Real Estate Strategy Semi-Annual Report (Open Session)

Prepared for California State Teachers' Retirement System

As of Q1 2024

RFA

RCLCO FUND ADVISORS

September 25, 2024

CONTENTS

REPORT PREPARED BY:

Taylor Mammen, Chief Executive Officer

Ben Maslan, Managing Director

Amber Hughes, Senior Associate

Ethan Michalowski, Analyst

RFA
RCLCO FUND ADVISORS

CalSTRS Q1 2024 Open Session Report

Goals and Objectives

The objective of this semi-annual report is to provide the Committee with an evaluation of the real estate portfolio's alignment with CalSTRS' established goals and policies and the investment opportunities presented by property and capital markets.

To accomplish the above objective, we reviewed the CalSTRS portfolio, policies and limitations, previous recommendations and activities, as well as current and forecasted economic, capital market, and property market conditions.

Current and long-term portfolio goals and objectives that the semi-annual report evaluates include:

- A real estate allocation target of 15% +/-5%;
- Target net return that exceeds the NCREIF NFI-ODCE Index;
- Provide stable income, a hedge against inflation, and improved diversification to the overall CalSTRS Investment Portfolio;
- Allocation based on property stage – stable and value creation (lease-up/reposition and construction) – to maintain an appropriate risk profile; and
- An appropriate level of leverage, with a loan-to-value (LTV) limit of 50% for the control portfolio and 65% for the non-control portfolio.

Performance

As of Q1 2024

- The real estate portfolio has outperformed its target return benchmark over the last decade and outperformed inflation over the 5-and 10-year time horizons. The portfolio has generated a 10-year net TWR of 7.4%, outperforming the ODCE benchmark return of 5.2% by ~220 basis points. The portfolio has also outperformed the ODCE benchmark by ~240 basis points over the last five years by achieving a 5-year net TWR of 5.0% vs the ODCE benchmark return of 2.6%.
- The portfolio has generated net TWRs of -9.6% and 4.1% over the 1- and 3-year time horizons. The portfolio outperformed the ODCE benchmark return of -12.0% and 2.5%, during the same period, by ~240 basis points and ~160 basis points, respectively. Excluding Legacy investments, the portfolio has outperformed the benchmark every year over the ten-year period.

Portfolio Performance[1,2]

Net Time Weighted Returns

	Including Legacy				*Excluding Legacy*			
	1 Yr	**3 Yr**	**5 Yr**	**10 Yr**	**1 Yr**	**3 Yr**	**5 Yr**	**10 Yr**
Core	-10.0%	3.3%	4.2%	7.2%	-10.0%	3.3%	4.2%	7.2%
Value Add	-15.4%	1.9%	3.9%	9.5%	-15.4%	1.9%	3.9%	9.7%
Opportunistic	-5.2%	7.7%	7.9%	7.4%	-5.3%	8.4%	9.4%	10.6%
Total	**-9.6%**	**4.1%**	**5.0%**	**7.4%**	**-9.7%**	**4.2%**	**5.2%**	**8.3%**
Target Return (ODCE)	**-12.0%**	**2.5%**	**2.6%**	**5.2%**	**-12.0%**	**2.5%**	**2.6%**	**5.2%**
Inflation (CPI)	**3.5%**	**5.6%**	**4.2%**	**2.8%**	**3.5%**	**5.6%**	**4.2%**	**2.8%**

[1]The Core portfolio has a net target return benchmarked to the ODCE, while the Value Add and Opportunistic portfolios have net target returns of 50 basis points and 300 basis points over the ODCE, respectively.

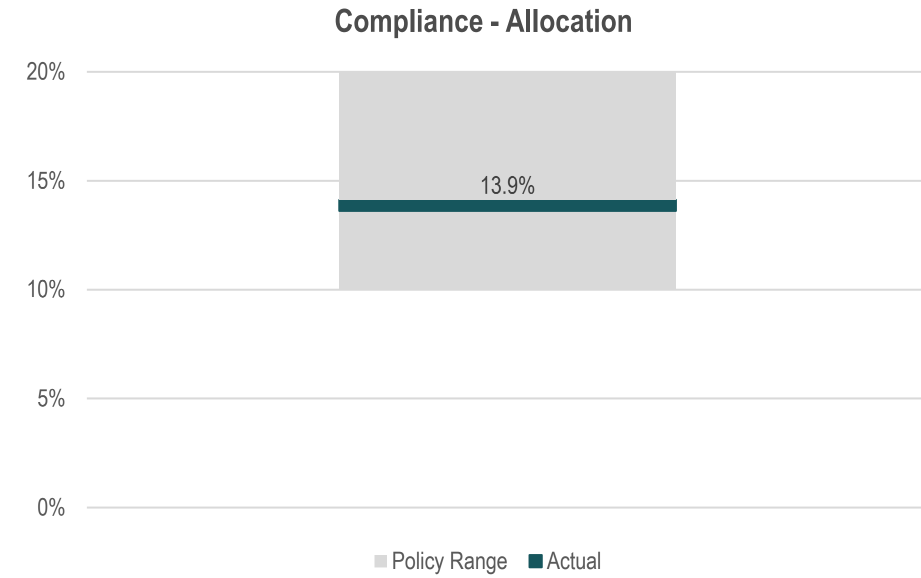
[2]Interest expense from CalSTRS' Master Credit Facilities Program was misclassified in prior reporting from 2020 to 2023, and historical returns have been adjusted accordingly. This misclassification resulted in reported Real Estate Returns 23-53 bps above actual returns.

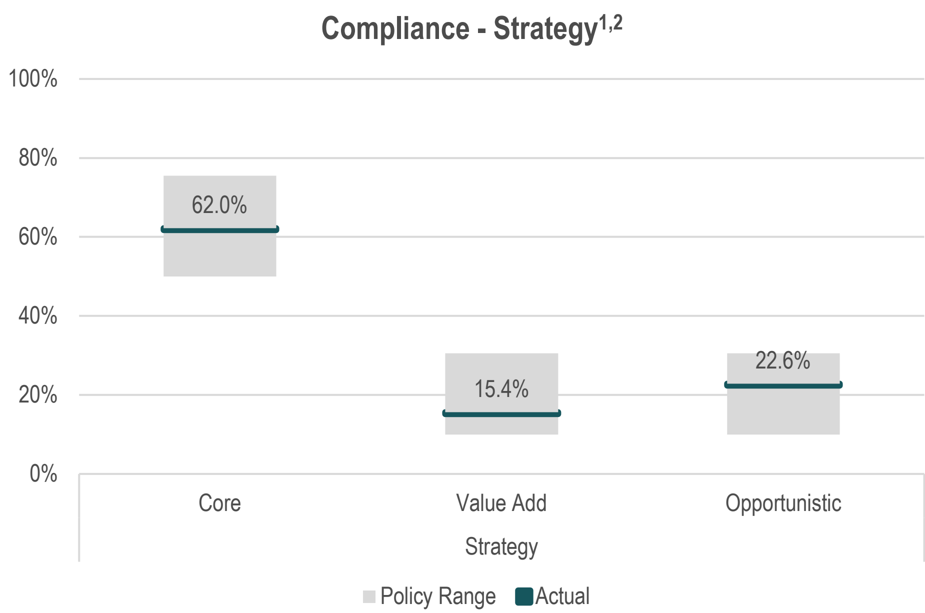
Source: State Street - PrivateEdge, NCREIF, FRED

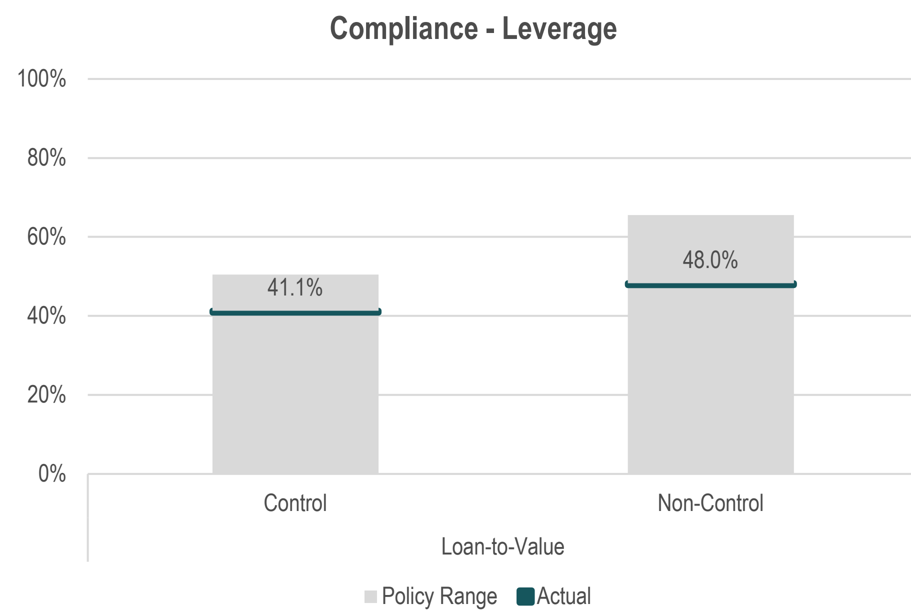
Funding Status and Compliance

As of Q1 2024

- The portfolio had a net asset value (NAV) of ~$47.3B as of Q1 2024, equating to 13.9% of the total fund, which is below the target allocation of 15%, but within the permitted range of +/- 5%.
- The portfolio is compliant with the targeted allocation by investment strategy and is within the permitted leverage limits for the control and non-control[1] portfolios of 50% and 65%, respectively.







