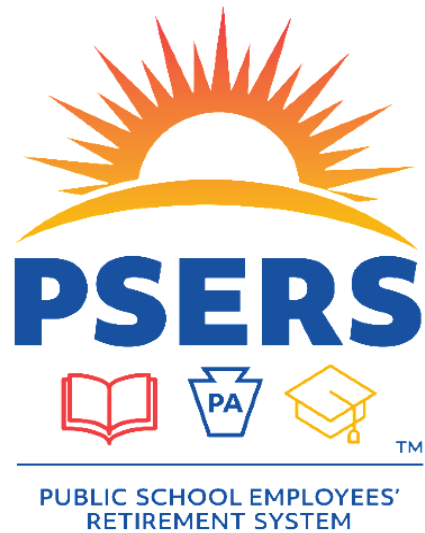


PSERB Resolution 2024-29
Re: Carlyle Realty Partners X, LP
May 31, 2024

RESOLVED, that the Public School Employees' Retirement Board (the "Board") adopts the recommendation of the Investment Committee to invest an amount not to exceed \$300,000,000 plus reasonable and normal investment expenses, to Carlyle Realty Partners X, LP and/or related investment vehicles.

The final terms and conditions of the investment are subject to legal due diligence and must be satisfactory to the Investment Office, the Office of Chief Counsel, and the Office of Executive Director, as evidenced either by the appropriate signatures on, or by a memo to that effect appended to, the implementing investment contracts.



Carlyle Realty Partners X, L.P. Private Real Estate Recommendation

Jarrett Richards
Portfolio Manager

Melissa Quackenbush
Senior Portfolio Manager

May 2024

Today's Presentation

Carlyle Realty Partners X, L.P. ("CRP X")

Main Presentation

1. Asset Class Considerations
 - *Recommendation is consistent with PSERS' Strategic Asset Allocation (SAA) and current year commitment planning*
2. Recommendation Overview
 - *PSERS IO and Aksia recommend committing \$300 million to Carlyle Realty Partners X, L.P.*
3. Strategy & Expertise
 - *Demonstrated expertise in portfolio construction and risk reduction principles while driving alpha relative to the public markets*
4. Investment Considerations
5. Investment Highlights

Appendix

- Investment Committee Disclosure
- Private Real Estate Dashboard

1. Asset Class Considerations

Recommendation is consistent with PSERS Strategic Asset Allocation (SAA) and the 2024 pacing analysis

PSERS SAA and Pacing

1. PSERS SAA has established a long-term target of 7.0% to Private Real Estate.
2. The current overweight is due to slower-than-projected distributions in 2022 and 2023, which are reflected in the pacing analysis.
3. PSERS' and Aksia's pacing analysis suggests \$800M – \$1B of annual commitments to reach the target exposure to Private Real Estate. Actual commitments in 2024 are expected to be below this range.
4. The pacing analysis is revisited frequently based on the actual performance of the Private Real Estate allocation and the broader PSERS portfolio.

SAA Allocation	
Private Real Estate Target	7.0%
Private Real Estate Actual	8.3% ¹
Pacing Budget	
Pacing Budget Range	\$800M - \$1B
YTD Commitments	\$0
Today's Recommendation	\$300M
YTD Commitments	\$0
Total Primary and Co-Investments	\$300M
Remaining Budget ²	\$600M
Est. Remaining Primary Fund Recommendations	\$250M
Expected to be in Target Budget Range?	No, likely below range

1. Private Real Estate Actual taken from Verus 2023 3Q Total Fund Report
 2. Remaining to the mid-point of the pacing budget

2. Recommendation Overview

PSERS IO and Aksia recommend committing \$300 million to Carlyle Realty Partners X, L.P.

Key Term	
Firm Name	The Carlyle Group (NASDAQ: CG)
Investment Professionals / Employees	130 Real Estate professionals / 2,200 firm employees
Fund Name	Carlyle Realty Partners X, L.P.
Strategy Invested Capital ¹	\$19 billion
Target Return	13-17% Net Return
Target Fund Size / Hard Cap	\$8 billion / \$10 billion
Recommended Commitment	\$300 million
GP Commitment	Required to be at least \$150 million, expected to be ~\$250 million
Fund Structure	Closed-End
PSERS Existing Relationship	Yes
Notable Investment Committee Disclosures ²	None

