co-investment opportunities up to and including $50 million. • Present to Staff recommendations pertaining to the sale of existing partnership funds on the secondary market exceeding $50 million in Fair Market Value. Such transactions shall be brought to the Board for review and approval. • Provide investment analysis reports for each new investment and for sales of partnership fund interest on the secondary market or to other limited partner(s) or potential buyer(s). • Communicate with Staff regarding potential investment opportunities undergoing analysis and due diligence. • Coordinate meetings with general partners at the request of Staff. • Advise on and negotiate investment terms.

XI. PRIVATE REAL ESTATE INVESTMENT POLICY

This Real Estate Investment Policy sets forth a general framework for managing LACERS' investments in real estate. This policy provides that the LACERS' real estate program shall be planned, implemented, and monitored through the coordinated efforts of the Board, the General Fund Consultant, Staff, the Real Estate Consultant, and the Investment Managers. Additionally, this policy is subject to the guidelines set forth by LACERS in the Ethical Contracting Compliance Policy and in the Third Party Marketing and Referrals Disclosure Policy, as amended from time to time by the Board, or as stated under applicable laws or regulations.

The Real Estate Consultant, along with Staff, shall prepare an Annual Real Estate Strategic Plan, as defined below, to be considered and acted upon by the Board that will address the specific goals and guidelines to be achieved and followed in the Real Estate Portfolio each year. The Annual Real Estate Strategic Plan shall be consistent with the guidelines set forth in this policy.

A. Real Estate

For purposes of this policy, real estate shall be defined to include investments that are private equity or debt positions in real property. Investments may be leveraged or unleveraged. As further set forth in this policy, LACERS will invest primarily in discretionary commingled funds (e.g., limited liability companies, real estate investment trusts, and limited partnerships) owned with other suitable institutional investors (e.g., pension funds, endowments, foundations, and sovereign funds). As further set forth in this policy, LACERS also may invest in real estate assets on a direct ownership basis through a discretionary separate account vehicle. Such investments will be evaluated on a case by case basis, but at a minimum, need to provide a compelling opportunity, which is consistent with the Real Estate Portfolio's investment objectives and overrides or outweighs the benefits of commingled fund investments.

B. Fiduciary Standards

The investment and management of the Real Estate Portfolio shall be accomplished in a manner consistent with the "prudent person" standard of fiduciary care. This level of care requires that all LACERS' fiduciaries act reasonably to accomplish the stated investment objectives and to safeguard the System on behalf of LACERS' participants and their beneficiaries. The implementation of this Real Estate Policy, including the selection of investment managers, shall be completed in a manner that enhances the Real Estate Portfolio's diversification, thereby reducing risk by limiting exposure to any one investment, manager, real estate property type, geographic region, or other defined risk factor.

C. Scope

This Real Estate Policy sets forth the objectives, policies, and processes and procedures related to the implementation and oversight of the Real Estate Portfolio. Specifically, the objectives outlined herein define the desired risk level and return expectations governing the Real Estate Portfolio; the policies provide guidelines governing investment styles to manage defined risk exposures within the asset class; the investment processes and procedures and roles and responsibilities describe the investment process and allocation of duties among the Board, Staff, the Managers, and the Real Estate Consultant.

LACERS has engaged the Real Estate Consultant on a non-discretionary basis to assist the Board and Staff to implement and revise this policy when necessary. The Real Estate Consultant's duties and responsibilities, which are further defined in Section XI.H include selecting Managers, including performing due diligence and recommending new investments; monitoring existing investments; and generally providing advice to Staff and the Board with respect to the Portfolio. The Real Estate Consultant shall conduct a review of this policy, in conjunction with the Board and Staff, at a minimum of once per year, and set forth any strategic and tactical recommendations in the Annual Real Estate Strategic Plan.

D. **Investment Objectives**

The main investment objective with respect to the Real Estate Portfolio is to maximize returns given the defined level of risk, as determined by the Board. While it is necessary to use active asset management strategies to maximize total investment returns (i.e., income and appreciation returns), investment principal is to be safeguarded within the Portfolio's framework of prudence and managed risk. Although real estate investments are illiquid and have a long-term holding period, investing in this asset class should improve the System's fund level risk-adjusted returns by enhancing overall diversification, which reduces total portfolio risk. Specifically, the objectives of LACERS with respect to the Real Estate Portfolio include the following:

1. **Attractive Risk-Adjusted Returns**

To obtain superior risk-adjusted returns by taking advantage of the inefficiencies of real estate as compared to other asset classes. Active management, value creation and opportunistic strategies, as well as the prudent use of third-party debt, are approved methods for generating expected returns. As discussed in Section XI.G below, the benchmarks for the Portfolio will be the NFI-ODCE Index plus 80 basis points.

2. **Increased Portfolio Diversification/Reduced Portfolio Risk**

To use real estate to enhance overall diversification and, in turn, reduce overall risk of the System's assets, given the historically low to negative return correlations that exist between real estate and other asset classes.

3. **International Investments**

To access international real estate markets through private equity and debt real estate investments. By so doing, the Real Estate Portfolio will obtain exposure to diverse economies, populations, and currencies.

4. **Significant Current Cash Yields**

To invest in real estate assets, which will generate a significant cash return based primarily on current rental income. In general, as a portion of total investment return, higher levels of current income are expected from core and value than opportunistic investments; in contrast, higher levels of appreciation are expected from opportunistic than value add and core investments.

5. **Inflation-Hedge**

To make investments primarily in real estate equity investments that are likely to provide a reasonable hedge against price inflation.

6. **Preservation of Principal**

To achieve meaningful risk-adjusted returns without undue exposure to loss of investment principal.

E. **Investment Guidelines**

LACERS shall establish a long-term target allocation to real estate (the "Target Allocation"). The Target Allocation will fluctuate according to the relative values among the Real Estate Portfolio and the allocations to other asset classes of LACERS. To accomplish and maintain the Target Allocation, the Real Estate Consultant may recommend committing in excess of the Target Allocation percentage in order to meet full allocation objectives. The Real Estate Portfolio allocation percentage actually achieved quarterly may vary from the Target Allocation within a reasonable range as determined by the Board and Staff from time to time.

Eligible real estate funds will range from core open-end funds to opportunistic closed-end funds, and may also include separate investment accounts with selected fund managers; however, the Real Estate Portfolio will be comprised primarily of commingled fund vehicles. Separate accounts represent opportunities wherein LACERS would be the sole or significant equity sponsor for an investment manager pursuing a specifically targeted opportunity or defined strategy. As the sole or significant equity sponsor, LACERS would likely be entitled to voting and control rights generally not available to commingled fund investors.

The following investment guidelines set forth investment parameters consistent with the risk and return objectives of the Real Estate Portfolio.

1. **Portfolio Composition – Risk Strategy Mix**

The Real Estate Portfolio shall be comprised of two different but complementary risk/return categories or risk strategies. These categories or risk strategies are referred to as core and non-core, as defined below. These categories or risk strategies generally define the risk and return levels as low, medium, and high risk associated with institutional real estate investments.

a) **Core and Core Plus**

Core

Equity investment in operating and substantially-leased (i.e., at least at market occupancy levels) institutional quality real estate in the traditional property types (i.e., apartment, office, retail, industrial, and hotel). Core investments may also include high-quality, non-traditional property types (i.e. student housing, medical office, and self-storage) that produce stable income with low risk. Assets are located in significant metropolitan markets with reasonable population sizes and economies. Net returns historically have been in the 6% to 9% range (net of fees) with annual standard deviation near 8.0%. Of note, core investments typically feature current income as a large portion of overall return (i.e., up to 70%), and appreciation that generally matches or exceeds inflation. Low leverage is utilized (i.e., 50% or less on a portfolio basis). Core debt investments include first mortgage loans secured by the previously defined core equity real estate assets. Such mortgage loans are either newly originated or are existing but performing loans with reasonable borrowers (e.g., credit), reasonable terms (e.g., loan to value of less than 50% and debt service coverage of 1.25 or greater) and institutional-quality management (e.g., an institutional investment manager with reasonable experience and track record in managing first mortgage loan investments). During periods of market illiquidity, core equity investments can provide high going-in income returns and provide a reasonable inflation-hedge so long as markets are not over-supplied.

Core Plus

Core Plus investments typically will target a higher leverage ratio (around 50% on a loan-to-value basis) and allocate slightly more to non-operating real estate investments, around 20%.

b) **Non-Core**

Value Add

Value add investments are functional, high quality assets with specific property issues, such as high vacancy, significant upcoming lease expirations, or below market rents. These are debt or equity investments that typically require rehabilitation, redevelopment, development, lease-up, and/or repositioning. Levered returns historically have been in the 10% to 14% range (net of fees). Value add investments also typically feature both current income and appreciation as components of overall return, and frequently involve the repositioning of distressed assets (i.e., not fully leased and operating) and potentially the purchase of interests in real estate operating companies (“REOCs”). Value add investments typically are expected to generate above-core returns through the leasing-up of a property, which increases the end value by increasing in-place income and, in many cases, ultimately decreasing the capitalization rate upon disposition. Value add investments are typically more dependent on appreciation returns than core investments, with purchase prices based on in-place income or asset replacement cost (i.e., at a discount to replacement cost). During periods of market illiquidity, value equity investments can provide high going-in income returns and pricing at significant discounts to replacement costs. During periods of market liquidity, value equity investments include new development projects (i.e., acquire land, obtain entitlements, construct building and lease or sell), which require significant expertise and underwriting. Moderate leverage is utilized for these investments (i.e., targeting 50% to 65% on a portfolio basis).

Opportunistic

Equity or debt investment in real estate properties, operating companies, and other investment vehicles involving significant investment risk, including real estate, financial restructuring, and non-real estate risk. Levered returns have been 15% or higher (net of fees) with significant annual standard deviation. Opportunistic investing includes distressed assets, financial restructurings, and/or financial engineering opportunities (e.g., foreclosing on a mortgage and selling the equity interest) and potentially the purchase of REOCs. Opportunistic investments typically have even greater appreciation potential than value add investments (e.g., 50% of total returns); correspondingly, these investments offer a higher return potential and a higher risk profile than core or value add investments. In many cases, since appreciation is the primary goal of opportunistic investing, many are originated with little if any in-place income and therefore less current income as a portion of total return. These investments historically have experienced higher return performance during periods of market illiquidity (e.g., early 1990's in the U.S.). Higher leverage is used (i.e., up to 80% with some funds).

Core and core plus and non-core exposure targets shall be evaluated at a minimum of once per year and set forth in an Annual Real Estate Strategic Plan and approved by the Board. When making investment recommendations, the Real Estate Consultant shall evaluate the impact of the prospective investment on the Real Estate Portfolio's risk/return exposures based on the existing portfolio net asset value.

2. **Risk Mitigation**

a) **Leverage**

Leverage is a significant risk factor that shall have exposure guidelines and monitoring requirements, as set forth in Section XI.E.7 of this Real Estate Policy.

b) **Diversification**

Diversification is an important tool in reducing real estate portfolio risk and accomplishing superior risk-adjusted returns. The Real Estate Portfolio shall be diversified by risk factors which can be reduced through diversification (e.g., geographic region and property type). Diversification reduces the impact on the portfolio of any one investment or any single investment manager to the extent that an adversity affecting any one particular area will not impact a disproportionate share of the total portfolio.

It is expected that at various points in time, the Real Estate Portfolio may have a significant exposure to a single property type or location to take advantage of opportunities available in the market which are projected to generate superior returns. When making investment recommendations, the Real Estate Consultant shall consider as part of its investment recommendation the impact on Real Estate Portfolio diversification and risk and return. As part of the Annual Real Estate Strategic Plan, the Real Estate Consultant shall provide annually, or more frequently when market conditions require, the risk factor (e.g., property type and region) ranges which it believes provide reasonable diversification given the expected market conditions. The following describe the various diversification guidelines that will be utilized.

Property Type

Diversification policy ranges are based on the universe of available real estate investments, institutional investor portfolio information, and industry indices' diversification. Property type portfolio exposure levels have had a significant impact on institutional investor returns since property types have performed differently during economic cycles.

Real estate investments may include investments other than the traditional property types, such as healthcare facilities, manufactured housing, infrastructure, timber and farmland. The Real Estate Consultant shall include a section in each Annual Real Estate Strategic Plan, reviewing the Real Estate Portfolio's property-type exposures and investment objectives relating thereto.

Geographic Region

Diversification policy ranges are based on the universe of available real estate investments, institutional investor portfolio information and industry indices' diversification. The importance of location to the long-term value of real estate is based on local economic fundamentals and the other risk attributes (e.g., weather, earthquake and local government impact) of regional areas.

The Real Estate Consultant shall include in each Annual Real Estate Strategic Plan investment guidelines and targets related to the Real Estate Portfolio's allocation to geographic regions.

3. **Investment Life Cycle**

Investment life cycle refers to the stage of development of a real estate investment. The stages of development include the following: (1) land or pre-development (i.e., un-entitled or partially entitled land); (2) development/redevelopment (i.e., in process of entitling or constructing improvements); (3) leasing (i.e., less than full or market occupancy); and (4) operating (i.e., greater than market occupancy). As a result of the risks associated with development, at no time shall the Real Estate Portfolio have an exposure exceeding 30% to total non-operating investments (i.e., the total of pre-development/land, development/redevelopment and leasing). Also, the Real Estate Consultant shall monitor the Real Estate Portfolio's exposure to different life cycles through the quarterly performance report, which shall indicate the Real Estate Portfolio's non-operating investment exposure and whether a non-compliance issue exists.

4. **Permissible Investment Structures/Vehicles and Private Allocations**

The Real Estate Portfolio may include private real estate equity and debt investments. Private equity real estate investments may include any investment made in equity interests in real estate assets (i.e., land and assets deriving most of their income return from rents paid by tenants subject to lease agreements) or companies through private placements, including REOCs and Real Estate Investment Trusts ("REITs"). Typical property types include the following: office, retail, rental apartments, for sale residential, industrial and hotel. Private debt investments may include structured investments, which provide for stated preferred returns, which may be accrued or paid on a current basis. Private debt investments may also include loans secured by senior or junior mortgage or deed of trust agreements.

5. **Investment Vehicles**

Investment vehicle exposure ranges shall be used to mitigate portfolio risk including enhancing portfolio liquidity. The following discussion provides a summary of the advantages and disadvantages of the investment vehicles, which shall be used in developing the Real Estate Portfolio.

a) **Open-End Commingled Funds**

The open-end fund investments shall be made primarily to provide (1) reasonable property type and geographic diversification, (2) exposure to larger properties (i.e., over $50 million) or certain countries, and (3) reasonable liquidity (i.e., ability to redeem within 90 days). The Real Estate Consultant shall complete reasonable due diligence in evaluating open-end commingled funds consistent with this policy. Open-end commingled fund vehicles may include, but are not limited to, insurance company separate accounts, group trusts, limited liability companies, single purpose corporations or any other vehicle that is determined by the Real Estate Consultant to be consistent with the Real Estate Policy.

b) **Closed-End Commingled Funds**

The closed-end fund investments shall be made primarily to obtain exposure to reasonably diversified portfolios of value add and opportunistic investments. The primary advantages of closed-end funds are that they provide access to talented management teams with focused niche value add and opportunistic strategies. Also, management teams typically co-invest and rely on incentive fees, which combined enhance the alignment of investor and manager interests. The Real Estate Consultant shall complete reasonable due diligence in selecting closed-end fund investments. Co-investment by the manager of a fund or by investors in the fund is acceptable providing: (1) the co-investor(s) have similar investment objectives regarding risk/return exposures and holding periods, (2) control and voting rights with respect to investment decisions are deemed reasonable, and (3) reasonable buy/sell or other agreements exist to allow for the resolution of investor disagreements. Closed-end funds typically have terms of no less than seven years and are therefore illiquid.

c) **Separate Account Vehicles**

Separate accounts may be used to make private equity/debt investments. Separate accounts offer the primary advantage of control over the manager, the strategy, the asset investment and sales decisions, and the capital. The Real Estate Consultant shall complete reasonable due diligence in selecting the Managers for direct investment separate accounts.

Direct Investments

LACERS may make direct equity/debt investments using separate account vehicles; however, such investments require careful consideration. Transaction costs and management expenses are high and there may be a significant time commitment by the Staff. Separate account direct investments shall be made only when the opportunity is compelling, as determined by the Staff, the Real Estate Consultant, and the Board. To be compelling, a direct investment needs to: (1) be in compliance with this Real Estate Policy; (2) be consistent with the strategic needs of LACERS, as set forth in the Annual Real Estate Strategic Plan; and (3) present an investment opportunity that provides benefits to LACERS that outweigh or override those provided by commingled funds, as previously described. The Real Estate Consultant shall assist the Staff with any direct investments by recommending a Manager and by completing an independent report, which summarizes and evaluates the manager due diligence completed. The report shall include a summary of findings and conclusions and shall be retained by the Staff on file for review.

Direct investments shall also include any private REOC investments. These include full or joint venture ownership of an operating company, which may be used to acquire a single asset, to implement a niche investment strategy or to serve another purpose as defined by the Real Estate Consultant and approved by the Staff and the Board.

Each direct investment strategy, fee structure and level of investment discretion shall be defined by the Real Estate Consultant and approved by the Staff and the Board. The Manager shall complete an annual budget review, as defined by the Real Estate Consultant, and a hold/sell analysis, for each direct investment. Since the sale or refinancing of a direct investment interest is required to return invested capital, such investments are considered illiquid.

6. **Manager/Investment Concentration**

LACERS shall limit its exposure to any single Manager or investment, and be subject to other investment restrictions to reduce risk, as further defined below.

a) **Maximum Manager Allocation**

No single manager (including any allocation to pooled funds and/or separate accounts) shall be allocated more than thirty percent (30%) of the Real Estate Portfolio's total allocation at the time of the prospective investment commitment. The allocation amount calculation shall include all of the Real Estate Portfolio's investment commitments remaining to the Manager plus the net asset value of the existing investments at the time of measurement or at the time of a prospective investment allocation.

b) **Maximum Investment Commitment**

The Real Estate Portfolio's maximum investment commitment to a non-core commingled fund or a separate account Manager shall be limited to fifteen percent (15%) of the Real Estate Portfolio's allocation to real estate at the time of the prospective investment commitment.

c) **Commingled Fund Guidelines**

The Real Estate Portfolio's investment in a single open-ended commingled fund shall not exceed twenty percent (20%) of the total net market value of the commingled fund at the time of the prospective investment. The Real Estate Portfolio's investment in a single closed-end commingled fund shall not exceed twenty percent (20%) of the total investor commitments to the fund at the time of closing of the commitment period of the prospective investment. LACERS shall not consider investments in a commingled fund that has less than $150 million in committed capital inclusive of LACERS pending commitment.

d) **Maximum Individual Separate Account Investment**

The Real Estate Portfolio's maximum investment in any single separate account investment shall be limited to a maximum of ten percent (10%) of the Real Estate Portfolio's total allocation to real estate at the time of the prospective separate account investment, unless otherwise approved by the Board.

