

# San Jose Federated City Employees' Retirement System

## Private Markets Program Update

*December 11, 2024*

# Private Markets Asset Classes

Buyout



- Large Buyout
  - Small-/Mid- Buyout
  - Special Situations
  - Other
- Equity investments in growing, established, and mature companies, with enterprise values generally ranging from \$20mm to \$20bn.

Venture



- Early Stage
  - Mid Stage
  - Late Stage
  - Diversified
- Primarily equity investments in start-ups and high growth companies.

Debt



- Par Credit
  - Securitized
  - Stress/Distress
  - Other
- Debt investments include credit expected to pay back original principal and interest (par credit), loans and bonds that have been packaged into special purpose vehicles (securitized), securities where the obligor is in a stressed or distressed financial situation (stress/distress), and unique strategies that have some or all the characteristics of debt investments.

Real Estate



- Value-Added
  - Opportunistic
  - Real Estate Debt
  - Other
- Equity and debt investments in operating companies and physical properties where the economic value is derived primarily through real estate-related activities. Value-added and opportunistic are distinguished by the level of risk associated with an investment.

Real Assets



- Infrastructure
  - Energy
  - Natural Resources
  - Other
- Investments in operating companies and physical assets where the economic value is derived primarily from the development, production, transport, or processing of natural resources, and the facilities supporting their downstream progress.

# Objectives

## Economic objectives leading to inclusion of private markets within the asset allocation

The purpose of Private Markets is to get exposure to investment strategies that are not available in public markets, thereby capturing an illiquidity premium. The factor exposures will be comparable to those of public markets – primarily growth, supplemented by credit and inflation. The sub-asset classes are Buyout, Venture Capital, Private Debt, Growth Real Estate, and Private Real Assets.

## Quantified “absolute” objectives as a result of the asset allocation

- Be near target Net Asset Value for Private Markets and individual private asset classes.
- Achieve performance consistent with asset allocation assumptions:

<i>Measurement Group</i>	<i>Net Return</i>	<i>Time Horizon and Methodology</i>
Private Markets Program	10%	20Y, Meketa geometric expected return
Buyout	11%	
Venture	12%	
Debt	9%	
Real Estate	10%	
Real Assets	9%	

## Quantified “relative” objectives as a result of asset class characteristics

- Achieve performance that justifies use of private markets versus public markets.
- Achieve performance that demonstrates a level of staff skill.

<i>Measurement Group</i>	<i>Net Return</i>	<i>Time Horizon and Methodology</i>
Private Markets Program	Global Equity + 100 bps	20Y, Meketa geometric expected return
Individual investments	1 <sup>st</sup> & 2 <sup>nd</sup> Quartile	Investments’ peer groups, by vintage year

# Key Elements of Private Markets Strategy

## 1. **Ensure beta exposure above all else.**

Failure to execute the pacing plan guarantees not meeting objectives envisioned within the asset allocation.

Implication is that consistent commitments and vintage diversification matter more than anything else, including manager selection.

## 2. **Alpha is an outcome of process.**

Sources of alpha can be picking: better sub-sectors (beta timing), managers who are better at choosing the right investments (security selection), manager who operate more effectively (value creation), capital structure optimization (risk decomposition).

Consistently harvesting alpha from those sources requires a competitive advantage relative to all sources of private capital, which must be deliberately developed and maintained.

## 3. **Alignment of interests can overwhelm most other investment factors.**

Long-term illiquid commitments require careful due diligence and selection of partners.

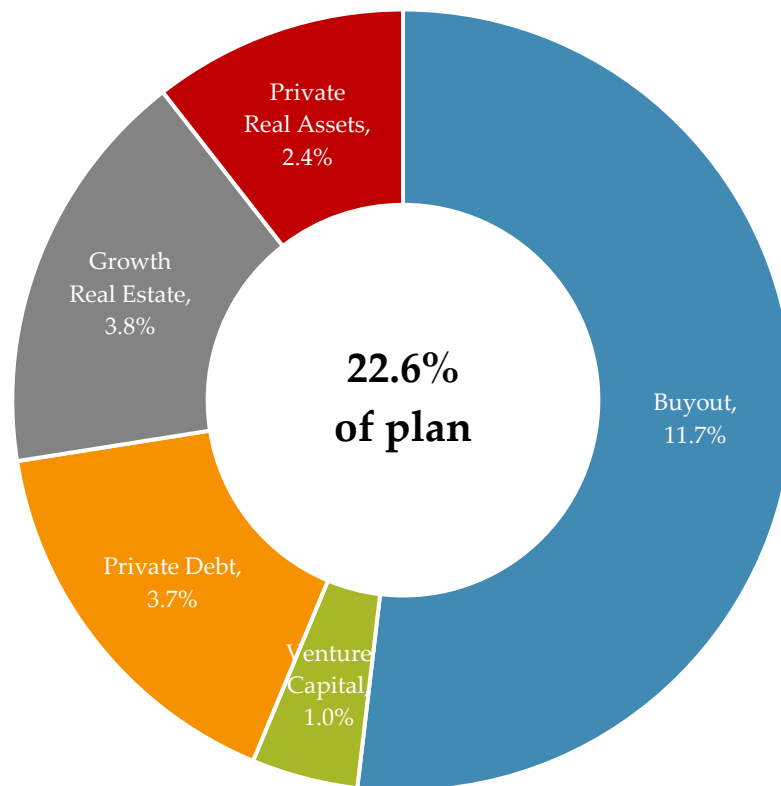
Agency conflicts increase with (a) distance from the asset and (b) dispersion of ownership.

Fees are the result of a buy-versus-build decision and market forces.

# Private Markets Allocation Snapshot

	<b>% of Plan</b>	<b>Target</b>	<b>Difference</b>
Buyout	11.7%	8%	3.7%
Venture Capital	1.0%	4%	-3.0%
Private Debt	3.7%	3%	0.7%
Growth Real Estate	3.8%	3%	0.8%
Private Real Assets	2.4%	3%	-0.6%
<b>Total Private Markets</b>	<b>22.6%</b>	<b>21%</b>	<b>1.6%</b>

Pro Forma as of November 15, 2024

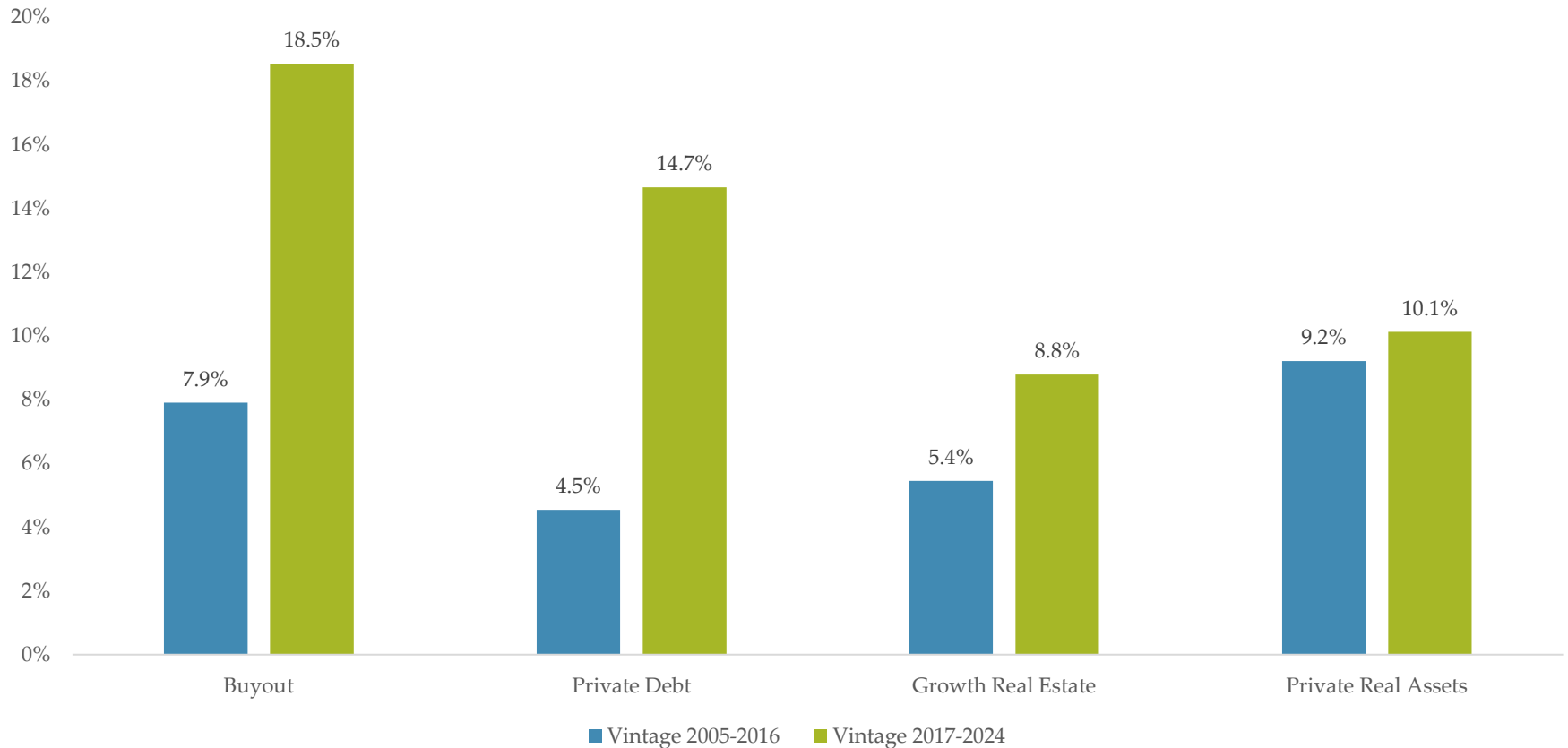


# Post-2017 Commitments Outperforming

Commitments in vintage years 2017-2024 are outperforming legacy commitments in vintage years 2005-2016.