[1]Control portfolios are those which CalSTRS maintains control over acquisitions, dispositions, and/or financing or has high liquidity in normal market conditions.
[2]Percentages do not account for the portion of Legacy assets. Public REITs included with Core.
Source: State Street

Current Portfolio Summary

- The portfolio had a net asset value (NAV) of ~$47.3B as of Q1 2024, equating to 13.9% of the total fund, below the target allocation of 15% but within the permitted range.
- Approximately 83% of the portfolio is invested in the United States.
- The portfolio continues to be underweight industrial and multifamily by 12% and 10%, respectively. The allocation to office properties (including life science properties) decreased by 192 basis points over the past six months and remains 7% overweight relative to the benchmark. Excluding life science office properties, the weight to office is in line with the benchmark.
- Total real estate debt was $35.0B as of Q1 2024, an increase of nearly $1.8B since Q3 2023. The LTV of the portfolio increased by 210 basis points from ~41% in Q3 2023 to ~43% in Q1 2024.
- The LTV of the control[1] portfolio increased ~2% from 39% to 41% in Q1 2024, while the non-control LTV remained at 48%. Leverage increased largely due to industry-wide valuation markdowns but is expected to normalize over time. Per the investment policy statement, the LTV is within the compliance limit of 50% and 65%, respectively.
- The allocation by risk profile is 62% Core, 15% Value Add, and 23% Opportunistic, excluding Legacy investments (which comprise less than 1% of the NAV).

RFA
RCLCO FUND ADVISORS

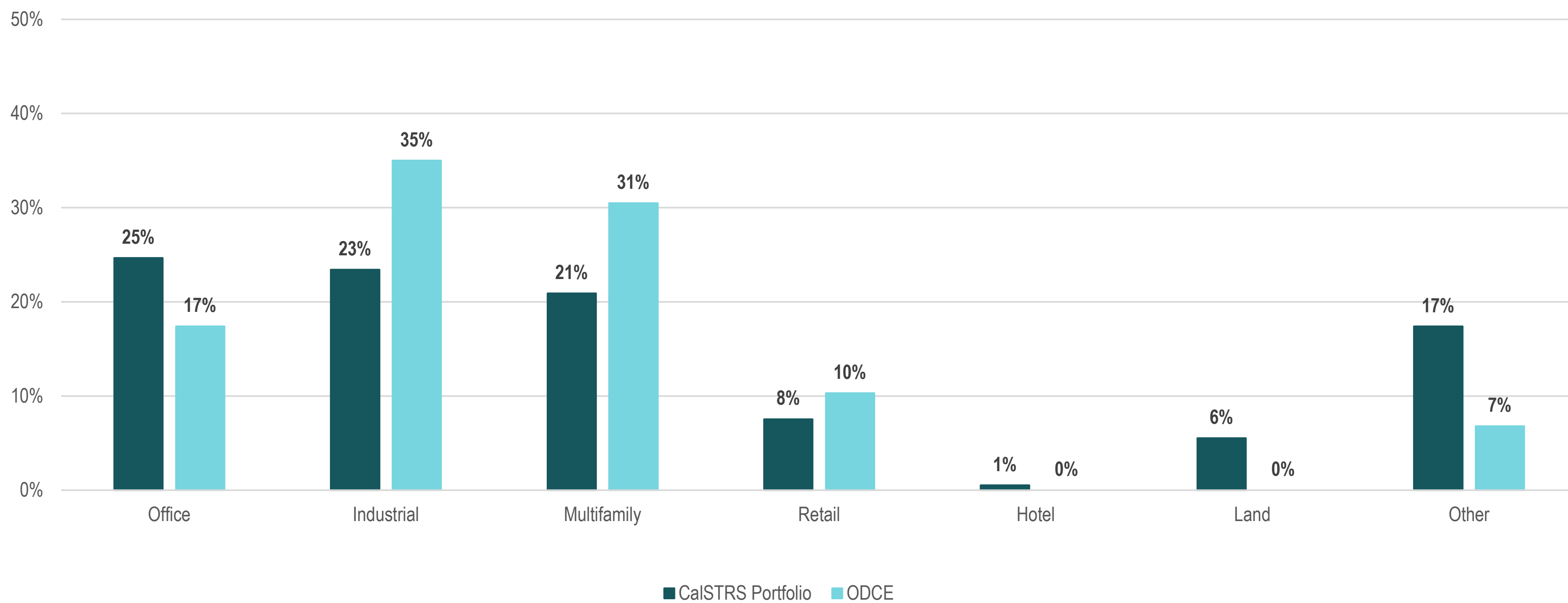
[1] *Control investments are those which CalSTRS maintains discretion over acquisitions, dispositions, and financing, or has high liquidity in normal market conditions.*

Portfolio Diversification

Property Type vs. ODCE

- The real estate portfolio remains overweight to office investments relative to the benchmark when including life science properties. Excluding life science properties, the office allocation is in line with the benchmark.
- The portfolio continues to be underweight to industrial and multifamily by 12% and 10%, respectively.
- The portfolio has a 7% allocation to real estate debt investments, which is the largest driver of overweightness in the “other” category given ODCE funds have no allocation to real estate debt investments.

Total Portfolio - Property Type Diversification[1]



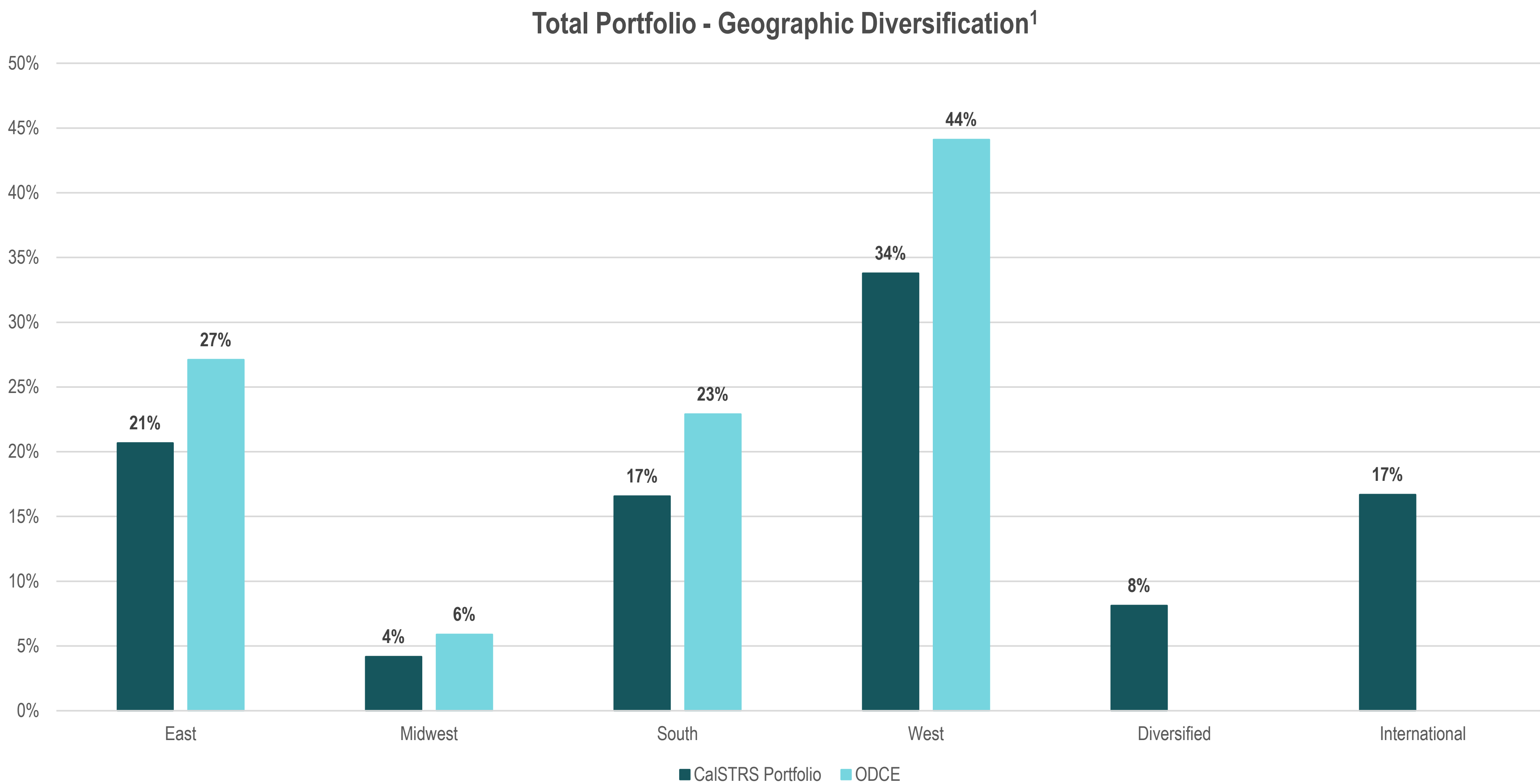
Note: ODCE and CalSTRS’ weights based on gross real estate value.
[1]”Other” property type category is made up of the following property types in descending order by percentage: Mixed Use, Debt, Manufactured Housing, Senior Living, Self Storage, Hospitality, Healthcare, Diversified, Infrastructure, Private Equity Real Estate, Entertainment, REITs, and Securities.
Source: State Street, CalSTRS

RFA
RCLCO FUND ADVISORS

Portfolio Diversification

Geographic Allocation vs. ODCE

- Approximately 83% of the portfolio is invested in the United States. The benchmark has no International allocation.
- All geographic allocations, except International and Diversified, are within the +/-10% of the benchmark regional weights.

