



Investment Committee Agenda

Chair

REGULAR MEETING

TUESDAY, JULY 13, 2021

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

MEETING LOCATION:

In conformity with the Governor's Executive Order N-08-21 (June 11, 2021) and due to the concerns over COVID-19, the LACERS Investment Committee's July 13, 2021, meeting will be conducted via telephone and/or videoconferencing.

Important Message to the Public

Information to call-in to <u>listen and/or participate</u>: Dial: (669) 900-6833 or (346) 248-7799 **Meeting ID#** 871 5040 0205

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 <u>only</u>: 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).

	Sung won Sonn
Committee Members:	Elizabeth Lee Nilza R. Serrano
Manager-Secretary:	Neil M. Guglielmo
Executive Assistant:	Ani Ghoukassian
Legal Counselor:	City Attorney's Office Public Pensions Genera Counsel Division

Sung Won Sohn

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 <u>ethics.commission@lacity.org</u>.

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, <u>five</u> 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 <u>ani.ghoukassian@lacers.org</u>.

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. <u>APPROVAL OF MINUTES FOR THE MEETING OF JUNE 8, 2021 AND POSSIBLE</u> <u>COMMITTEE ACTION</u>
- III. CHIEF INVESTMENT OFFICER VERBAL REPORT
- IV. <u>CONTINUED DISCUSSION OF PRIVATE EQUITY BENCHMARK AND POSSIBLE</u> <u>COMMITTEE ACTION</u>
- V. CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54956.81 TO CONSIDER A COMMITMENT TO BROOKFIELD STRATEGIC REAL ESTATE PARTNERS IV-B, L.P. AND POSSIBLE COMMITTEE ACTION
- VI. OTHER BUSINESS
- VII. NEXT MEETING: The next Regular meeting of the Investment Committee is scheduled for Tuesday, August 10, 2021, at 10:30 a.m., or immediately following the Board Meeting, at LACERS, 977 N. Broadway, Suite 260, Los Angeles, CA 90012 and/or via telephone and/or videoconferencing. Please continue to view the LACERS website for updated information on public access to Board/Committee meetings while response to public health concerns relating to the novel coronavirus continue.
- VIII. ADJOURNMENT





Board of Administration Agenda SPECIAL MEETING President: Cynthia M. Ruiz Vice President: Sung Won Sohn **TUESDAY, JULY 13, 2021** TIME: 10:30 A.M. OR IMMEDIATELY Commissioners: Annie Chao Elizabeth Lee FOLLOWING THE REGULAR Sandra Lee **BOARD MEETING** Nilza R. Serrano Michael R. Wilkinson **MEETING LOCATION:** Manager-Secretary: Neil M. Guglielmo In conformity with the Governor's Executive Order N-08-21 (June 11, 2021) Executive Assistant: Ani Ghoukassian and due to the concerns over COVID-19. the LACERS Investment Committee's July Legal Counsel: City Attorney's Office 13, 2021, meeting will be conducted via Public Pensions General telephone and/or videoconferencing. **Counsel Division Notice to Paid Representatives** Important Message to the Public If you are compensated to monitor, attend, or speak at this meeting, Information to call-in to listen and/or participate: City law may require you to register as a lobbyist and report your Dial: (669) 900-6833 or (346) 248-7799 activity. See Los Angeles Municipal Code §§ 48.01 et seq. More Meeting ID# 871 5040 0205 information is available at ethics.lacity.org/lobbying. For assistance, please contact the Ethics Commission at (213) 978-1960 or Instructions for call-in participants: ethics.commission@lacity.org. 1- Dial in and enter Meeting ID 2- Automatically enter virtual "Waiting Room" 3- Automatically enter Meeting **Request for Services** 4- During Public Comment, press *9 to raise hand As a covered entity under Title II of the Americans with Disabilities Act, 5- Staff will call out the last 3-digits of your phone number the City of Los Angeles does not discriminate on the basis of disability to make your comment and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities. Information to listen only: Live Board Meetings can be heard at: (213) 621-CITY (Metro), (818) 904-9450 (Valley), (310) 471-CITY Sign Language Interpreters, Communication Access Real-Time (Westside), and (310) 547-CITY (San Pedro Area). 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 JUNE 13, 2021 AND POSSIBLE COMMITTEE ACTION
- III. CHIEF INVESTMENT OFFICER VERBAL REPORT
- IV. CONTINUED DISCUSSION OF PRIVATE EQUITY BENCHMARK AND POSSIBLE COMMITTEE ACTION
- V. CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54956.81 TO CONSIDER A COMMITMENT TO BROOKFIELD STRATEGIC REAL ESTATE PARTNERS IV-B, L.P. AND POSSIBLE COMMITTEE ACTION
- VI. OTHER BUSINESS
- VII. NEXT MEETING: The next Regular meeting of the Investment Committee is scheduled for Tuesday, August 10, 2021, at 10:30 a.m., or immediately following the Board Meeting, at LACERS, 977 N. Broadway, Suite 260, Los Angeles, CA 90012 and/or via telephone and/or videoconferencing. Please continue to view the LACERS website for updated information on public access to Board/Committee meetings while response to public health concerns relating to the novel coronavirus continue.
- VIII. ADJOURNMENT

