

Session 4: Is it time to get back into real estate?

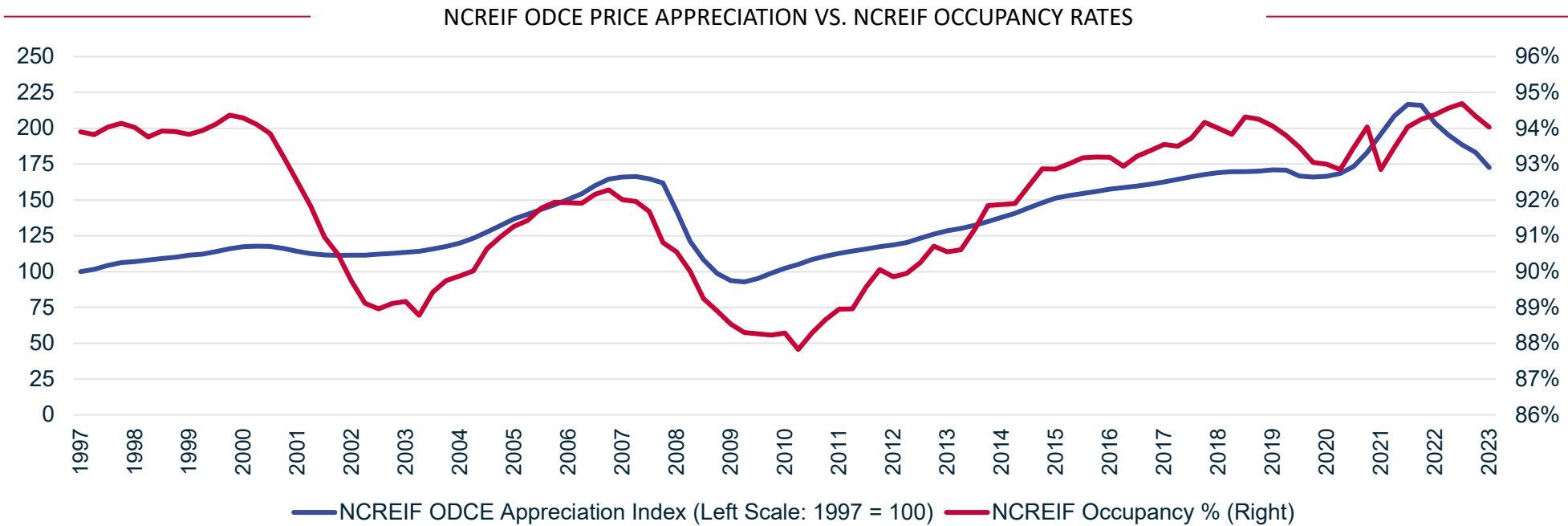
Federal Reserve Bank of Dallas &
SMU Cox Folsom Institute for Real Estate

May 2024



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Not a Typical Cycle: Occupancy Above the Average of 92% While Values Respond to Rate Hikes



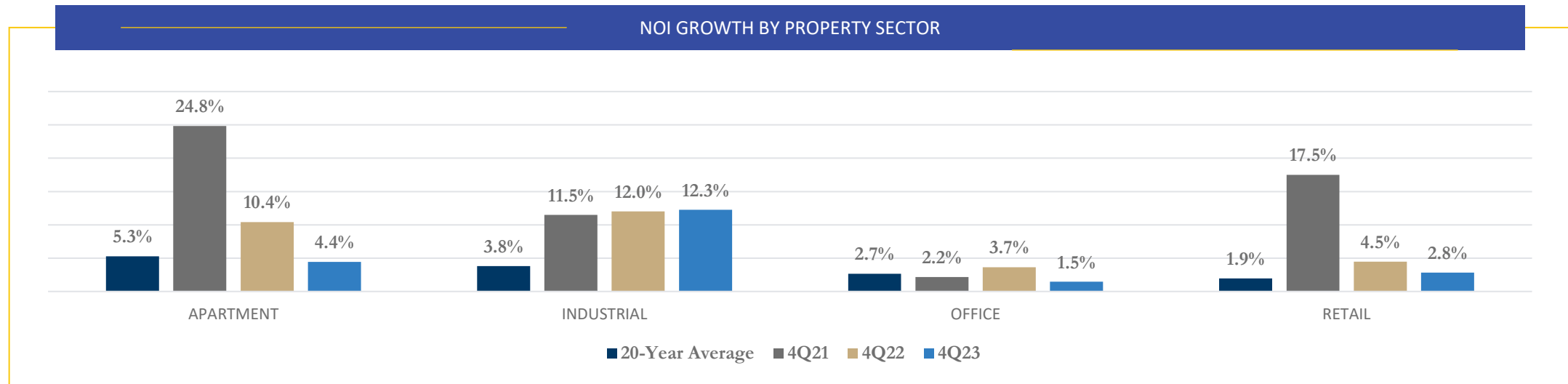
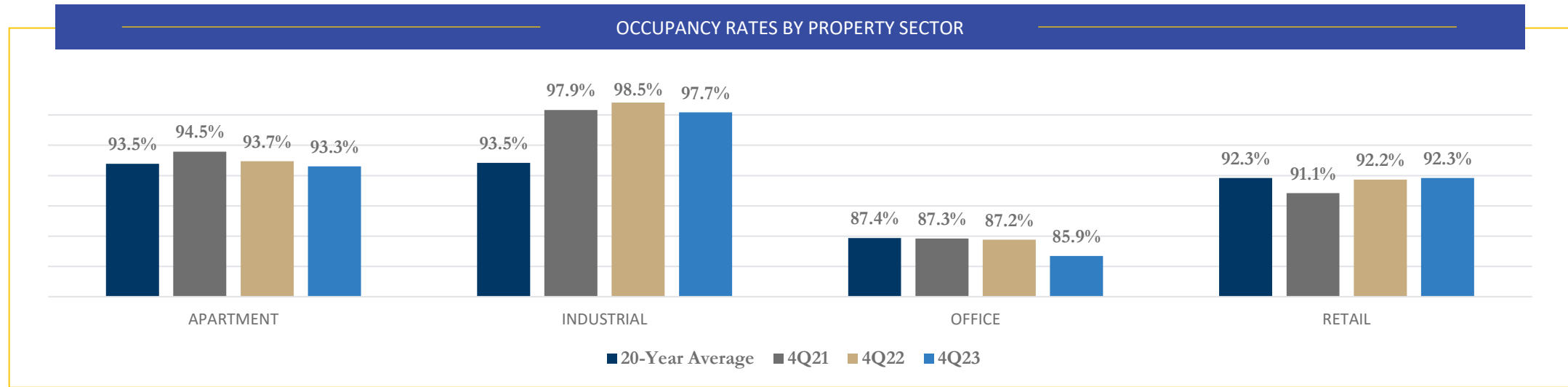
CONTRACTION PERIODS – CAPITAL LOSS					
Event	Duration (Quarters)	Capital Loss	Starting Occ%	Ending Occ%	Occupancy Decline
TECH BUBBLE	6	-5.4%	94.1%	90.5%	-3.6%
GFC	8	-44.2%	92.0%	88.3%	-3.7%
COVID	3	-3.0%	94.1%	93.1%	-1.0%
CURRENT	6	-20.3%	94.6%	94.1%	-0.5%