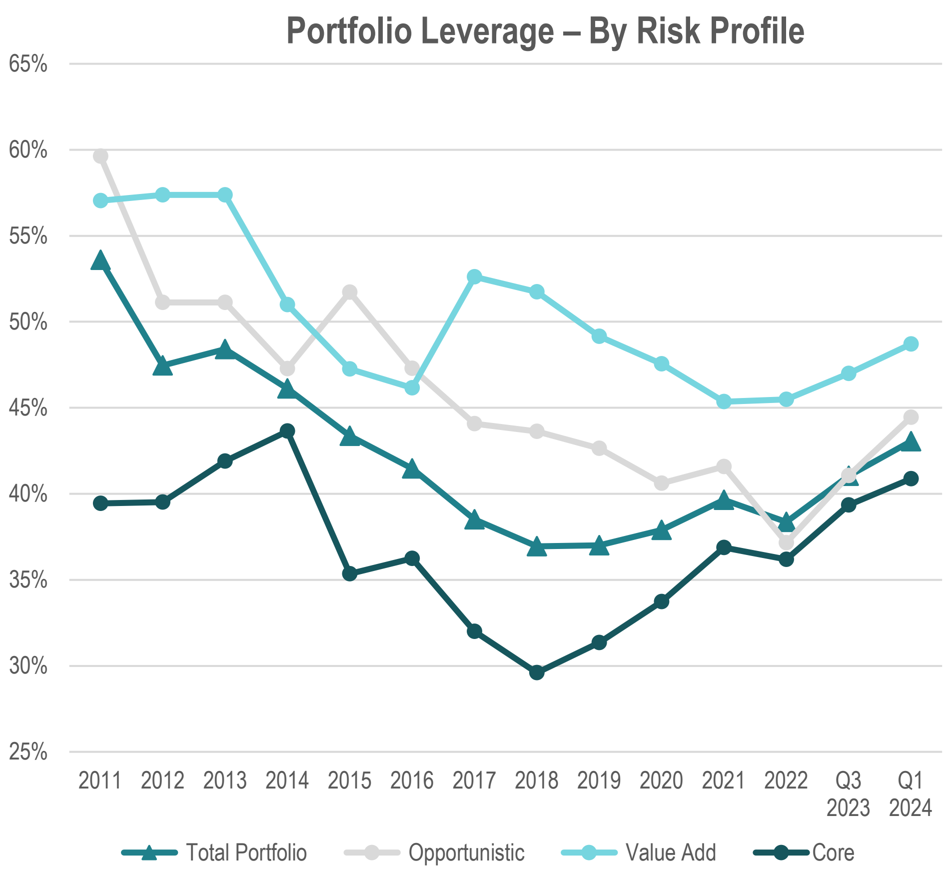


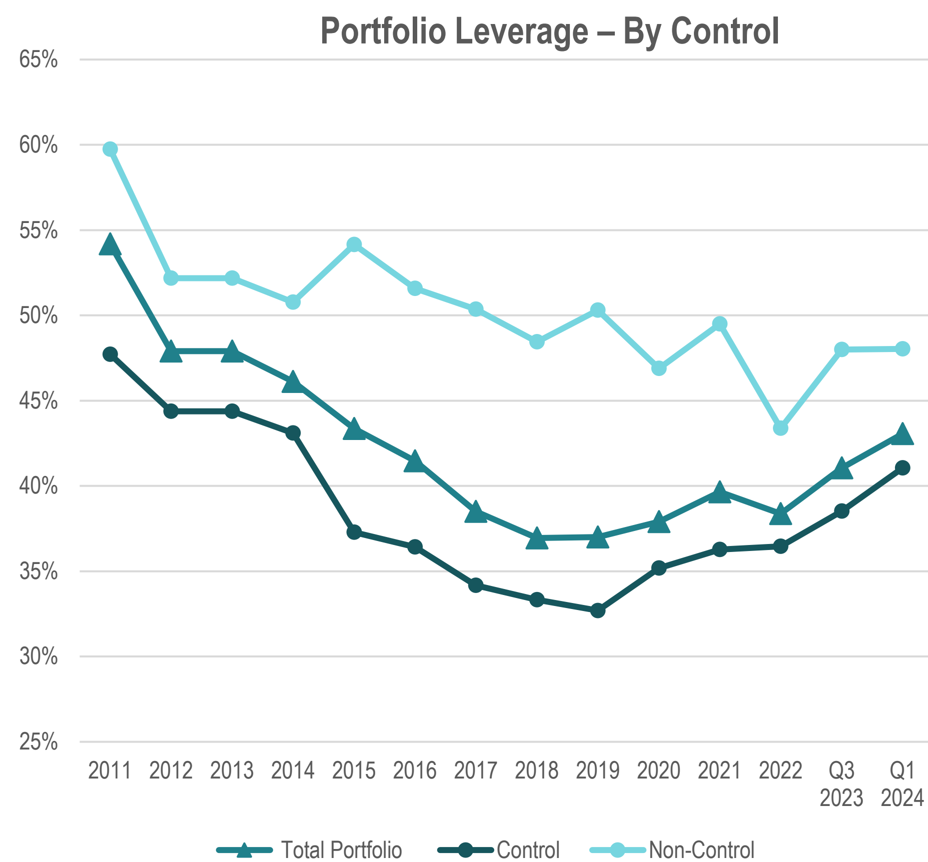
Note: ODCE and CalSTRS' weights based on gross real estate value.
[1] "Diversified" geographic category represents mostly U.S. diversified portfolio investments.
Source: State Street, CalSTRS

Total Portfolio Leverage

By Risk Profile and Control

- CalSTRS' real estate debt was $35.0B as of Q1 2024, an increase of nearly $1.8B since Q3 2023. The LTV of the portfolio increased by 210 basis points from ~41% in Q3 2023 to ~43% in Q1 2024.
- The LTV of the control[1] portfolio increased by ~2% from 39% to ~41% in Q1 2024, while the non-control LTV remained at 48% over the past six months. Leverage increased largely due to industry-wide valuation markdowns but is expected to normalize over time.





[1] Control investments are those which CalSTRS maintains discretion over acquisitions, dispositions, and financing, or has high liquidity in normal market conditions.