Agenda	of:	Julv	13.	2021
/ (901100	••••	July		

Item No: II

MINUTES OF THE REGULAR MEETING INVESTMENT COMMITTEE

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

In conformity with the Governor's Executive Order N-29-20 (March 17, 2020) and due to the concerns over COVID-19, the LACERS Investment Committee June 8, 2021, Regular meeting was conducted via telephone and/or videoconferencing

June 8, 2021

1:16 p.m.							
: Chair:	Sung Won Sohn						
Committee Member:	Elizabeth Lee Nilza R. Serrano						
Manager-Secretary:	Neil M. Guglielmo						
Legal Counselor:	James Napier						
Executive Assistant:	Ani Ghoukassian						
	: Chair: Committee Member: Manager-Secretary: Legal Counselor:						

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

I

PUBLIC COMMENTS AND GENERAL PUBLIC COMMENTS ON MATTERS WITHIN THE COMMITTEE'S JURISDICTION AND COMMENTS ON ANY SPECIFIC MATTERS ON THE AGENDA – *THIS WILL BE THE ONLY OPPORTUNITY FOR PUBLIC COMMENT* – **PRESS *9 TO RAISE HAND DURING PUBLIC COMMENT PERIOD** – Chair Sohn asked if any persons wished to speak on matters within the Committee's jurisdiction, to which there was no response.

||

APPROVAL OF MINUTES FOR THE MEETING OF APRIL 13, 2021 AND POSSIBLE COMMITTEE ACTION – Committee Member Serrano moved approval, and adopted by the following vote: Ayes, Committee Member Serrano and Chair Sohn -2; Abstain, Committee Member Elizabeth Lee -1.

Ш

CHIEF INVESTMENT OFFICER VERBAL REPORT – Rod June, Chief Investment Officer, presented the Committee with the forward calendar.

1

PRESENTATION BY J.P. MORGAN ASSET MANAGEMENT REGARDING ECONOMIC AND MARKET OUTLOOK – Gabriela D. Santos, Executive Director, and Lara Clarke, Managing Director, with J.P. Morgan Asset Management, presented and discussed this item with the Committee for 30 minutes.

Committee Member Serrano left the Regular Meeting at 2:00 p.m.

V

REAL ESTATE FISCAL YEAR 2021-22 STRATEGIC PLAN AND POSSIBLE COMMITTEE ACTION – Chae Hong, Partner, Prashant Tewari, Partner, and Felix Fels, Vice President, with The Townsend Group presented and discussed this item with the Committee. After a 45 minute discussion, Commissioner Elizabeth Lee moved approval, and adopted by the following vote: Ayes, Committee Member Elizabeth Lee and Chair Sohn -2; Nays, None.

VI

OTHER BUSINESS – There was no other business.