The Real Estate Consultant and the Staff shall be responsible for reviewing separate account allocations and commingled fund terms to ensure they are consistent with or have incorporated the applicable restrictions previously described. Even though a prospective commingled fund or separate account allocation may be in compliance with the Real Estate Policy restrictions, the Real Estate Consultant shall complete reasonable due diligence with respect to each prospective investment to determine whether it is appropriate for recommendation to the Staff and the Board. The Real Estate Consultant may consider a number of factors in determining whether investments are reasonable and appropriate for institutional investors, including the following: the level of investment by institutional investors (e.g., pension funds, endowments, foundations, and sovereign funds); the size of the organization; the experience of key personnel; the track record of key personnel in investments comparable to the strategy to be undertaken; and the financial condition of the firm.

7. **Leverage**

Leverage is a significant risk factor, the importance of which is magnified during an economic downturn when decreasing property values and stricter lending terms can lead to unexpected increased leverage levels and decreased equity interests. The Real Estate Consultant shall set forth reasonable leverage targets given market conditions in the Annual Real Estate Strategic Plan. When making a new investment recommendation, the Real Estate Consultant shall consider the impact on the Portfolio’s leverage guidelines and targets at the time of the prospective investment.

Additionally, the Real Estate Consultant shall monitor the Real Estate Portfolio’s leverage to evaluate compliance with the above stated guidelines through the quarterly performance report.

8. **Specialized Investments**

LACERS has in the past, and as determined by the Staff, the Board, and the Real Estate Consultant, may continue to allocate to unique investment strategies and/or investment firms, as further described below.

a) **Unique Investment Strategies**

Unique investment strategies include those that have collateral benefit objectives, which include job creation, community development, green or environmental objectives (e.g., reduce the use of carbon based fuels), and underserved market initiatives (e.g., defined by geography such as urban or inner city and by demographics such as minority or lower income areas). While such strategies offer attractive benefits, the Real Estate Consultant shall focus its evaluation on whether the expected return projected for the investment is reasonable given the level of risk. To recommend such an investment to the Staff and the Board, the Real Estate Consultant needs to demonstrate that the expected risk and return of the prospective investment allocation is reasonable and consistent with that of a comparable real estate strategy not providing the same collateral benefits.

b) **Unique Managers**

Unique Managers include those that are Emerging Managers pursuant to the LACERS Emerging Investment Manager Policy. To recommend such an investment to the Staff and the Board, the Real Estate Consultant needs to demonstrate that the expected risk and return of the prospective investment allocation to the unique Manager is reasonable. In so doing, the Real Estate Consultant needs to evaluate comprehensively any factors of the unique Manager that may adversely affect investment performance and conclude that such factors are not likely to affect return performance materially and adversely.

A. **Investment Processes And Procedures**

1. **Real Estate Manager Selection Process**

Section 12 GLOSSARY

The following discussion describes the process by which LACERS selects Managers and investments.

a) **Universe of Potential Manager Candidates**

The Real Estate Consultant, pursuant to the Annual Real Estate Strategic Plan, will initiate a Manager search by creating a global list of potential candidates for selection based on the Staff and Real Estate Consultant's initial search criteria. The Real Estate Consultant shall provide information from its databases regarding the candidates to be reviewed with the Staff. The Staff will set forth any additional candidates to be considered. The Real Estate Consultant and the Staff will consolidate their lists to create a single list of potential candidates.

b) **Minimum Manager Qualifications**

The Manager requirements include that the Manager have $200 million of assets at a minimum under management and no less than three (3) years of real estate investment experience or a demonstrable track record of three (3) years of real estate investment experience.

c) **Manager Candidate Summaries**

The Real Estate Consultant shall complete a brief summary of the Manager candidates, including descriptions of their meeting Manager criteria established by the Real Estate Consultant and the Staff relating to the Managers' organization, track record, personnel, alignment of interests, terms and fees. The Real Estate Consultant will screen these summaries and recommend the finalists for further due diligence to the Staff.

d) **Due Diligence**

After the Staff and the Real Estate Consultant select the finalists, the Real Estate Consultant shall complete a comprehensive due diligence review. The comprehensive due diligence review includes an in-depth analysis of the firm's background, organization, personnel, strategy and other related factors. The Real Estate Consultant shall invite the Staff to participate in completing due diligence activities.

e) **Selection and Approval**

After completing the due diligence report, the Staff and Real Estate Consultant will recommend a candidate for consideration to the Board, which will make the final decision.

f) **Term Negotiation**

The Staff, Real Estate Consultant and the legal counsel will negotiate the Manager contract and propose a side letter if necessary. The final contract shall be executed by LACERS' General Manager or the appropriate party or parties authorized by the Board.

2. **Monitoring Process and Performance Measurement**

The Real Estate Consultant and the Staff, when available, will meet with managers on a periodic basis to determine the progress being made in the fund. These discussions may occur at annual investor meetings or in face-to-face or telephone meetings either at the Manager's or the Real Estate Consultant's offices.

Investment Managers will send financial reports and capital account statements on a regularly scheduled basis to the Real Estate Consultant and LACERS. Semi-annual Portfolio Performance Review Reports ("PPR") shall be prepared by the Real Estate Consultant and formally presented to the Board. The PPR is a comprehensive reporting and evaluation system addressing each investment. The PPR system shall provide such information as may be required by LACERS to understand and administer its investments and shall include attributes for both the Managers and the total portfolio. These attributes include: income, appreciation, gross and net returns for the portfolio and each manager, cash flow, internal rate of return calculations, diversification, comparisons to relevant industry performance indices, and information reporting standards.

G. **Benchmark Returns**

While no return objectives are stated by strategy, relative performance comparisons will be made to various indices to provide additional perspective on performance and/or facilitate attribution analysis. The return objectives are as follows:

LACERS' Real Estate Portfolio Benchmark Guideline	
Strategy	**Return Objectives Over Rolling 5-year Periods**
Core Real Estate	NFI-ODCE Index
Non-Core Real Estate	NFI-ODCE Index + 200 basis points
Timber	NCREIF Timberland Index, gross of fees

Portfolio Benchmark

With respect to private real estate investments, The Real Estate Consultant, the Staff and the Board shall use the NFI-ODCE plus 80 basis points over a rolling 5-year period as its benchmark.

H. **Roles and Responsibilities**

The following duties have been established to manage the risks involved with investing in real estate. Set forth below is the delegation of the major roles and responsibilities of each participant:

1. **Duties of the Board**

   a) Establish the role of the real estate investment program in light of the total System objectives.

b) Consider and act upon the allocation to real estate and approve any adjustments to the allocation which may from time to time be necessary.

c) Review, consider, and act upon the Annual Real Estate Policy (objectives, policies and procedures) and the Annual Real Estate Strategic Plan for the real estate program.

d) Interview, consider, and act upon the Staff recommendations for selection, retention and removal of the Managers and/or the Real Estate Consultant and the selection of Manager investments.

e) Review the real estate portfolio on a semi-annual basis to evaluate the investment performance and to ensure compliance with policy guidelines and approved Annual Real Estate Strategic Plan.

2. **Duties of the Staff**

a) Update and communicate with the Board and Investment Managers on issues and matters of the Policy.

b) Provide the Board with education and analysis that is independent from the Real Estate Consultant to the extent time and resources allow.

c) Be familiar with the asset class and stay informed of developments in industry as they occur.

d) Oversee the Real Estate Consultant's preparation of the Annual Real Estate Strategic Plan for the real estate program. Present and recommend, along with the Real Estate Consultant, the Real Estate Policy and Annual Real Estate Strategic Plan to the Board.

e) Oversee and review the performance of the Real Estate Consultant and the Managers on a periodic basis and discuss findings with the Board.

f) Bring any non-conforming items or significant issues to the attention of the Board.

g) Document and monitor funding procedures.

h) Complete any other activity as directed by the Board.

i) Conduct or assist in conducting due diligence on prospective investment opportunities as LACERS' resources permit.

j) Prepare investment documentation with the Real Estate Consultant.

3. **Duties of the Manager**

a) Adhere to reporting and performance measurement standards and comply with generally accepted accounting principles ("GAAP") applied on a fair market value basis.

b) Execute and perform its duties under the terms of the investment vehicle documents.

c) Provide timely requests for capital contributions.

d) Provide quarterly financial statements, annual reports and other investment information requested by the Staff and/or the Real Estate Consultant.

e) Conduct annual meetings to discuss important developments regarding investment and management issues.

4. **Duties of the Real Estate Consultant**

LACERS engaged the Real Estate Consultant on a non-discretionary basis to select new investments, to monitor existing investments, and to provide advice in accordance with the investment objectives for the real estate portfolio. The Real Estate Consultant's services to LACERS may include but are not limited to the following:

a) Report directly to the Board and Staff on matters of policy.

b) Bring any non-conforming items or significant issues to the attention of the Staff and the Board.

c) Complete due diligence on potential investments and preparation of the due diligence report.

d) Monitor the performance of the real estate portfolio and compliance with approved policy.

e) Prepare the Annual Real Estate Strategic Plan for the real estate program, in consultation with the Staff, and present the Annual Real Estate Strategic Plan to the Board for review.

f) Review proposed real estate investments and recommend prudent investments, structure and controls. Monitor investments and ventures through completion and disposition, including satisfaction of conditions to funding, partnership and financial issues.

g) Assist Staff with the review and preparation of documents related to new investments approved by the Board consistent with the Real Estate Consultant's recommendation.

h) Prepare reports on a periodic basis for the Board to evaluate investment performance and to ensure compliance with policy guidelines and approved Annual Real Estate Strategic Plan. The evaluation system shall provide such information as may be required by LACERS to understand and administer its investments.

i) Assist the Staff in the Annual Real Estate Strategic Plan portfolio review.

j) Provide Board and Staff with topical research and education on investment subjects that are relevant to LACERS.

k) Review the Real Estate Policy annually and notify LACERS if any revisions are needed thereto.

l) Monitor and report on risk.

m) Provide ongoing real estate education information and seminars to the Board.

Section 12 GLOSSARY

5. **Duties of Legal Counsel**

The legal counsel selected by LACERS along with the Office of the Los Angeles City Attorney will represent LACERS and will review all real estate related documents and provide advice for special investment situations as needed.

Section 5 PRIVATE EQUITY INVESTMENT POLICY

X. PRIVATE EQUITY INVESTMENT POLICY

A. Introduction

This Private Equity Investment Policy ("Private Equity Policy") sets forth guidelines that provide a general framework for selecting, building, and managing LACERS' investments in private equity, including corporate finance/buyout, special situations (including distressed debt, distressed turnaround and mezzanine strategies), venture capital and growth equity, co-investments, secondary market transactions, and other privately structured investments with the return and risk characteristics of private equity.

B. Investment Objectives

1. Return

On a relative basis, the return objective for the LACERS' private equity portfolio ("Private Equity Portfolio") is 300 bps over the Russell 3000 Index net of fees, expenses, and carried interest.

Returns are measured over the life of the partnership and become meaningful for periods past the J-Curve. The valuation methodology used by general partners should conform to industry and regulatory standards. Performance will be measured using standard industry metrics such as IRR (internal rate of return), TVPI (total value to paid in capital), and MOIC (multiple on invested capital.) Additionally, the IRR performance in the first few years of a partnership's life may be negative due to the J-curve effect.

2. Risk

Private equity investments are illiquid and have a long-term holding period. When invested alongside publicly traded assets, the asset class increases diversification and reduces risk at the System level. Nonetheless, LACERS expects that the Private Equity Consultant will take all appropriate measures to assume risks that are sufficiently compensated by expected return. Such measures include, but are not limited to, diversification (as detailed in Section X.D.3 below) and due diligence.

C. Scope

The Private Equity Consultant, with Staff concurrence, shall select new investments, monitor and advise on the sale of existing private equity investments, and provide recommendations and program advice in accordance with the Private Equity Policy. The Private Equity Policy establishes the framework for the management of the Private Equity Portfolio. The Private Equity Consultant will be evaluated annually as consultant and investment manager for the Private Equity Portfolio based upon the following factors: portfolio performance; quality of analytical and technical work; expertise in the private equity asset class; responsiveness to requests from the LACERS Board of Administration ("Board") and LACERS Investment Staff ("Staff"); availability to attend Board meetings and meetings with Staff with reasonable advance notice; consulting and advising on LACERS' portfolio, including information on

selected private equity related topics; identifying and mitigating risks; and proactively informing Staff of new investment opportunities or risks in the marketplace.

The Private Equity Consultant will evaluate and recommend investment transactions pursuant to the roles and responsibilities defined in Section X.F. With Staff concurrence on a recommendation from the Private Equity Consultant, LACERS may effect investments in new partnerships up to and including $50 million and for all follow-on partnerships up to and including $100 million. With Staff concurrence, recommended investments in excess of these amounts must be presented to the Board for approval. Non-U.S. dollar commitments to private equity partnerships shall be equal or less than the maximum U.S. dollar-equivalent limits as of the day Staff concurs with the Private Equity Consultant. However, non-U.S. dollar commitments to private equity partnerships may exceed the U.S. dollar currency equivalent maximum commitment limits after the date of Staff's concurrence due to foreign currency exchange rate fluctuations, and require no further Board approval.

D. **Investment Guidelines**

1. **Eligible Investments**

LACERS will invest in limited partnership interests of pooled vehicles as well as separate accounts, funds of one (or similar structures together with a limited number of other LPs), special purpose vehicles (SPVs), and other investment structures such as limited liability companies, investment trusts, separate accounts, and other corporate structures (unless otherwise stated in this Policy) covering the broad spectrum of private investments as follows:

a) Private equity partnerships – Investments in corporate finance/buyout, special situations, venture capital and growth equity, secondaries, and co-investment funds. Special situations is a broad investment strategy, which includes mezzanine and distressed debt partnerships, fund-of-funds (both direct and secondary), industry-focused, and multi-stage partnerships;

b) Direct co-investments – Investments made alongside general partners directly in underlying assets and securities, usually with discounted management fees and carried interest. Co-investments may be structured as securities held directly by LACERS ("direct co-investments") or as an interest in a vehicle managed by a General Partner that invests in such underlying assets and securities.

   Direct co-investments shall be made on the same or better terms as provided to the Limited Partnership that is investing in the same transaction.

   Co-investing can increase concentration risk because the company in which the limited partner is investing directly may also be a company held in a private equity fund in which the limited partner has also invested. Therefore, the Private Equity Consultant will monitor co-investments for concentration risk and recommend adjustments in the private equity portfolio as needed in order

to adequately manage such risk. The Private Equity Consultant will address concentration risk in the Annual Private Equity Strategic Plan.

It may be necessary for LACERS to incur due diligence costs, expenses (including legal counsel), and break-up fees on potential Co-investments. The estimated magnitude of these items shall be 1) reasonable and consistent with industry standards as determined by the Private Equity Consultant; and, 2) approved by the Chief Investment Officer in advance of any commitment.

c) Secondary market purchases – purchases of private equity related interests in which one or more of the original parties sells their ownership stake(s) or interests, as a single interest or a pool of interests. Such interests can take the form of: 1) Limited Partnership Interests; 2) Co-investments; 3) General Partner interests; 4) Separately Managed Accounts; 5) Direct Ownership of Portfolio Companies; or 6) a combination of the above.

   It may be necessary for LACERS to incur due diligence costs, expenses (including legal counsel and broker-dealers), and break-up fees on potential secondary transactions. The estimated magnitude of these items shall be 1) reasonable and consistent with industry standards as determined by the Private Equity Consultant; and, 2) approved by the Chief Investment Officer in advance of any commitment.

d) LACERS will also consider sales of partnership fund interests on the secondary market or to other limited partner(s) or potential buyer(s).

e) Other privately structured investments deemed appropriate within LACERS' risk profile as determined by the Private Equity Consultant.

2. **Limitation on Percent of Partnership's Total Commitment**

LACERS' commitment to any given partnership shall not exceed 20% of total commitments (by all limited partners and any other investors including the GP, excluding any co-investments) in that partnership. Any commitments in excess of this threshold will require pre-approval by the Board.

These limitations shall not apply to specially constructed partnerships (such as a fund of one or two); or separately managed accounts (SMAs) where LACERS is the sole limited partner.

3. **Diversification**

The Private Equity Consultant, on behalf of LACERS, will seek to appropriately diversify the Private Equity Portfolio in order to manage risk based on the following guidelines:

a) Up to 15% of the Private Equity Portfolio's total exposure (fair market value plus unfunded commitments) may be attributable to partnerships by the same manager at the time the commitment is made.

b) Up to 25% of the Private Equity Portfolio's total exposure (fair market value plus unfunded commitments) may consist of co-investments and secondary opportunities.

c) The Private Equity Consultant shall appropriately diversify the Portfolio across vintage years when possible.

d) The Private Equity Consultant shall appropriately diversify the Portfolio with respect to geographic distribution.

e) The Private Equity Consultant shall monitor Portfolio investments with respect to GICS industry sector exposure as compared to the Cambridge Associates US Private Equity Index with the understanding that industry sector exposure at an investment fund level will be managed at the discretion of the general partner.

f) Private Equity Sub-asset Classes

   (1) Assets committed to venture capital shall be appropriately diversified across the stages of venture capital (e.g., early-stage, mid-stage, late-stage, and growth equity).

   (2) Assets committed to corporate finance/buyouts shall be appropriately diversified by target company size (e.g., mega, large, mid, and small).

In addition to the diversification criteria listed above, LACERS' Board will adopt optimal sub-asset allocation targets, which will be updated pursuant to the Annual Private Equity Strategic Plan.

4. **Illiquidity**

Private equity investments are not designed to meet the short-term liquidity needs of LACERS. The investments in this asset class are illiquid until the general partner, subject to the provisions of the partnership agreement, decides to sell fund investments and distribute proceeds to limited partners.

5. **Distributions**

Staff is responsible for the final disposition of distributions from partnerships.

E. **Review of Investment Guidelines**

The Private Equity Consultant and Staff periodically will review the above private equity investment guidelines and recommend changes if necessary.

Section 5 PRIVATE EQUITY INVESTMENT POLICY

F. Roles and Responsibilities

	Role of the Board	Role of Staff	Role of the Private Equity Consultant
Strategy/Policy	• Select Private Equity Consultant. • Approve asset class funding level. • Review and approve the Private Equity Annual Strategic Plan which includes allocation targets and ranges.	• In consultation with Private Equity Consultant and General Fund Consultant, develop policies, procedures, guidelines, allocation targets, ranges, assumptions for recommendation to the Board.	• Help develop policies, procedures, guidelines, allocation targets, ranges, assumptions for recommendation to the Board.
Investment Management and Monitoring	• Review quarterly, annual, and other periodic monitoring reports and plans. • Review Commitment Notification Reports.	• Review quarterly, annual and other periodic monitoring reports prepared by the Private Equity Consultant. • Conduct meetings with existing managers periodically. • Attend annual partnership meetings when appropriate. • Fund capital calls and manage distributions. • Review Private Equity Consultant's recommendations on partnership amendments and consents. • Execute partnership amendments and consents. • Manage and approve the wind-down and/or dissolve private equity fund investment(s) with private equity consultant's concurrence. • Manage and execute the sale of partnership interest on the secondary market or to other limited partner(s) or potential buyer(s). • Prepare Commitment Notification Reports for Board.	• Maintain regular contact with existing managers in the portfolio to ascertain significant events within the portfolio. • Recommend amendments and consents to Staff for approval. • Provide quarterly, annual, and other periodic monitoring reports and plans.