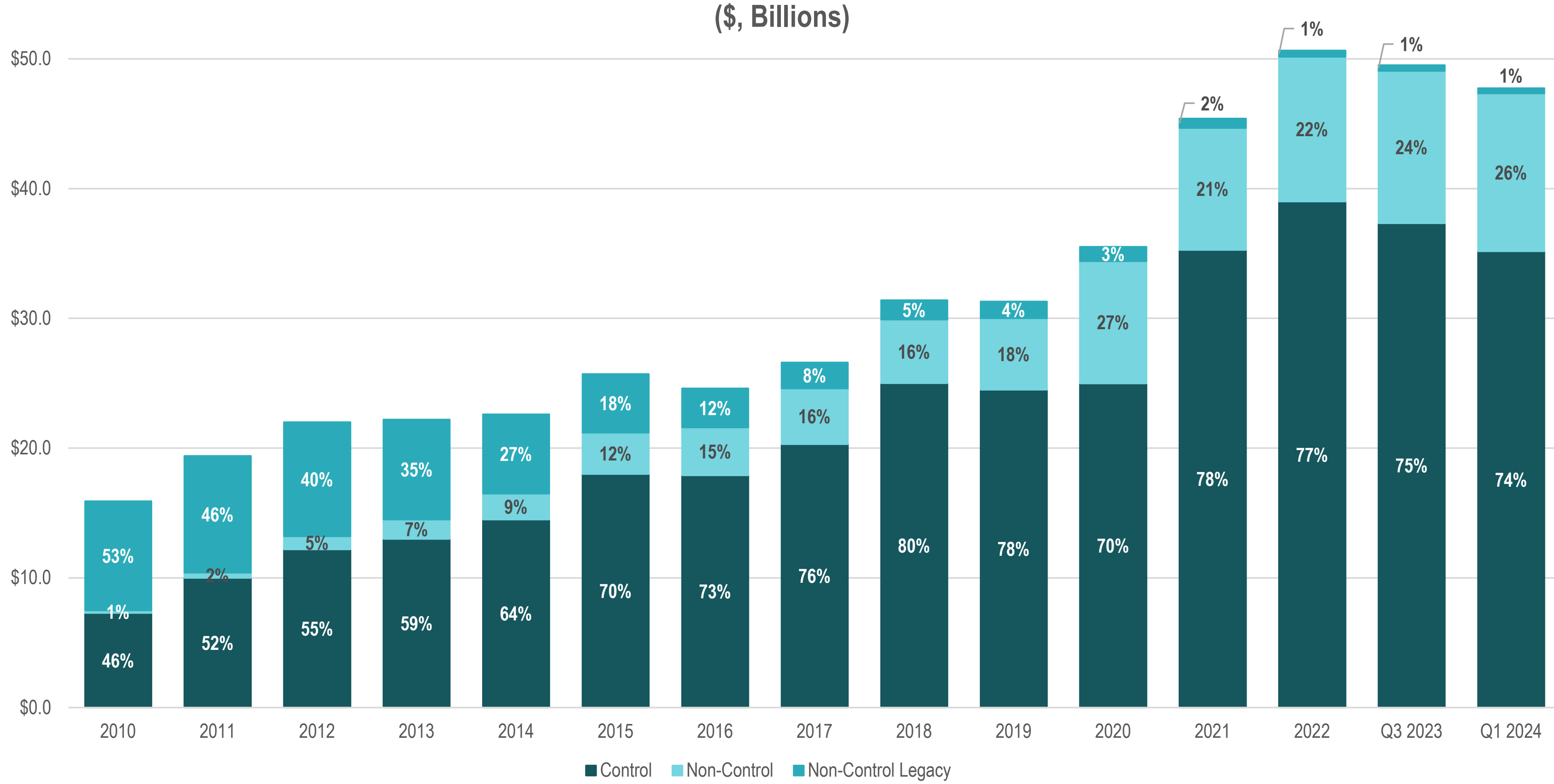
Source: CalSTRS, State Street

Real Estate Portfolio Growth

Portfolio NAV by Control

- CalSTRS' real estate portfolio NAV has decreased by $1.7B in the past six months to $47.3B (as of Q1 2024), largely a factor of industry-wide valuation markdowns. The control portfolio is 74% of the NAV as of Q1 2024.
- Legacy investments represent less than $0.4B of the NAV, or just under 1% of the portfolio.

Portfolio NAV by Control
($, Billions)



RFA
RCLCO FUND ADVISORS

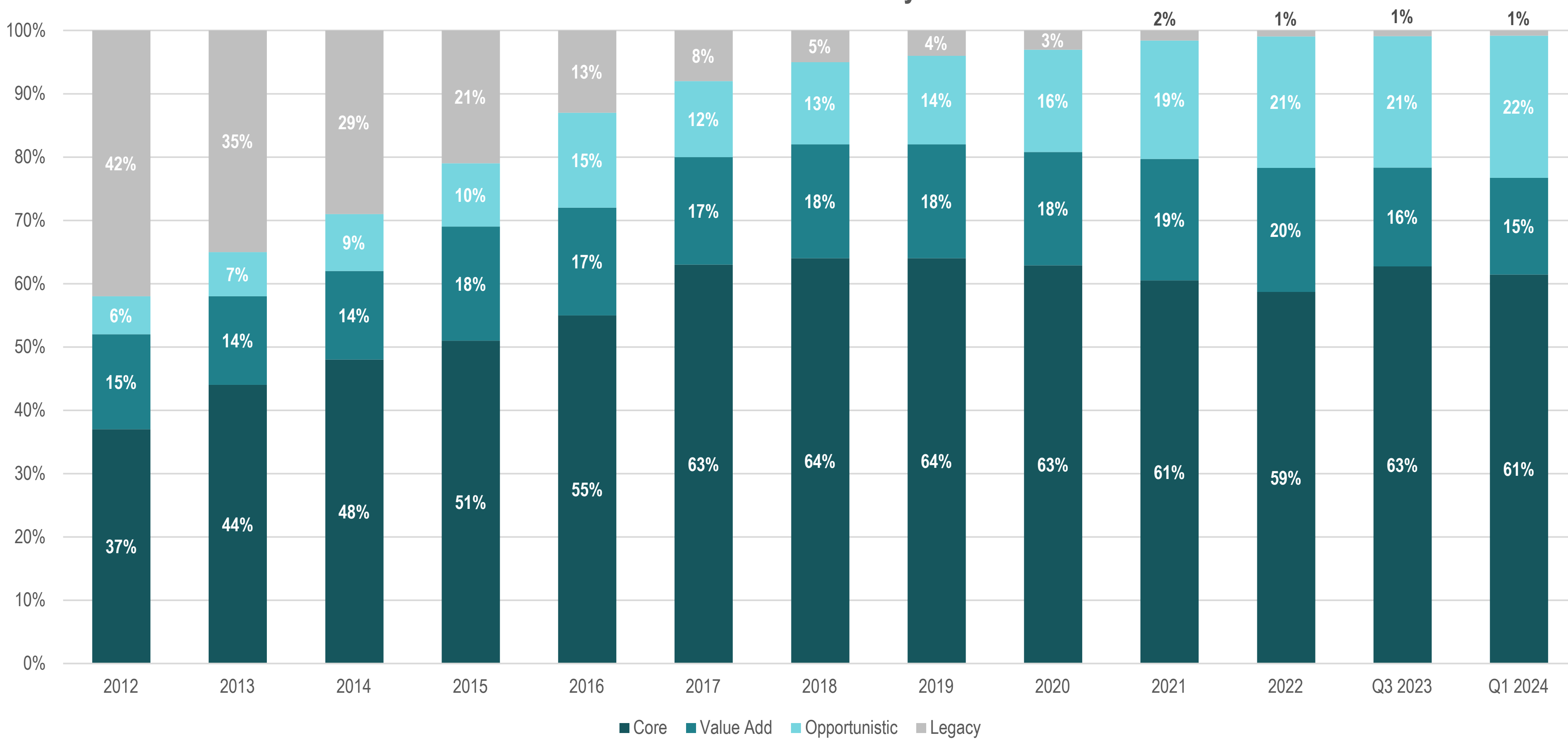
Weights based on percentage of CalSTRS' net asset value. REITs included in Core.
Source: CalSTRS, State Street

Portfolio Allocation

By Risk Profile

- Allocations to Opportunistic investments have increased by ~2% over the last six months while Core allocations have decreased by ~1%; Value Add investments have held steady.
- Legacy investment allocations have held steady at just below 1%.

% of Portfolio Net Asset Value by Risk Profile



RFA
RCLCO FUND ADVISORS

Weights based on percentage of CalSTRS' net asset value. REITs included in Core.
Source: CalSTRS, State Street

APPENDIX: KEY MARKET TRENDS

U.S. Real Estate Summary

As of Q2 2024

- **Real estate fundamentals will likely continue to soften in 2024** but should **start to recover in 2025**.
  - **Industrial** demand slowed in 2023/4 but rent growth should average ~4% annually through 2027.
  - **Apartment** rent growth currently flat/negative due to excess supply but should trend toward 1-2% through 2027.
  - **Neighborhood retail** rent growth will average 2-3% over the next 3 years as new supply is minimal.
  - **Office** rents will fall 0-1% annually, and vacancies will approach 20% by 2027.
  - Specialty property types such as **data centers and senior housing** should see above-inflation rent growth.
- **Real estate capital markets opened slightly in Q1 with greater CMBS issuance.** Lending will stay tight in 2024 but start to loosen in 2025 as 10-Year drops and spreads narrow. Institutions are constrained by little capital being returned, although wholesale selling is unlikely.
- **Prices have mostly reset at 20-40% below peak,** while NPI appraised values are down 18% since peak (33% for office).
  - **Prices are below replacement cost in most sectors**, creating buying opportunities, but sellers are reluctant to transact on better quality properties. Widespread foreclosures/distress selling is unlikely, except for office and regional malls.
  - **Senior and mezzanine debt and rescue capital** continues to be attractive.
  - **Development opportunities will be very limited** until rents catch up with costs, with a few exceptions (e.g. data centers, build-to-rent single-family).
- **Sunbelt markets will continue to attract younger residents**, likely driving strong real estate demand for years to come. Supply responses may restrain rent growth in Sunbelt markets, but development/build-to-core opportunities will be attractive.
- Weak office markets in Gateway cities will create ongoing problems with revenue and CBD vitality, although we believe that **urban residential markets within diversified economies will continue to thrive** (e.g., Los Angeles and New York).

RFA
RCLCO FUND ADVISORS

Source: CoStar; MSCI; NCREIF

Property Markets Snapshot and Outlook

As of Q2 2024

Multifamily

- Vacancy increased over the last year and is expected to remain above the long-term average despite declining through 2027.
- Rent growth was slow over the last year but is forecast to rebound above the long-term average through 2027.

Office

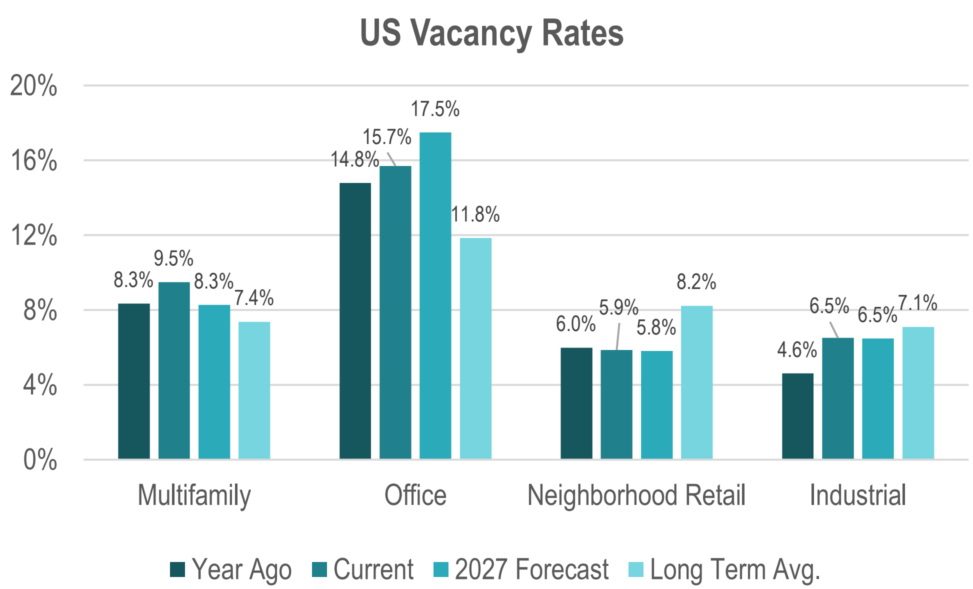
- Office vacancy climbed over the past year, reaching a record high of 15.7%. Further deterioration is predicted through 2027.
- Rent growth was slightly positive the past year but will fall to near zero for the next three.