VII

NEXT MEETING: The next Regular Meeting of the Investment Committee is scheduled for Tuesday, July 13, 2021, at 10:30 a.m. or immediately following the Board Meeting, at LACERS, 977 N. Broadway, Suite 260, Los Angeles, CA 90012, and/or via telephone and/or videoconferencing. Please continue to view the LACERS website for updated information on public access to Board/Committee meetings while responding to public health concerns relating to the novel coronavirus continue.

XI

ADJOURNMENT – There being no further business before the Committee, Chair Sohn adjourned the meeting at 2:45 p.m.

Sung Won Sohn Chair

Neil M. Guglielmo Manager-Secretary





REPORT TO INVESTMENT COMMITTEE From: Neil M. Guglielmo, General Manager

Milm. Duglichuro

MEETING: JULY 13, 2021

ITEM: IV

SUBJECT: CONTINUED DISCUSSION OF PRIVATE EQUITY BENCHMARK AND POSSIBLE COMMITEE ACTION

ACTION: CLOSED: CONSENT: RECEIVE & FILE:

Recommendation

That the Investment Committee recommend that the Board approve a change of the Private Equity Benchmark from the current Russell 3000 Index plus 300 basis points to the Cambridge Associates Global Private Equity and Venture Capital Index.

Executive Summary

This report provides updated information regarding the Private Equity (PE) benchmark and implementation since the Committee meeting of February 9, 2021.

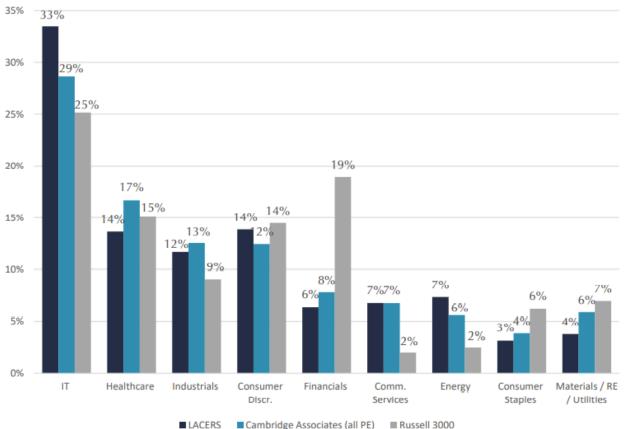
Discussion

Benchmark Background

Benchmarks are tools for assessing and comparing the risks and returns of a portfolio to identify opportunities for improving risk-adjusted returns. LACERS' current PE benchmark, the Russell 3000 Index plus 300 basis points, has significant mismatches with the PE portfolio in terms of geography, industry classification, and volatility that have been increasing over time, reducing the effectiveness of benchmark comparisons.

LACERS' PE portfolio is increasingly global in nature, with 23% of exposure outside of North America, while the Russell 3000 Index is U.S. focused. This mismatch is expected to grow as additional private equity commitments are made in Europe and Asia.

The PE portfolio also has significant mismatches with the Russell 3000 Index in terms of industry concentrations. For example, the Russell 3000 Index includes 19% of exposure to financials while LACERS' PE portfolio has only 6% exposure to this industry. LACERS' PE consultant, Aksia TorreyCove Partners LLC (Aksia), presented the following chart to the Board as part of the 2021 Strategic Plan presentation on November 24, 2020 showing industry concentration mismatches between the Russell 3000 and LACERS' portfolio:



LACERS Sector Exposure vs. Benchmarks

The public markets have also been recently subject to significant volatility. Analysis by LACERS' general fund consultant, NEPC, LLC (NEPC), indicated that the quarterly difference between the PE portfolio and the public market benchmark ranged from positive 23.7% to negative 32.4%. NEPC also noted that the mismatch between the total plan and policy index can be largely attributed to the mismatch in the PE benchmark.

Review of Industry Best Practices and Consultant Recommendations

Due to these ongoing mismatches between LACERS' PE investments and LACERS' existing PE benchmark, the Board requested that staff and LACERS' consultants conduct a thorough review of industry best practices for private equity benchmarking. In coordination with staff, NEPC worked jointly with Aksia to review the effectiveness of LACERS' current benchmark, identify potential alternative approaches, and make recommendations for any necessary changes.