A formal private markets investment strategy, team, and enhanced resources were put in place in 2017.

## Since Inception Net IRR



As of June 30, 2024

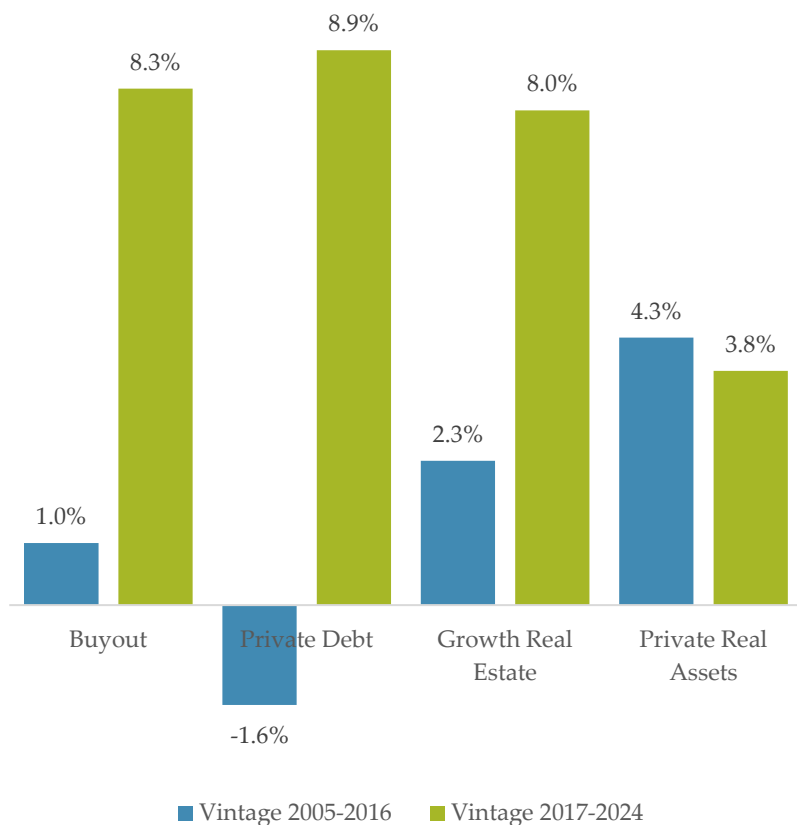
Source: Meketa, Neuberger Berman

# Private Returns Relative to Public Markets

Commitments in vintage years 2017-2024 are outperforming legacy commitments in vintage years 2005-2016 except for Private Real Assets.

The Private Markets portfolio is also exceeding the return of the MSCI ACWI IMI + 100 bps by 80 bps per year since July 2017.

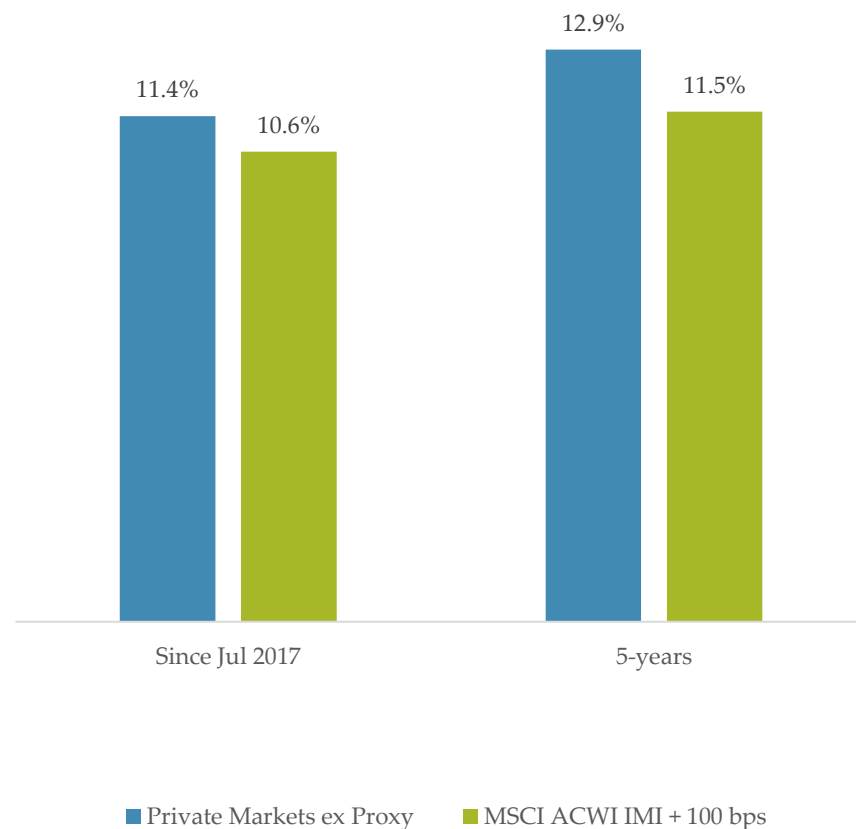
### Excess Return to PME by Vintage Year



As of June 30, 2024

Source: Meketa, Neuberger Berman

### Time-Weighted Net Returns



As of June 30, 2024

Source: Meketa, BNY Mellon

# Pacing Plan Execution

70% of FY 2024-25 pacing plan committed (including closed and pending closes).

	Style	Date	Executed (\$mm)	Target (\$mm)	% of Target
<b>Buyout</b>			<b>25</b>	<b>/ 25</b>	<b>100%</b>
PE Strategic Partnership SJFED	Fund-of-one	7/1/2024	25		
<b>Venture Capital</b>			<b>15</b>	<b>/ 28</b>	<b>54%</b>
Transpose Platform SJFED	Fund-of-one	7/1/2024	10		
<i>Expected to close soon</i>	<i>Early Stage</i>	<i>TBD</i>	5		
<b>Private Debt</b>			<b>21</b>	<b>/ 20</b>	<b>105%</b>
Silver Point Specialty Credit Fund III	Par Credit	11/15/2024	7		
<i>Expected to close soon</i>	<i>Stress</i>	<i>TBD</i>	7		
<i>Expected to close soon</i>	<i>Stress</i>	<i>TBD</i>	7		
<b>Growth Real Estate</b>			<b>11</b>	<b>/ 32</b>	<b>34%</b>
<i>Expected to close soon</i>	<i>Value Added</i>	<i>TBD</i>	11		
<b>Private Real Assets</b>			<b>19</b>	<b>/ 25</b>	<b>76%</b>
Primary Wave Music IP Fund 4	Infra	9/27/2024	7		
Pelican Energy Partners Base Zero	Energy	10/25/2024	7		
Lime Rock New Energy II	Infra	12/3/2024	5		
<b>Total Private Markets</b>			<b>91</b>	<b>/ 130</b>	<b>70%</b>



AI

# AI – What is it?

A brief history of Artificial Intelligence

From cybernetics to AI  
The idea that humans and machines are essentially the same gives rise to a project where scientists began to seriously consider what it would take to develop machines with human-like intelligence.

The "birth of AI" in the wake of the cybernetics movement  
Bringing together the functioning of machines and organic beings.

Accelerated code breaking  
Alan Turing used the Bombe machine to decipher messages encrypted using the Enigma machine at an accelerated pace during WWII.

"The Manchester Baby" runs its first program

"Cybernetics"  
The study of control and communication in the animal and the machine by Norbert Wiener

"Mind Space of Machines, Not Man"  
Edmund Berkeley compares machines to human brains. It's a matter of "hardware" and "software" instead of fish and nerves."

Machines and behavior  
"Behavior, Purpose, and Teleology" by Rosenbuth, Wiener, & Bigelow

"Artificial Neurons"  
A Logical Calculus of the Ideas Immanent in Nervous Activity by McCulloch & Pitts

The birth of neural networks  
"Artificial Intelligence"  
Introduced into the nomenclature by John McCarthy

The construction of computer programs that engage in tasks that are currently most satisfactorily performed by human beings because they require high-level mental processes such as, perceptual learning, memory organization and critical reasoning.  
- Marvin Minsky

"The Stanford Cart"  
An autonomous vehicle created by James Adams

1968: Ashi Viro Mohar uses punch card instructions to create digital art using the Fontan program - the first "AI-humanoart"

1970: "From three to eight years we will have a machine with the general intelligence of an average human being" - Marvin Minsky

1956: "AI will beat a human at chess within the next 10 years" - Herbert Simon

1955: First AI Workshop Proposed to be held at Dartmouth in 1956  
McCarty, Minsky, Rochester, Shannon

1956: GENERAL Expert System  
Hypothesis formation and science  
Inference & Logical Conclusions  
Feigenbaum & Lederberg

1958: The Imitation Game  
Computing Machinery and Intelligence  
by Alan Turing

1958: LISP  
List Processing  
First Programming Language  
Created by John McCarthy

1959: "Machine Learning"  
Introduced into the nomenclature by Arthur Samuel of IBM

1959: General Problem Solver  
Means-End Problem Solving  
Newell, Simon, & Shaw

1961: UNIMATE  
First industrial robotic arm available commercially  
Created by George Devol

1961: UNIMATE  
The "granddaddy of robot systems"  
"Unimate I" robot system  
Created by George Devol with a 5% accuracy rate