Section 5 PRIVATE EQUITY INVESTMENT POLICY

	Role of the Board	Role of Staff	Role of the Private Equity Consultant
Investment Selection	• Review investment analysis reports. • Review and approve investments in new partnerships of amounts greater than $50 million prior to investment. • Review and approve investments in follow-on partnerships of amounts greater than $100 million prior to investment. • Review and approve direct co-investment opportunities that exceed $50 million. • Review and approve the sale of any one existing partnership fund on the secondary market exceeding $50 million in Fair Market Value. • Review and approve a simultaneous sale of multiple partnership fund interests in a packaged structure.	• Refer investments and forward to Private Equity Consultant for preliminary screening. • Conduct meetings with prospective or existing general partners representing new investment opportunities. • Conduct due diligence with general partners to better ascertain risk and return profile, as determined by the Chief Investment Officer. • In conjunction with Private Equity Consultant, invest up to and including $50 million for new partnerships, and up to and including $100 million for follow-on funds without Board approval. If Staff opposes and Private Equity Consultant disagrees, refer to Board for decision. • In conjunction with Private Equity Consultant, make recommendations to Board for approval for investments over $50 million in new partnerships, or over $100 million in follow-on funds. • In conjunction with Private Equity Consultant, review and concur with direct co-investment opportunities up to and including $50 million. • In conjunction with Private Equity Consultant, review and concur with the approval of sale of existing partnership funds on the secondary market up to and including $50 million in Fair Market Value. • General Manager or designee with signature authority will execute agreements and other legal or business documents to effectuate the transaction closing. • Ensure review of relevant fund documents by the City Attorney and/or external legal counsel.	• Conduct appropriate analysis and due diligence on investments. • Prepare investment reports for Board consideration on investments exceeding $50 million for new managers, or exceeding $100 million in follow-on funds. • With Staff concurrence, approve investments of up to and including $50 million for new partnerships, and up to and including $100 million in follow-on funds. • With Staff concurrence, approve direct co-investment opportunities up to and including $50 million. • Present to Staff recommendations pertaining to the sale of existing partnership funds on the secondary market exceeding $50 million in Fair Market Value. Such transactions shall be brought to the Board for review and approval. • Provide investment analysis reports for each new investment and for sales of partnership fund interest on the secondary market or to other limited partner(s) or potential buyer(s). • Communicate with Staff regarding potential investment opportunities undergoing analysis and due diligence. • Coordinate meetings with general partners at the request of Staff. • Advise on and negotiate investment terms.

XI. PRIVATE REAL ESTATE INVESTMENT POLICY

This Real Estate Investment Policy sets forth a general framework for managing LACERS' investments in real estate. This policy provides that the LACERS' real estate program shall be planned, implemented, and monitored through the coordinated efforts of the Board, the General Fund Consultant, Staff, the Real Estate Consultant, and the Investment Managers. Additionally, this policy is subject to the guidelines set forth by LACERS in the Ethical Contracting Compliance Policy and in the Third Party Marketing and Referrals Disclosure Policy, as amended from time to time by the Board, or as stated under applicable laws or regulations.

The Real Estate Consultant, along with Staff, shall prepare an Annual Real Estate Strategic Plan, as defined below, to be considered and acted upon by the Board that will address the specific goals and guidelines to be achieved and followed in the Real Estate Portfolio each year. The Annual Real Estate Strategic Plan shall be consistent with the guidelines set forth in this policy.

A. Real Estate

For purposes of this policy, real estate shall be defined to include investments that are private equity or debt positions in real property. Investments may be leveraged or unleveraged. As further set forth in this policy, LACERS will invest primarily in discretionary commingled funds (e.g., limited liability companies, real estate investment trusts, and limited partnerships) owned with other suitable institutional investors (e.g., pension funds, endowments, foundations, and sovereign funds). As further set forth in this policy, LACERS also may invest in real estate assets on a direct ownership basis through a discretionary separate account vehicle. Such investments will be evaluated on a case by case basis, but at a minimum, need to provide a compelling opportunity, which is consistent with the Real Estate Portfolio's investment objectives and overrides or outweighs the benefits of commingled fund investments.

B. Fiduciary Standards

The investment and management of the Real Estate Portfolio shall be accomplished in a manner consistent with the "prudent person" standard of fiduciary care. This level of care requires that all LACERS' fiduciaries act reasonably to accomplish the stated investment objectives and to safeguard the System on behalf of LACERS' participants and their beneficiaries. The implementation of this Real Estate Policy, including the selection of investment managers, shall be completed in a manner that enhances the Real Estate Portfolio's diversification, thereby reducing risk by limiting exposure to any one investment, manager, real estate property type, geographic region, or other defined risk factor.

C. Scope

This Real Estate Policy sets forth the objectives, policies, and processes and procedures related to the implementation and oversight of the Real Estate Portfolio. Specifically, the objectives outlined herein define the desired risk level and return expectations governing the Real Estate Portfolio; the policies provide guidelines governing investment styles to manage defined risk exposures within the asset class; the investment processes and procedures and roles and responsibilities describe the investment process and allocation of duties among the Board, Staff, the Managers, and the Real Estate Consultant.

LACERS has engaged the Real Estate Consultant on a non-discretionary basis to assist the Board and Staff to implement and revise this policy when necessary. The Real Estate Consultant's duties and responsibilities, which are further defined in Section XI.H include selecting Managers, including performing due diligence and recommending new investments; monitoring existing investments; and generally providing advice to Staff and the Board with respect to the Portfolio. The Real Estate Consultant shall conduct a review of this policy, in conjunction with the Board and Staff, at a minimum of once per year, and set forth any strategic and tactical recommendations in the Annual Real Estate Strategic Plan.

D. **Investment Objectives**

The main investment objective with respect to the Real Estate Portfolio is to maximize returns given the defined level of risk, as determined by the Board. While it is necessary to use active asset management strategies to maximize total investment returns (i.e., income and appreciation returns), investment principal is to be safeguarded within the Portfolio's framework of prudence and managed risk. Although real estate investments are illiquid and have a long-term holding period, investing in this asset class should improve the System's fund level risk-adjusted returns by enhancing overall diversification, which reduces total portfolio risk. Specifically, the objectives of LACERS with respect to the Real Estate Portfolio include the following:

1. **Attractive Risk-Adjusted Returns**

   To obtain superior risk-adjusted returns by taking advantage of the inefficiencies of real estate as compared to other asset classes. Active management, value creation and opportunistic strategies, as well as the prudent use of third-party debt, are approved methods for generating expected returns. As discussed in Section XI.G below, the benchmarks for the Portfolio will be the NFI-ODCE Index plus 80 basis points.

2. **Increased Portfolio Diversification/Reduced Portfolio Risk**

   To use real estate to enhance overall diversification and, in turn, reduce overall risk of the System's assets, given the historically low to negative return correlations that exist between real estate and other asset classes.

3. **International Investments**

   To access international real estate markets through private equity and debt real estate investments. By so doing, the Real Estate Portfolio will obtain exposure to diverse economies, populations, and currencies.

4. **Significant Current Cash Yields**

   To invest in real estate assets, which will generate a significant cash return based primarily on current rental income. In general, as a portion of total investment return, higher levels of current income are expected from core and value than opportunistic investments; in contrast, higher levels of appreciation are expected from opportunistic than value add and core investments.

5. **Inflation-Hedge**

To make investments primarily in real estate equity investments that are likely to provide a reasonable hedge against price inflation.

6. **Preservation of Principal**

To achieve meaningful risk-adjusted returns without undue exposure to loss of investment principal.

E. **Investment Guidelines**

LACERS shall establish a long-term target allocation to real estate (the “Target Allocation”). The Target Allocation will fluctuate according to the relative values among the Real Estate Portfolio and the allocations to other asset classes of LACERS. To accomplish and maintain the Target Allocation, the Real Estate Consultant may recommend committing in excess of the Target Allocation percentage in order to meet full allocation objectives. The Real Estate Portfolio allocation percentage actually achieved quarterly may vary from the Target Allocation within a reasonable range as determined by the Board and Staff from time to time.

Eligible real estate funds will range from core open-end funds to opportunistic closed-end funds, and may also include separate investment accounts with selected fund managers; however, the Real Estate Portfolio will be comprised primarily of commingled fund vehicles. Separate accounts represent opportunities wherein LACERS would be the sole or significant equity sponsor for an investment manager pursuing a specifically targeted opportunity or defined strategy. As the sole or significant equity sponsor, LACERS would likely be entitled to voting and control rights generally not available to commingled fund investors.

The following investment guidelines set forth investment parameters consistent with the risk and return objectives of the Real Estate Portfolio.

1. **Portfolio Composition – Risk Strategy Mix**

The Real Estate Portfolio shall be comprised of two different but complementary risk/return categories or risk strategies. These categories or risk strategies are referred to as core and non-core, as defined below. These categories or risk strategies generally define the risk and return levels as low, medium, and high risk associated with institutional real estate investments.

a) **Core and Core Plus**

Core

Equity investment in operating and substantially-leased (i.e., at least at market occupancy levels) institutional quality real estate in the traditional property types (i.e., apartment, office, retail, industrial, and hotel). Core investments may also include high-quality, non-traditional property types (i.e. student housing, medical office, and self-storage) that produce stable income with low risk. Assets are located in significant metropolitan markets with reasonable population sizes and economies. Net returns historically have been in the 6% to 9% range (net of fees) with annual standard deviation near 8.0%. Of note, core investments typically feature current income as a large portion of overall return (i.e., up to 70%), and appreciation that generally matches or exceeds inflation. Low leverage is utilized (i.e., 50% or less on a portfolio basis). Core debt investments include first mortgage loans secured by the previously defined core equity real estate assets. Such mortgage loans are either newly originated or are existing but performing loans with reasonable borrowers (e.g., credit), reasonable terms (e.g., loan to value of less than 50% and debt service coverage of 1.25 or greater) and institutional-quality management (e.g., an institutional investment manager with reasonable experience and track record in managing first mortgage loan investments). During periods of market illiquidity, core equity investments can provide high going-in income returns and provide a reasonable inflation-hedge so long as markets are not over-supplied.

Core Plus

Core Plus investments typically will target a higher leverage ratio (around 50% on a loan-to-value basis) and allocate slightly more to non-operating real estate investments, around 20%.

b) **Non-Core**

Value Add

Value add investments are functional, high quality assets with specific property issues, such as high vacancy, significant upcoming lease expirations, or below market rents. These are debt or equity investments that typically require rehabilitation, redevelopment, development, lease-up, and/or repositioning. Levered returns historically have been in the 10% to 14% range (net of fees). Value add investments also typically feature both current income and appreciation as components of overall return, and frequently involve the repositioning of distressed assets (i.e., not fully leased and operating) and potentially the purchase of interests in real estate operating companies (“REOCs”). Value add investments typically are expected to generate above-core returns through the leasing-up of a property, which increases the end value by increasing in-place income and, in many cases, ultimately decreasing the capitalization rate upon disposition. Value add investments are typically more dependent on appreciation returns than core investments, with purchase prices based on in-place income or asset replacement cost (i.e., at a discount to replacement cost). During periods of market illiquidity, value equity investments can provide high going-in income returns and pricing at significant discounts to replacement costs. During periods of market liquidity, value equity investments include new development projects (i.e., acquire land, obtain entitlements, construct building and lease or sell), which require significant expertise and underwriting. Moderate leverage is utilized for these investments (i.e., targeting 50% to 65% on a portfolio basis).

Opportunistic

Equity or debt investment in real estate properties, operating companies, and other investment vehicles involving significant investment risk, including real estate, financial restructuring, and non-real estate risk. Levered returns have been 15% or higher (net of fees) with significant annual standard deviation. Opportunistic investing includes distressed assets, financial restructurings, and/or financial engineering opportunities (e.g., foreclosing on a mortgage and selling the equity interest) and potentially the purchase of REOCs. Opportunistic investments typically have even greater appreciation potential than value add investments (e.g., 50% of total returns); correspondingly, these investments offer a higher return potential and a higher risk profile than core or value add investments. In many cases, since appreciation is the primary goal of opportunistic investing, many are originated with little if any in-place income and therefore less current income as a portion of total return. These investments historically have experienced higher return performance during periods of market illiquidity (e.g., early 1990's in the U.S.). Higher leverage is used (i.e., up to 80% with some funds).

Core and core plus and non-core exposure targets shall be evaluated at a minimum of once per year and set forth in an Annual Real Estate Strategic Plan and approved by the Board. When making investment recommendations, the Real Estate Consultant shall evaluate the impact of the prospective investment on the Real Estate Portfolio's risk/return exposures based on the existing portfolio net asset value.

2. **Risk Mitigation**

a) **Leverage**

Leverage is a significant risk factor that shall have exposure guidelines and monitoring requirements, as set forth in Section XI.E.7 of this Real Estate Policy.

b) **Diversification**

Diversification is an important tool in reducing real estate portfolio risk and accomplishing superior risk-adjusted returns. The Real Estate Portfolio shall be diversified by risk factors which can be reduced through diversification (e.g., geographic region and property type). Diversification reduces the impact on the portfolio of any one investment or any single investment manager to the extent that an adversity affecting any one particular area will not impact a disproportionate share of the total portfolio.

It is expected that at various points in time, the Real Estate Portfolio may have a significant exposure to a single property type or location to take advantage of opportunities available in the market which are projected to generate superior returns. When making investment recommendations, the Real Estate Consultant shall consider as part of its investment recommendation the impact on Real Estate Portfolio diversification and risk and return. As part of the Annual Real Estate Strategic Plan, the Real Estate Consultant shall provide annually, or more frequently when market conditions require, the risk factor (e.g., property type and region) ranges which it believes provide reasonable diversification given the expected market conditions. The following describe the various diversification guidelines that will be utilized.

Property Type

Diversification policy ranges are based on the universe of available real estate investments, institutional investor portfolio information, and industry indices' diversification. Property type portfolio exposure levels have had a significant impact on institutional investor returns since property types have performed differently during economic cycles.

Real estate investments may include investments other than the traditional property types, such as healthcare facilities, manufactured housing, infrastructure, timber and farmland. The Real Estate Consultant shall include a section in each Annual Real Estate Strategic Plan, reviewing the Real Estate Portfolio's property-type exposures and investment objectives relating thereto.

Geographic Region

Diversification policy ranges are based on the universe of available real estate investments, institutional investor portfolio information and industry indices' diversification. The importance of location to the long-term value of real estate is based on local economic fundamentals and the other risk attributes (e.g., weather, earthquake and local government impact) of regional areas.

The Real Estate Consultant shall include in each Annual Real Estate Strategic Plan investment guidelines and targets related to the Real Estate Portfolio's allocation to geographic regions.

3. **Investment Life Cycle**

Investment life cycle refers to the stage of development of a real estate investment. The stages of development include the following: (1) land or pre-development (i.e., un-entitled or partially entitled land); (2) development/redevelopment (i.e., in process of entitling or constructing improvements); (3) leasing (i.e., less than full or market occupancy); and (4) operating (i.e., greater than market occupancy). As a result of the risks associated with development, at no time shall the Real Estate Portfolio have an exposure exceeding 30% to total non-operating investments (i.e., the total of pre-development/land, development/redevelopment and leasing). Also, the Real Estate Consultant shall monitor the Real Estate Portfolio's exposure to different life cycles through the quarterly performance report, which shall indicate the Real Estate Portfolio's non-operating investment exposure and whether a non-compliance issue exists.

4. **Permissible Investment Structures/Vehicles and Private Allocations**

The Real Estate Portfolio may include private real estate equity and debt investments. Private equity real estate investments may include any investment made in equity interests in real estate assets (i.e., land and assets deriving most of their income return from rents paid by tenants subject to lease agreements) or companies through private placements, including REOCs and Real Estate Investment Trusts ("REITs"). Typical property types include the following: office, retail, rental apartments, for sale residential, industrial and hotel. Private debt investments may include structured investments, which provide for stated preferred returns, which may be accrued or paid on a current basis. Private debt investments may also include loans secured by senior or junior mortgage or deed of trust agreements.

5. **Investment Vehicles**

Investment vehicle exposure ranges shall be used to mitigate portfolio risk including enhancing portfolio liquidity. The following discussion provides a summary of the advantages and disadvantages of the investment vehicles, which shall be used in developing the Real Estate Portfolio.

a) **Open-End Commingled Funds**

The open-end fund investments shall be made primarily to provide (1) reasonable property type and geographic diversification, (2) exposure to larger properties (i.e., over $50 million) or certain countries, and (3) reasonable liquidity (i.e., ability to redeem within 90 days). The Real Estate Consultant shall complete reasonable due diligence in evaluating open-end commingled funds consistent with this policy. Open-end commingled fund vehicles may include, but are not limited to, insurance company separate accounts, group trusts, limited liability companies, single purpose corporations or any other vehicle that is determined by the Real Estate Consultant to be consistent with the Real Estate Policy.

b) **Closed-End Commingled Funds**

The closed-end fund investments shall be made primarily to obtain exposure to reasonably diversified portfolios of value add and opportunistic investments. The primary advantages of closed-end funds are that they provide access to talented management teams with focused niche value add and opportunistic strategies. Also, management teams typically co-invest and rely on incentive fees, which combined enhance the alignment of investor and manager interests. The Real Estate Consultant shall complete reasonable due diligence in selecting closed-end fund investments. Co-investment by the manager of a fund or by investors in the fund is acceptable providing: (1) the co-investor(s) have similar investment objectives regarding risk/return exposures and holding periods, (2) control and voting rights with respect to investment decisions are deemed reasonable, and (3) reasonable buy/sell or other agreements exist to allow for the resolution of investor disagreements. Closed-end funds typically have terms of no less than seven years and are therefore illiquid.

c) **Separate Account Vehicles**

Separate accounts may be used to make private equity/debt investments. Separate accounts offer the primary advantage of control over the manager, the strategy, the asset investment and sales decisions, and the capital. The Real Estate Consultant shall complete reasonable due diligence in selecting the Managers for direct investment separate accounts.

Direct Investments

LACERS may make direct equity/debt investments using separate account vehicles; however, such investments require careful consideration. Transaction costs and management expenses are high and there may be a significant time commitment by the Staff. Separate account direct investments shall be made only when the opportunity is compelling, as determined by the Staff, the Real Estate Consultant, and the Board. To be compelling, a direct investment needs to: (1) be in compliance with this Real Estate Policy; (2) be consistent with the strategic needs of LACERS, as set forth in the Annual Real Estate Strategic Plan; and (3) present an investment opportunity that provides benefits to LACERS that outweigh or override those provided by commingled funds, as previously described. The Real Estate Consultant shall assist the Staff with any direct investments by recommending a Manager and by completing an independent report, which summarizes and evaluates the manager due diligence completed. The report shall include a summary of findings and conclusions and shall be retained by the Staff on file for review.

Direct investments shall also include any private REOC investments. These include full or joint venture ownership of an operating company, which may be used to acquire a single asset, to implement a niche investment strategy or to serve another purpose as defined by the Real Estate Consultant and approved by the Staff and the Board.

Each direct investment strategy, fee structure and level of investment discretion shall be defined by the Real Estate Consultant and approved by the Staff and the Board. The Manager shall complete an annual budget review, as defined by the Real Estate Consultant, and a hold/sell analysis, for each direct investment. Since the sale or refinancing of a direct investment interest is required to return invested capital, such investments are considered illiquid.