3. Carlyle Realty Partners Strategy & Expertise

CRP X is a complementary exposure in the Private Real Estate portfolio

- 1. Focus on Demographic-Driven Sectors:** The demand for each property type can be categorized as demographic-driven or GDP-driven. The demographic-driven sectors (various forms of residential) are less cyclical, and demand is more predictable resulting in lower exit yields (higher sale prices).
- 2. Development in Supply-Constrained Markets:** A nationwide housing shortage has driven up rents and home prices. Carlyle Realty Partners will develop rental residential across the spectrum of resident incomes to address this issue and profit from expertise in efficient (cost-controlled, on-time) development.
- 3. Reduction of Idiosyncratic Risk:** With 300 investments in the Fund, no single investment can negatively impact fund performance. Carlyle applies “siloed” non-recourse, non-crossed financing meaning that a financing issue at one asset does not impact other assets.
- 4. Distribution Outperformance:** Carlyle’s strategy has resulted in a quicker pace of distributions compared to their peers of the same vintage with top decile distributions to paid-in capital (DPI) ratio in Fund VIII and top quartile DPI in Fund VII. The DPI outperformance causes a commitment size larger than prior funds to maintain balance in the opportunistic real estate portfolio.

4. Investment Considerations

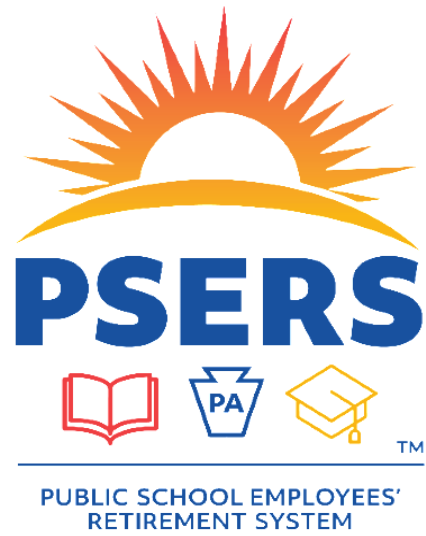
CRP X risk factors consistent with the risks of Opportunistic Real Estate

Risk	Detail	Mitigating Factors
Development Risk	Development projects that are behind-schedule or over-budget degrade returns to Fund investors.	<i>With 25 years and 674 projects of experience, Carlyle has identified ways to make the development process efficient and reduce risk. Carlyle rarely takes entitlement risk and only commits to a project once it is ready for construction. Carlyle often negotiates guaranteed maximum price contracts with builders to minimize cost overruns.</i>
New Era of Real Estate Financing	With new banking regulations and fewer participants in real estate lending, the cost of debt has increased and the availability of financing has decreased.	<i>Carlyle will construct a portfolio primarily of for-rent residential and modern warehouses, the most attractive sectors for lenders and low cost-of-capital, low-leverage buyers.</i>
Reliance on Operating Partners	Carlyle partners with local operators on many of its investments. This introduces another party with ownership interest in the Fund investments and, therefore, another layer of risk.	<i>Carlyle completes detailed due diligence of partners just as it does for investments. The Fund retains control of all decision-making and requires that the operating partner makes a significant personal investment in each project with performance hurdles to align interest.</i>

5. Investment Highlights

Carlyle’s expertise matches today’s market opportunity and PSERS’ portfolio needs

Highlight	Detail
Experienced Team and Demonstrated Results	The Carlyle Realty Partners team has a 25-year track record of investing across market cycles, outperforming the public markets, and generally performing in-line with opportunistic fund peers in up-markets while meaningfully outperforming the same peer group in down-markets.
Portfolio Fit	The Carlyle Realty Partners fund series is a complement to PSERS’ other opportunistic exposures. This Fund will invest in 300 lower- to middle-market properties primarily (likely 100%) in the United States.
Market Opportunity	The housing shortage in the United States has created an opportunity for private market capital to execute development strategies that work to cure a critical need while delivering profit to experienced, efficient developers. Additionally, there is a need for new supply of specific types of warehouse space to accommodate modern supply chains, and Carlyle has demonstrated expertise in developing properties to match tenant needs while being marketable to low cost-of-capital buyers.