1964: Facial Recognition  
Used "templating" techniques to identify facial features  
Created by Rossa Mackworth  
Created by Newell & Simon

1966: The first program  
Logic Theorist - prove theorems in symbolic logic from within a computer  
Created by Allen Newell, J. Shaw, & Herbert A. Simon

1966: The concept now known as "deep learning"  
is first introduced by Alexey A. Lukatskiy in "Group method of data handling"

1967: SHORLUG  
Natural language processing program that converted a book word using English language reduction  
Created by Terry Winograd

1971: MARRION  
Autonomous Drawing Program  
Creates the first "AI Art" - paints a "turtle"  
Designed by Harold Cohen

1974-1988  
1st AI Winter

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1967: VR, Data Glove  
A VR glove that controlled a virtual hand

1969: CYBERFACE  
VR glasses created  
Created by Ivan Sutherlin

1960: 1st National Conference on Artificial Intelligence  
Held at Stanford University, August 18-21

1961: 5th Generation Computer Project  
Japan spends \$850 million to create computers that could translate and use human language + express human-level reasoning

1966: AI Boom  
Machine learning shifts from knowledge driven approaches to data-driven approaches

1966: AI Boom  
General Agency's use of advanced facial recognition programs  
Known as "Fuzzy"

1966: 1965: Using self-learning software the robot would advance from simple tasks to making predictions on the future  
Known as "Fuzzy"

1967: Physical Symbol System Hypothesis  
"Computer science as empirical hypothesis"  
by Newell & Simon

1969: Commonrod  
boards champion of back-gammon  
Created by Hans Berliner

1973: Reduced funding for AI  
due to lack of promised progress in Britain

1976: The Stanford Cart  
successfully navigates a room without human assistance

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Program meant to "understand" stories from a script  
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# AI – What is it and why should we care?

- AI is a concept that has been around since the 1940s
  - Any technology that allows a machine to simulate human cognition
- Sum of technological improvements and advancements in AI has created this immense investment opportunity today
  - *Cheap and powerful compute*
  - *Efficient networks*
  - *Accessibility through mobile*
  - *Proliferation of data online*
- Software is able to do things that was not possible before
  - *Create content (multimodal....text, video, music)*
  - *Reason*
  - *Interact in a human capacity*
- Allows software to address markets that were previously inaccessible

## Enterprise AI Opportunity



Source: Gartner Market Databook 3Q24

# AI – What does this opportunity look like?

## White space

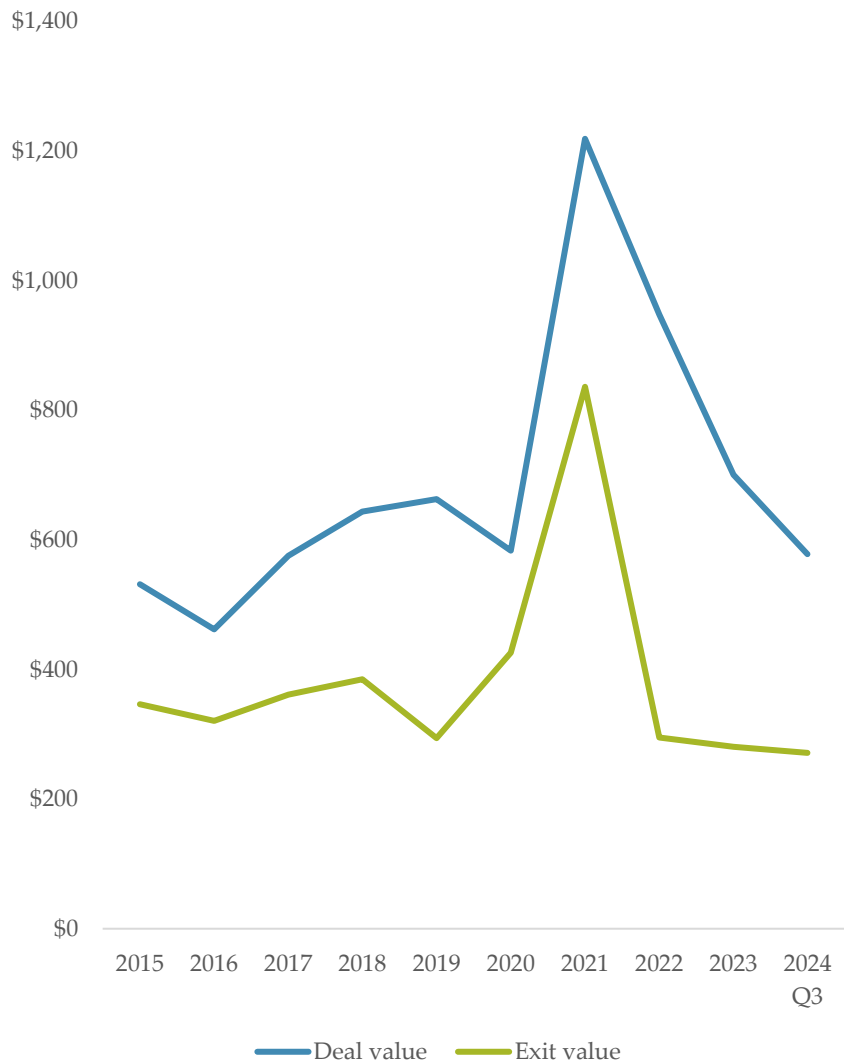
	CLOUD	MOBILE	AI
APPS			
DEVELOPER			
DATA			
SECURITY			
INFRA			

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# Buyout

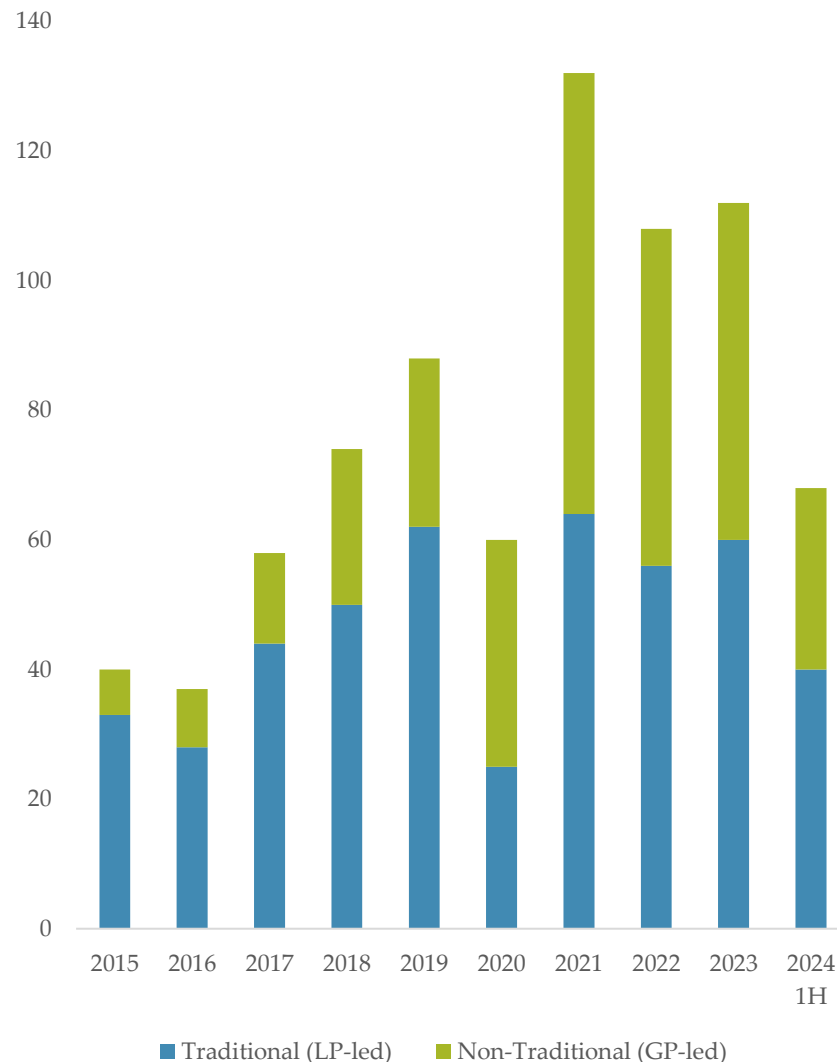
# Deal activity remains slow

## U.S. Private Equity Deal Activity (\$ billions)



Source: Pitchbook, as of September 30, 2024

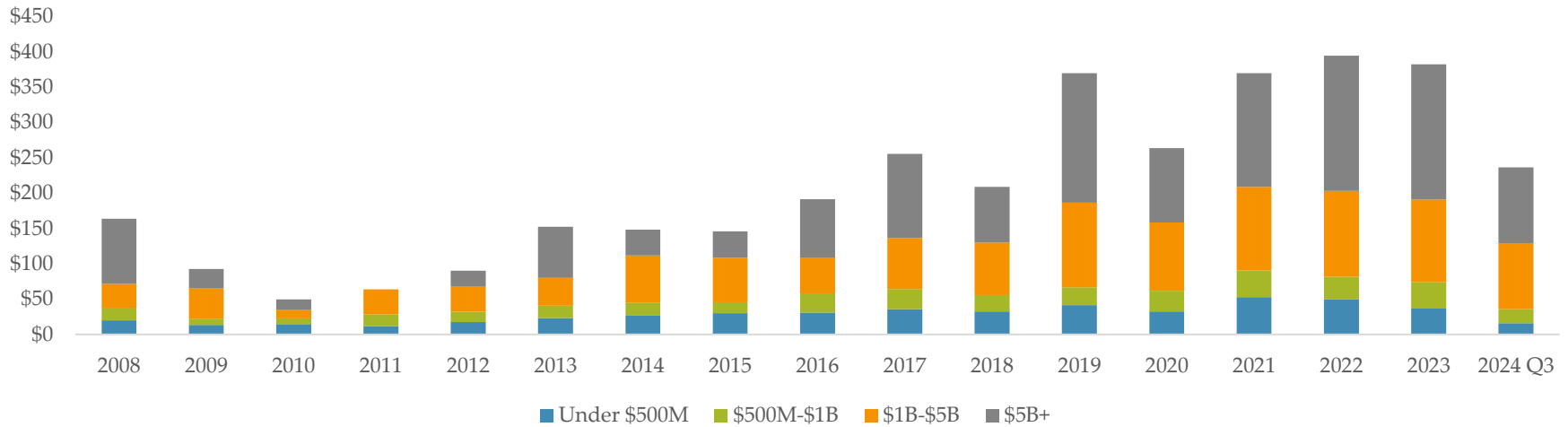
## Secondary Transaction Volume (\$ billions)