6. **Manager/Investment Concentration**

LACERS shall limit its exposure to any single Manager or investment, and be subject to other investment restrictions to reduce risk, as further defined below.

a) **Maximum Manager Allocation**

No single manager (including any allocation to pooled funds and/or separate accounts) shall be allocated more than thirty percent (30%) of the Real Estate Portfolio's total allocation at the time of the prospective investment commitment. The allocation amount calculation shall include all of the Real Estate Portfolio's investment commitments remaining to the Manager plus the net asset value of the existing investments at the time of measurement or at the time of a prospective investment allocation.

b) **Maximum Investment Commitment**

The Real Estate Portfolio's maximum investment commitment to a non-core commingled fund or a separate account Manager shall be limited to fifteen percent (15%) of the Real Estate Portfolio's allocation to real estate at the time of the prospective investment commitment.

c) **Commingled Fund Guidelines**

The Real Estate Portfolio's investment in a single open-ended commingled fund shall not exceed twenty percent (20%) of the total net market value of the commingled fund at the time of the prospective investment. The Real Estate Portfolio's investment in a single closed-end commingled fund shall not exceed twenty percent (20%) of the total investor commitments to the fund at the time of closing of the commitment period of the prospective investment. LACERS shall not consider investments in a commingled fund that has less than $150 million in committed capital inclusive of LACERS pending commitment.

d) **Maximum Individual Separate Account Investment**

The Real Estate Portfolio's maximum investment in any single separate account investment shall be limited to a maximum of ten percent (10%) of the Real Estate

Portfolio's total allocation to real estate at the time of the prospective separate account investment, unless otherwise approved by the Board.

The Real Estate Consultant and the Staff shall be responsible for reviewing separate account allocations and commingled fund terms to ensure they are consistent with or have incorporated the applicable restrictions previously described. Even though a prospective commingled fund or separate account allocation may be in compliance with the Real Estate Policy restrictions, the Real Estate Consultant shall complete reasonable due diligence with respect to each prospective investment to determine whether it is appropriate for recommendation to the Staff and the Board. The Real Estate Consultant may consider a number of factors in determining whether investments are reasonable and appropriate for institutional investors, including the following: the level of investment by institutional investors (e.g., pension funds, endowments, foundations, and sovereign funds); the size of the organization; the experience of key personnel; the track record of key personnel in investments comparable to the strategy to be undertaken; and the financial condition of the firm.

7. **Leverage**

Leverage is a significant risk factor, the importance of which is magnified during an economic downturn when decreasing property values and stricter lending terms can lead to unexpected increased leverage levels and decreased equity interests. The Real Estate Consultant shall set forth reasonable leverage targets given market conditions in the Annual Real Estate Strategic Plan. When making a new investment recommendation, the Real Estate Consultant shall consider the impact on the Portfolio's leverage guidelines and targets at the time of the prospective investment.

Additionally, the Real Estate Consultant shall monitor the Real Estate Portfolio's leverage to evaluate compliance with the above stated guidelines through the quarterly performance report.

8. **Specialized Investments**

LACERS has in the past, and as determined by the Staff, the Board, and the Real Estate Consultant, may continue to allocate to unique investment strategies and/or investment firms, as further described below.

a) **Unique Investment Strategies**

Unique investment strategies include those that have collateral benefit objectives, which include job creation, community development, green or environmental objectives (e.g., reduce the use of carbon based fuels), and underserved market initiatives (e.g., defined by geography such as urban or inner city and by demographics such as minority or lower income areas). While such strategies offer attractive benefits, the Real Estate Consultant shall focus its evaluation on whether the expected return projected for the investment is reasonable given the level of risk. To recommend such an investment to the Staff and the Board, the Real Estate Consultant needs to demonstrate that the expected risk and return of the prospective investment allocation is reasonable and consistent with that of a comparable real estate strategy not providing the same collateral benefits.

b) **Unique Managers**

Unique Managers include those that are Emerging Managers pursuant to the LACERS Emerging Investment Manager Policy. To recommend such an investment to the Staff and the Board, the Real Estate Consultant needs to demonstrate that the expected risk and return of the prospective investment allocation to the unique Manager is reasonable. In so doing, the Real Estate Consultant needs to evaluate comprehensively any factors of the unique Manager that may adversely affect investment performance and conclude that such factors are not likely to affect return performance materially and adversely.

G. **Investment Processes And Procedures**

1. **Real Estate Manager Selection Process**

The following discussion describes the process by which LACERS selects Managers and investments.

a) **Universe of Potential Manager Candidates**

The Real Estate Consultant, pursuant to the Annual Real Estate Strategic Plan, will initiate a Manager search by creating a global list of potential candidates for selection based on the Staff and Real Estate Consultant's initial search criteria. The Real Estate Consultant shall provide information from its databases regarding the candidates to be reviewed with the Staff. The Staff will set forth any additional candidates to be considered. The Real Estate Consultant and the Staff will consolidate their lists to create a single list of potential candidates.

b) **Minimum Manager Qualifications**

The Manager requirements include that the Manager have $200 million of assets at a minimum under management and no less than three (3) years of real estate investment experience or a demonstrable track record of three (3) years of real estate investment experience.

c) **Manager Candidate Summaries**

The Real Estate Consultant shall complete a brief summary of the Manager candidates, including descriptions of their meeting Manager criteria established by the Real Estate Consultant and the Staff relating to the Managers' organization, track record, personnel, alignment of interests, terms and fees. The Real Estate

Consultant will screen these summaries and recommend the finalists for further due diligence to the Staff.

d) **Due Diligence**

After the Staff and the Real Estate Consultant select the finalists, the Real Estate Consultant shall complete a comprehensive due diligence review. The comprehensive due diligence review includes an in-depth analysis of the firm's background, organization, personnel, strategy and other related factors. The Real Estate Consultant shall invite the Staff to participate in completing due diligence activities.

e) **Selection and Approval**

After completing the due diligence report, the Staff and Real Estate Consultant will recommend a candidate for consideration to the Board, which will make the final decision.

f) **Term Negotiation**

The Staff, Real Estate Consultant and the legal counsel will negotiate the Manager contract and propose a side letter if necessary. The final contract shall be executed by LACERS' General Manager or the appropriate party or parties authorized by the Board.

2. **Monitoring Process and Performance Measurement**

The Real Estate Consultant and the Staff, when available, will meet with managers on a periodic basis to determine the progress being made in the fund. These discussions may occur at annual investor meetings or in face-to-face or telephone meetings either at the Manager's or the Real Estate Consultant's offices.

Investment Managers will send financial reports and capital account statements on a regularly scheduled basis to the Real Estate Consultant and LACERS. Quarterly Portfolio Performance Review Reports ("PPR") shall be prepared by the Real Estate Consultant. The PPR is a comprehensive reporting and evaluation system addressing each investment. The PPR system shall provide such information as may be required by LACERS to understand and administer its investments and shall include attributes for both the Managers and the total portfolio. These attributes include: income, appreciation, gross and net returns for the portfolio and each manager, cash flow, internal rate of return calculations, diversification, comparisons to relevant industry performance indices, and information reporting standards.

G. **Benchmark Returns**

While no return objectives are stated by strategy, relative performance comparisons will be made to various indices to provide additional perspective on performance and/or facilitate attribution analysis. The return objectives are as follows:

LACERS' Real Estate Portfolio Benchmark Guideline	
Strategy	**Return Objectives Over Rolling 5-year Periods**
Core Real Estate	NFI-ODCE Index
Non-Core Real Estate	NFI-ODCE Index + 200 basis points
Timber	NCREIF Timberland Index, gross of fees

Portfolio Benchmark

With respect to private real estate investments, The Real Estate Consultant, the Staff and the Board shall use the NFI-ODCE plus 80 basis points over a rolling 5-year period as its benchmark.

H. **Roles and Responsibilities**

The following duties have been established to manage the risks involved with investing in real estate. Set forth below is the delegation of the major roles and responsibilities of each participant:

1. **Duties of the Board**

   a) Establish the role of the real estate investment program in light of the total System objectives.

   b) Consider and act upon the allocation to real estate and approve any adjustments to the allocation which may from time to time be necessary.

   c) Review, consider, and act upon the Annual Real Estate Policy (objectives, policies and procedures) and the Annual Real Estate Strategic Plan for the real estate program.

   d) Interview, consider, and act upon the Staff recommendations for selection, retention and removal of the Managers and/or the Real Estate Consultant and the selection of Manager investments.

   e) Review the real estate portfolio on a quarterly basis to evaluate the investment performance and to ensure compliance with policy guidelines and approved Annual Real Estate Strategic Plan.

2. **Duties of the Staff**

   a) Update and communicate with the Board and Investment Managers on issues and matters of the Policy.

b) Provide the Board with education and analysis that is independent from the Real Estate Consultant to the extent time and resources allow.

c) Be familiar with the asset class and stay informed of developments in industry as they occur.

d) Oversee the Real Estate Consultant's preparation of the Annual Real Estate Strategic Plan for the real estate program. Present and recommend, along with the Real Estate Consultant, the Real Estate Policy and Annual Real Estate Strategic Plan to the Board.

e) Oversee and review the performance of the Real Estate Consultant and the Managers on a periodic basis and discuss findings with the Board.

f) Bring any non-conforming items or significant issues to the attention of the Board.

g) Document and monitor funding procedures.

h) Complete any other activity as directed by the Board.

i) Conduct or assist in conducting due diligence on prospective investment opportunities as LACERS' resources permit.

j) Prepare investment documentation with the Real Estate Consultant.

3. **Duties of the Manager**

a) Adhere to reporting and performance measurement standards and comply with generally accepted accounting principles ("GAAP") applied on a fair market value basis.

b) Execute and perform its duties under the terms of the investment vehicle documents.

c) Provide timely requests for capital contributions.

d) Provide quarterly financial statements, annual reports and other investment information requested by the Staff and/or the Real Estate Consultant.

e) Conduct annual meetings to discuss important developments regarding investment and management issues.

4. **Duties of the Real Estate Consultant**

LACERS engaged the Real Estate Consultant on a non-discretionary basis to select new investments, to monitor existing investments, and to provide advice in accordance with the investment objectives for the real estate portfolio. The Real Estate Consultant's services to LACERS may include but are not limited to the following:

a) Report directly to the Board and Staff on matters of policy.

b) Bring any non-conforming items or significant issues to the attention of the Staff and the Board.

c) Complete due diligence on potential investments and preparation of the due diligence report.

d) Monitor the performance of the real estate portfolio and compliance with approved policy.

e) Prepare the Annual Real Estate Strategic Plan for the real estate program, in consultation with the Staff, and present the Annual Real Estate Strategic Plan to the Board for review.

f) Review proposed real estate investments and recommend prudent investments, structure and controls. Monitor investments and ventures through completion and disposition, including satisfaction of conditions to funding, partnership and financial issues.

g) Assist Staff with the review and preparation of documents related to new investments approved by the Board consistent with the Real Estate Consultant's recommendation.

h) Prepare reports on a periodic basis for the Board to evaluate investment performance and to ensure compliance with policy guidelines and approved Annual Real Estate Strategic Plan. The evaluation system shall provide such information as may be required by LACERS to understand and administer its investments.

i) Assist the Staff in the Annual Real Estate Strategic Plan portfolio review.

j) Provide Board and Staff with topical research and education on investment subjects that are relevant to LACERS.

k) Review the Real Estate Policy annually and notify LACERS if any revisions are needed thereto.

l) Monitor and report on risk.

m) Provide ongoing real estate education information and seminars to the Board.

5. **Duties of Legal Counsel**

The legal counsel selected by LACERS along with the Office of the Los Angeles City Attorney will represent LACERS and will review all real estate related documents and provide advice for special investment situations as needed.

REPORT TO INVESTMENT COMMITTEE **MEETING: MARCH 8, 2022**
From: Neil M. Guglielmo, General Manager **ITEM: VII**

SUBJECT: **PRESENTATION ON COMPARISON BETWEEN REBALANCING POLICY AND ADAPTIVE ASSET ALLOCATION POLICY**

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

Recommendation

That the Committee receive and file this report on the comparison between the LACERS Rebalancing Policy and Adaptive Asset Allocation Plan Policy.

Executive Summary

Pursuant to a request from the Investment Committee, this report discusses the difference between routine rebalancing under the LACERS Rebalancing Policy (RP) versus rebalancing under the Adaptive Asset Allocation Plan Policy (AAAP).

Routine rebalancing is a mechanical process that realigns the portfolio to Board-approved asset allocation policy targets; staff conducts a routine rebalancing when an upper or lower threshold band of an asset class or sub-asset class is breached. In comparison, AAAP rebalancing provides staff discretion to rebalance the portfolio prior to a breach of an upper or lower threshold band and position the portfolio according to expected market conditions or internal operational factors, subject to the objectives and guidelines of the AAAP.

Discussion

Routine Rebalancing Under the LACERS Rebalancing Policy

The Board has adopted asset allocation policy targets for the LACERS portfolio to achieve long-term risk-return objectives. The actual market values of asset and sub-asset classes within the portfolio will rarely be aligned exactly with the policy targets due to market movements. Routine rebalancing serves to realign the portfolio with policy targets, but rebalancing too frequently may result in excessive transaction costs that deteriorate the total value of the portfolio. Therefore, the Board has also adopted upper and lower threshold bands around the policy targets to establish an acceptable range within which asset or sub-asset class market values may fluctuate; these bands help maintain the expected risk-return profile of the portfolio while minimizing rebalancing transactions costs.

The LACERS Rebalancing Policy states that rebalancing will generally occur when the market values of asset classes or sub-asset classes *exceed* their respective thresholds. This rebalancing process is mechanical in nature; once a threshold is breached, staff with concurrence of the general fund consultant, initiates a rebalancing process to realign the portfolio with policy targets.

Routine Rebalancing Example

To illustrate routine rebalancing, consider a hypothetical portfolio with a target asset allocation of 60.00% to stocks and 40.00% to bonds and ±5.00% threshold bands for both asset classes. The total portfolio has an initial value of $10.00 billion with $6.00 billion in stocks and $4.00 billion in bonds. After one year, stocks have returned 25.00%, while bonds have returned close to zero. As a result, stocks have increased in value to $7.50 billion and bonds remain at a value of $4.00 billion, resulting in a portfolio with the following characteristics:

Table 1: Portfolio out of compliance with Rebalancing Policy

Asset Class	Market Value $bln	Actual Asset Allocation	Target Asset Allocation	Lower Band	Upper Band	Is Asset Class Market Value within Bands?
Stocks	7.50	65.22%	60.00%	55.00%	65.00%	No, breaches upper band by 0.22%
Bonds	4.00	34.78%	40.00%	35.00%	45.00%	No, breaches lower band by 0.22%
Total	11.50	100.00%	100.00%			

As highlighted in Table 1 above, the actual allocation to stocks has increased from 60.00% to 65.22%, breaching the upper band of 65.00% by 0.22%. Accordingly, the actual allocation to bonds has decreased from 40.00% to 34.78%, breaching the lower band of 35.00% by 0.22%. Pursuant to the Rebalancing Policy, staff, with concurrence from the general fund consultant, would initiate a rebalance to align the asset classes with the policy targets of 60.00% stocks and 40.00% bonds by moving $600 million from stocks to bonds. Assuming a one percent transaction fee of $6 million on the rebalancing of $600 million worth of securities, a net amount of $594 million would be reallocated to bonds, resulting in a portfolio aligned with policy targets:

Table 2: Portfolio restored to be in compliance with Rebalancing Policy

Asset Class	Market Value $bln	Actual Asset Allocation	Target Asset Allocation	Lower Band	Upper Band	Is Asset Class Market Value within Bands?
Stocks	6.90	60.00%	60.00%	55.00%	65.00%	Yes
Bonds	4.59	40.00%	40.00%	35.00%	45.00%	Yes
Total	11.49	100.00%	100.00%			

Rebalancing Under the Adaptive Asset Allocation Plan

Under the standard rebalancing policy, staff may only initiate a rebalancing *after* an asset class or sub-asset class has breached its upper or lower threshold band. The AAAP provides staff flexibility to rebalance *before* an asset class breaches a threshold band in order to "adapt" the portfolio to expected market conditions or other internal operational factors. Such a rebalancing must achieve at least one of the following objectives: 1) Enhance Total Fund value; 2) Protect Total Fund value; or 3) Enhance the risk/return profile of the Total Fund pursuant to the Asset Allocation Policy and Risk Budget.

Various external and internal factors may warrant an AAAP rebalance including (but not limited to) stage of the economic cycle; abrupt or trending markets or market dislocations; excessive under-valuations of specific or broad asset types; and internal operational factors such as pending investment manager hirings or terminations. Under the AAAP, staff may adjust exposures to asset and sub-asset classes, including adjusting exposures away from long-term policy targets (i.e., overweighting or underweighting policy targets), subject to maintaining asset and sub-asset class allocations within the established threshold bands and risk budgets. Other conditions as described in sections V and VI of the AAAP (refer to attachment) must also be met in order for staff to conduct an AAAP rebalancing.

To ensure that staff implements an AAAP rebalancing within a prudent risk management framework, staff may only initiate an AAAP rebalancing when an asset class exceeds 70.00% of the range from its policy target to its established upper or lower band. The amount of funds that staff may move in an AAAP rebalance may not exceed 50.00% of the excess valuation that is over- or under-weight to a policy target. These guardrails have been established to minimize the negative impact AAAP rebalancing may have on total porfolio value should staff's expectations of market conditions and/or internal operational factors ultimately prove to be inaccurate.

AAAP Rebalancing Example

Consider again a hypothetical portfolio with a target asset allocation of 60.00% to stocks and 40.00% to bonds, a ±5.00% threshold range for both asset classes, and an initial total portfolio value of $10.00 billion. The initial asset class values are $6.00 billion for stocks and $4.00 billion for bonds. After one year, stocks have returned 16.67% while bonds have returned close to zero, resulting in a portfolio with the following characteristics:

Table 3: Portfolio in compliance with Rebalancing Policy

Asset Class	Market Value $bln	Actual Asset Allocation	Target Asset Allocation	Lower Band	Upper Band	Asset Class within Target Range?
Stocks	7.00	63.64%	60.00%	55.00%	65.00%	Yes
Bonds	4.00	36.36%	40.00%	35.00%	45.00%	Yes
Total	11.00	100.00%	100.00%			

While the asset classes are within the threshold bands (as depicted in Table 3), consider a scenario where market volatility is heightened and concerns of a bear market in stocks are mounting. Under this scenario, staff may want to protect portfolio value by realizing some stock gains and reallocating the funds to bonds. Under the standard rebalancing policy, no action may be taken as both asset classes are still within the target ranges and neither asset class has breached a threshold band. However, staff may consider an AAAP rebalancing because the allocation to stocks has exceeded 70.00% of the range from the target allocation of 60.00% to the upper band of 65.00% as highlighted in the following table:

Table 4: Portfolio triggering a possible rebalance under AAAP Policy

Asset Class	Market Value $bln	Actual Asset Allocation	Target Asset Allocation	Lower Band	Upper Band	70% of Range to Lower Band[1]	70% of Range to Upper Band[2]	Asset Class exceeds 70% of Range to Band?
Stocks	7.00	63.64%	60.00%	55.00%	65.00%	56.50%	63.50%	Yes
Bonds	4.00	36.36%	40.00%	35.00%	45.00%	36.50%	43.50%	No
Total	11.00	100.00%	100.00%					

[1]AAAP lower threshold formula: Target allocation - 70%*(Target Allocation – Lower Band)
[2]AAAP upper threshold formula: Target allocation + 70%*(Upper Band – Target Allocation)

After conducting an analysis to justify the AAAP rebalance and seeking the general fund consultant's concurrence, staff initiates an AAAP rebalance in order to reduce stock exposure and increase bond exposure. Pursuant to the AAAP, staff may rebalance up to 50.00% of the excess valuation that is above the stock policy target of 60.00%. In this case, stocks have an actual allocation of 63.64% and are overweight by 3.64%; staff may rebalance 1.82% of the portfolio, or approximately $200 million from stocks to bonds. Assuming a one percent transaction fee of $2 million on the rebalancing of $200 million worth of securities, a net amount of $198 million is reallocated to bonds, resulting in a portfolio with the following characteristics:

Table 5: Portfolio in compliance with Rebalancing Policy using AAAP rebalancing

Asset Class	Market Value $bln	Actual Asset Allocation	Target Asset Allocation	Lower Band	Upper Band	Asset Class within Target Range?
Stocks	6.80	61.82%	60.00%	55.00%	65.00%	Yes
Bonds	4.20	38.18%	40.00%	35.00%	45.00%	Yes
Total	11.00	100.00%	100.00%			

Should staff's forecast of market conditions be accurate, approximately $200 million of gains would have been protected against stock market losses. Conversely, had staff's forecast been inaccurate and stocks increased in value, then opportunity costs on $200 million would have been incurred. Nonetheless, the portfolio would continue to be in compliance with the Asset Allocation Policy and positioned to meet long-term risk-return objectives.