EXPANSION PERIODS - CAPITAL GAINS					
Event	Duration (Quarters)	Capital Gain	Starting Occ%	Ending Occ%	Occupancy Increase
POST-TECH	22	49.3%	90.5%	92.0%	1.5%
POST-GFC	39	84.2%	88.3%	94.1%	5.8%
POST-COVID	7	30.6%	93.1%	94.6%	1.5%

Source: SMU Cox Folsom Institute for Real Estate: NCREIF Trends Report & NCREIF ODCE Report 4Q2023, the latest data available. The time periods for the capital loss periods are; Tech-Bubble 1Q2001-3Q2002; GFC 1Q2008-1Q2010; COVID 4Q2019-3Q2020; Current Period 2Q2022 – 4Q2023. The time periods for the capital gain periods are; post-Tech Bubble 3Q2002 – 1Q2008; Post-GFC 1Q2010 – 4Q2019; Post-COVID 3Q2020 – 2Q2022. The above information has been obtained from sources considered to be reliable; the information is believed to be accurate but is not guaranteed and is for informational purposes only and should not be viewed as investment advice.



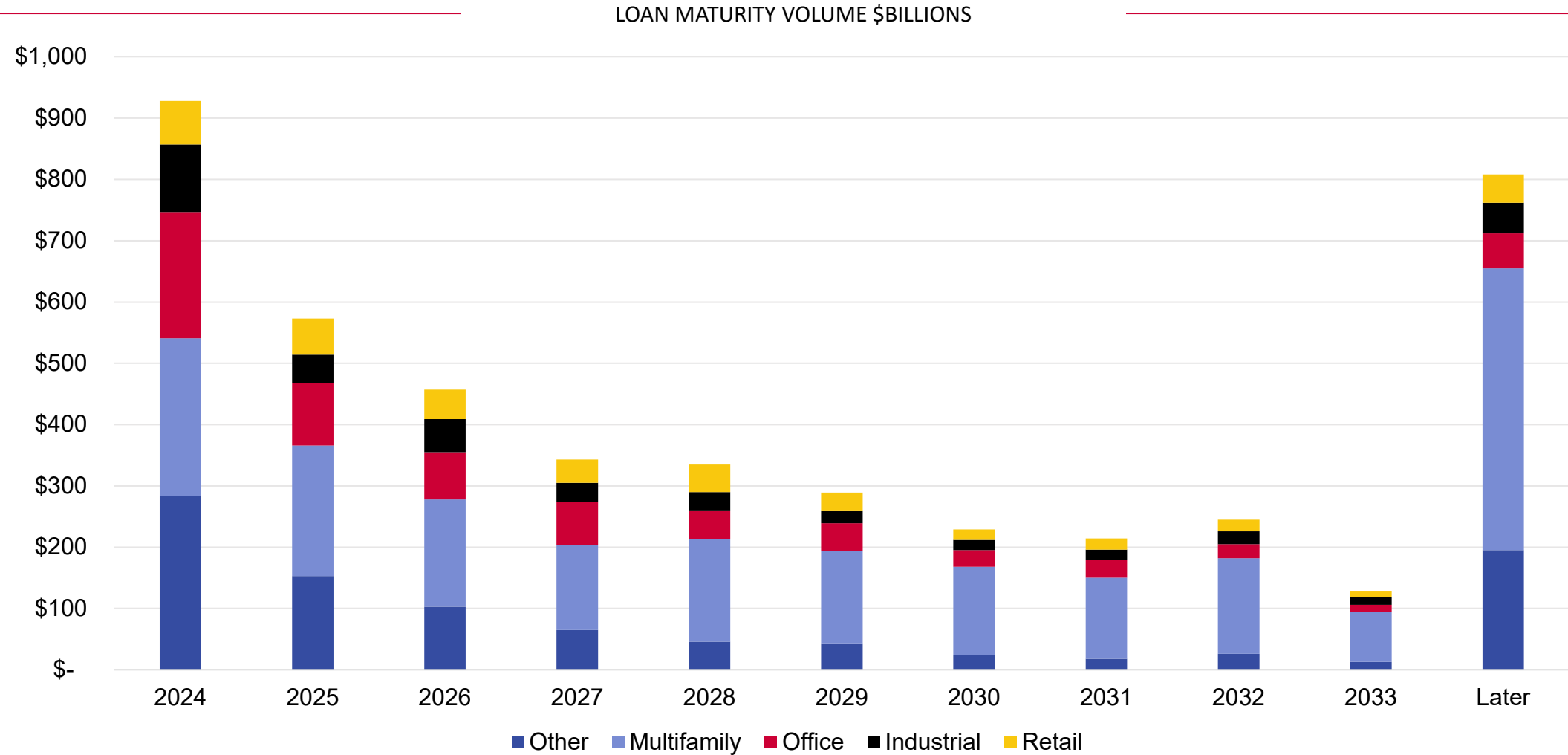
Fundamentals (Ex-Office) Remain Strong & NOI Growth Partially Offsets Value Declines