Source: Jefferies Global Secondary Market Review, as of June 30, 2024

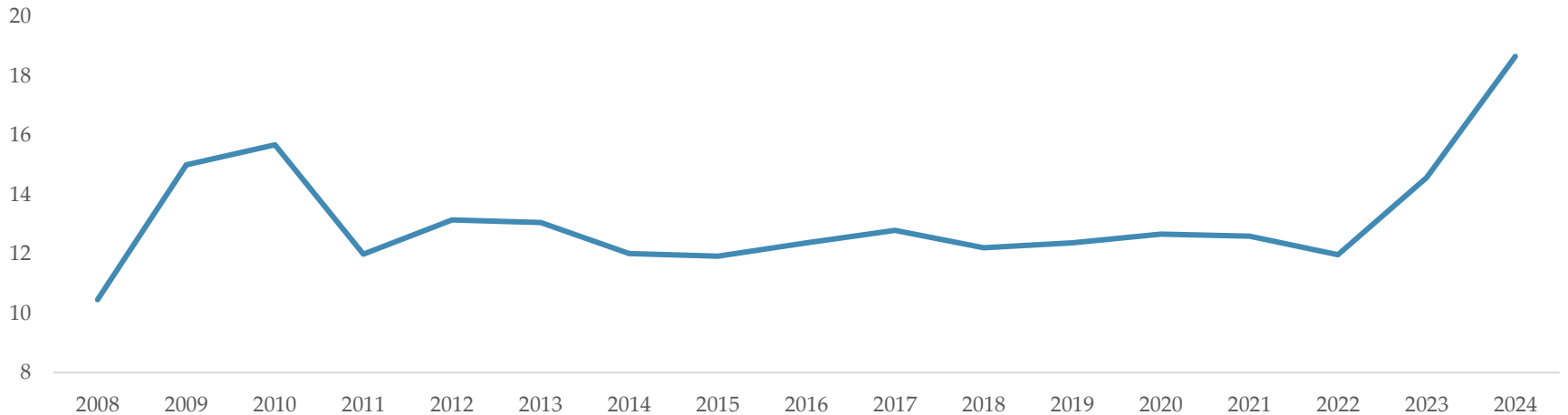
# Larger funds raising more capital and fundraising taking longer

## U.S. Private Equity Capital Raised by Fund Size (\$ billions)



Source: Pitchbook, as of September 30, 2024

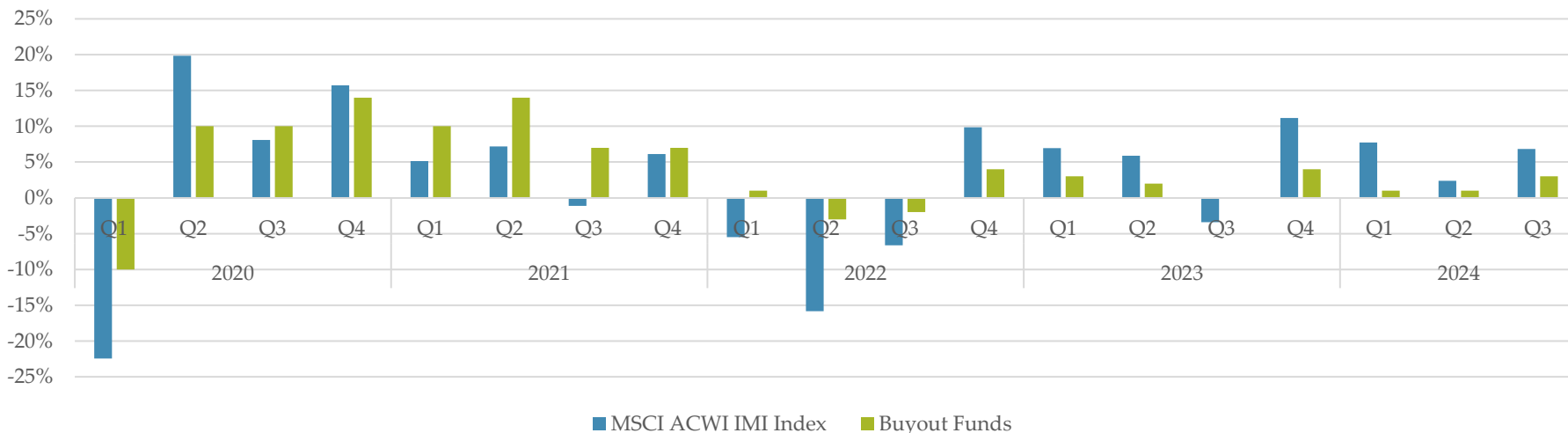
## Median Number of Months to Close Private Capital Funds



Source: Pitchbook, as of September 30, 2024

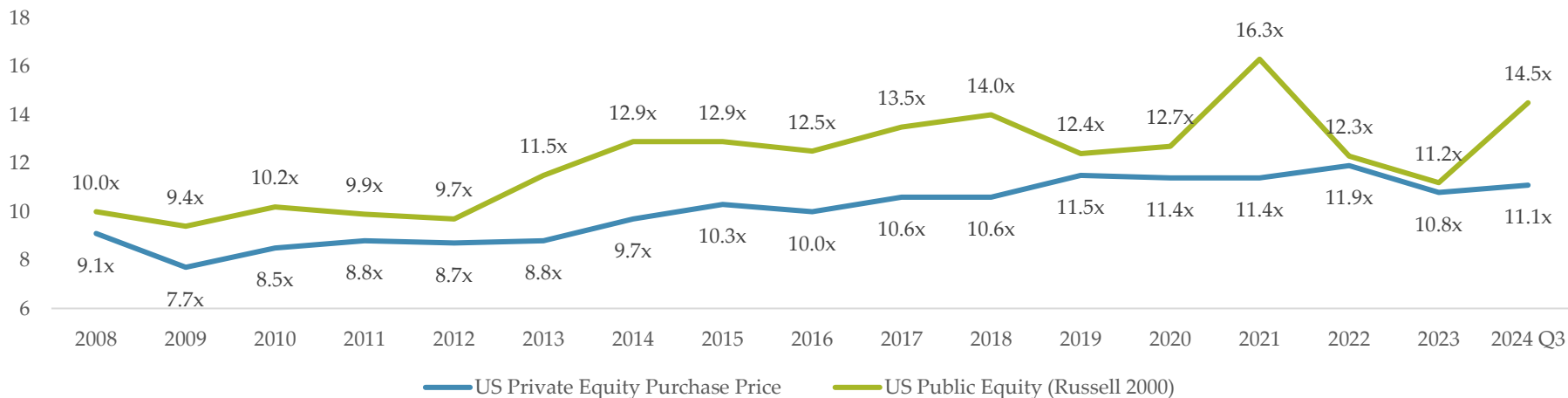
# Private valuations lagging public markets

## MSCI ACWI IMI Index and Buyout Funds Quarterly Returns



Source: Bloomberg (MSCI ACWI IMI Index), Neuberger Berman (Buyout Funds), as of September 30, 2024

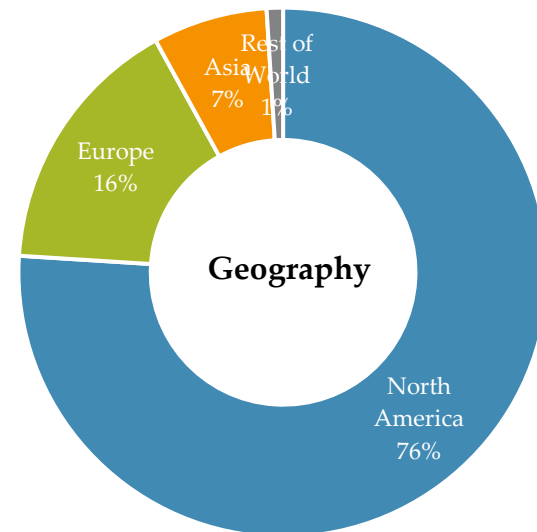
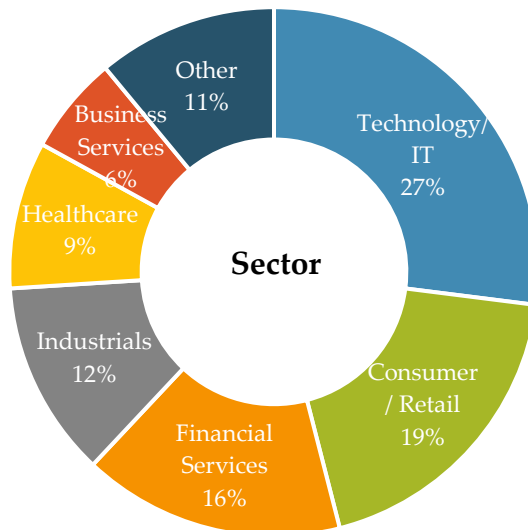
## EV / EBITDA Multiple