Strategic Plan Impact Statement

The AAAP assists the Board with optimizing LACERS' long-term risk-adjusted return profile (Goal IV) and promotes good governance practices (Goal V).

Prepared By: James Wang, Investment Officer I, Investment Division

NMG/RJ/BF/JW:jp

Attachment: 1. LACERS Rebalancing Policy and Adaptive Asset Allocation Plan

D. Proxy Voting

Proxy voting rights will be managed with the same care, skill, diligence, and prudence as is exercised in managing other assets. Proxy voting rights will be exercised in the sole interest of the System's members and beneficiaries in accordance with all applicable statutes consistent with the Board Proxy Voting Policy, which is found in Section XIV of this policy statement.

E. Securities Lending

The Board has authorized the execution of a "Securities Lending Program," which may be managed by the Board's custodian or delegated to a third-party provider. The Board will monitor and review the program. This program is described in the Securities Lending Policy (Section XV of this document) and in the Securities Lending Agreement of the securities lending provider. The initial collateral levels will not be less than 102% of the market value of the borrowed securities, or not less than 105% if the borrowed securities and collateral are denominated in different currencies. Marking to market is performed every business day, and the borrower is required to deliver additional collateral when necessary. Stringent cash and non-cash collateral guidelines specify eligible investments, credit quality standards, and diversification, maturity and liquidity requirements.

F. Derivatives

The Board's investment managers may be permitted, under the terms of individual investment guidelines, to use derivative instruments as set forth in each manager's investment guidelines to control portfolio risk. Derivatives are contracts or securities whose returns are derived from the movement of the pricing of other securities. The returns are to be consistent with the manager's mandate from the returns of other securities, indices, or allowable derivative instruments that include, but are not limited to, futures and forwards. Examples of appropriate applications of derivative strategies include hedging interest rates and currency risks, maintaining exposure to a desired asset class while effecting asset allocation changes, and adjusting portfolio duration for fixed income. In no circumstances can managers borrow funds to purchase derivatives. Managers must ascertain and carefully monitor the creditworthiness of any counterparties involved in derivative transactions.

G. Rebalancing

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

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

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

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

Asset classes temporarily may remain outside of their ranges due to operational and implementation circumstances to include, but not limited to, illiquidity that prevents immediate rebalancing of certain asset classes such as private equity and private real estate; potential asset shifts pending in the portfolio over the next 12 months such as hiring/termination of a manager(s); an asset allocation review of the entire portfolio; or a structural review of a given asset class.

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

H. Adaptive Asset Allocation Plan

TABLE OF CONTENTS

Section 1 INVESTMENT POLICY

I. Purpose and Scope

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

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

On October 26, 2021, the Board approved renaming TAA to Adaptive Asset Allocation (AAA) and the TAAP to the Adaptive Asset Allocation Plan (AAAP).

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

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

II. Roles and Responsibilities

The Board of Administration

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

Investment Committee

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

Chief Investment Officer

The Chief Investment Officer (CIO) is responsible for the implementation of an Adaptive Asset Allocation rebalancing pursuant to the AAAP. The CIO will review recommendations from staff and the General Fund Consultant to determine if an Adaptive Rebalance is appropriate. The CIO is also responsible for unwinding any previously-initiated Adaptive

Actions as may be necessary. The CIO along with staff is responsible for observing economic and market indicators, assessing internal operational conditions, and working with the General Fund Consultant (and seeking advisement of other Investment Consultants under contract as may be necessary) to seek concurrence with an Adaptive Action Proposal. The CIO will apprise the Board within 30 days of initiating an Adaptive Rebalance.

General Fund Consultant

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

Internal Auditor

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

III. Terminology

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

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

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

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

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

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

IV. Adaptive Asset Allocation Considerations

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

V. Implementation

Implementation of an Adaptive Action will comply with the following procedures, as they may apply:

1. External Landscape Evaluation – Economic market outlook, including economic indicators, monetary and fiscal policies, geo-political events, Federal Reserve Bank actions, interest rates, inflation, etc.
2. Internal Operational Evaluation – Actual asset allocation of the Total Fund compared to policy targets, asset class movements and trends, portfolio valuations, operational cash, future, pending, or existing RFP manager searches and hiring of investment managers, pending investment manager terminations, market and economic landscape commentary or information from investment managers, and compliance with existing Investment Policy
3. General Fund Consultant Discussion and Concurrence (and discussion with other contracted Investment Consultants as warranted)
4. Written Adaptive Rebalance Proposal should include the following decision considerations (as appropriate):
    a. External Landscape and Internal Operational Evaluations;
    b. Projected Impact on Asset Allocation and Asset Classes;
    c. Projected Impact on Total Fund addressing Adaptive Objectives:
        i. Enhancement to Total Fund Value; and/or
        ii. Protection of Total Fund Value; and/or
        iii. Enhanced Risk/Return Profile and Compliance to Risk Budget
    d. Projected Quantitative Outcomes including measurable Performance and Risk Metric improvements and Capital Preservation amounts;
    e. Financial Considerations - Funds directly impacted by an Adaptive Rebalance; Proposed Implementation Timing and Transactional Costs; Benchmark to evaluate performance; Monitoring Schedule
    f. Adaptive Reversal (Partial or Full) as needed
5. Implementation of Adaptive Action pursuant to the written Adaptive Rebalance Proposal and AAAP Risk Management Guidelines.
6. Report to the Board within 30 days of initiating a Adaptive Rebalance
7. Quarterly Status Reporting of Adaptive Rebalancing implementation

8. Internal Monthly Rebalancing and Compliance Staff Reviews per the Rebalancing Policy (Section I.V.G of the LACERS Investment Policy)
9. Annual Investment Committee Review of AAAP based on CIO Report as provided in Section VII of this plan
10. Annual Board Renewal, Modification, or Repeal of AAAP based on Investment Committee Report as provided in Section VII of this plan

VI. Risk Management Guidelines

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

1. An Adaptive Rebalance may be initiated when the actual market value weighting of an asset class exceeds 70% of the range from its target weighting to its established bands.
2. An Adaptive Rebalance Proposal shall not exceed 50% of the excess valuation that is over- or under-weight to its policy target at the time the decision to rebalance is made.
3. An Adaptive Rebalance should be completed within 12-24 months of initiation, except in the case of a partial or full reversal of the original Adaptive Rebalance, which may extend the Adaptive Rebalance up to an additional 12 months.
4. An Adaptive Rebalance may be suspended after the first Adaptive Action is completed if such single Adaptive Action or subsequent Adaptive Actions achieves the Adaptive Objective(s) within the Adaptive Rebalance Proposal pursuant to an Adaptive Rebalancing Proposal.
5. An Adaptive Rebalance Proposal may be modified or suspended by the CIO upon the concurrence of the General Fund Consultant if market conditions or other external landscape factors change or strategic asset class rebalances are necessary that disrupt the orderly implementation of the Adaptive Rebalance Proposal, or when internal operations such as liquidity needs would have a material impact on the Adaptive Rebalance Proposal such that the Adaptive Objectives are no longer achievable within the established Adaptive Rebalance Proposal timeframe due to material changes in the original market assumptions, operational factors, or risk levels.
6. A specific Adaptive Rebalance should not be initiated if it will cause another asset class to breach its regular Asset Allocation policy upper or lower rebalance threshold.
7. The General Fund Consultant must concur with the Adaptive Rebalance Proposal prior to initiation.

VII. Annual Review of the AAAP

Annual AAAP Review by the Investment Committee

The CIO will prepare an annual report of all Adaptive Rebalance Proposals that were initiated in the current fiscal year, the current status of Adaptive Rebalances and Adaptive

Actions, and the projected and actual impact of the Adaptive Rebalance(s) including (but not restricted to) performance, capital preservation, and/or risk factors. Staff may also include recommendations to modify, continue or cease the AAAP. The Annual AAAP Review will be presented to the Investment Committee no later than the month of April of each year.

The Investment Committee will determine if the AAAP requires any modifications including repeal. The Investment Committee recommendations will be then sent to the Board of Administration for approval.

Annual AAAP Approval or Repeal by the Board of Administration

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

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

VIII. APPENDIX

External Landscape and Internal Operational Considerations

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

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

   Early to Mid-Cycle Stage Phase - During the early and mid-cycle phases, equities have the potential to outperform. AAA may attempt to take advantage of expansion stages by shifting exposure to public equities and reducing exposures to core fixed income assets.

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

II. *Market Stages Consideration*

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

During the mid-cycle period of the economic cycle, the economy generally experiences expansion in GDP, credit growth, profit margins, and consumer confidence. Interest rates and inflation are typically stable during this period. Stocks tend to recover to levels in-line with long term average valuations.

In the late-cycle period of the economic cycle, the economy typically experiences moderation in GDP growth, profit margins, and credit expansion. Consumer confidence is high and both interest rates and inflation are on the rise. Stocks trade at the higher band of long term averages while volatility tends to be higher than the earlier parts of the cycle.

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

III. *Assessment of Market Conditions*

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

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

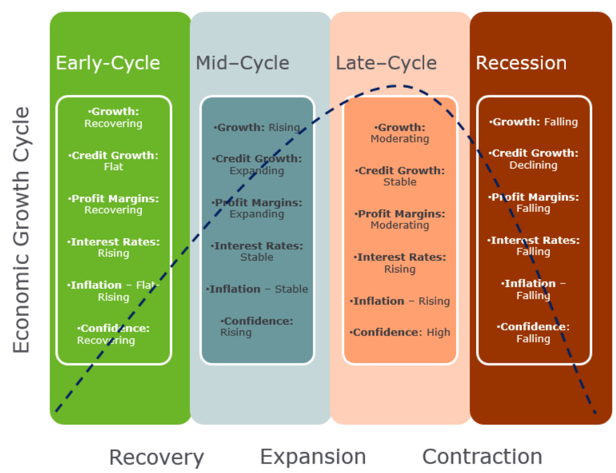


*chart provided by NEPC, LLC

IV. *Economic and Market Risk Assessment*

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

- Growth: Year-over-year growth in GDP
- Credit Growth: Year-over-year growth in total credit
- Profit Margins: Corporate profit margins
- Interest Rates: Short, Long, Yield Curve
- Inflation: Consumer Price Index
- Confidence Levels: Consumer Sentiment Index

- Additional factors such as commodity and currency trends, unemployment statistics, building permits, sales, and manufacturing statistics.

V. *Asset Valuations*

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

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

VI. *Internal Operational Considerations*

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

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

I. **Evaluation of Policy**

The Investment Policy Statement shall be reviewed by the Board at least annually, with the assistance of the Staff and investment consultant(s), and revised as necessary.

VI. GENERAL INVESTMENT OBJECTIVES AND GUIDELINES

The general investment objective is to outperform the overall policy portfolio benchmark. The overall policy portfolio benchmark consists of weighted asset class benchmarks for each asset class as determined by the Board. The long term policy benchmarks are listed below:

Asset Class	Benchmark
Domestic Equity	Russell 3000
Non-U.S. Equity	MSCI ACWI ex-U.S.
Fixed Income	Bloomberg BC U.S. Aggregate
Credit Opportunities	15% Bloomberg BC U.S. High Yield Capped + 45% Credit Suisse Leveraged Loans Index + 20% J.P. Morgan EMBI-GD + 20% J.P. Morgan GBI EM-GD
Private Equity	Russell 3000 + 300 bps
Private Real Estate	NFI-ODCE + 80 bps
Public Real Assets	U.S. Consumer Price Index + 5%
Cash	90-Day Treasury Bill

REPORT TO INVESTMENT COMMITTEE
From: Neil M. Guglielmo, General Manager

MEETING: MARCH 8, 2022
ITEM: VIII

SUBJECT: **INVESTMENT DIVISION RESOURCE NEEDS FOR FISCAL YEAR 2022-23**

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

Recommendation

That the Committee consider and advise.

Executive Summary

This report provides an overview of the Investment Division's (Division) key workload indicators, a discussion of current Investment Programs, and a resource plan for meeting current and future workload capacity. Since 2012, LACERS has experienced overall growth of its assets under management (AUM), greater investment strategy complexity, growth of its private market investments, and increased number of mandates in the non-U.S. public equities asset class. New initiatives include signatory status under Principles for Responsible Investment (PRI), an expanded Environmental, Social, and Governance (ESG) Program, stronger efforts in the Emerging Managers (EM) Program, and additional work around Diversity, Equity & Inclusion (DEI). The Division currently retains 10 professional staff and two support staff. In recognition of these expanded programs and initiatives, staff solicits feedback of the Committee regarding the Division's investment activities and workload, and its support of the Division's budget request for FY2022-23.

Discussion

Staff will provide an overview of the Division's organization, staff responsibilities, recent accomplishments, initiatives and enhancement programs, Investment Program (Program) growth, workload metrics, and a plan to address operational staffing needs to properly manage the investment portfolio including its asset allocation policy, multiple asset classes and investment managers; and to ensure that the Investment Policy, current investment strategies, and future investment approaches are appropriate to maintain a disciplined investment process that strives to achieve established performance objectives within a risk management framework.

Organization and Responsibilities: The Investment Division is under the leadership of the Chief Investment Officer who provides management oversight to two distinct but complementary investment groups to include the Public Markets Unit and the Private Markets Unit; each unit is managed by an

Investment Officer III. An expanded and detailed description of the Division organization, job classifications, and program and responsibilities are presented in Table 1:

Table 1- Organizational Structure and Responsibilities

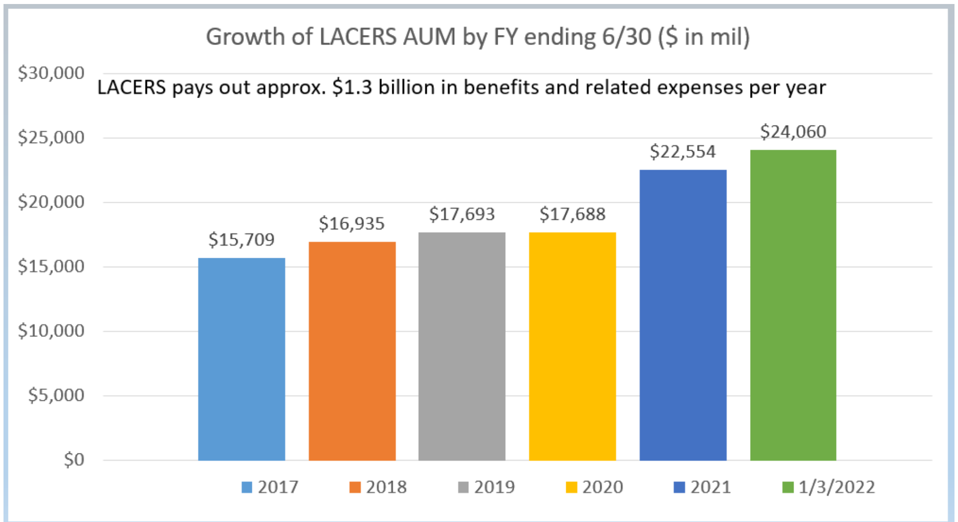
Position	Program & Major Responsibilities Oversight
Investment Program Chief Investment Officer	Investment Policy, Strategy, Oversight of Investment Units, Emerging Manager Program, Assisting the Investment Committee
Public Markets Unit: Investment Officer III	Oversight of U.S. & Non-U.S. Public Equities, Fixed Income, Real Assets, Cash, Rebalancing, ESG, Performance Reporting, Risk Management, General Investment Consultant, Bank Custodian
Investment Officer II	U.S. Public Equities, Public Real Assets, Brokerage, Emerging Manager Symposium
Investment Officer I	Non-U.S. Public Equities, PRI/ESG
Investment Officer I	Asset Allocation, Risk Management, Rebalancing, Research
Investment Officer I	Fixed Income, Credit Opportunities, Cash, Sec. Lending, Special Projects
Management Analyst	Division-wide Investment Support and Reporting
Senior Administrative Clerk	Division-wide Clerical, Office & Administrative Support
Private Markets Unit: Investment Officer III	Oversight of Private Equity, Private Real Estate, Private Credit, Private Equity and Private Real Estate Consultants
Investment Officer II	Private Real Estate, Private Equity, Private Credit
Investment Officer II	Private Real Estate, Private Equity, Private Credit
Investment Officer I	Private Real Estate, Private Equity, Private Credit

Accomplishments: The list below provides a sample of major assignments and initiatives since 2019 that have distinguished the Division's ability to fulfill Program goals and objectives:

1. Earned a 29.1% NOF, June 30, 2021
2. AUM of $23.8 billion ending Dec 31, 2021
3. Asset Allocation Study (2021)
4. COVID – Securities Lending De-Risking, TALF Program, Rebalancing Suspension (2020)
5. PRI Signatory, PRI Action Plan, ESG Risk Framework, RI Policy (2019-2021)
6. PRI Annual Report – Completed in April 2021
7. Amendments to Private Equity Policy, Emerging Manager Policy
8. Six manager searches – Hired nine new managers (2020-21)
9. Committed $1.2 billion to 29 Private Equity Funds; $224 million to six Real Estate Funds (2021)
10. Hired three Private Credit Managers (2020-21)
11. Held its first Emerging Manager Symposium (October 2021)
12. YouTube videos: Asset Allocation and Emerging Managers (2020-21)
13. Summer 2021 intern from Girls Who Invest
14. Continued Remote Working Environment

The Division is unique in that work production is not driven by achieving unit-based objectives but rather the fulfillment of comprehensive and broad program goals and achieving performance objectives as articulated in the Investment Policy Manual to include (but not limited to): developing recommendations for Board and Investment Committee consideration, launching investment manager and vendor searches, conducting due diligence, monitoring investment manager performance and risk profiles, transitioning assets, terminating managers, taking meetings with prospective managers, developing status and performance reports, supporting special projects like the Emerging Manager Symposium, and conducting research. As a result, staffing resources have grown as asset size has grown over time (Table 2).