NEPC and Aksia recommended that LACERS change the public market-based benchmark for the PE Portfolio to the Cambridge Associates (CA) US All PE benchmark. On February 9, 2021, the Committee considered and concurred with staff's proposal to change the Private Equity benchmark from the current Russell 3000 Index plus 300 basis points to the CA US All PE Index (Attachment 2). Since that Committee meeting, additional information has come to the attention of staff regarding the distribution of CA benchmarks and alternative CA PE benchmarks given the increase in PE policy target sizing and discussions with the private equity consultant on the future of geographical diversification.

Benchmark Licensing

CA changed the licensing requirements for using their PE benchmarks in February 2021. While these benchmarks had previously been available free of charge on the CA website, starting with the third quarter of 2020 a license through CA's vendor IHS Markit Ltd. is required to use the benchmark.

Staff worked with Northern Trust Corporation (Northern Trust), LACERS' custodian bank, NEPC, and Aksia to determine if additional licenses may be required in order for LACERS to use the CA PE benchmark. While NEPC and Aksia have existing licenses that allow them to monitor the performance of LACERS' portfolio relative to the CA benchmark, additional licensing is required for both LACERS and Northern Trust.

After discussions with representatives from CA and IHS Markit, Ltd., a one-year license for a single CA benchmark for LACERS' intended purpose will cost \$5,000. Sufficient funds have been appropriated in the Fiscal Year 2021-22 budget to cover the cost of the license. Northern Trust has also recently completed the necessary licensing for the benchmark.

Reconsideration of PE Benchmark

Staff held additional discussions with NEPC and Aksia to determine whether the U.S. focused Cambridge Associates US All PE Index was the most appropriate benchmark given LACERS' current and planned level of international exposure in the portfolio.

The 2021 PE Strategic Plan, which was approved by the Board on November 24, 2020, noted that the portfolio's exposure by geography as of June 30, 2020 was 77% in North America. The tactical investment recommendations in the Strategic Plan also called for selectively adding exposure internationally, primarily in Europe and Asia, which will further decrease the allocation to North America and will result in a growing mismatch with the U.S. focused benchmark.

An alternative to the CA US All PE index is the CA Global Private Equity and Venture Capital Index (CA Global PE and VC Index), which consists of 4,820 buyout, growth, and venture capital funds with total capitalization of \$3.2 trillion. Of this exposure, 64% of total net asset value are to funds that have at least two-thirds of their portfolio's geographically concentrated in the U.S. The data from the CA benchmarks is lagged by one quarter as a result of the timelines required for the underlying funds to gather financial information from their portfolio company investments.

NEPC and Aksia determined that the Cambridge Global PE and VC Index is better aligned with the current and future exposure of the portfolio, and are recommending that the Committee consider the use of this benchmark instead of the Cambridge US All PE Index. NEPC provided an attachment that compares the performance of the proposed benchmark to LACERS' current benchmark and to the performance of LACERS' portfolio (Attachment 1). This proposed benchmark is subject to the same annual \$5,000 single CA benchmark licensing fee as described earlier in this report. Staff concurs with this recommendation and is requesting that the Committee recommend this benchmark for approval to the Board.

Implementation of Benchmark

NEPC and Northern Trust have recommended that the new benchmark become effective January 1, 2021. Performance comparisons for time periods before this date will remain against the prior benchmark of the Russell 3000 Index plus 300 basis points, and performance periods that extend

across this date (such as a one year, three year, or five year) will use a time weighted blend of the Cambridge Global PE Index and the prior Russell 3000 Index plus 300 basis points benchmark. Staff concurs with this recommendation.

If the Committee concurs with this recommendation, a report will be presented to the Board for approval of this benchmark change. Staff will return to the Committee and Board at future meetings with administrative edits to the LACERS Investment Policy Manual to formalize the benchmark change. Staff will also initiate the contracting process with IHS Markit and work with Northern Trust, Aksia, and NEPC to make necessary changes to performance reporting for the portfolio.