Source: Pitchbook LCD and S&P Capital IQ, as of September 30, 2024



# Buyout Portfolio Update



Source: Neuberger Berman  
As of June 30, 2024, values based on NAVs  
Only includes PE Strategic Partnership

# Buyout Portfolio Update

Primary Fund Commitments	Status	Region	Strategy Type	\$ mm
Redacted Fund A	Committed	North America	Small/Mid-Cap Buyout	2.4
Redacted Fund B	Committed	Europe	Small/Mid-Cap Buyout	3.6
Redacted Fund C	Committed	North America	Small/Mid-Cap Buyout	4.1
<i>Redacted Fund D</i>	<i>Model</i>	<i>North America</i>	<i>Small/Mid-Cap Buyout</i>	<i>4.1</i>
<b>Total – Primary Fund Commitments</b>				<b>14.2</b>
Co-Investments / Secondaries	Status	Region	Strategy Type	\$ mm
Redacted Co-Investment A	Committed	North America	Small/Mid-Cap Buyout	0.6
Redacted Co-Investment B	Committed	Asia	Small/Mid-Cap Buyout	1.3
Redacted Co-Investment C	Committed	Europe	Small/Mid-Cap Buyout	1.0
Redacted Co-Investment D	Committed	North America	Small/Mid-Cap Buyout	0.5
Redacted Co-Investment E	Committed	North America	Large-Cap Buyout	0.7
Redacted Co-Investment F	Committed	North America	Small/Mid-Cap Buyout	0.3
Redacted Secondary G	Committed	North America	Small/Mid-Cap Buyout	1.2
<i>Unallocated Co-Investments / Secondaries</i>	<i>Model</i>	<i>n/a</i>	<i>n/a</i>	<i>5.1</i>
<b>Total – Co-Investments / Secondaries</b>				<b>10.7</b>
<b>Total</b>				<b>27.1</b>

Source: Neuberger Berman, as of November 30, 2024

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# Private Debt

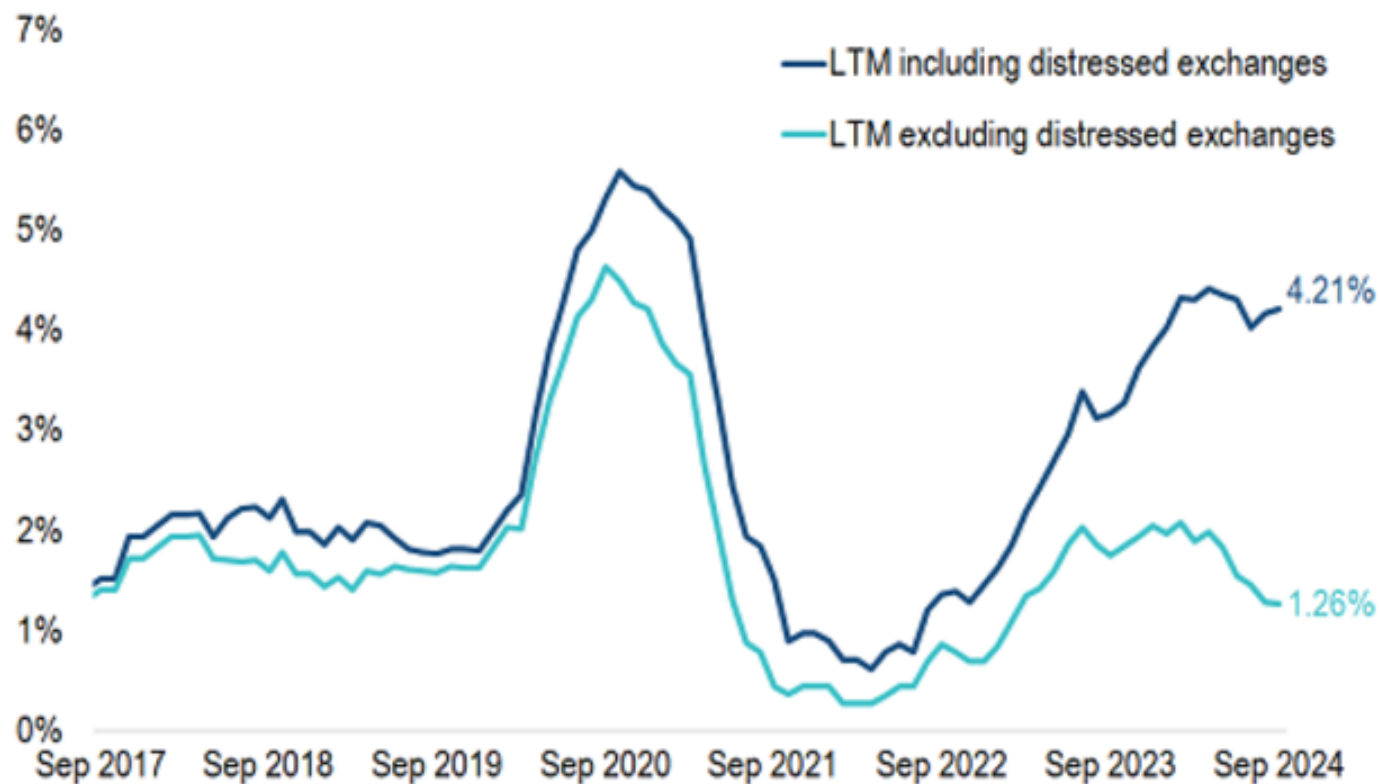
# Yields remain elevated despite credit spreads tightening



Source: Bloomberg, as of October 31, 2024

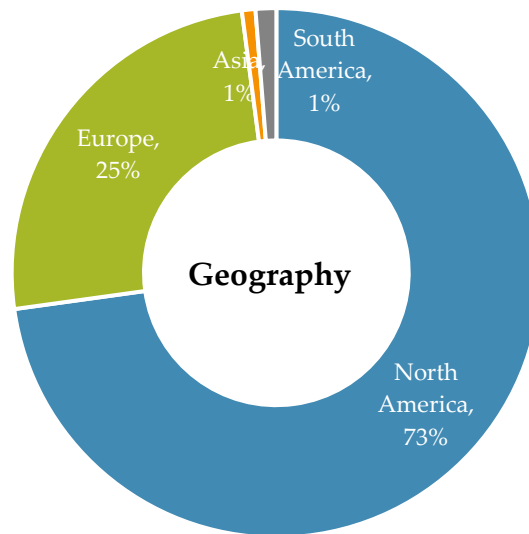
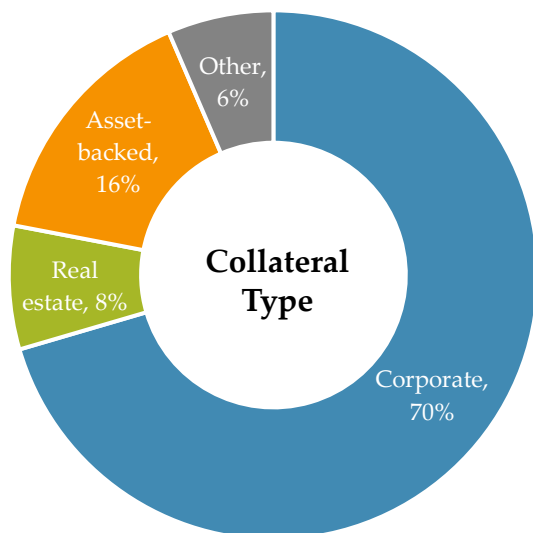
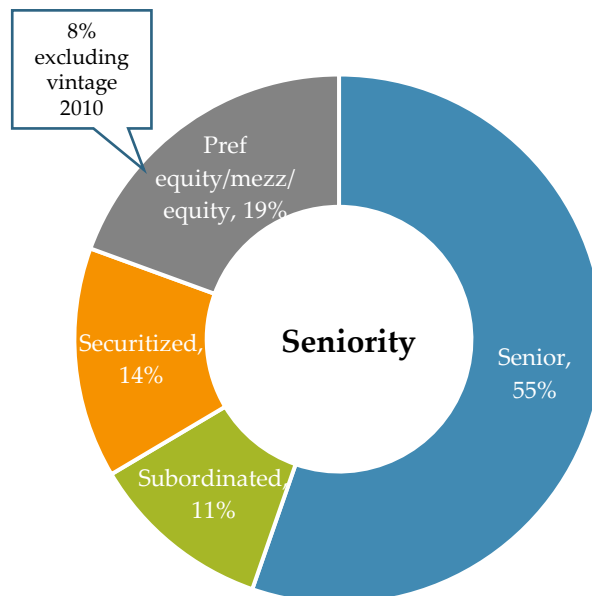
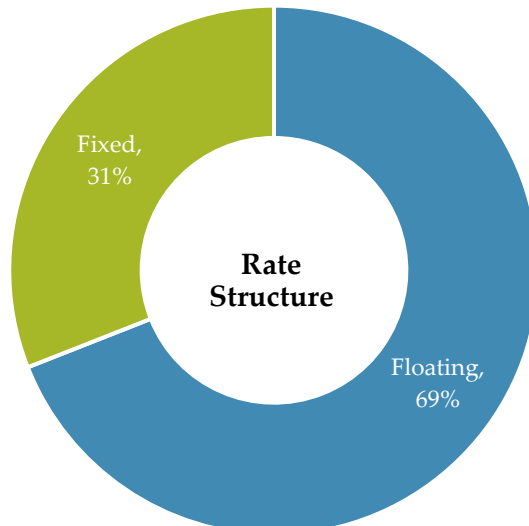
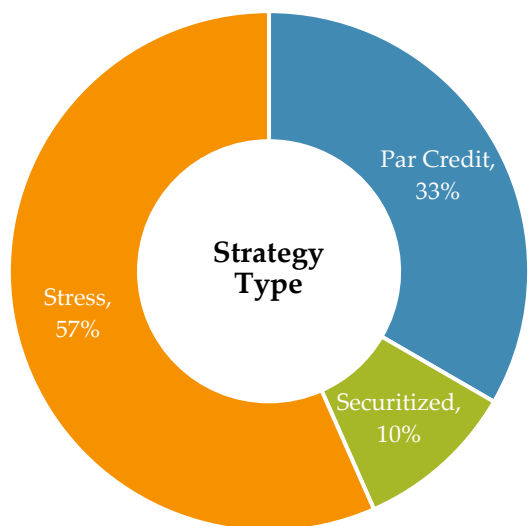
# Defaults down, but distressed exchanges rise