Table 2 – AUM Growth



It is important to note that the Program complexity has also increased over time, particularly between the years of 2010 (Table 3) and 2021 (Table 4), in recognition of a more fragmented and challenging market landscape. As a result, the Program now includes more non-U.S. strategies, creation of Credit Opportunities and Real Assets asset classes, an expansion of the Private Equity Program and policy target (2021), and recently approved exposures to Private Credit (2018 and 2021).

Table 3 – Asset Class Structure - 2010

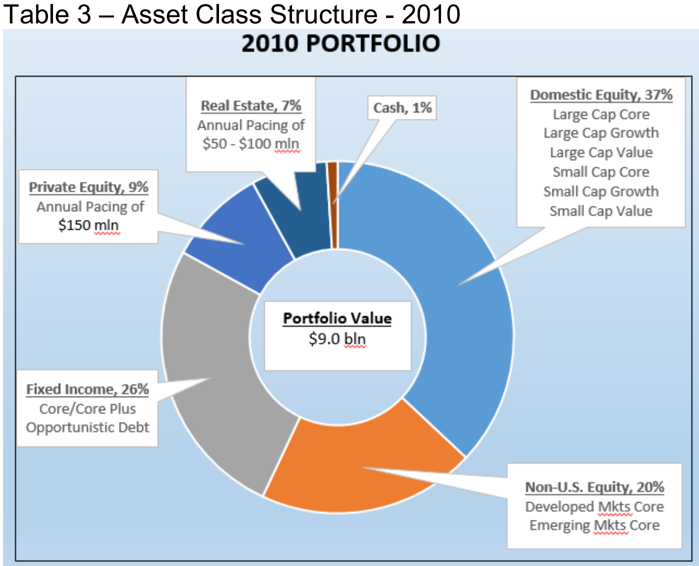
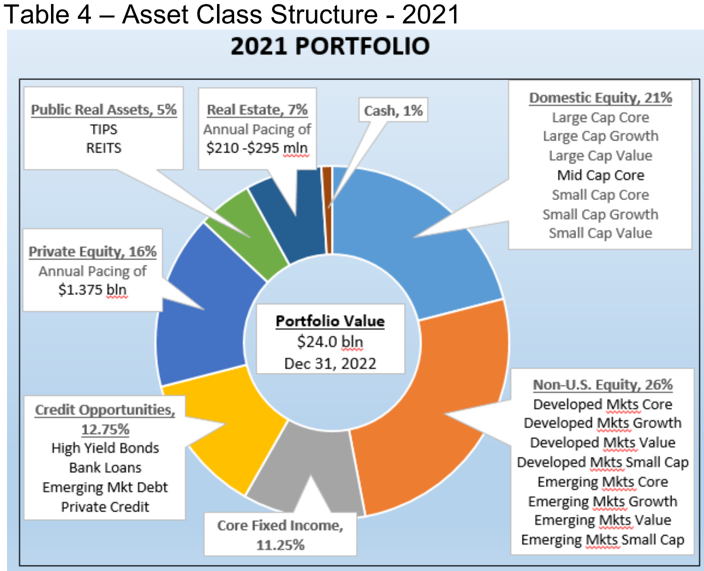


Table 4 – Asset Class Structure - 2021



Beyond portfolio structure complexity, LACERS has launched several new initiatives and exerted greater effort into its existing Emerging Manager (EM) Program. The first initiative is LACERS efforts in ESG, which took on new importance with LACERS being accepted as a PRI signatory in September 2019. As a signatory, LACERS is responsible for abiding by six principles as provided here:

Principle 1: Incorporate ESG issues into investment analysis and decision-making processes.
Principle 2: Be active owners and incorporate ESG issues into ownership policies and practices.
Principle 3: Seek appropriate disclosure on ESG issues by the entities in which we invest.
Principle 4: Promote acceptance and implementation of the Principles within the investment industry.
Principle 5: Work together to enhance our effectiveness in implementing the Principles.
Principle 6: Report on our activities and progress towards implementing the Principles.

In order to achieve material progress towards ESG integration under PRI, staff embarked on the development of a PRI Action Plan. This time-bound annual plan serves as an operational framework for LACERS to ensure implementation of ESG within the PRI principles framework. Further, LACERS Board approved its ESG Risk Framework in April 2021 that provides the Board and staff an approach for understanding and managing ESG risk factors. LACERS' Board also approved a Responsible Investment Policy in January 2022, to address ESG risk factors including a step-by-step process for addressing ESG risk factors and possible Program impact and consequences if various ESG risk actions are taken. Staff continues to monitor ESG situations across all of its investments; investments with material ESG issues can take a significant amount of staff time to properly address.

Also connected to ESG is the expansion of the EM Program. Staff has spent considerable time and energy improving and enhancing its EM Program by recommending and receiving approval of several modifications to the EM Policy to increase the inclusivity of emerging managers who might meet the qualification criteria with an ultimate goal of generating alpha on a risk-adjusted basis. Staff also produced an educational YouTube video targeted to EMs that explains LACERS EM investment process and how to participate in LACERS manager searches. Staff continues to review and evaluate the relevance and inclusivity of its EM Program in order to meet the capital deployment objectives outlined in the EM Policy.

Finally, a recent but equally important initiative is support of Diversity, Equity & Inclusion (DEI). Staff is evaluating DEI implementation both internally with respect to its recruitment practices and externally with regards to its stable of investment managers and vendors; LACERS wants to know how investment partners are integrating DEI within their respective organizations. To support DEI, investment staff developed and received approval of an Organization Diversity Survey (ODS) that gathers organizational diversity information at the board, senior staff, and rank-and-file levels from prospective investment managers and vendors in order for LACERS to better understand how to improve staff outreach to underrepresented populations and groups during the procurement process.

Despite the emphasis on large-scale projects and complex investment assignments, staff tracks and monitors various levels of operational activities that in many respects reflect a growing workload throughout Division structure (Table 5). Management anticipates this trend to continue due to the implementation of more complex investment strategies, new program initiatives, higher policy targets recently approved in 2021 to Private Equity (16% from 14%) and Private Credit (5.75% from 3.75%), growth of LACERS AUM, and continued exploration and research of alpha generating strategies.

Table 5 – Investment Division workload metrics

	CY 2019	CY 2020	CY 2021	Total
Capital Calls	449	544	564	1557
Stock Distributions	25	42	99	166
Private Market Legal Amendments	n/a	70	63	133
Private Real Estate Fund Commitmen	3	3	6	12
Private Equity Fund Commitments	19	20	29	68
CPRA Requests	70	48	32	150
PRI Annual Report (Hours)			195	195
ESG Projects (Hours)[1]			456	456
Manager Meetings[2]	849	993	est. 1000	est. 2842
EM Meetings	47	74	129	250
EM Conferences[3]	9	11	7	27
EM Symposium (Hours)			461	461

[1]Excludes the PRI Annual Report and EM Symposium.

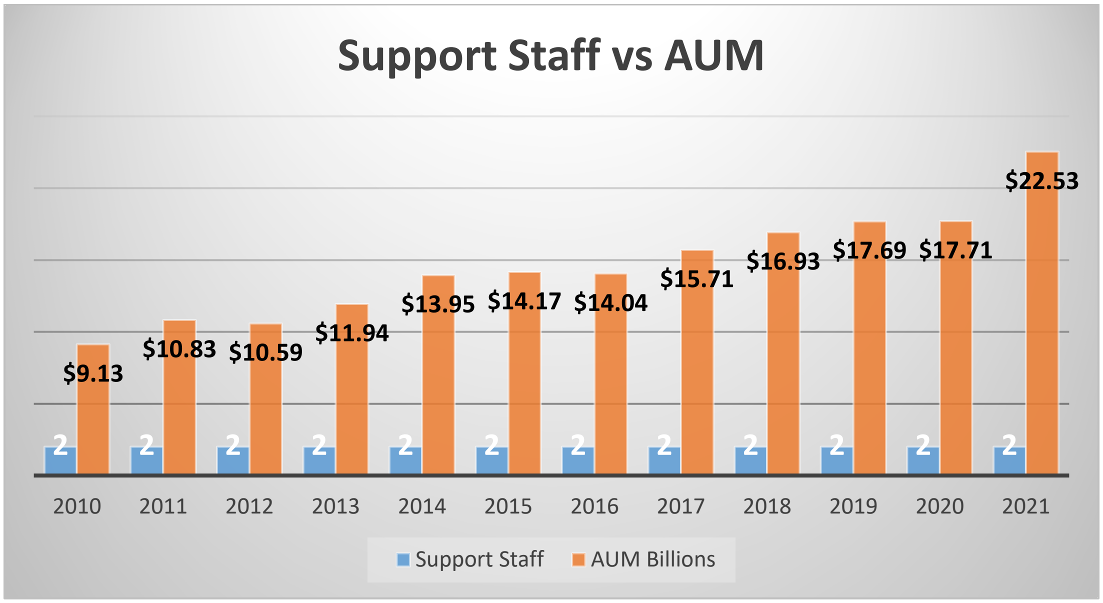
[2]Includes EM Meetings.

[3]Excludes the EM Symposium.

It is important to note that implementation of its expanding Private Market Investment Program requires considerably more staff time compared to public market investments due to a large number of private market investments consummated each year (approximately 30). Each private market opportunity commitment requires sourcing, discussions with investment consultants, a deep review of each opportunity, occasional on-site due diligence by LACERS staff, an outside counsel legal review, document execution, account set-up, and initial capital funding. Later during the life of the investment, there are on-going calls for capital, partnership amendments and consents, and due diligence including attending annual meetings to better understand the fund strategy, portfolio investments, performance, deal sourcing, liquidations/realizations, and building relationships with individual members of the general partner.

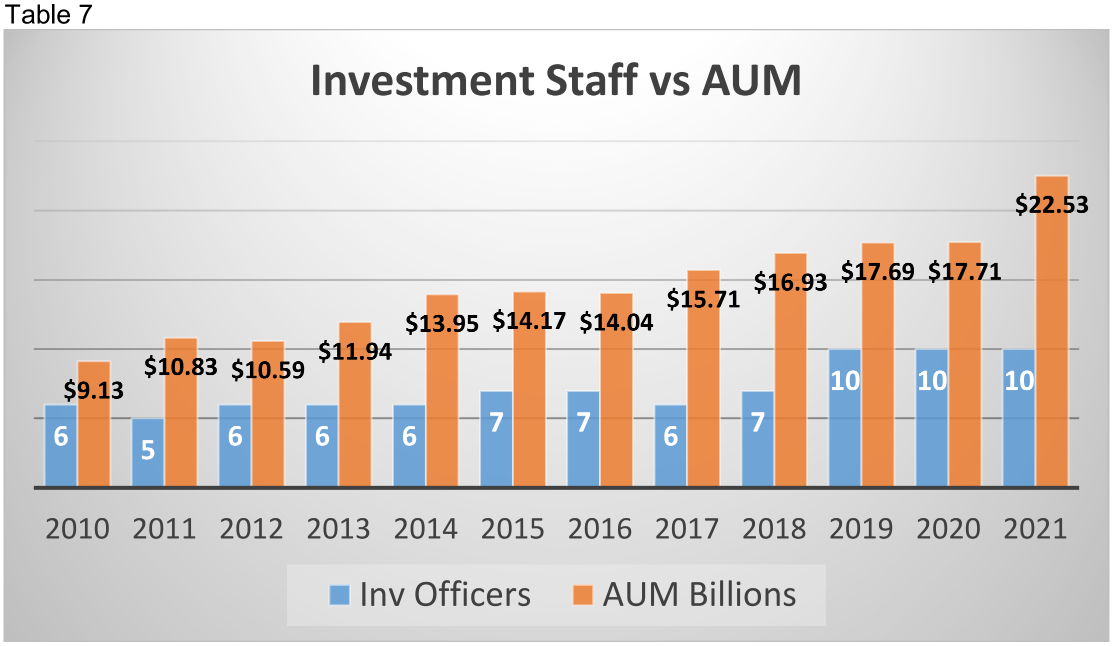
Staffing: Despite growth of LACERS AUM, support staff (Management Analyst and Senior Administrative Clerk) has not increased for well over 11 years (Table 6). During the past 11 years, there has been significant growth in clerical and management analyst work including (but not limited to) processing of capital calls, stock distributions, development of detailed reports, input into databases, updates of management tracking logs, and extraction of performance and accounting data due to increases in AUM and a greater number of investment mandates.

Table 6



Likewise, professional investment staff relative to AUM has not kept pace since 2010 (Table 7) given the added Credit Opportunities and Real Assets asset classes, increases in asset class mandates, and ESG, EM, and DEI initiatives. Lack of staff puts a strain on the Division's capacity to complete quality work product in a timely manner. Delays in work production hamper the achievement of investment goals and objectives, which in turn could put the LACERS Investment Program in a perilous risk situation. Accordingly, the Investment Division respectfully requests approval of one Administrative Clerk in FY2022-23 and approval of one Investment Officer II in FY2023-24.

Table 7



Justification of Administrative Clerk: This position would support the entire division with an emphasis and priority to support the clerical needs of Private Markets Unit, support of the ESG Risk Officer (including the ESG Program, DEI Initiatives, and Emerging Manager Program), and serve as a back up to the Senior Administrative Clerk. As mentioned, the presence and emphasis on ESG has increased since becoming a PRI signatory plus the increase of the Private Equity policy target rising to 16% from 14%. This situation has led to a greater number of capital calls, stock distributions, setting up new accounts with the bank custodian, registering LACERS on the general partner's data portal to download documents and notices, and assisting Investment Officers in processing consents and partnership amendments, and contracting processing. This position would also assist in processing time-sensitive CPRA requests and updates on the LACERS website, and support the Division's succession plan.

Justification of Investment Officer II: This position is contemplated to manage the ESG and EM Programs, the relevant investment portion of DEI efforts, and coordination of the Girls Who Invest (GWI) internship and Investment Management Fellowship Program (IMFP). Due to the dynamic and complex investment initiatives and programs that this position would oversee, the Investment Division requests that an Investment Officer II be approved in order to recognize the caliber of investment professional and long-term program consistency needed for this unique and specialized position. The Division currently has a total of seven Investment Officer I's and II's, and because the Investment Program is between Asset Allocation studies, which often generates an increased workload (the next one being in 2024), this position is being requested in FY2023-24.

Prepared By: Rod June, Chief Investment Officer

NMG/RJ/BF/WL:jp

Attachment: Investment Division Resource Needs Budget Presentation FY 2022-23

Budget Request for FY 2022-23

Investment Division

Rod June, Chief Investment Officer
Bryan Fujita, Investment Officer III & Chief Operating Officer
Wilkin Ly, Investment Officer III & Director of Private Market Assets

Investment Division Budget Vision

Maintain and Improve an
Industry Best-Practices Investment Program
managed by Professional Staff
to achieve LACERS financial goals and objectives

Core Responsibilities

Subject to Board direction and Policy:

1. Develop Asset Allocation; generate risk-adjusted returns
2. Draft Policies and Guidelines
3. Present investment performance
4. Manage investment managers, consultants, vendors, custodian
5. Ensure compliance with Policy; update Board on findings and status
6. Conduct research and studies
7. Administer Investment Program in a cost-effective manner

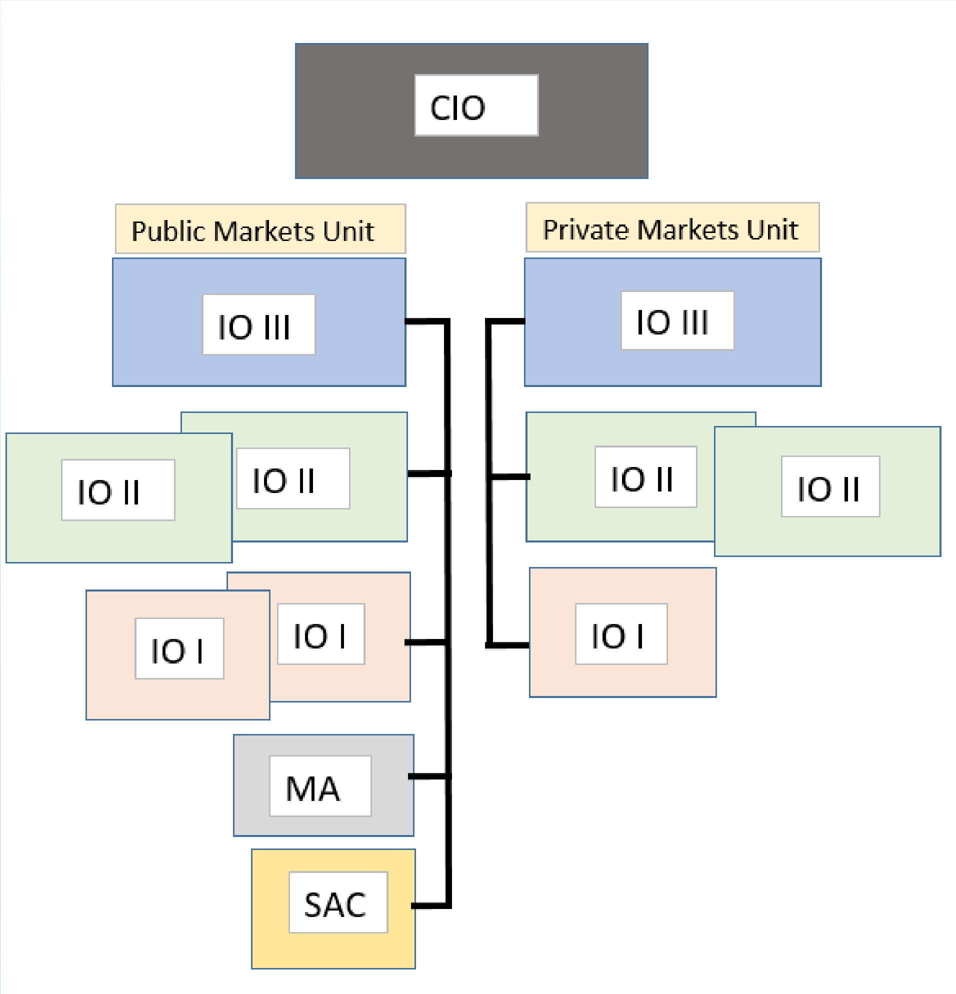
Recent Major Accomplishments

1. Earned a 29.1% NOF, June 30, 2021
2. AUM of $23.8 billion ending Dec 31, 2021
3. Asset Allocation Study – 2021
4. COVID – Sec Lending De-Risking, TALF Program, Rebalancing Suspension
5. PRI Signatory, PRI Action Plan, ESG Risk Framework, RI Policy
6. PRI Annual Report – April 2021
7. Amendments to Private Equity Policy, Emerging Manager Policy
8. Six manager searches - 9 new managers
9. Committed $1.2 billion to 29 PE Funds; $224 million to 6 RE Funds
10. Hired three Private Credit Managers
11. Held first Emerging Manager Symposium
12. YouTube videos: Asset Allocation and Emerging Managers
13. Summer 2021 intern from Girls Who Invest
14. Continued Remote Working Environment