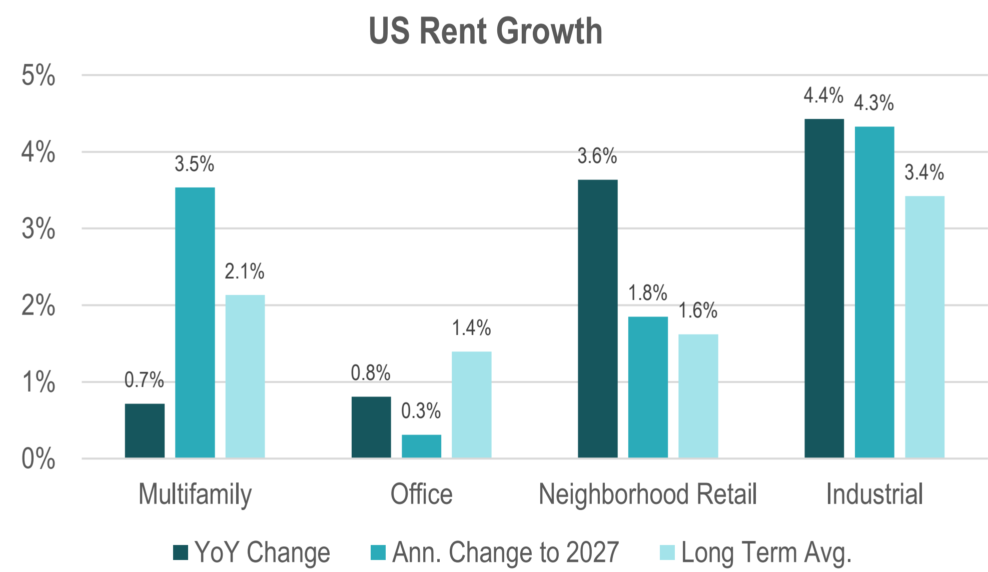
Retail

- Neighborhood retail vacancy fell slightly over the past year. The current and forecast vacancy rates are well below the long-term average.
- Rents rose by 3.6% over the last year, and stable growth is forecast to persist, despite moderation.

Industrial

- Industrial vacancy rose 190 bps over the past year but remained below the long-term average. Little change is expected through 2027.
- Rent growth led all property types over the past year and will do so over the next few years.



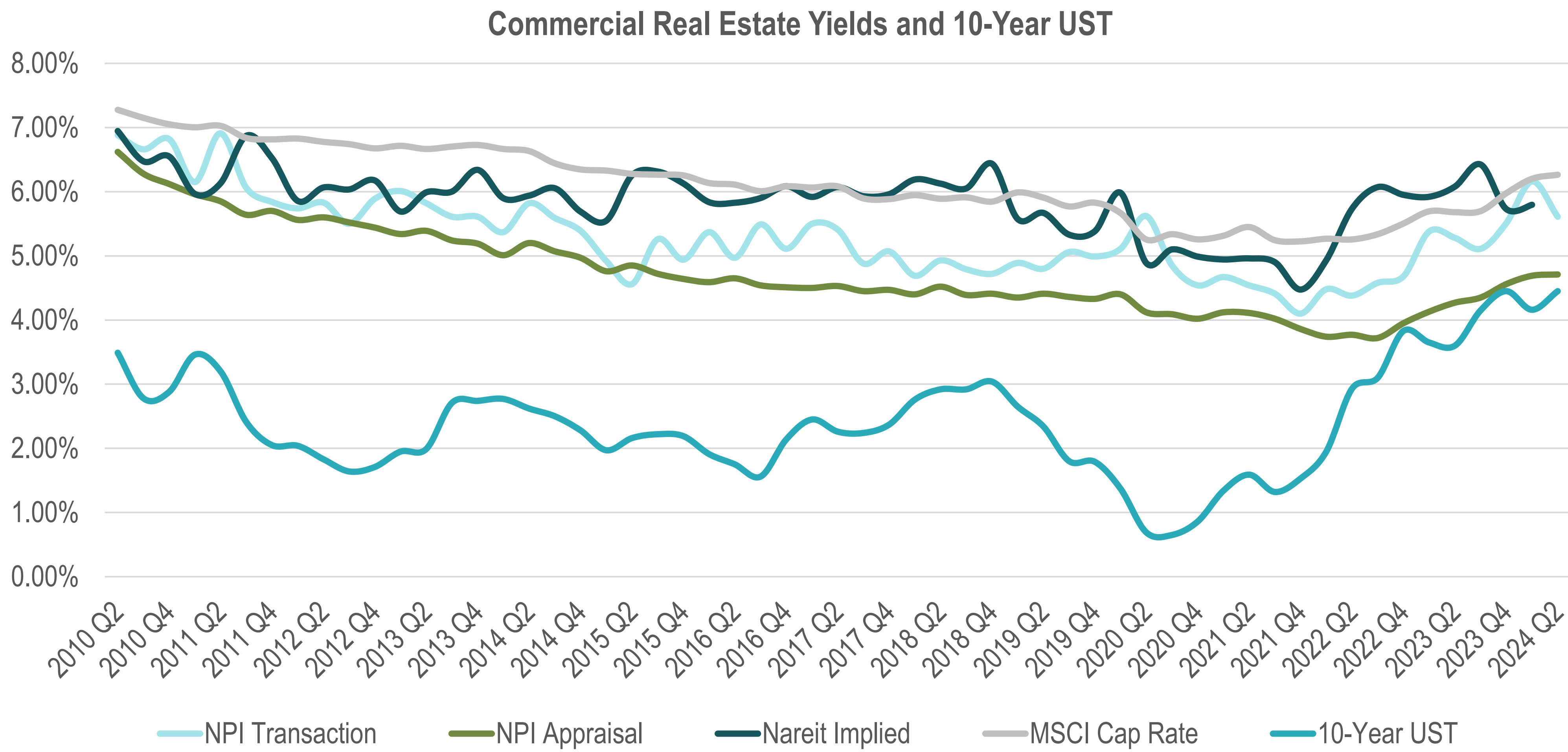


RCLCO FUND ADVISORS

Source: CoStar, RFA

Real Estate Income Yields Generally Rose with the 10-Year UST in Q2 2024

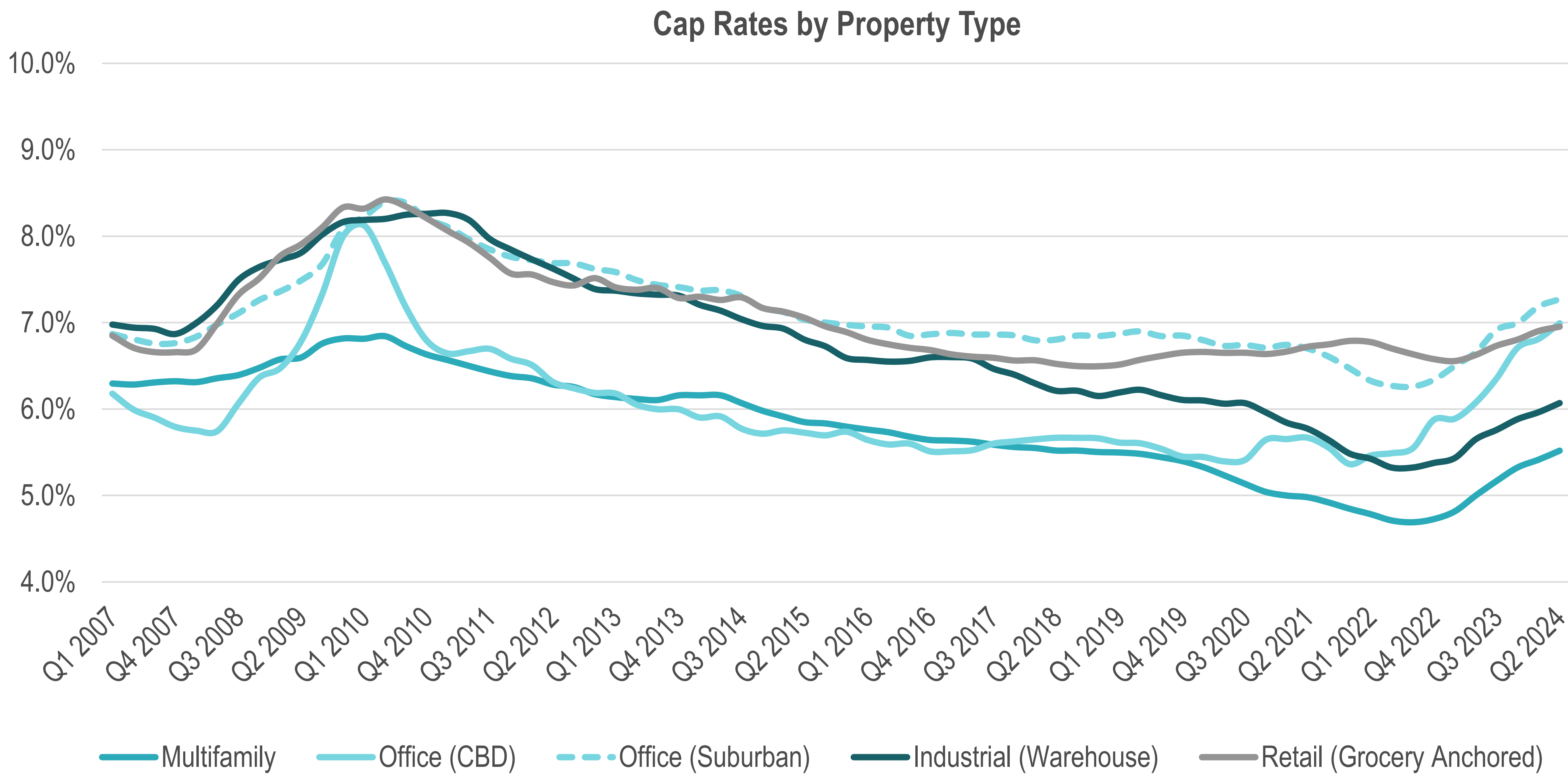
Transaction-based Yields Remained at a Higher Level than Appraisal-based Yields Despite Falling QoQ