## Dual-track US loan default rate: issuer count



Sources: PitchBook | LCD; Morningstar LSTA US Leveraged Loan Index • Data through Sept. 30, 2024

# Private Debt Portfolio Update

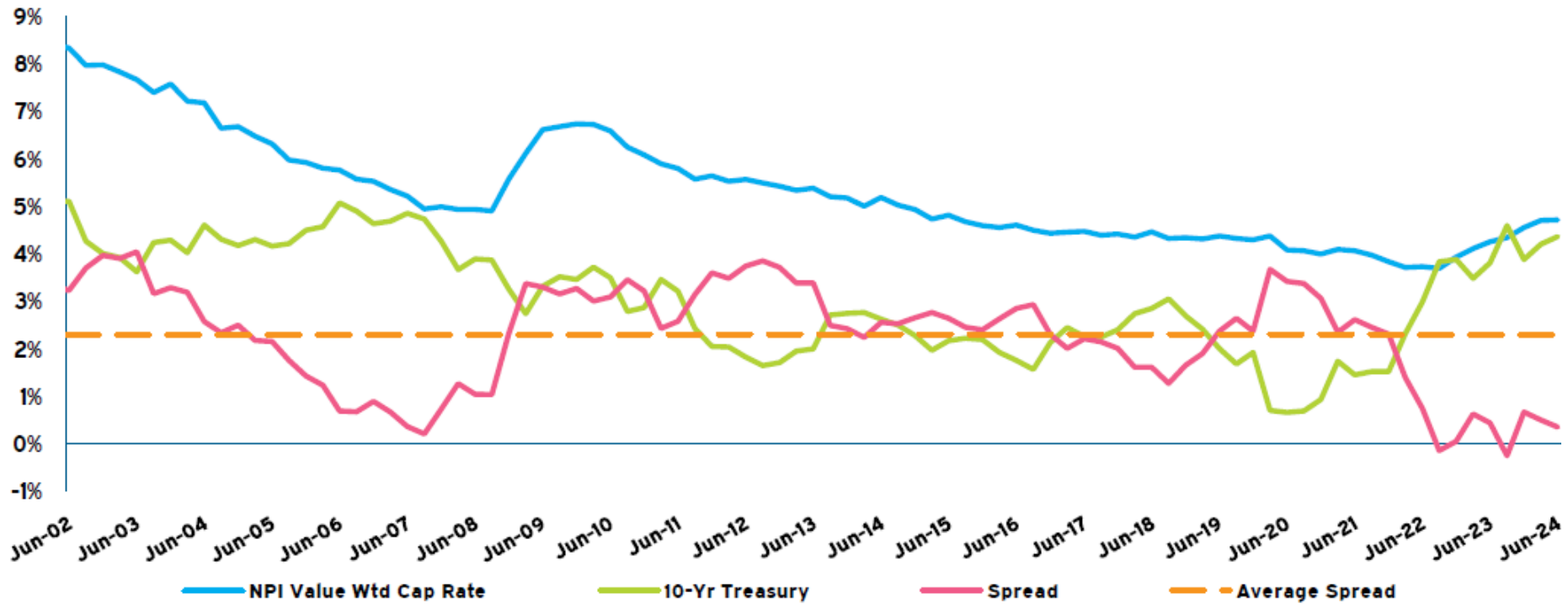


Source: San Jose Staff, as of June 30, 2024  
 Values based on NAVs plus unfunded commitments

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# Growth Real Estate

# Cap rate spread to 10-Year Treasury remains flat



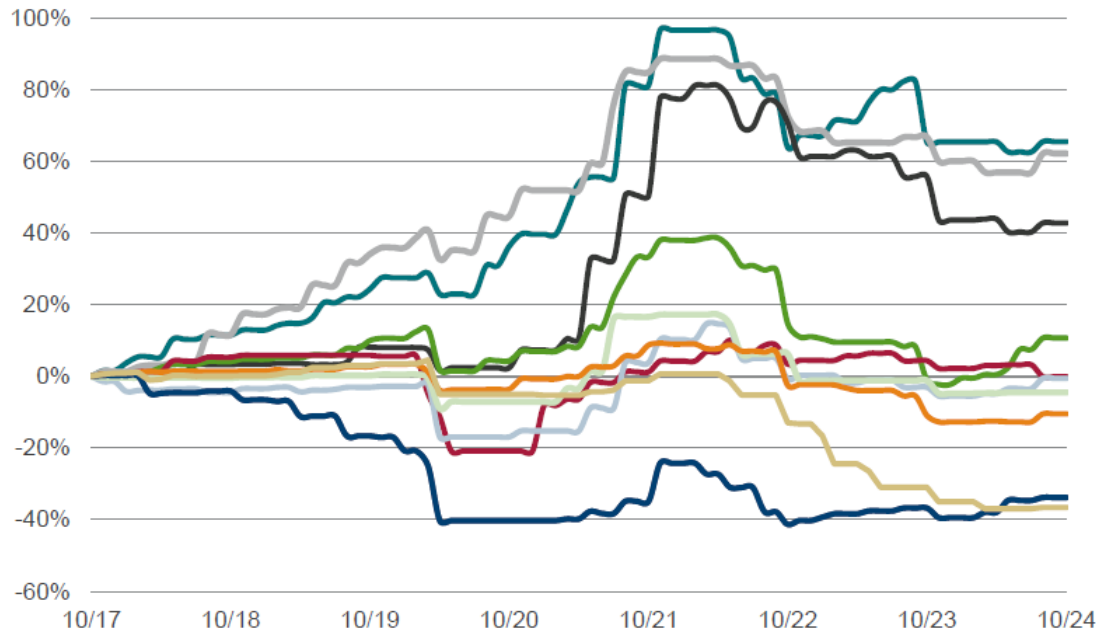
Source: Meketa, NCREIF, US Department of Treasury



# Valuations rising for transactions going into contract

Green Street's Commercial Property Price Index® is a time series of unleveraged U.S. commercial property values that captures the prices at which commercial real estate transactions are currently being negotiated and contracted.

**Cumulative Change in CPPI®: Past Seven Years**

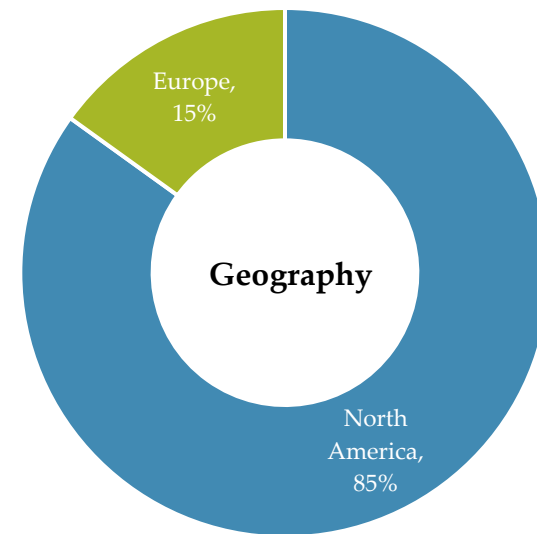
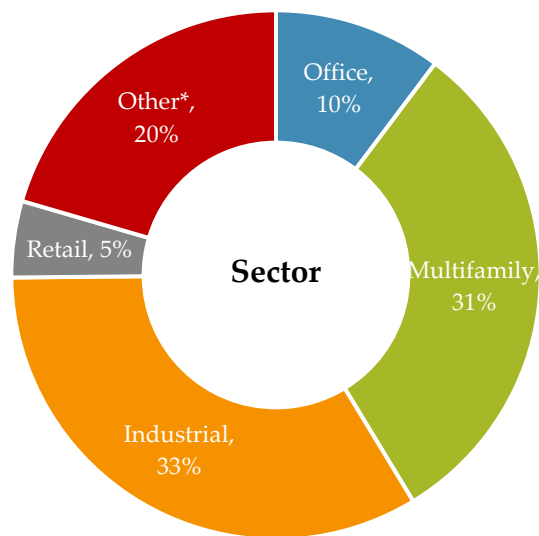
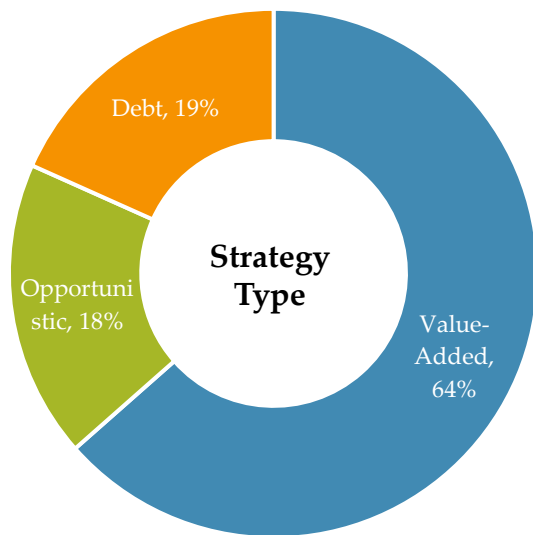