Appendix

Investment Committee Disclosure

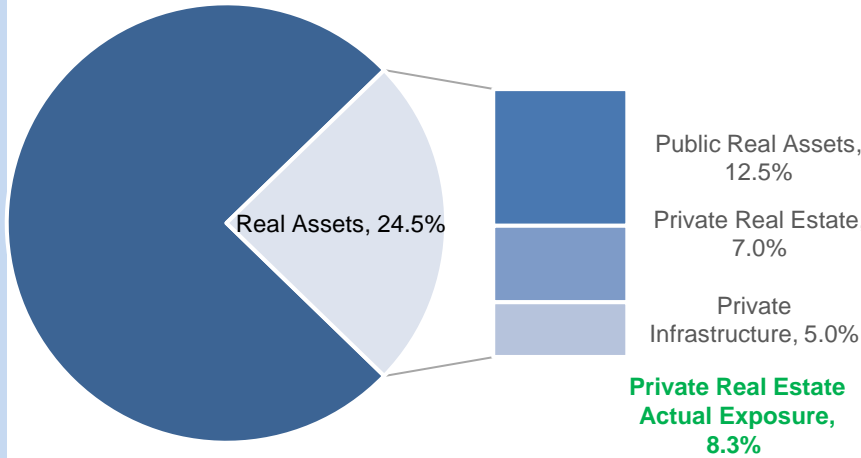
Disclosure	Response
Relationship with Aksia	As of October 31, 2023, 1 current Aksia investment management client and 10 current advisory clients, including PSERS, have made aggregate subscriptions and commitments of \$5.3 billion across investments managed by Carlyle. As of January 26, 2024, there is one other Aksia client, excluding PSERS, considering a commitment to Carlyle Realty Partners X. ¹
Introduction Source	PSERS IOP, Existing Relationship
Compliance with Placement Agent Policy	As confirmed by PSERS' Office of Chief Counsel on February 9, 2024, this investment complies with the Public School Employees' Retirement Board Placement Agent Policy.
PA Political Contributions	No reportable political contributions.
PA Presence	Yes, seven active investments.
Potential Conflicts	PSERS is not aware of any actual or potential conflicts of interest that would be created by PSERS' investment in CRP X.
Litigation Disclosure	Carlyle receives communications from regulators and may be involved in litigation from time to time in the ordinary course of business and to the best of the sponsor's knowledge, the Firm and its funds are not involved in any litigation which has or may have a material effect on the Firm, or CRP X.
Has the Firm reimbursed and/or paid for PSERS IOP travel in the past two calendar years?	No
Certification of Diligence Costs	IOP certifies that PSERS paid all travel costs, if any, and was not reimbursed for the travel costs related to due diligence of CRP X.

1. Please note that this information, which is available to PSERS upon request, is subject to change pending further review and decision making between Aksia and its clients

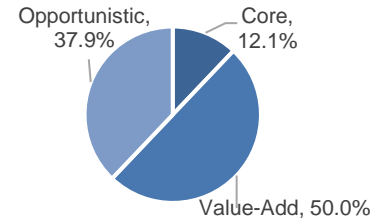
Private Real Estate Portfolio *as of September 30, 2023*

Allocation

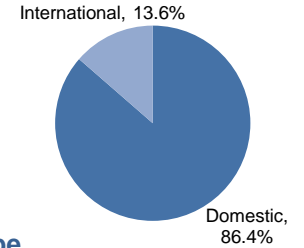
Target Allocation to Real Assets
In Long-Term Strategic Asset Allocation