Source: SMU Cox Folsom Institute for Real Estate using data from the NCREIF trends report as of 4Q2023, the latest data available. NOI Growth for the office sector appears counterintuitive compared to occupancy rates. These do not reflect "same-store" statistics and may reflect survivor bias as weaker assets may have been sold and were not included in the index during the latest quarter. The above information has been obtained from sources considered to be reliable; the information is believed to be accurate but is not guaranteed and is for informational purposes only and should not be viewed as investment advice.



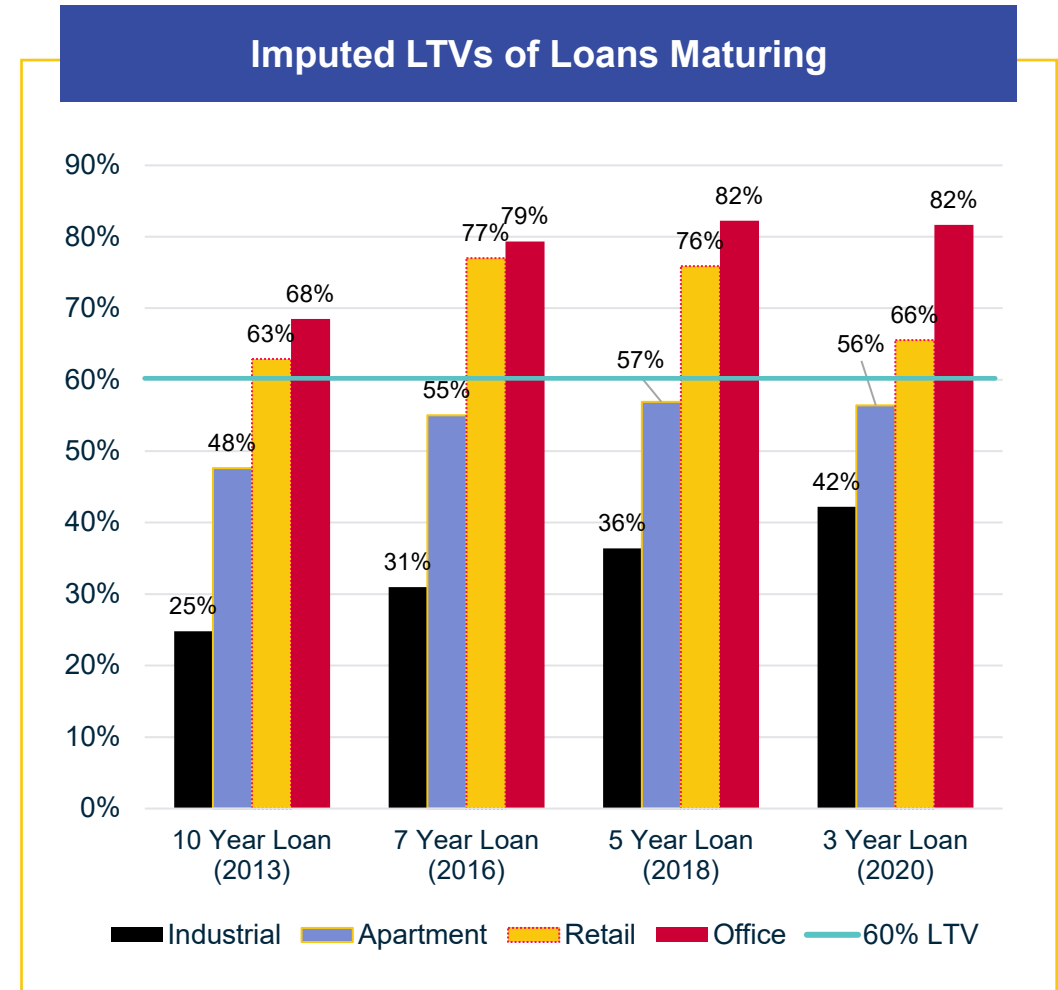
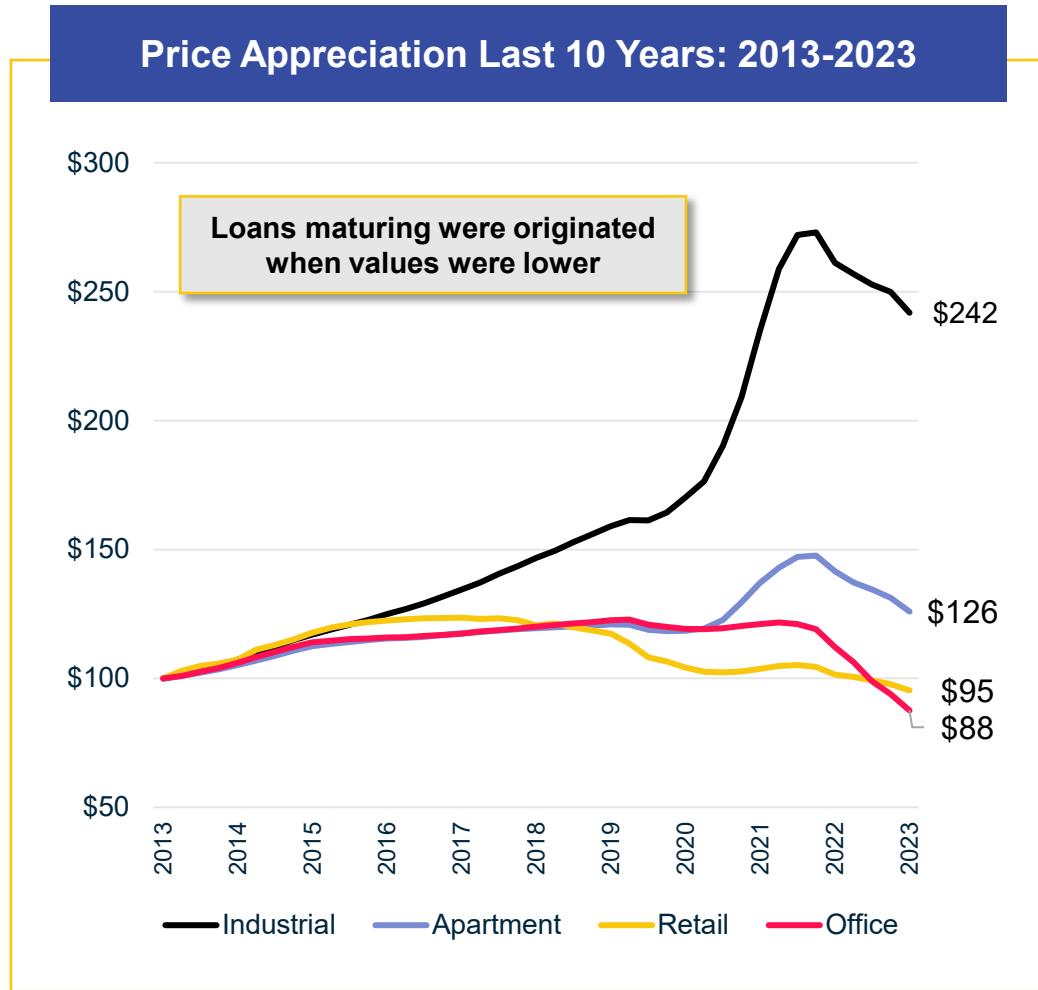
\$2 Trillion in Loans Maturing Through 2026: 44% Multifamily/Industrial, 29% Office/Retail