Strategic Alignment

Revising the Private Equity benchmark aligns 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: Robert King, Investment Officer I, Investment Division

NMG/RJ/BF/WL/RK:jp

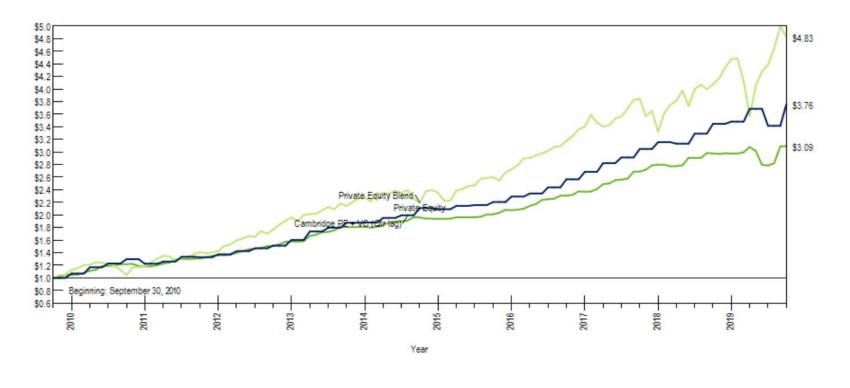
Attachments:

1. NEPC Private Equity Performance Summary 2. NEPC Analysis of Private Equity Benchmark from February 9, 2021 Meeting

PRIVATE EQUITY PERFORMANCE SUMMARY

	Ending September 30, 2020					
	Market Value(\$)	3 Mo(%)	1 Yr(%)	3 Yrs(%)	5 Yrs(%)	10 Yrs(%)
Private Equity	2,260,142,632	11.09	3.95	10.29	9.56	11.96
Private Equity Blend		9.99	18.42	14.97	17.06	17.05
Cambridge PE + VC (Qtr lag)		10.11	9.04	13.69	12.06	14.48

Growth of a Dollar 10 Years Ending September 30, 2020



Private Equity Private Equity Blend Cambridge PE + VC (Qtr lag)



Private Equity Blend: February 1, 2012 - current: Russell 3000 + 3%; Inception - January 31, 2012: Russell 3000 + 4%

PRIVATE EQUITY BENCHMARK DISCUSSION



LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

February 9, 2021



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

Item V

PRIVATE EQUITY BENCHMARK

Recommendation •

- Change the public market-based benchmark for private equity (Russell 3000 index + 3%) to a private equity universe benchmark (Cambridge Associates US All PE) for Policy Index
 - Can still incorporate public market measurement into the evaluation of private equity, just not at the Total Plan level

Rationale •

- Volatility of the private equity portfolio isn't reflected in the current benchmark
 - Lagging the current benchmark by one quarter to match up the returns will help with some of the large mismatch, but not all
- Private equity universe will offer an "apples-to-apples" comparison
- Public market benchmark doesn't show the performance of LACERS' private equity program in relation to the universe of private equity investments and accurately reflect the performance of LACERS' program



LACERS POLICY BENCHMARK MISMATCH



Ending March 31, 2020

	Market Value(\$) 1	Mo(%)	3 Mo(%)	YTD(%)	Fiscal YTD(%)	1 Yr(%)	3 Yrs(%)	5 Yrs(%)	10 Yrs(%)	Inception(%)	Inception Date
Private Equity	2,168,845,778	2.81	3.48	3.48	5.96	10.98	12.82	10.83	12.48	10.46	Nov-95
Private Equity Blend		-13.51	-20.26	-20.26	-10.71	-6.37	7.12	8.93	13.67	12.08	Nov-95
Excess		16.32	23.74	23.74	16.67	17.35	5.70	1.90	-1.19	-1.62	
Ending June 30, 2020											
Private Equity	1,989,618,128	-0.49	-9.57	-6.43	-4.18	-4.18	7.36	7.97	10.97	9.89	Nov-95
Private Equity Blend		2.53	22.87	-2.02	9.71	9.71	13.32	13.31	17.32	12.89	Nov-95
Excess		-3.02	-32.44	-4.41	-13.89	-13.89	-5.96	-5.34	-6.35	-3.00	