Note: Nareit implied cap rate data are only available through 2023 Q3.
Source: NCREIF; Nareit; MSCI; Federal Reserve Bank of St. Louis

Cap Rates Continued to Expand Across Most Property Types in Q2 2024

CBD Office Expanded the Most QoQ and Over the Past Year while Grocery Anchored Retail Ticked Up Slightly

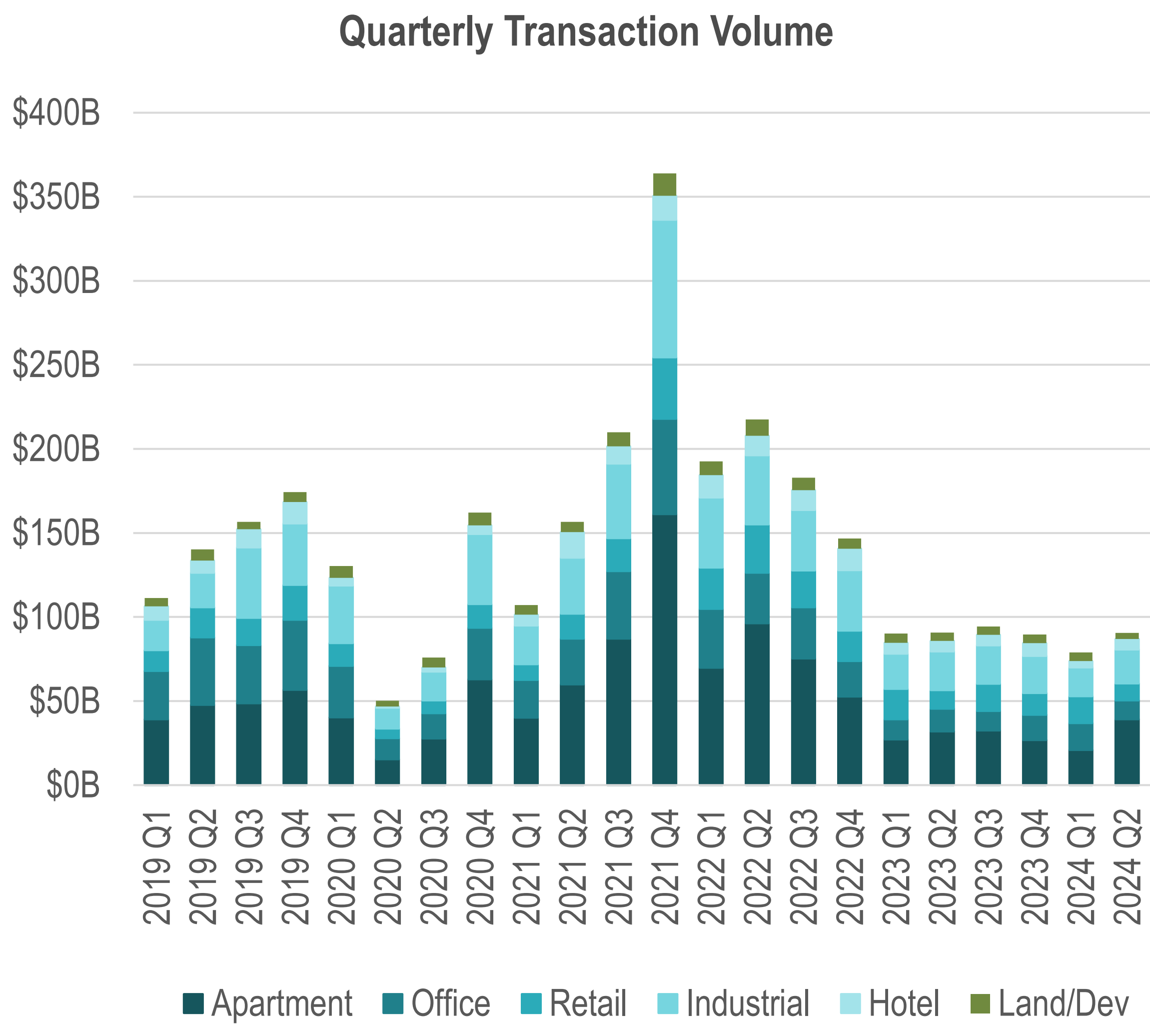


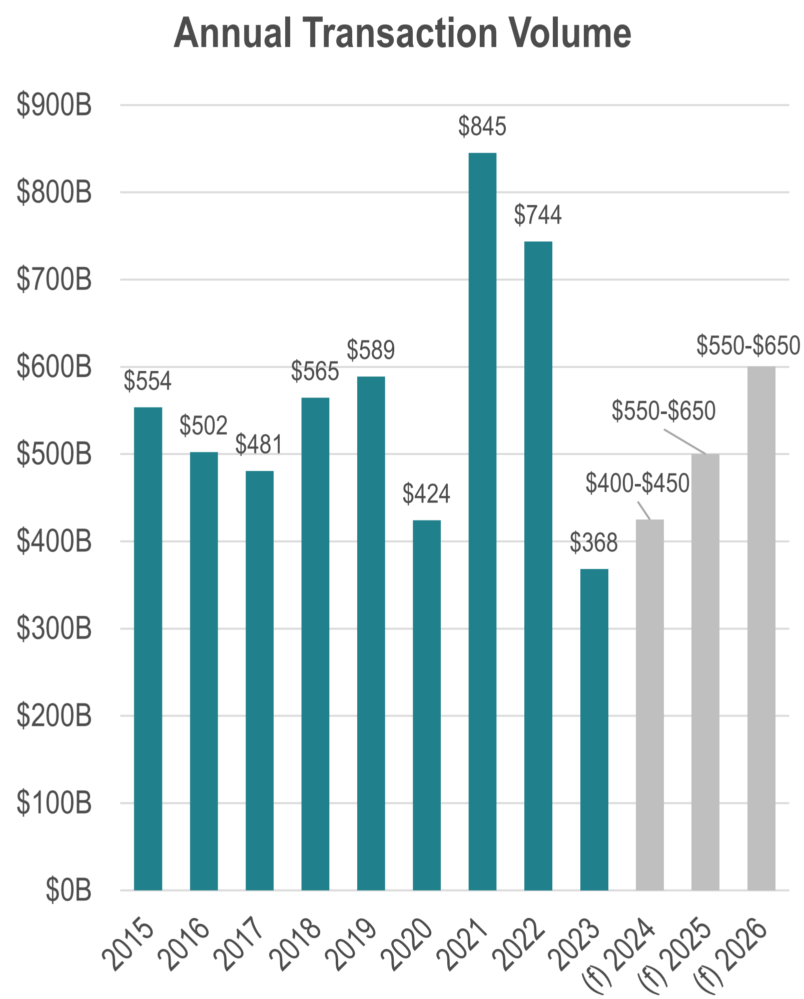
RCLCO FUND ADVISORS

Source: MSCI

Transaction Volume Rose to $91B in Q2, Near 2023 Levels

Investment Activity Is Expected to Remain at Low Levels in 2024-25 but Will Recover as Markets Adjust to Repricing