Source: SMU Cox Institute for Real Estate using data from the Mortgage Banker's Association report, "Commercial/Multifamily Loan Maturity Volumes, 2023" as of December 31, 2023. *Other represents hotel, healthcare and other property sectors. The above information has been obtained from sources considered to be reliable; the information is believed to be accurate but is not guaranteed and is for informational purposes only and should not be viewed as investment advice.



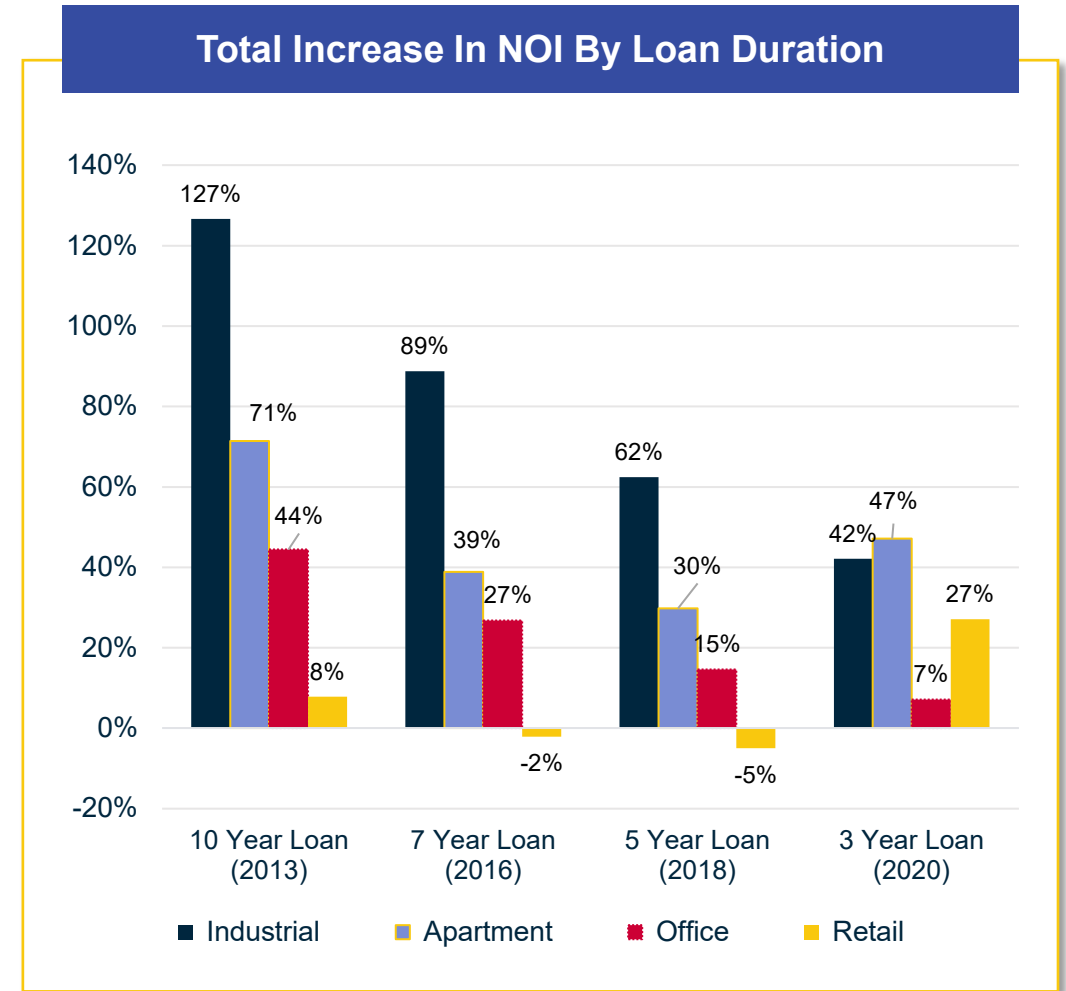
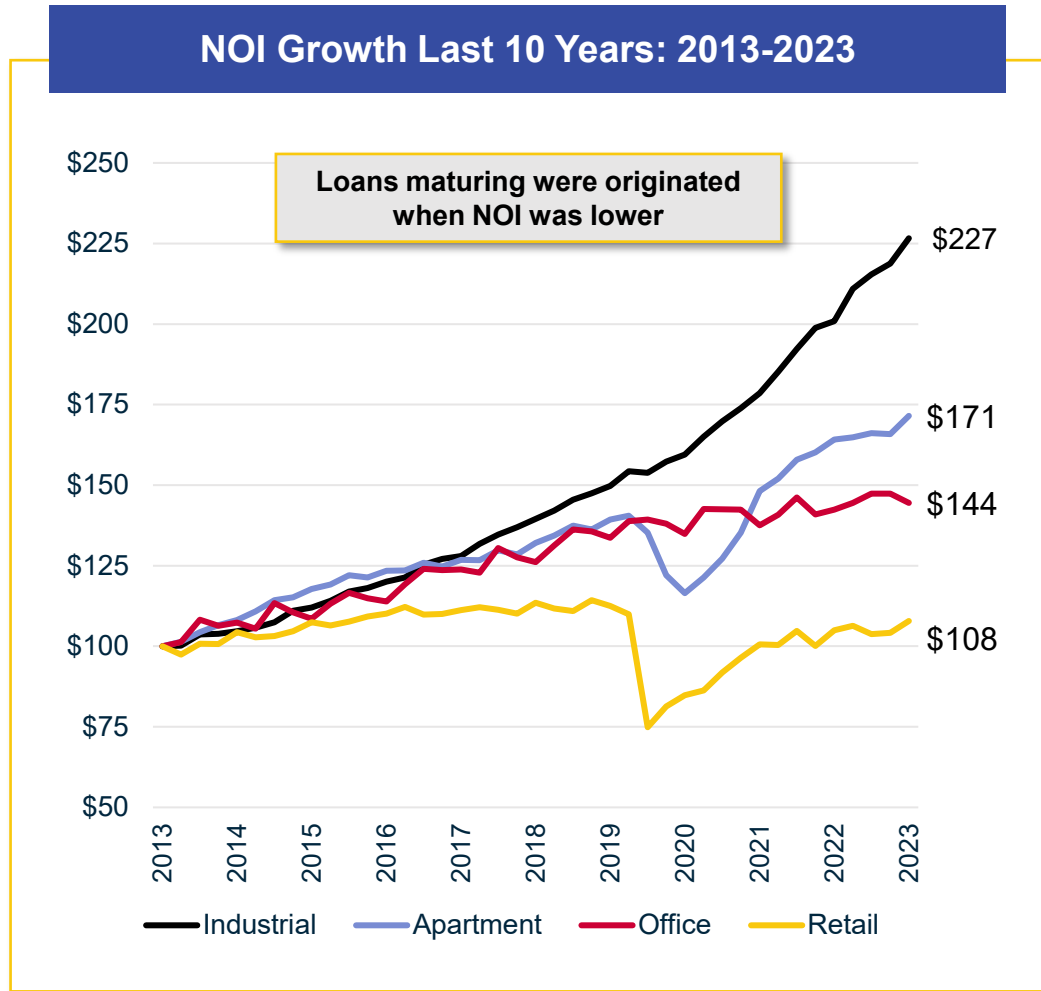
Multifamily & Industrial Loan-to-Values Seem Lower vs Origination Compared to Office & Retail



Source: SMU Cox Folsom Institute for Real Estate using data from NCREIF Property Index for price appreciation. Imputed loan-to-values assumes loans were originated at 60% loan-to-value either 3, 5, 7 or 10 years ago and compares the par value of the loan at the time originated to the year-end 2023 indexed values by property sector. The above information has been obtained from sources considered to be reliable; the information is believed to be accurate but is not guaranteed and is for informational purposes only and should not be viewed as investment advice.