Note: **Private Equity Blend** is the LACERS private equity custom benchmark and is comprised of: Russell 3000 + 3%: February 1, 2012 – current Russell 3000 + 4%: Inception – January 31, 2012

- Total Plan vs. Policy Index deviations can largely be attributed to private equity benchmark mismatch
- 2020 was extreme due to public market volatility
- Quarterly difference between private equity portfolio and public market benchmark ranged from +23.7% to (32.4%)

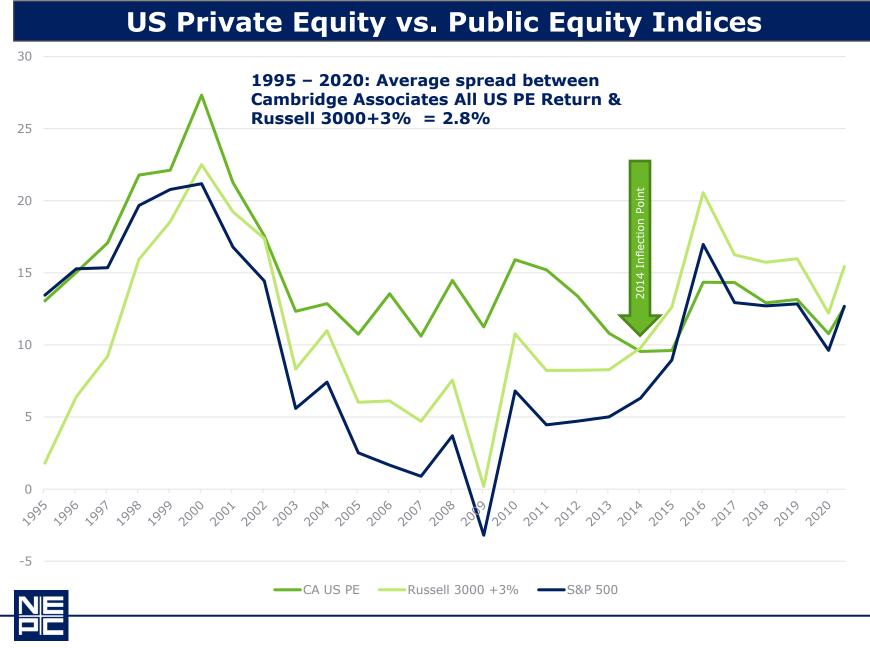
•

Lagging the public market benchmark by one quarter would have resulted in a quarterly difference ranging from +10.7% to (11.7%)



IC Meeting: 2/9/21 Item V

ROLLING RETURNS (7 YEARS)



IC Meeting: 2/9/21 Item V

LACERS PRIVATE EQUITY PERFORMANCE

Rolling 7 Year Annualized Return (%)



Russell 3000 + 3%: February 1, 2012 – current Russell 3000 + 4%: Inception – January 31, 2012

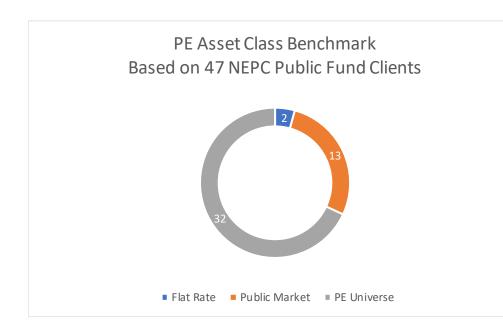
C|A refers to Cambridge Associates US All Private Equity benchmark