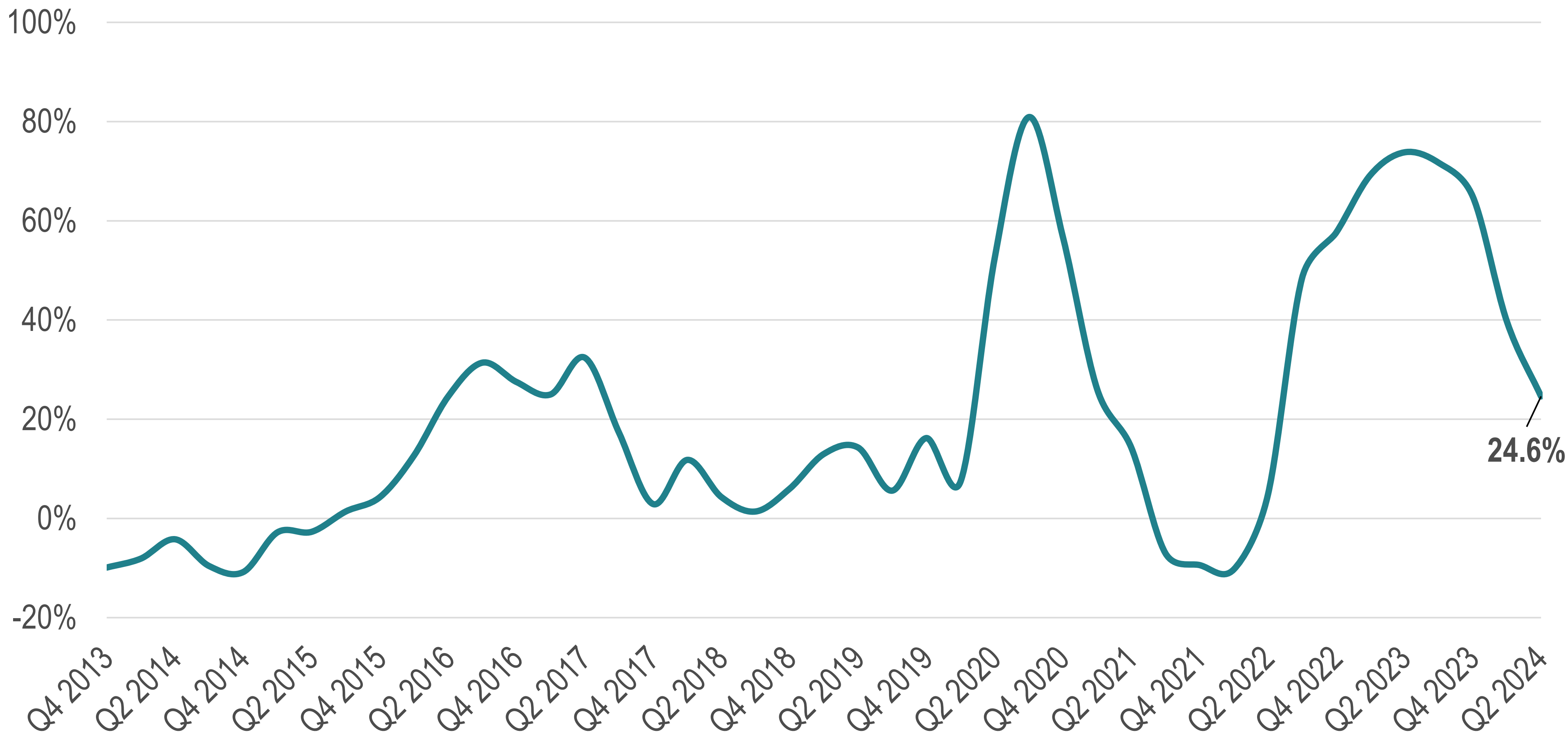
RCLCO FUND ADVISORS

Source: MSCI

Share of Banks Tightening Real Estate Lending Standards Fell in Q2

Levels Declined for a Fourth Consecutive Quarter but Remain Elevated

Net % of Banks Tightening Lending Standards for Construction/Development Purposes



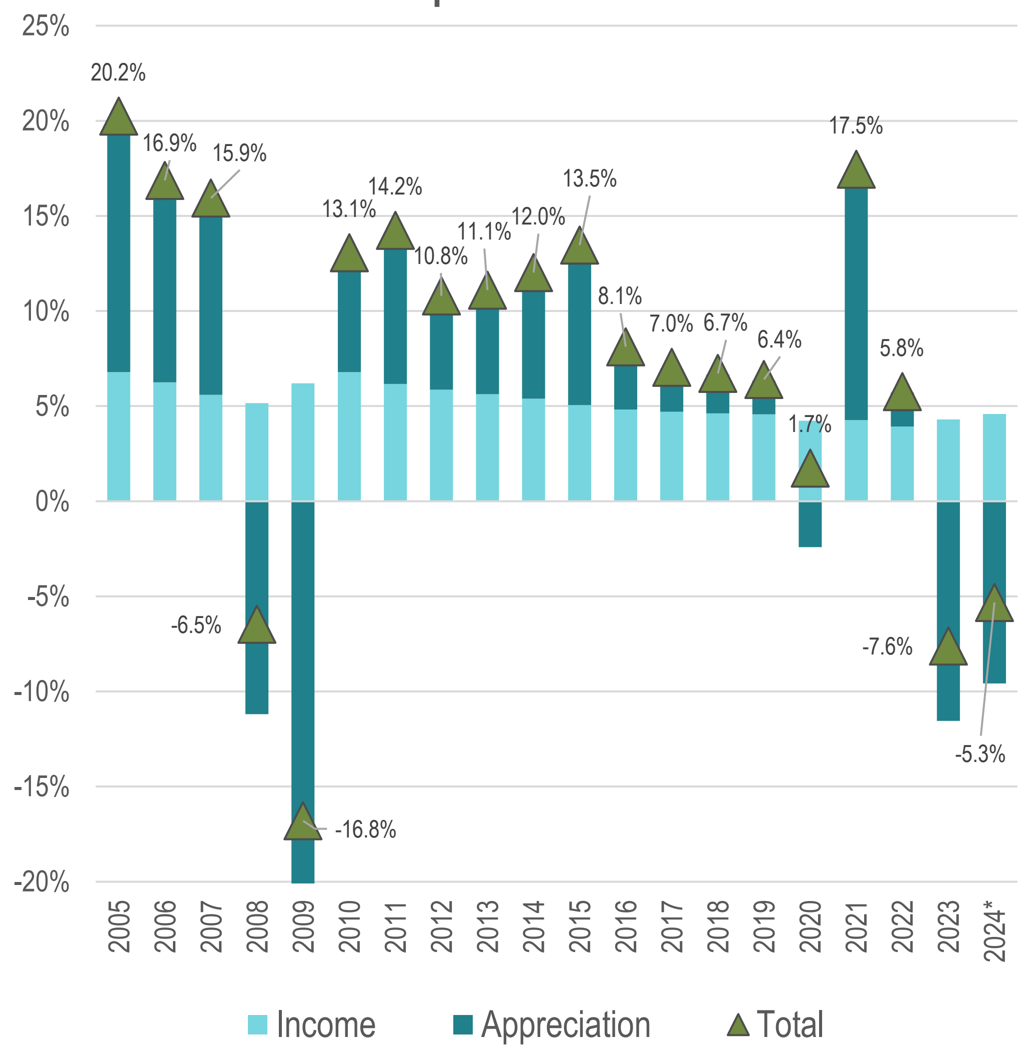
RCLCO FUND ADVISORS

Source: Federal Reserve

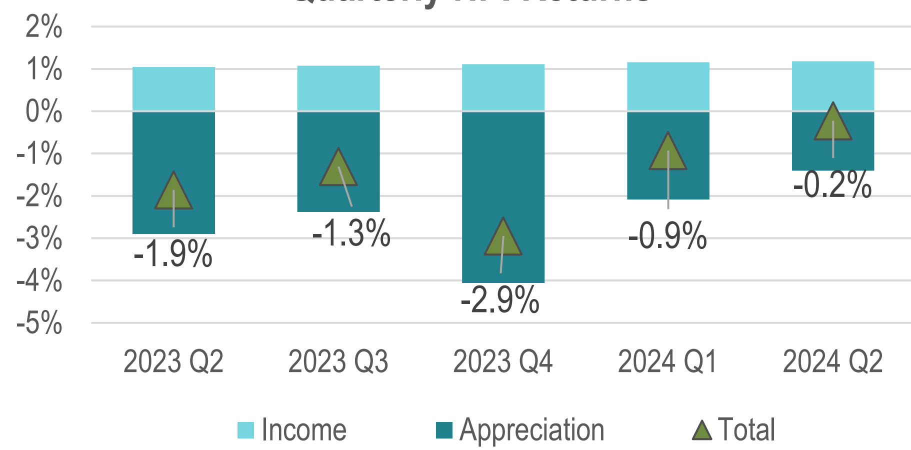
Depreciation Drives Continued Negative NPI Returns

Trailing 4Q Returns Were Negative in Most Property Types; Retail and Hotel Were Exceptions

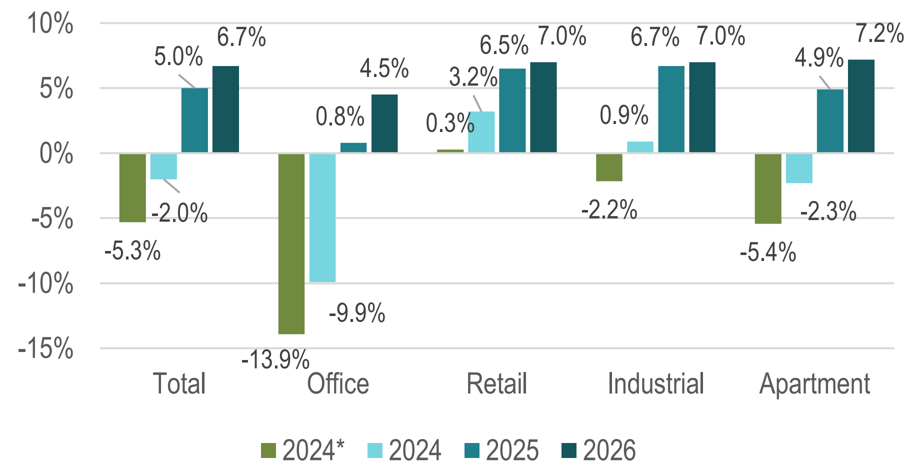
Annual Expanded NPI Returns



Quarterly NPI Returns



Forecast NPI Returns (PREA Consensus)