	TTM	From Peak
Industrial	0%	-16%
Man Home	-3%	-14%
Self-Storage	-8%	-21%
Apartment	12%	-20%
Lodging	-4%	-9%
Strip Retail	3%	-13%
Net Lease	-3%	-19%
Health Care	0%	-18%
Mall	5%	-13%
Office	-8%	-37%

Source: Green Street Commercial Property Price Index®, as of November 6, 2024

TTM: Trailing twelve months

# Growth Real Estate Portfolio Update



Source: San Jose Staff, as of June 30, 2024

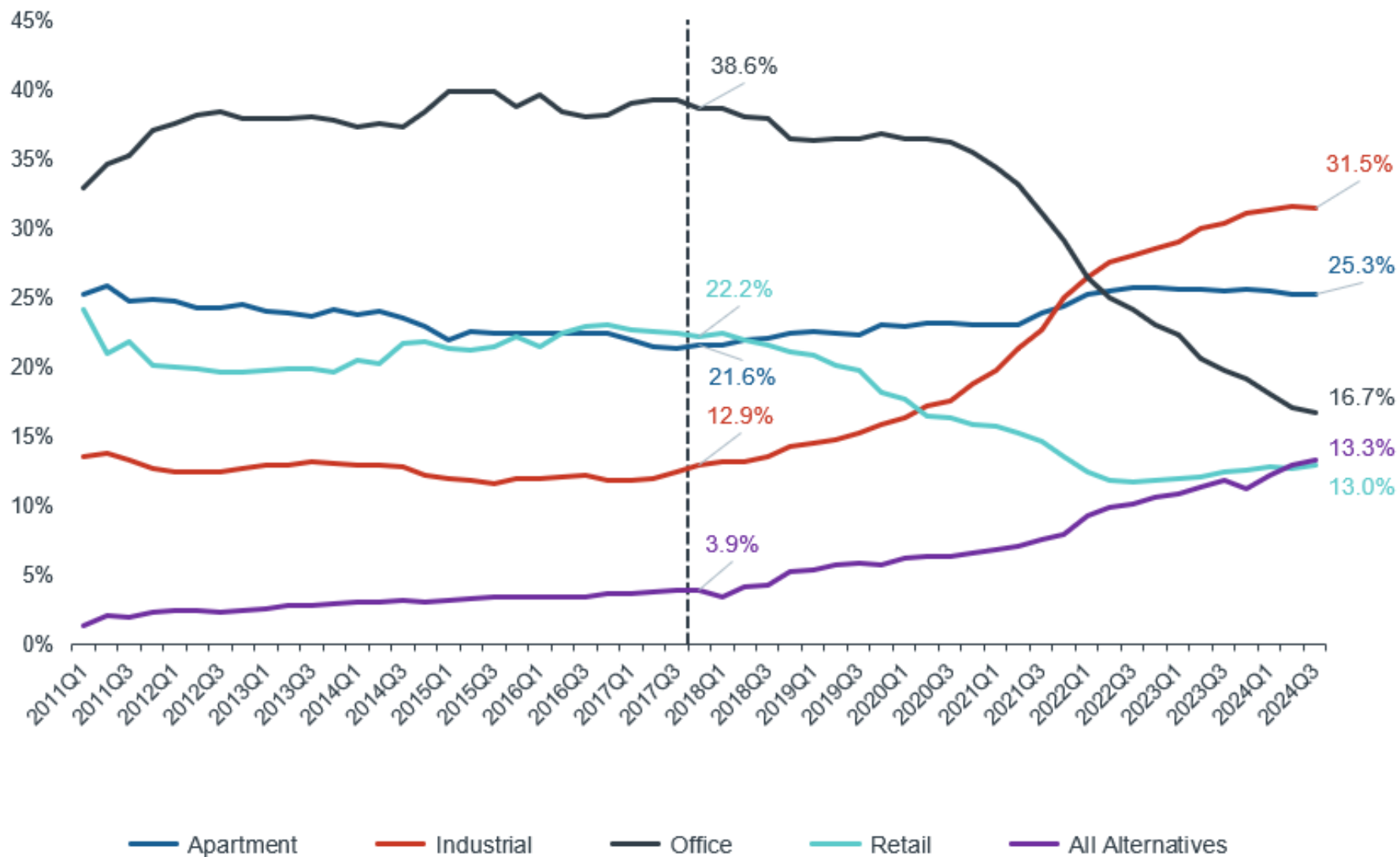
Values based on NAVs plus unfunded commitments

\* Other Sector category includes 6% data centers, 4% self-storage, 3% each in hospitality, single-family rentals, lab office, student housing

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# Core Real Estate

# NCREIF ODCE Index Sector Allocations Shifting



Source: NCREIF, Clarion Partners Investment Research

# Core Real Estate Portfolio Update

Both the Pension and Health Care Trust are below the Core Real Estate policy targets, but are expected to rebalance to target following a new fund commitment that is expected to close by year-end.

The Pension and Health Care Trust closed their second secondary purchase of LP interests in TA Realty Core Property Fund on October 31, 2024.

## Core Real Estate Allocation

	% of Plan	Target	Difference
Federated Pension	4.7%	5%	-0.3%
Federated Health Care Trust	10.7%	12%	-1.3%

Over \$15 million of alpha over 6 years

## Core Real Estate Alpha (\$ millions)

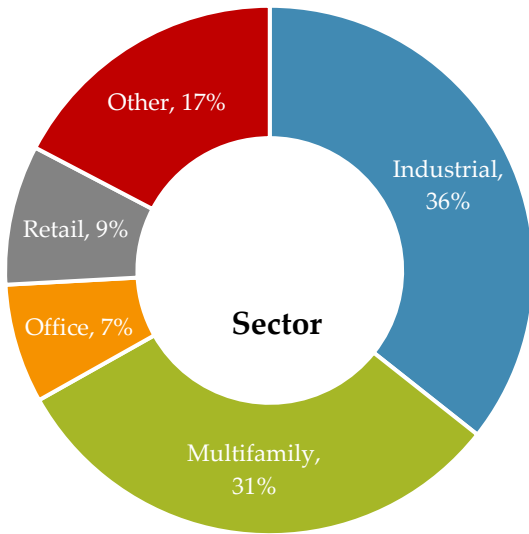
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	6-years
Federated Pension	\$2.8	\$2.2	\$1.4	\$1.6	\$6.0	\$0.3	\$14.4
Federated Health Care Trust	n/a	n/a	n/a	n/a	n/a	n/a	\$0.8

The Core Real Estate asset class manager lineup was restructured in 2019 and has generated meaningful alpha over the asset class benchmark (NCREIF ODCE Index).

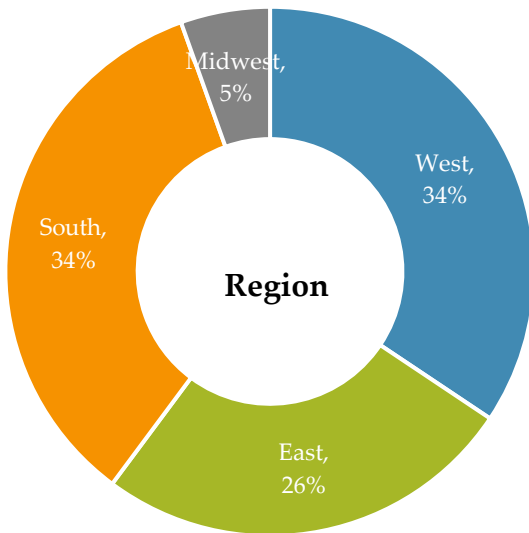
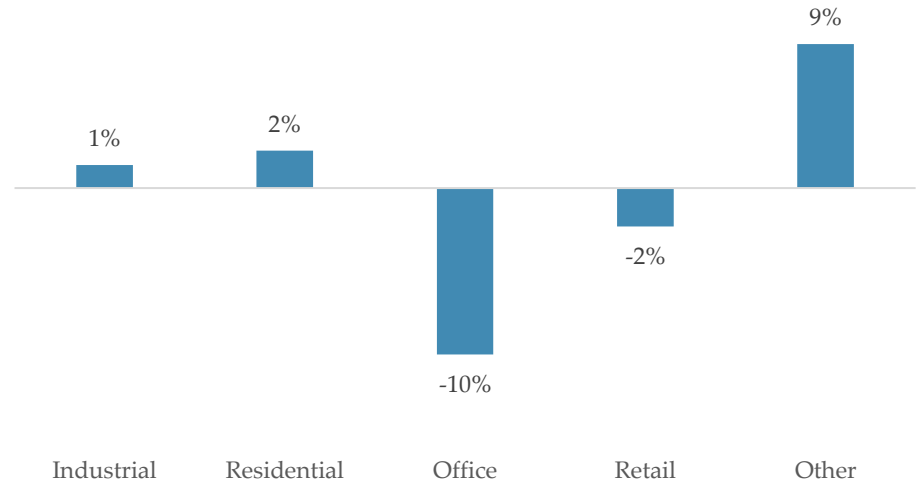
Source: Meketa, BNY Mellon