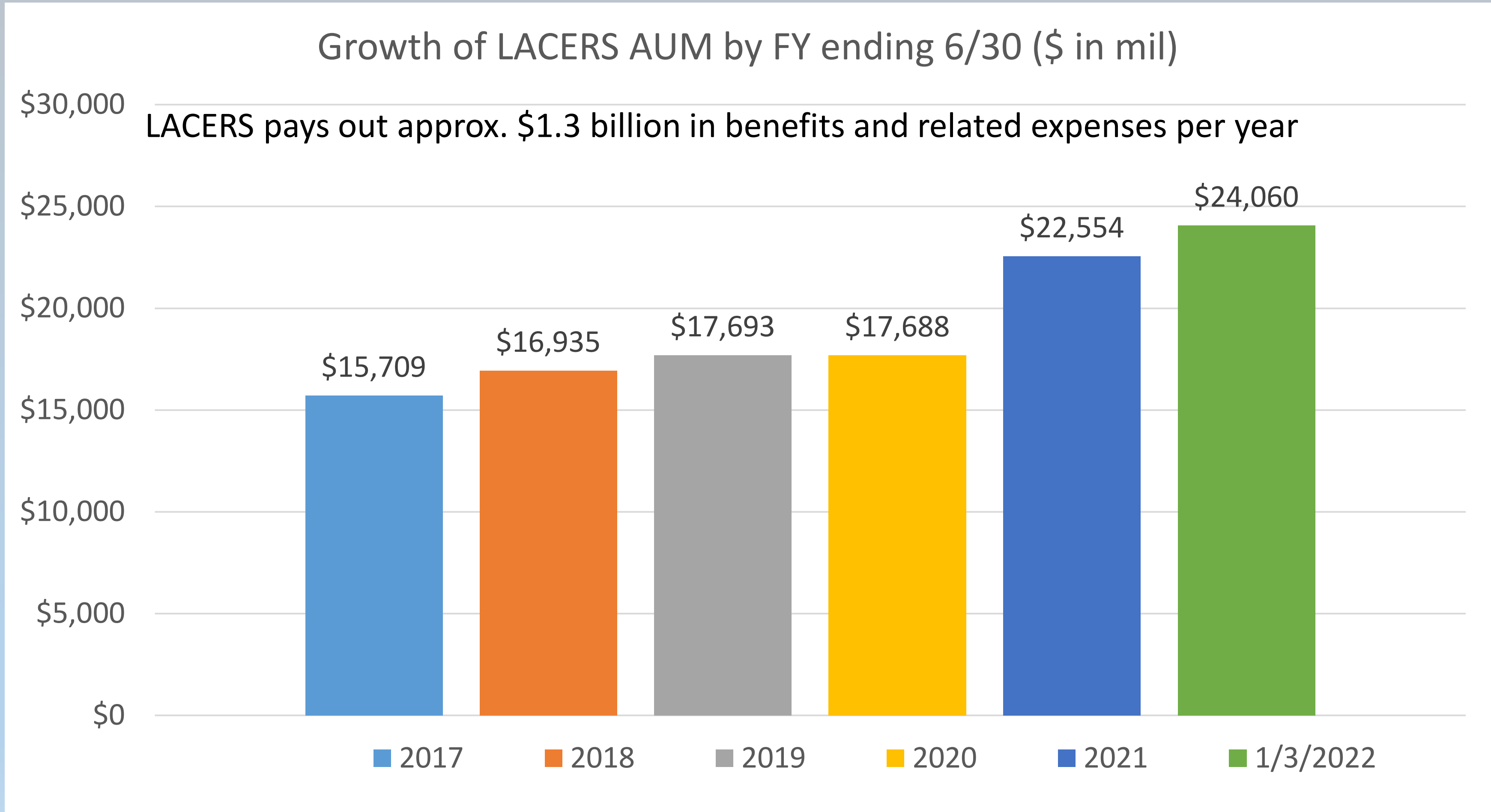
Initiatives & Enhanced Programs

1. ESG Program under PRI Framework
   - Environmental, Fossil Fuels, Carbon Emissions, Renewable Energy
   - Updating PRI Action Plan, ESG Framework, Reporting
   - Sustainable Investments
2. Implementation of Annual ESG Action Plan
3. Implementation of Annual PRI Action Plan
4. Diversity, Equity & Inclusion (DEI) Implementation
5. Emerging Manager Program
   - Networking, Outreach, Education, Symposium, Capital Deployment
6. Policy Amendments – Responsible Investment, Emerging Manager, Proxy Voting, Adaptive Asset Allocation, Unique Investment Opp (pending)
7. Girls Who Invest & Investment Mgmt. Fellowship Programs
8. YouTube – ESG Program (2022)