PRIVATE EQUITY BENCHMARKS

Approach	Rationale	Advantages	Limitations
Private Equity Universe	Best matching of assets	 Compares performance directly to other PE funds Has volatility in benchmark reflective of the asset class 	 Not typically available until 105-120 days after quarter end Limited transparency Readily used benchmarks limited by PE strategy and geography Potential mismatch of maturity of PE program with average maturity of funds in benchmark Quality of data and return precision questions
Public Market	 Opportunity cost of allocating capital to PE 	 Readily available High level of familiarity Can add basis points to reflect additional risk/illiquidity of PE 	 Public indices generally have higher short-term volatility than private equity Public companies generally larger than most private equity-backed companies When unlagged, creates mismatch of timing of actual and benchmark valuation changes Appropriate risk/illquidity premium varies "Opportunity Cost" approach is not used to benchmark other asset classes
Flat Rate	 Minimum return expected for asset class 	Easy to understand	 Not responsive to changes in economic conditions Not effective for short term comparisons
Actual Return	 PE benchmarking in total Plan is too problematic 	 Removes PE from total plan benchmarking assessment (makes benchmark PE neutral) 	 Does not recognize PE program as source of alpha to the Plan



IC Meeting: 7/13/21 Item IV Attachment 2 WHICH PE BENCHMARK FOR POLICY INDEX?



The most common benchmark used is the Cambridge Associates US All PE index (49%)

Flat Rate

•

•

- 7.5%, 10%

Public Market

- Russell 2000
- Russell 3000 + 1%, 2%, or 3%
- S&P 500 + 3%, 5%
- 75% Russell 3000/25% MSCI ACWI ex US + 3%
- NASDAQ without income

PE Universe

- Cambridge Associates US All PE
- Cambridge Associates Global All PE
- Venture Economic PE
- SSgA PE Index
- Burgess All PE
- ILPA All Funds
- TUCS



IC Meeting: 2/9/21 Item V

CAMBRIDGE ASSOCIATES US ALL PE INDEX

Overview

- Contains the historical performance records of over 2,000 fund managers and over 7,300 funds. Performance information is captured on over 80,000 investments in venture capital, growth equity, buyout, subordinated capital and private equity energy funds. This is one of the largest collections of portfolio-level performance information and represents the investments of approximately 77% of these funds on a count basis and 83% on a total commitment basis.
- Fund and investment-level performance information is drawn from the quarterly and audited annual financial statements of the fund managers and each manager's reported performance numbers are independently recreated from the financial statements and verified by Cambridge Associates.
- The return is calculated by aggregating all cash flows and ending NAVs in a sample to calculate a dollar-weighted return.

Sources of Benchmark Data

 The database utilizes quarterly unaudited and annual audited fund financial statements produced by the fund managers (GPs) for their Limited Partners (LPs). These documents are provided to Cambridge Associates by the fund managers themselves. Cambridge Associates does not use Freedom of Information Act (FOIA) requests, regulatory filings, manager surveys, or press "scrapings" to obtain information. The goal is to have a complete historical record of the quarterly cash flows and net asset values for all funds in the benchmarks. Cambridge uses a number of paths to encourage fund managers to submit their performance data to their database: clients for whom they provide private investment performance reporting, their research organization's regular meetings with thousands of managers, special projects designed to enhance existing benchmarks or launch new ones, exclusive relationships with over ten globally-diverse fund manager associations, and finally, exclusive relationships with Thomson Reuters and the Institutional Limited Partners Association (ILPA).



Source: Cambridge Associates

ALTERNATIVE INVESTMENT DISCLAIMER

It is important to note the following characteristics of many non-traditional investment strategies including hedge funds and private equity:

- 1. Performance can be volatile and investors could lose all or a substantial portion of their investment
- 2. Leverage and other speculative practices may increase the risk of loss
- 3. Past performance may be revised due to the revaluation of investments
- 4. These investments can be illiquid, and investors may be subject to lock-ups or lengthy redemption terms
- 5. A secondary market may not be available for all funds, and any sales that occur may take place at a discount to value
- 6. These funds are not subject to the same regulatory requirements as registered investment vehicles
- 7. Managers are not required to provide periodic pricing or valuation information to investors
- 8. These funds may have complex tax structures and delays in distributing important tax information
- 9. These funds often charge high fees
- 10. Limited partnership agreements often give the manager authority to trade in securities, markets or currencies that are not within the manager's realm of expertise or contemplated investment strategy