Debt Yields and DSCR Ratios Likely Much Better Compared to Origination

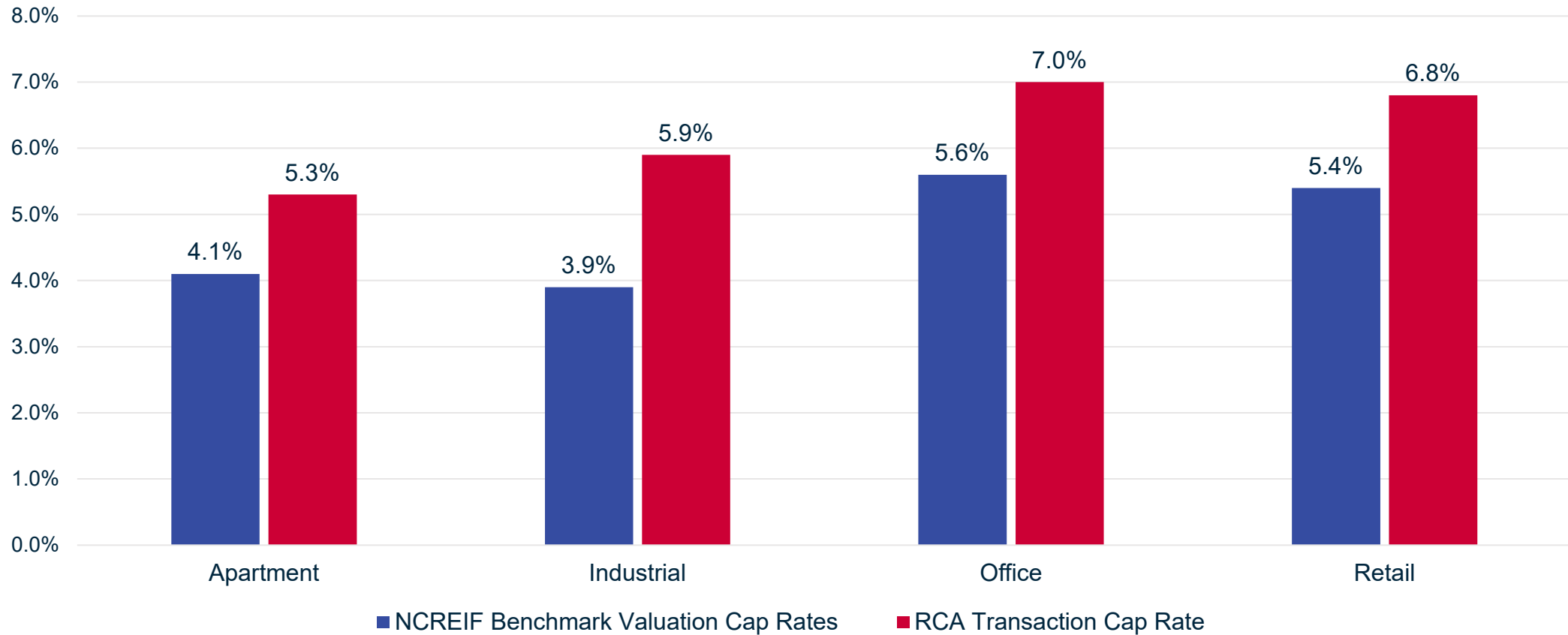


Source: SMU Cox Folsom Institute for Real Estate using data from NCREIF Property Index "Property Trends Report". The author created a net operating income ("NOI") growth index derived from the quarterly NOI growth figures reported by NCREIF. 4Q 2013 is used as the base year. The figures in the right-hand chart reflect total NOI growth for each loan period with the base year as shown. Data is as of 4Q 2023. The above information has been obtained from sources considered to be reliable; the information is believed to be accurate but is not guaranteed and is for informational purposes only and should not be viewed as investment advice.



Transaction Cap Rates Higher Than Valuation Cap Rates – Implications?