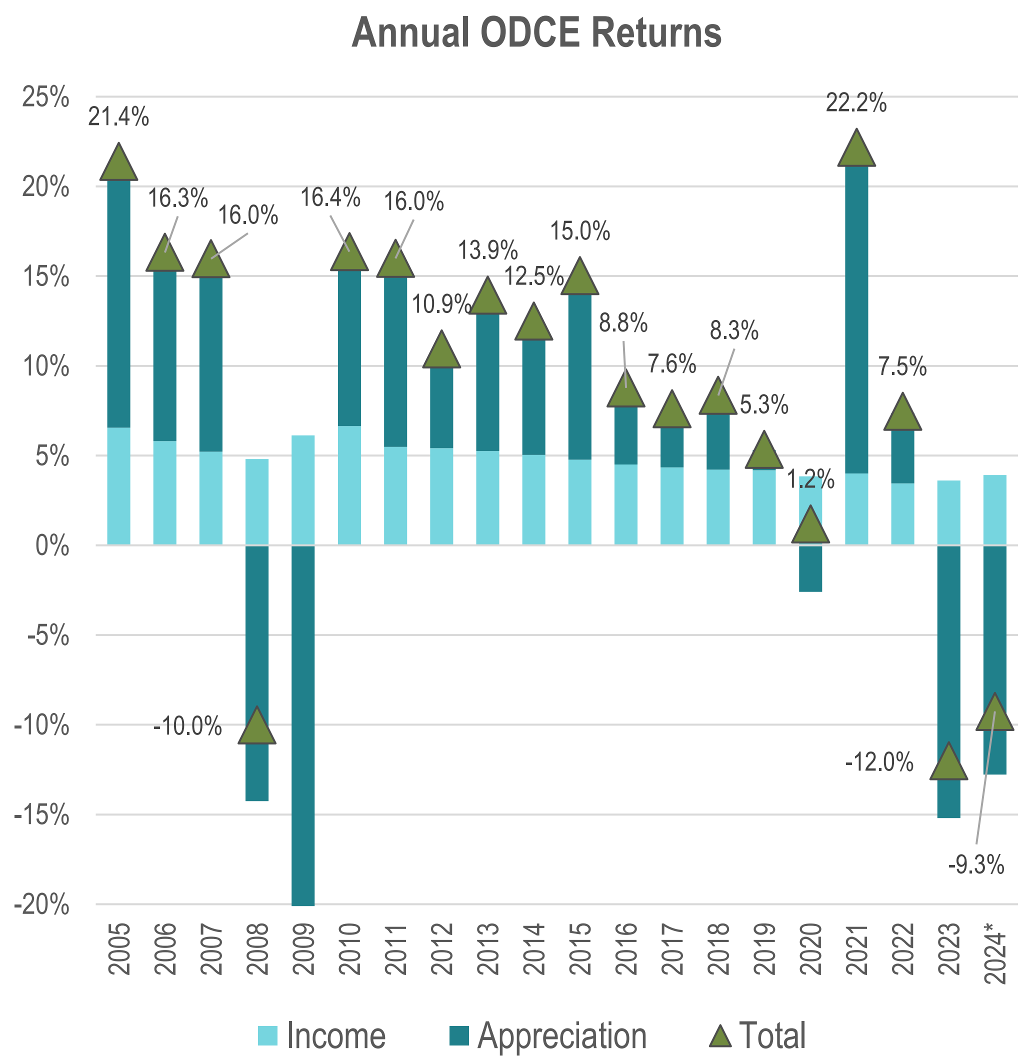


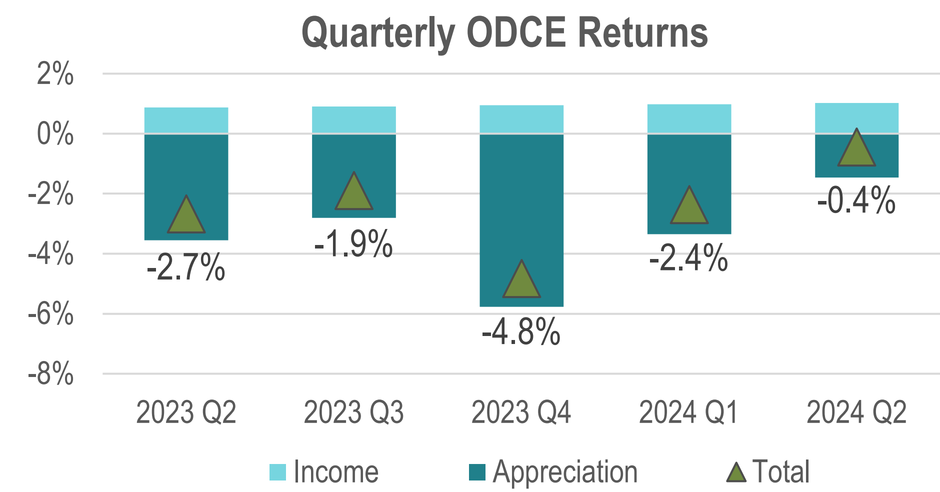
RFA
RCLCO FUND ADVISORS

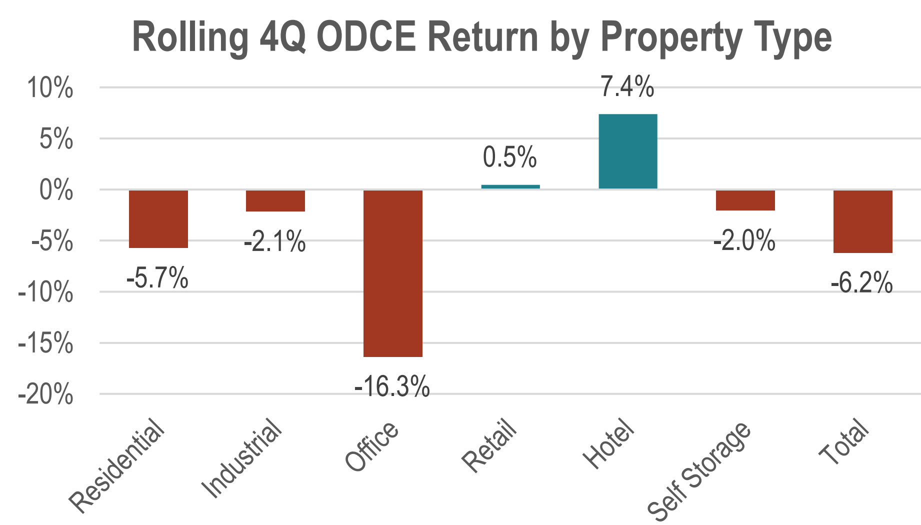
**Rolling 4Q total as of 2024 Q2..*
Note: Returns are gross unlevered.
Source: NCREIF; PREA

Trailing 4Q ODCE Returns Improved, but Remained Negative

Most Property Type Returns Were Negative Over the Last Year; Only Retail and Hotel Were Positive







RFA
RCLCO FUND ADVISORS

**Rolling 4Q total as of 2024 Q2.*
Note: Annual and quarterly returns are gross levered; property type returns are gross unlevered at ownership share.
Source: NCREIF

Disclaimers

Critical Assumptions

Our analysis depends on the correctness and completeness of data available as of the date of this memo. The future performance of the global, national, and local economy and real estate market, and other factors similarly outside our control may vary. Given the fluid and dynamic nature of the economy and real estate markets, as well as the uncertainty surrounding particularly the near-term future, it is critical to monitor the economy and markets continuously. Stable and moderate growth patterns are historically not sustainable over extended periods of time; the economy is cyclical; and real estate markets are typically highly sensitive to business cycles. Further, it is very difficult to predict when an economic and real estate upturn will end.

Our analysis cannot predict unusual economic shocks on the national and/or local economy, potential benefits from major "booms" that may occur, or the residual impact on the real estate market and the competitive environment of such a shock or boom. Also, it is important to note that it is difficult to predict changing consumer and market psychology.

As such, we recommend the close monitoring of the economy and the marketplace, and updating this analysis as appropriate.

General Limiting Conditions

Reasonable efforts have been made to ensure that the data contained in this study reflect accurate and timely information and are believed to be reliable and comprehensive. This study is based on estimates, assumptions, and other information developed by RCLCO Fund Advisors from its independent research effort and general knowledge of the industry. No responsibility is assumed for inaccuracies in reporting by any data source used in preparing or presenting this study. This memo is based on information that to our knowledge was current as of the date of this memo, and RCLCO Fund Advisors has not undertaken any update of its research effort since such date.

Cover Images: *Storage Rentals of America, Saint Joseph, MI*

Table of Contents Image*: Storage Rentals of America, Elkhart, IN*

RCLCO FUND ADVISORS