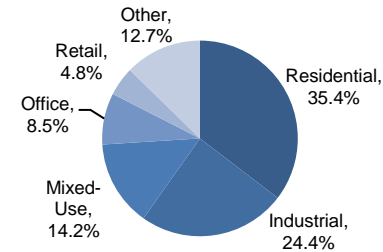
Strategy



Geography



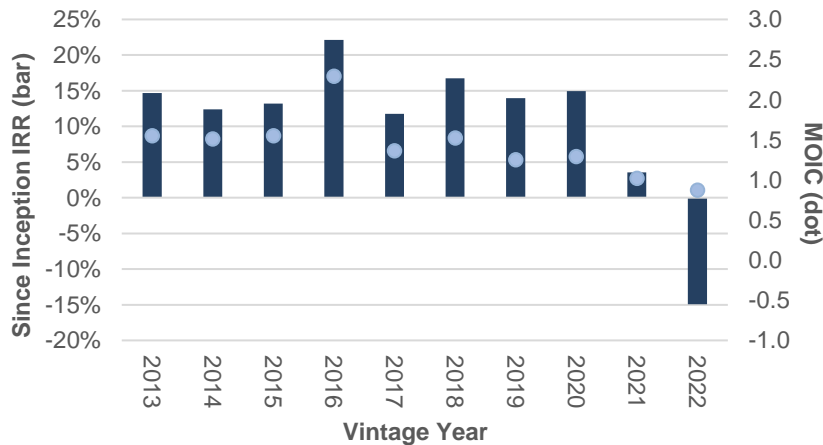
Property Type



Diversification

Performance

Performance by Vintage Year



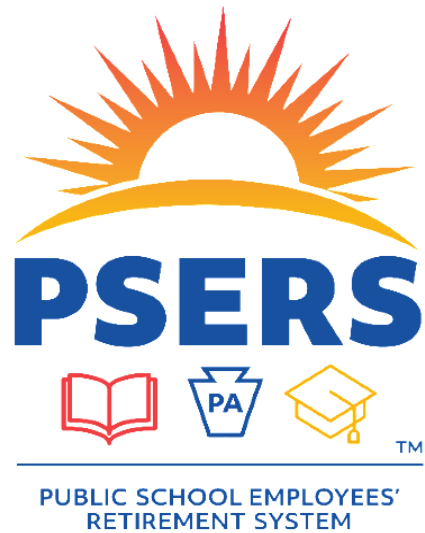
Portfolio Performance

	Time-Weighted				
	1-YR	3-YR	5-YR	10-YR	ITD
Direct Investments	-2.6%	20.0%	14.0%	12.6%	9.3%
Fund Investments	-2.4%	12.4%	9.8%	10.9%	11.6%
Co-Investments	-3.9%	3.8%	4.2%	13.5%	13.8%
Total Portfolio	-2.4%	14.0%	10.7%	11.4%	8.7%
Benchmark¹	-4.3%	10.0%	7.2%	9.0%	8.4%

Color-coding: **outperformance** or **underperformance** vs. benchmark.

¹ Benchmark: Total Portfolio Benchmark is based on weights using various private indices (Burgiss for Value-Add and Opportunistic; NCREIF-ODCE for Core). Previous period benchmarks consisted of differing weights (Private vs. Public) and benchmarks (NCREIF/NTFI for Private and various public equity benchmarks for Public).

Performance



Carlyle Realty Partners X, L.P. Private Real Estate Recommendation

Jarrett Richards
Portfolio Manager

Melissa Quackenbush
Senior Portfolio Manager

May 2024

April 17, 2024

Board of Trustees
Commonwealth of Pennsylvania, Public School Employees' Retirement System ("PSERS")
5 North Fifth Street
Harrisburg, PA 17101

Re: Carlyle Realty Partners X

Dear Trustees:

Aksia LLC ("Aksia"), having been duly authorized by the Board of PSERS, has evaluated and hereby recommends a commitment of up to \$300 million, plus reasonable, normal investment expenses, to Carlyle Realty Partners X (the "Fund" or "CRP X").

The Carlyle Group ("Carlyle" or the "Firm") is a global investment firm founded in 1987. The Firm currently manages \$385 billion in assets across 576 investment vehicles. The Firm began investing through its Carlyle Real Estate Partners ("CRP") fund series in 1997 and since then has launched and managed nine funds, resulting in over 1,000 single investments totaling \$25.2 billion of invested capital.

The Firm is currently in the market with the tenth iteration of its opportunistic real estate fund, CRP X. The Fund will seek to execute the same strategy as predecessor CRP funds, focusing on a broad range of opportunities across property types, primarily in the U.S. CRP has generally focused on acquiring and developing single-property assets in the middle market, yielding a diversified fund from an asset count perspective. Carlyle is targeting a first and potentially final close for CRP X on June 30, 2024.

Aksia's recommendation is based upon the following analytical factors and is made within the context of PSERS' investment guidelines:

- Due diligence of the Fund's investment process, including a review of the sponsor, investment strategy, market positioning, investment personnel, and risk management;
 - Most recent investment due diligence review conducted November 2023
- Due diligence of the Fund's operations, including a review of its organizational structure, service providers, regulatory and compliance, and financial statement analysis;
 - Most recent operational due diligence review conducted November 2023
- Consideration of the Fund's strategy within the context of the current investment environment; and
- Consideration of the Fund's strategy as a component of PSERS' portfolio

This recommendation is given solely for the benefit of PSERS and cannot be relied upon by other investors considering an investment in the Fund, since their needs, objectives, and circumstances may not be identical to those of PSERS. Please consult your tax, legal and/or regulatory advisors before allocating to any private investment fund.

Please feel free to contact us should you have any questions about this recommendation.

Respectfully,



Mark Bartmann
Managing Director, Head of Real Estate



Simon Fludgate
Partner, Head of Operational Due Diligence