POTENTIAL OUTPERFORMANCE VS BENCHMARK FOR NEW CORE INVESTMENTS

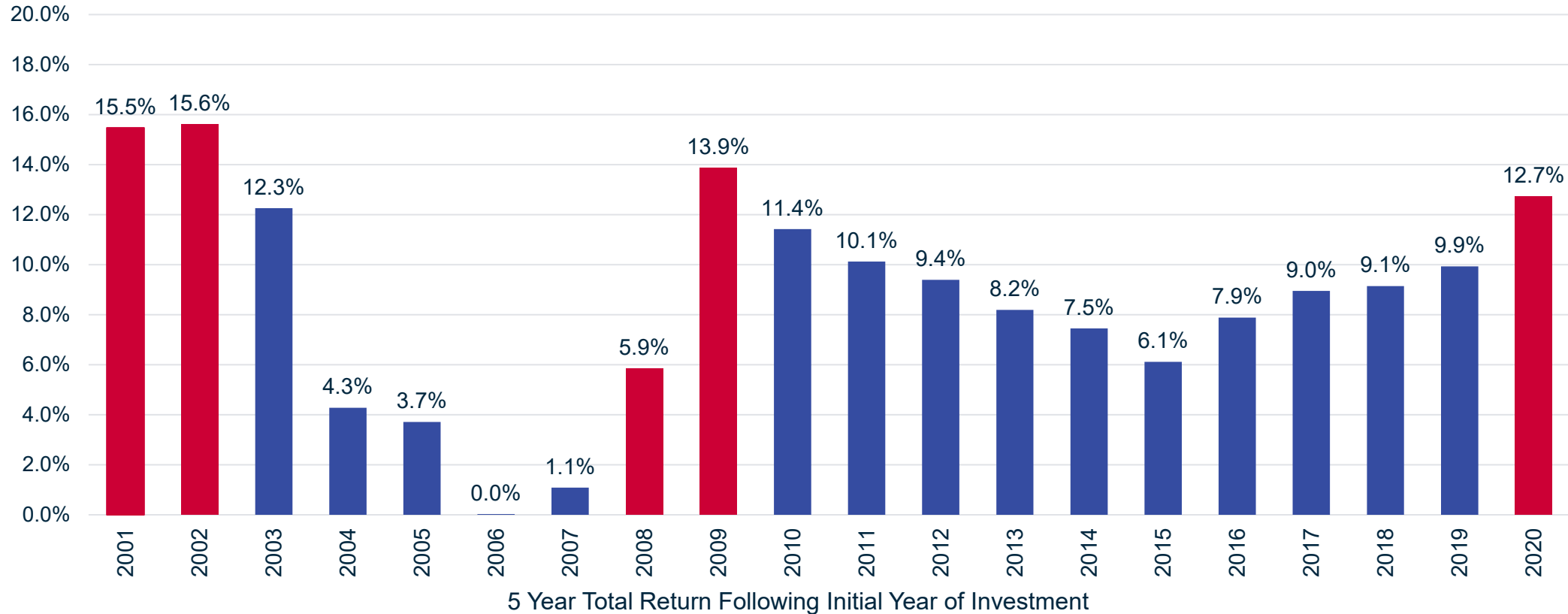


Source: SMU Cox Folsom Institute for Real Estate, NCREIF current value cap rates as reported in the NCREIF Trends Report, 4Q 2023; MSCI/RCA 2023 reported year end cap rates. The above information has been obtained from sources considered to be reliable; the information is believed to be accurate but is not guaranteed and is for informational purposes only and should not be viewed as investment advice.



Vintage Year 5-Year Total Returns for New Investments

5-YEAR AVERAGE NCREIF CORE VINTAGE YEAR TOTAL RETURNS

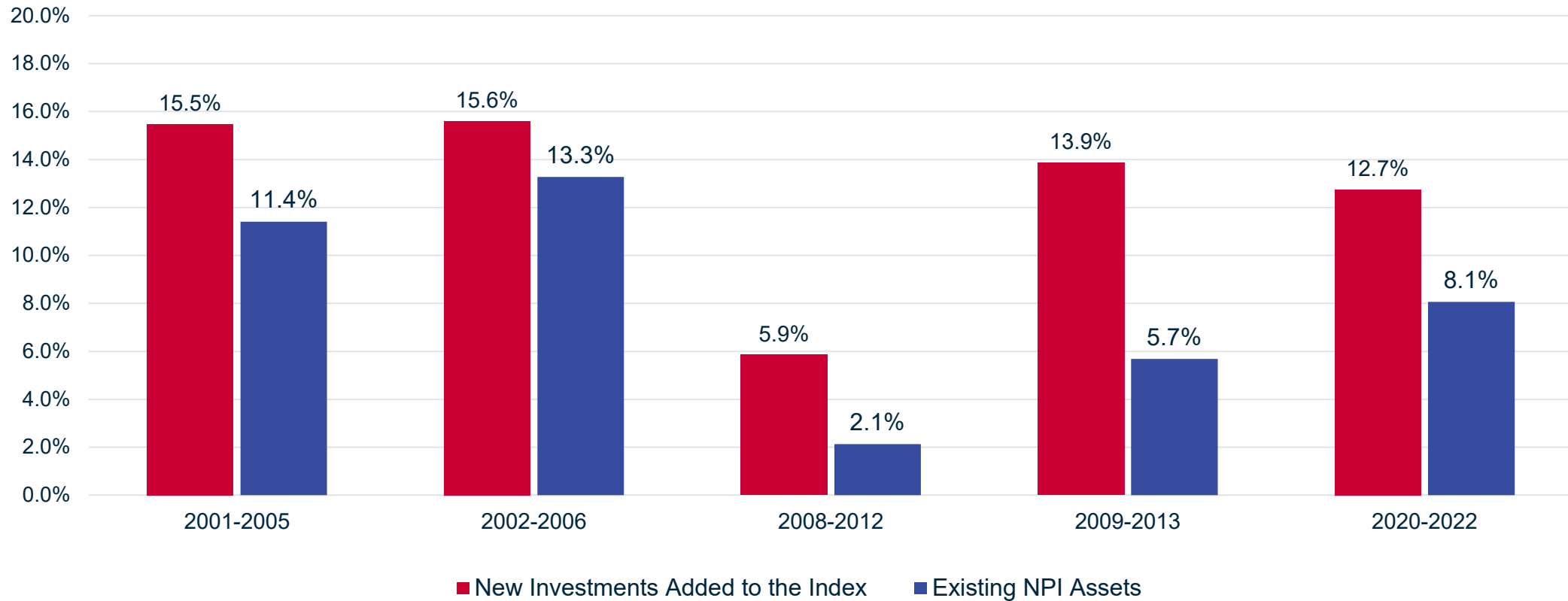


Source: SMU Cox Folsom Institute for Real Estate using data from NCREIF. Returns represent five-year annual average total returns for new investments following the year of acquisition. For example, investments made in 2000, produced a total return of 15.5% for the five years from 1Q2001 – 4Q2005, inclusive. Total returns for 2018 – 2020 reflect shorter time periods. Returns for investments made in 2018 reflect the four-year period from 1Q2019-4Q2022. 2019 investments reflect the three-year period from 1Q2020- 4Q2022. 2020 investments reflect the two-years from 1Q2021- 4Q2022. The above information has been obtained from sources considered to be reliable; the information is believed to be accurate but is not guaranteed and is for informational purposes only and should not be viewed as investment advice.