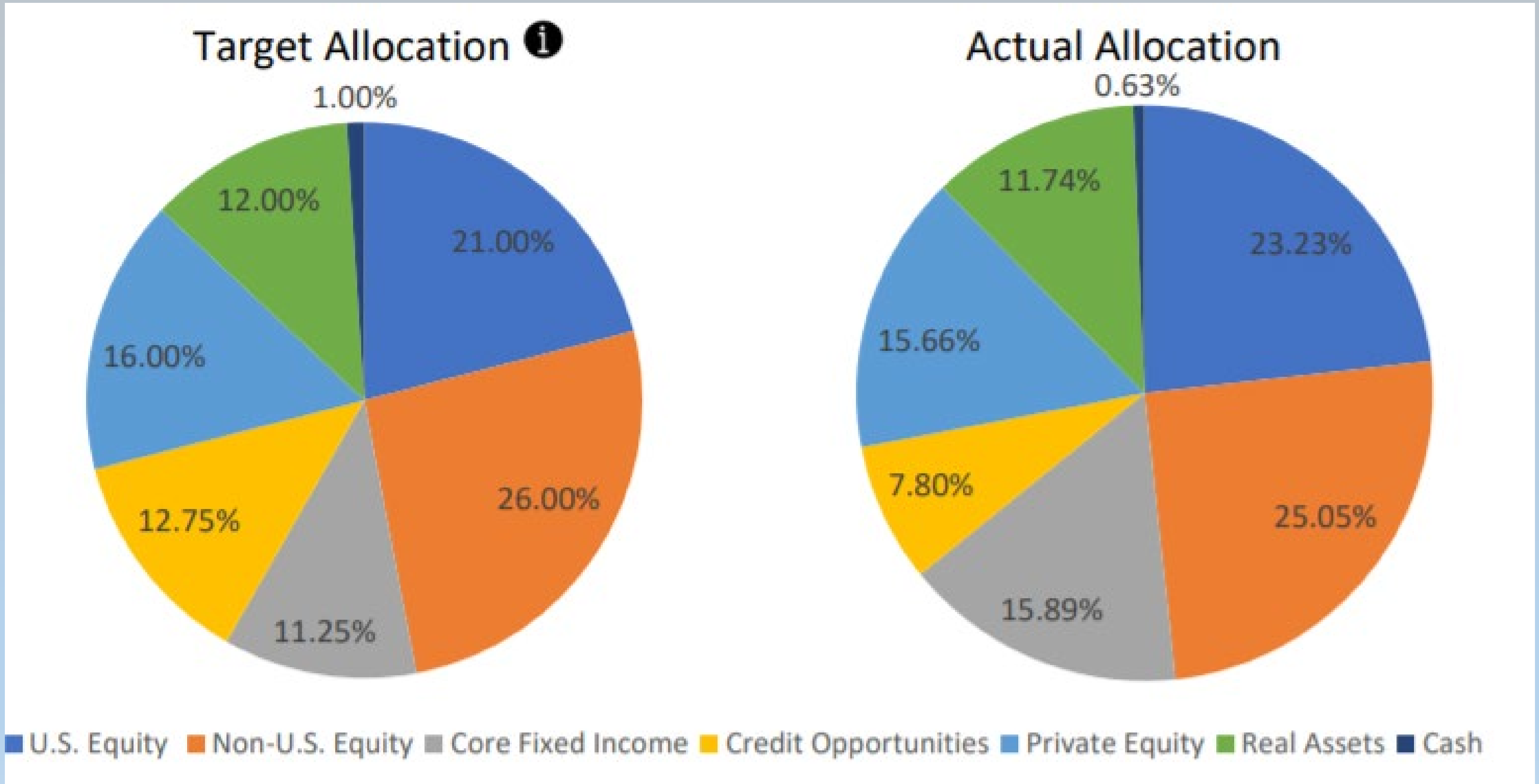
Org Chart – FY2021-22



Asset Growth

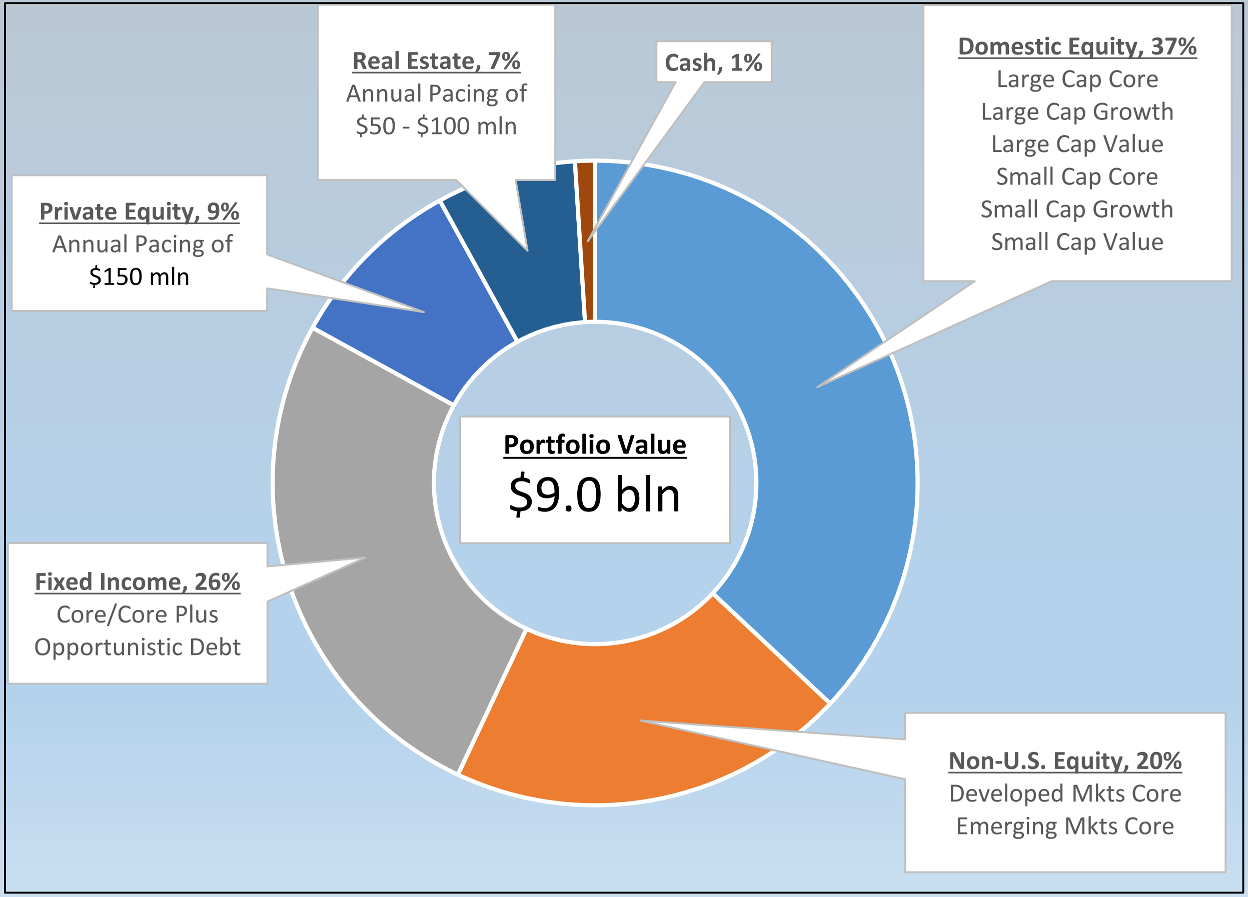


Asset Allocation – Nov 30, 2021



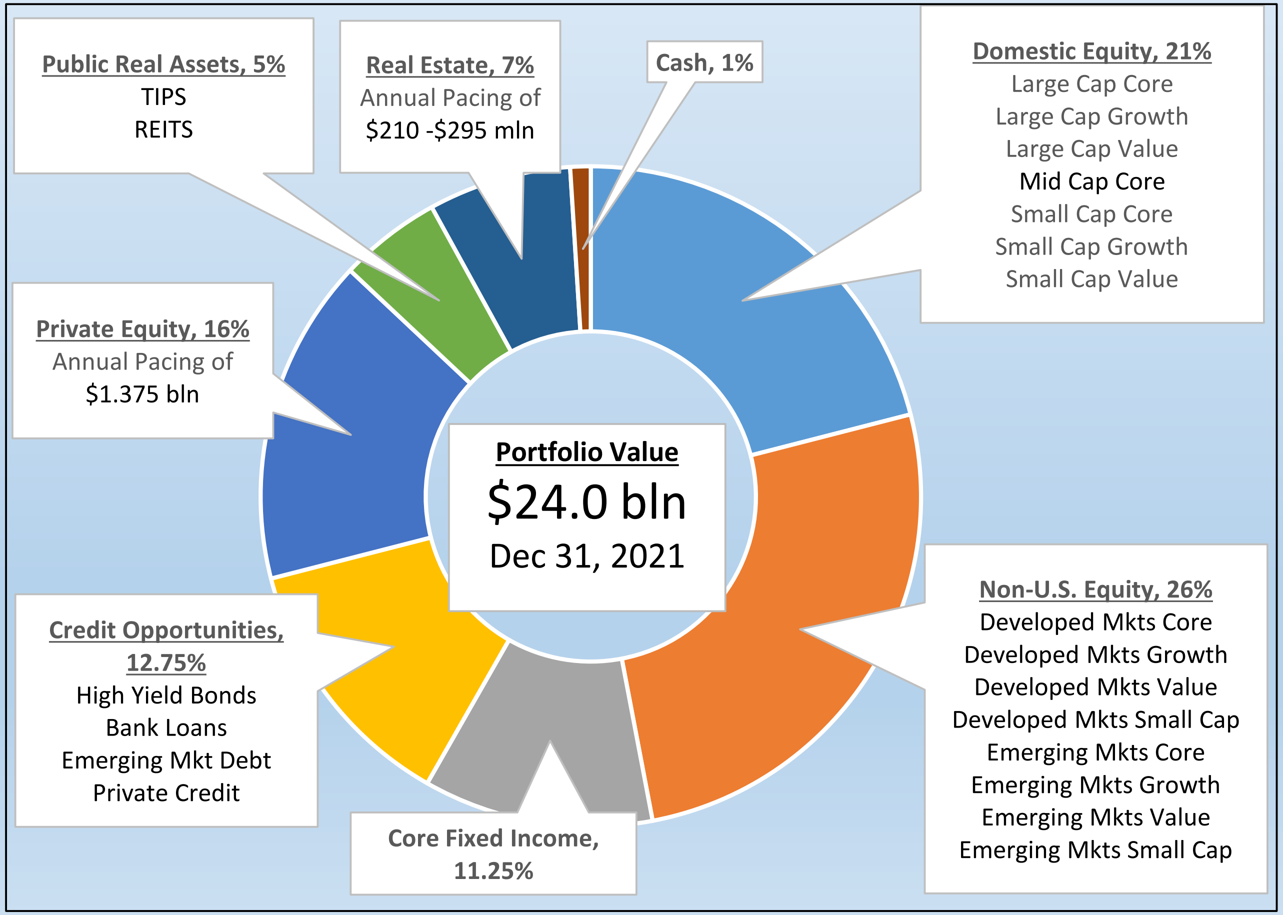
Increased Portfolio Complexity

2010 PORTFOLIO



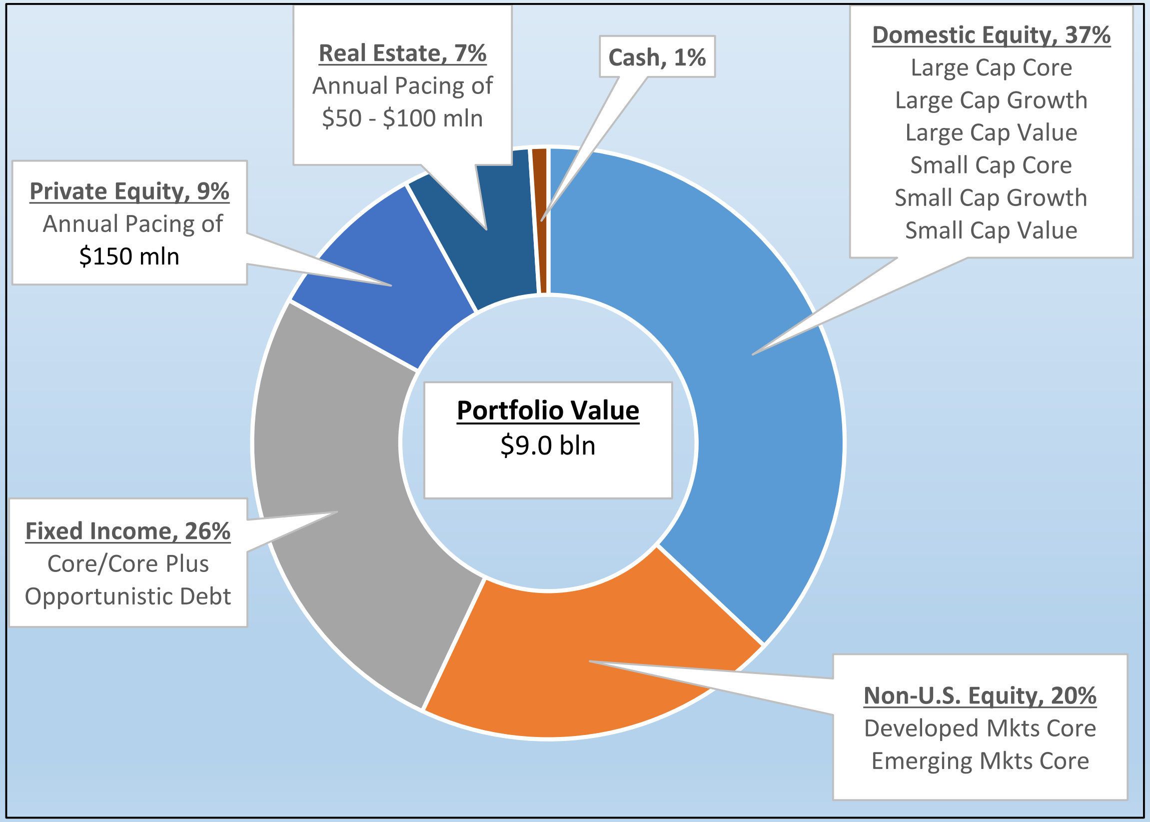
Increased Portfolio Complexity

2021 PORTFOLIO

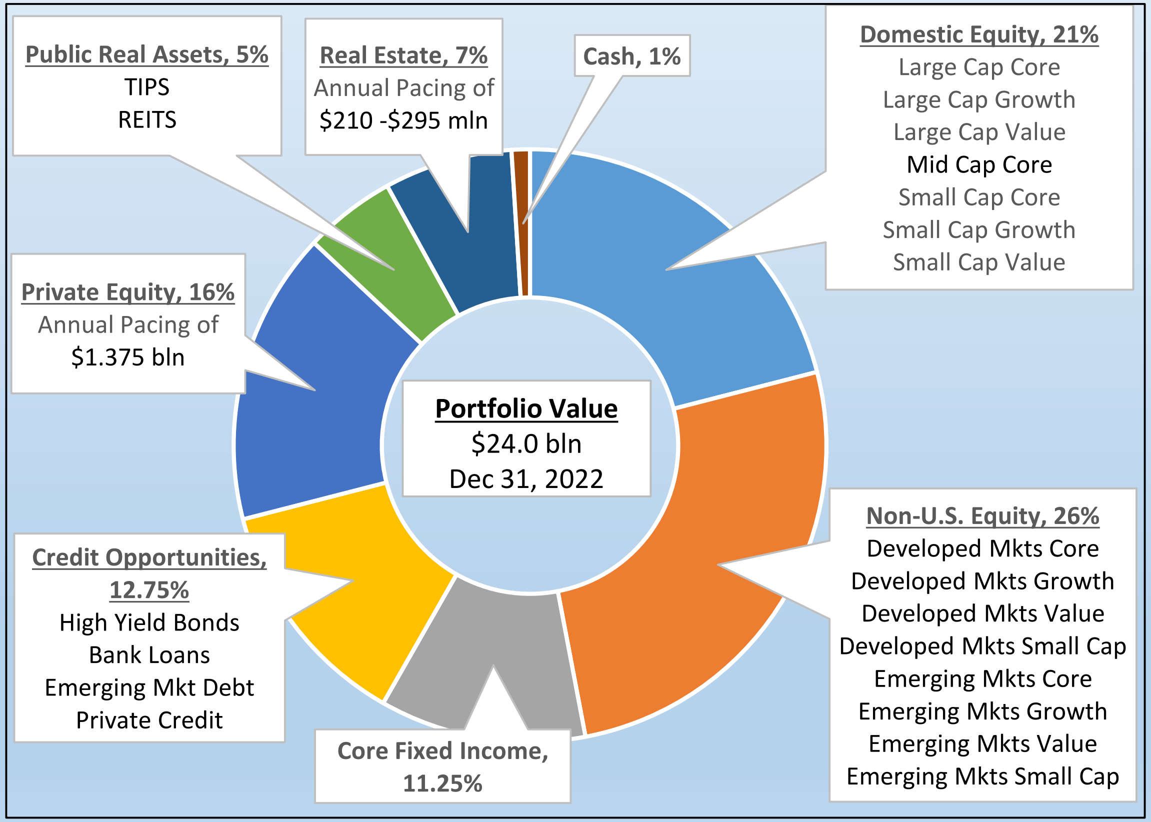


Increased Portfolio Complexity

2010 PORTFOLIO



2021 PORTFOLIO



Workload Metrics

	CY 2019	CY 2020	CY 2021	Total
Capital Calls	449	544	564	1557
Stock Distributions	25	42	99	166
Private Market Legal Amendments	n/a	70	63	133
Private Real Estate Fund Commitmen	3	3	6	12
Private Equity Fund Commitments	19	20	29	68
CPRA Requests	70	48	32	150
PRI Annual Report (Hours)			195	195
ESG Projects (Hours)[1]			456	456
Manager Meetings[2]	849	993	est. 1000	est. 2842
EM Meetings	47	74	129	250
EM Conferences[3]	9	11	7	27
EM Symposium (Hours)			461	461

[1]Excludes the PRI Annual Report and EM Symposium.

[2]Includes EM Meetings.

[3]Excludes the EM Symposium.

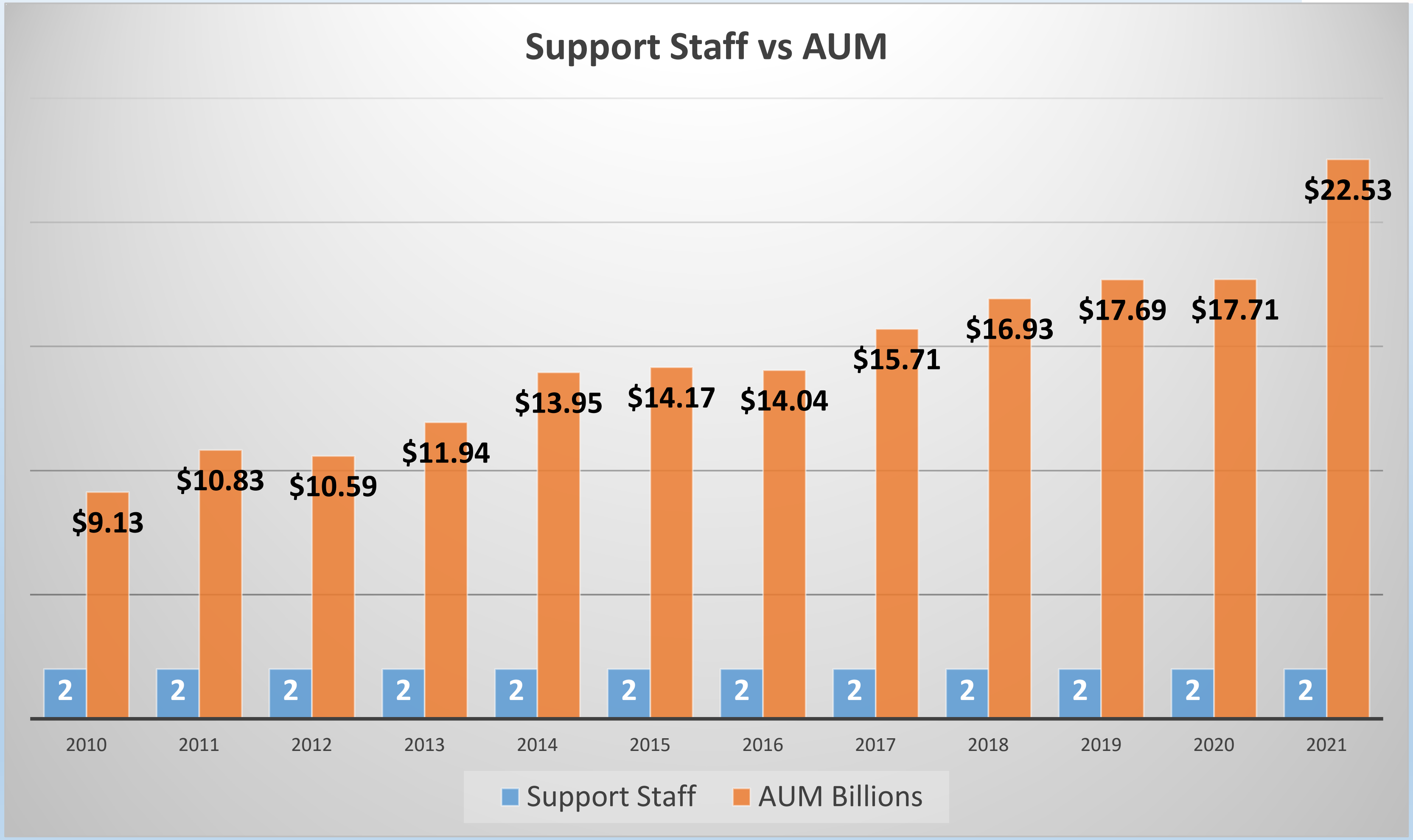
Evolvement of Staff Tasks

1. Asset Allocation structure is more complex
2. Staff manages complex investment process
3. Deeper due diligence efforts
4. Private Market Assets are 28.5% of Total Portfolio
5. ESG is more prominent and integrated
6. Increase in ESG and EM managers meetings; overall meetings
7. DEI priority internally and externally
8. GWI and IMFP continue through COVID/remote working
9. Plan assets continue to grow
10. Increase in compliance monitoring
11. Increase in number of litigation cases

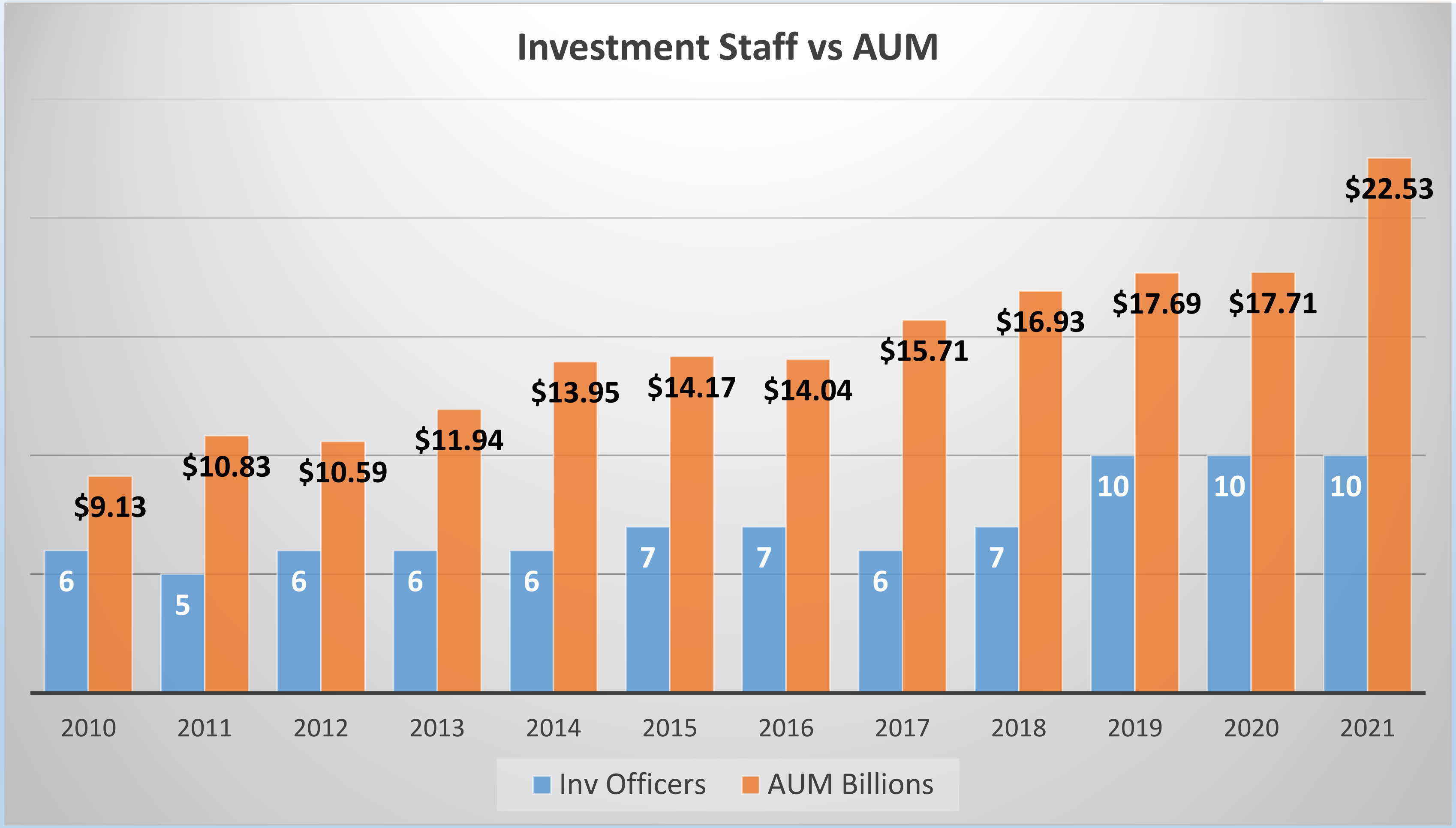
New Staff Requests

1. Administrative Clerk
2. Investment Officer II

Staffing History – 2010 to 2021



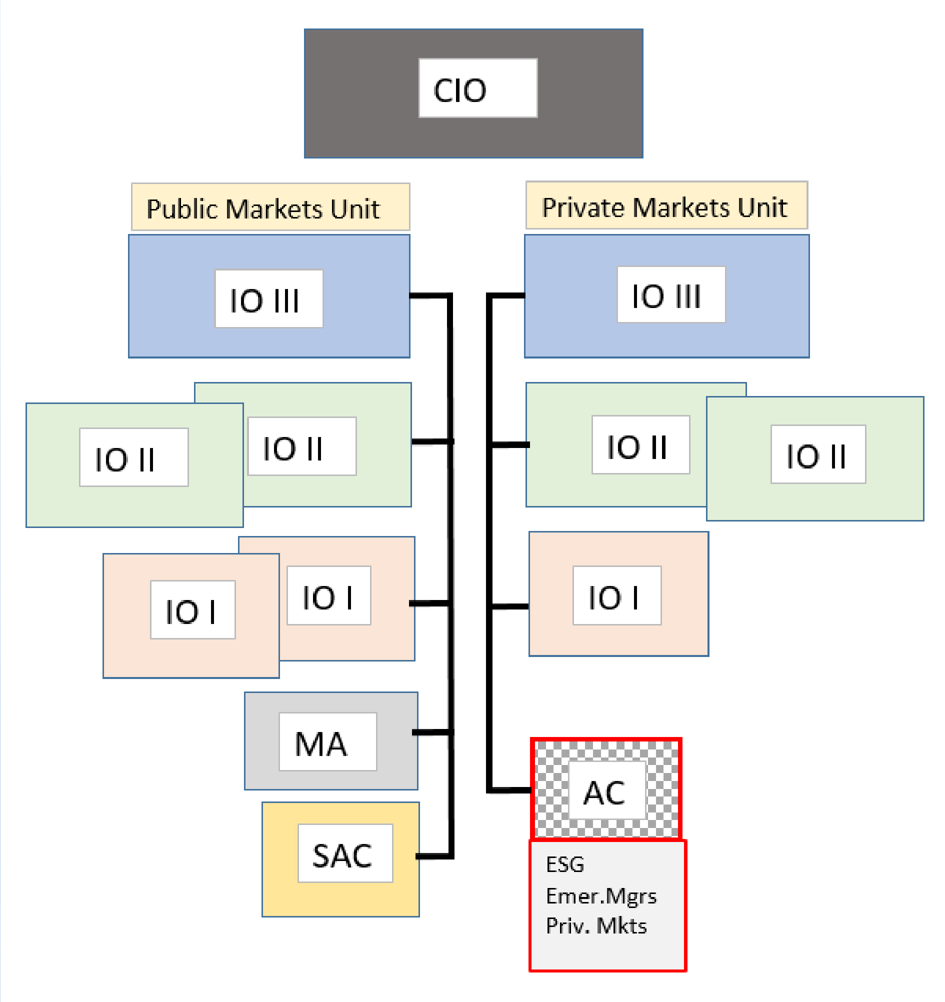
Staffing History – 2010 to 2021



Admin Clerk: FY2022-23

1. Admin support of ESG, EM, DEI efforts
2. Assist with Private Markets back-office support: capital calls, distributions
3. Manage databases, monitoring logs: manager meetings, ESG tracking
4. Run queries/generate reports: Performance, Exposures, Status
5. Assist with Contract Processing
6. Website Updates
7. Coordinate CPRA requests
8. Back-up to the Sr. Admin Clerk
9. Succession Planning

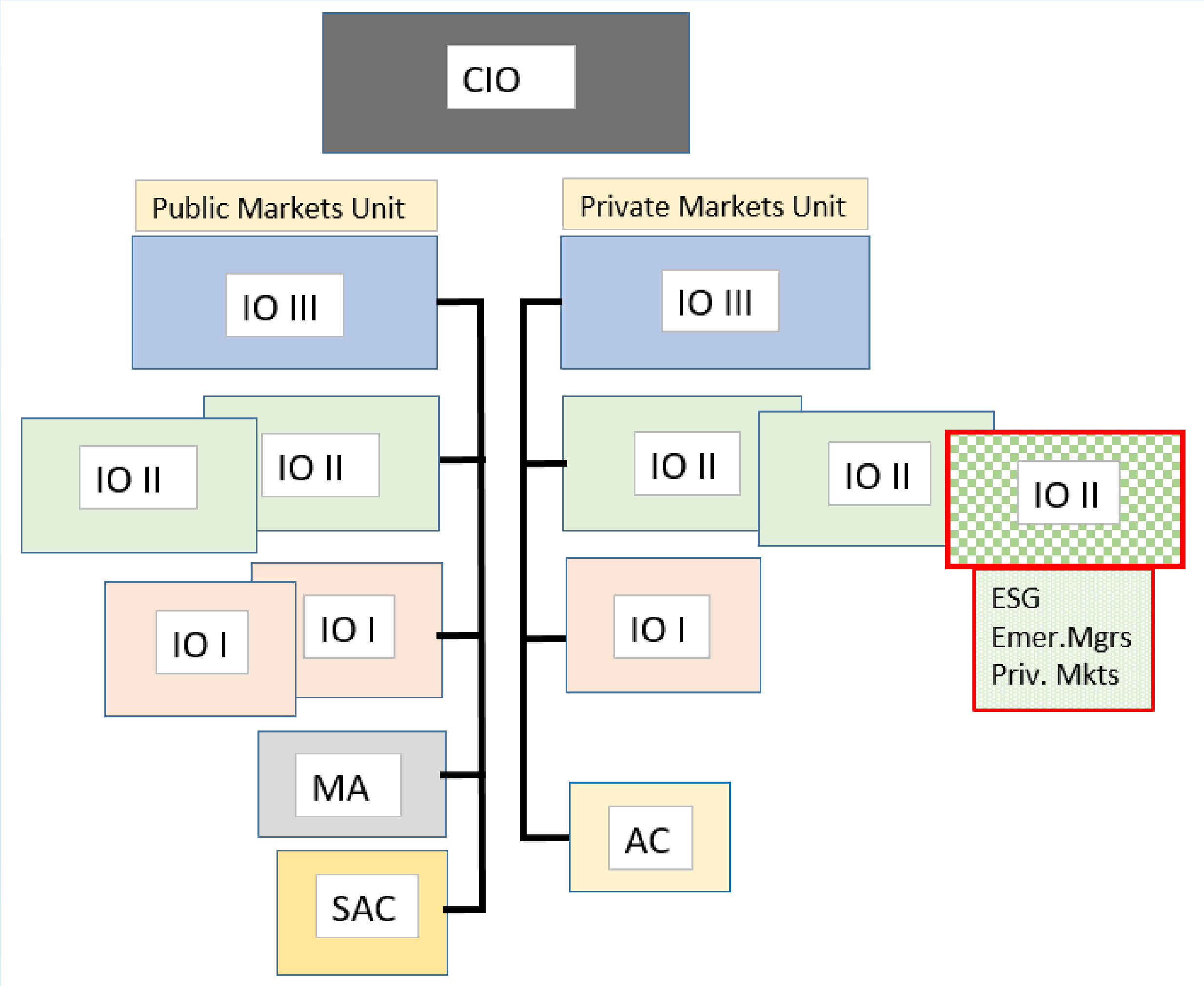
Org Chart – FY2022-23



Investment Officer II: FY2023-24

1. Investment Officer II – Oversee and Manage the ESG, Emerging Manager, and DEI/Investment initiatives and activities
2. Monitor relevant policies (RI, EM Policy, Proxy Voting)
3. Attend ESG, EM, Corporate Governance events
4. Take meetings with ESG managers and Emerging Managers
5. Participate in Diversity, Equity & Inclusion meetings and discussions relative to the Investment Program
6. Coordinate with DEI initiatives such as GWI Program, Investment Management Fellowship Program (IMFP)

Org Chart – FY2023-24



Alternatives & Consequences

1. **Use more Interns** – A low-cost temporary solution; work can be complex.
2. **Delay Assignments and Projects** – Some assignments cannot be delayed without financial risk, mismanagement and legal consequences.
3. **Out of Compliance with Policy and Guidelines**

Questions