Vintage Year Returns During Less Liquid Markets vs the NCREIF Index

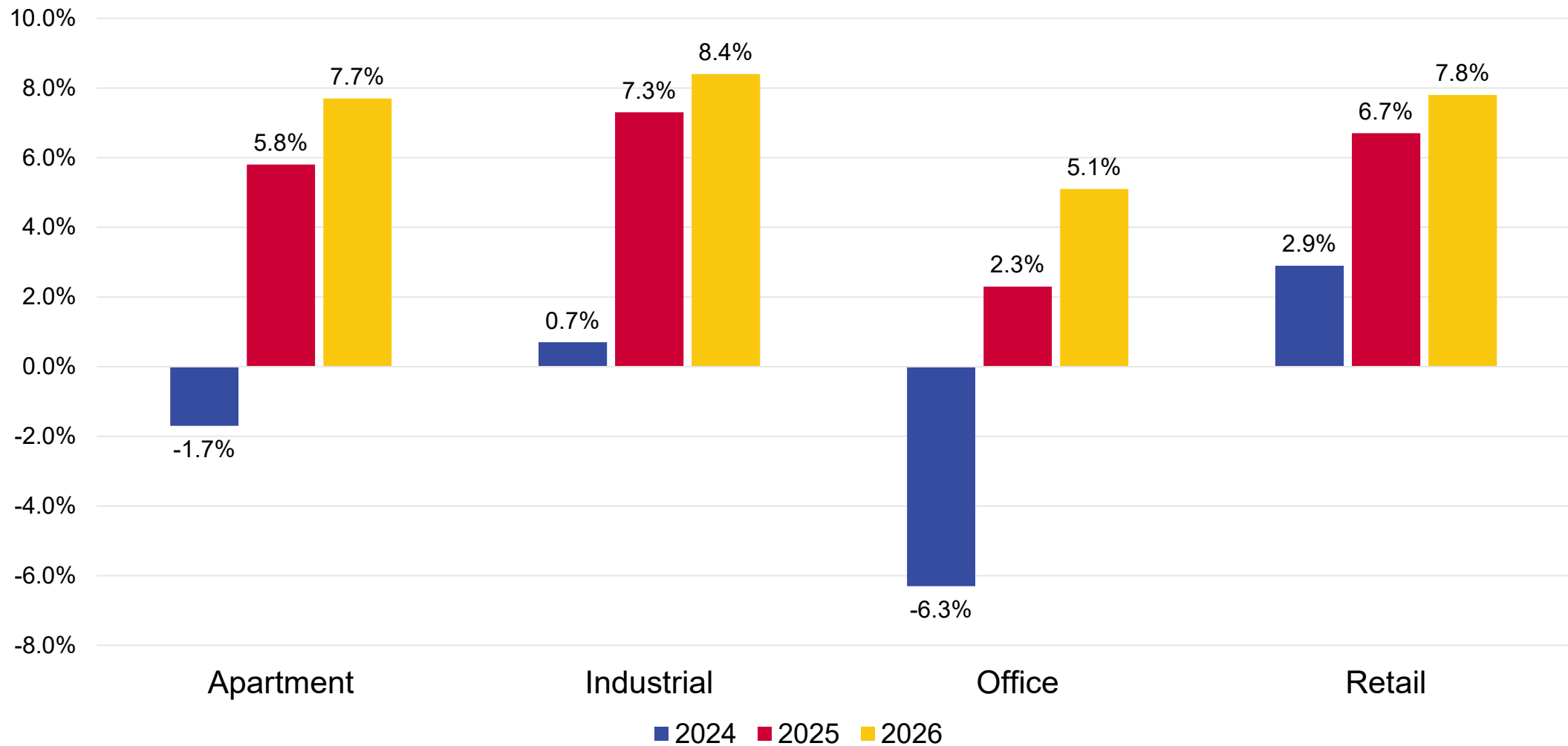
5-YEAR AVERAGE VINTAGE YEAR TOTAL RETURNS: NEW INVESTMENTS VERSUS EXISTING INVESTMENTS



Source: SMU Cox Folsom Institute for real Estate using data from NCREIF. Returns represent five-year annual average total returns for new investments following the year of acquisition. For example, investments made in 2000, produced a total return of 15.5% for the five years from 1Q2001 – 4Q2005, inclusive while the NCREIF Index produced a total return of 11.4%. Total returns for 2020-2022 reflects a shorter time periods. Returns for investments made in 2019 reflect the three-year period from 1Q2020-4Q2022. The above information has been obtained from sources considered to be reliable; the information is believed to be accurate but is not guaranteed and is for informational purposes only and should not be viewed as investment advice.



Expected NCREIF Total Returns 2024-2026: Pension Real Estate Association (PREA) Survey 1Q 2024



Source: SMU Cox Folsom Institute for Real Estate using data from the PREA Consensus Survey. The survey was conducted in February 2024 and includes responses from 26 firms including investment management firms, advisors and research organizations. Survey was released in 1Q 2024. The above information has been obtained from sources considered to be reliable; the information is believed to be accurate but is not guaranteed and is for informational purposes only and should not be viewed as investment advice.



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