% of Plan is Pro Forma as of November 15, 2024

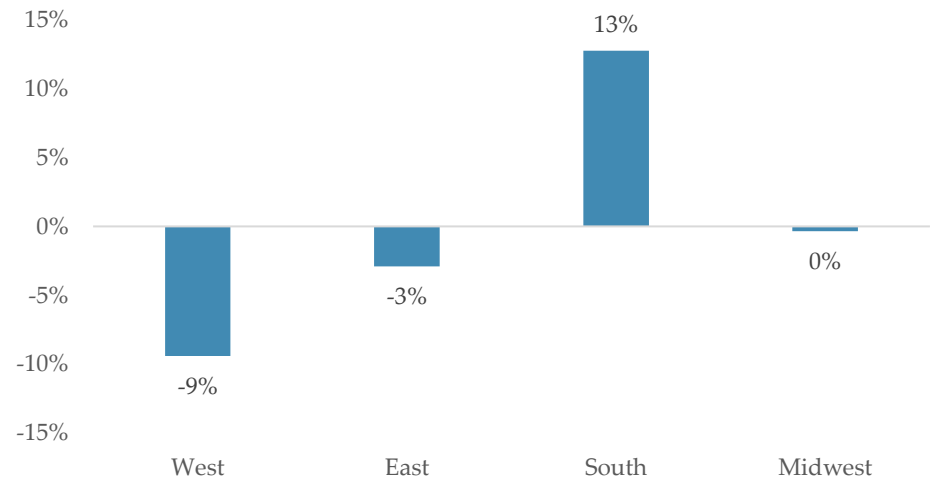
# Core Real Estate Portfolio Update



### Active Sector Weights



### Active Regional Weights



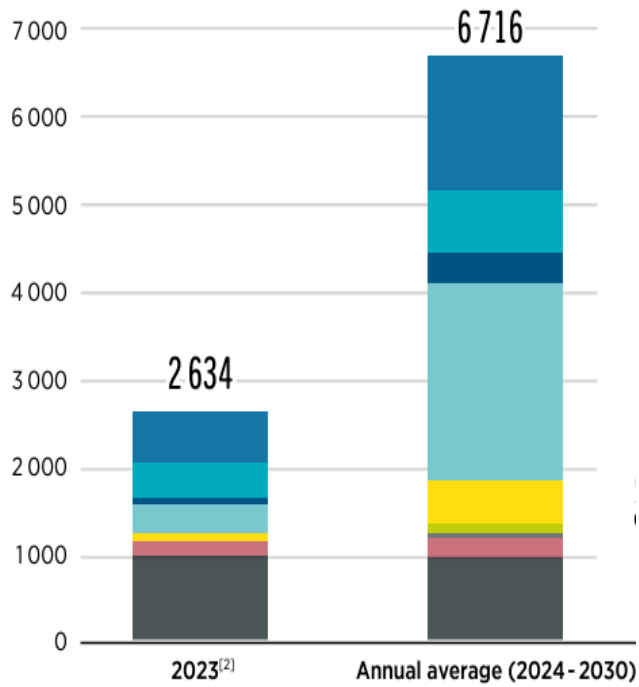
Pro Forma as of October 2024 including expected capital activity

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# Private Real Assets

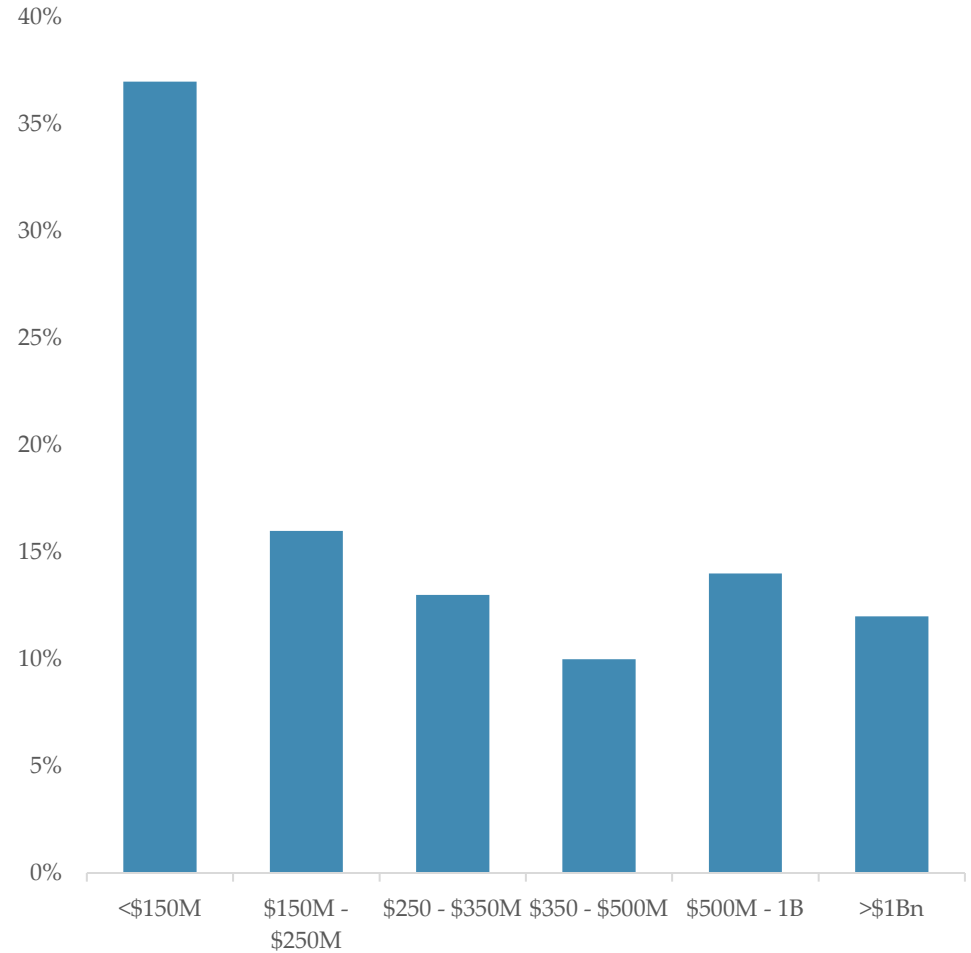
# More Real Assets Spending Needed

Global investment (USD billion, 2023)<sup>[1]</sup>



Source: IRENA World Energy Transitions Outlook

North American Infrastructure Equity Transactions by Size

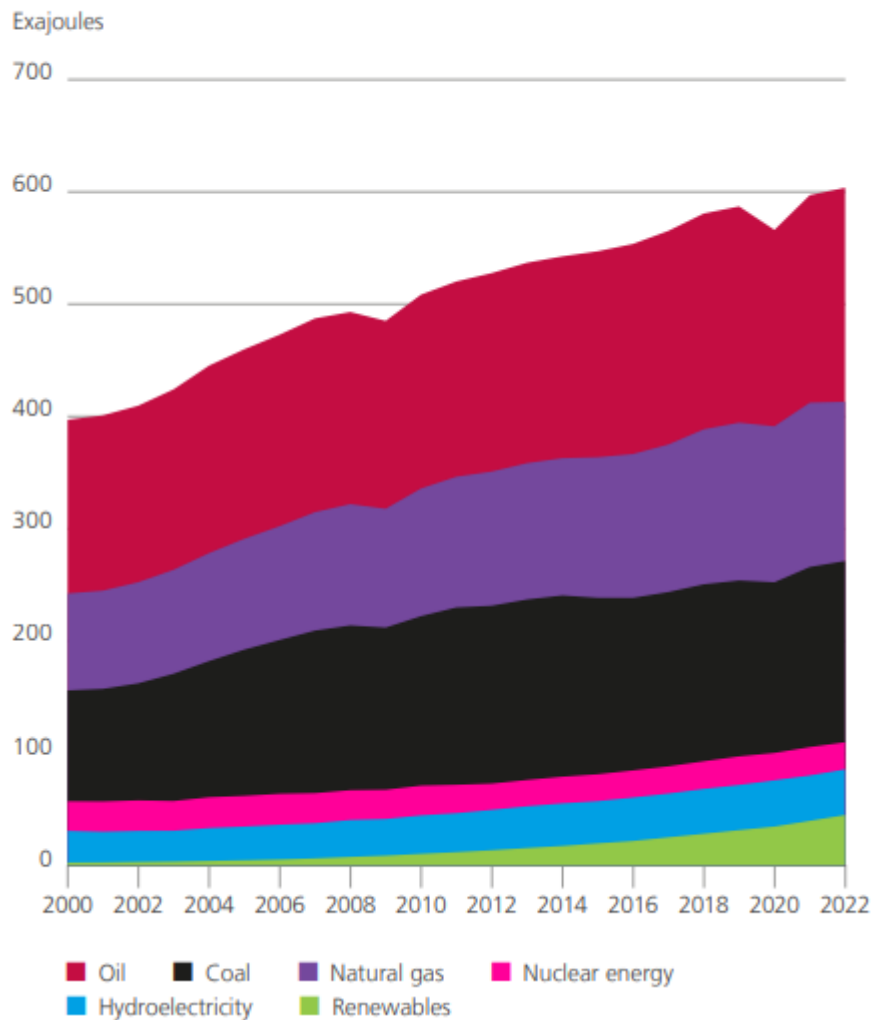


Source: Inframation, Ridgewood Infrastructure

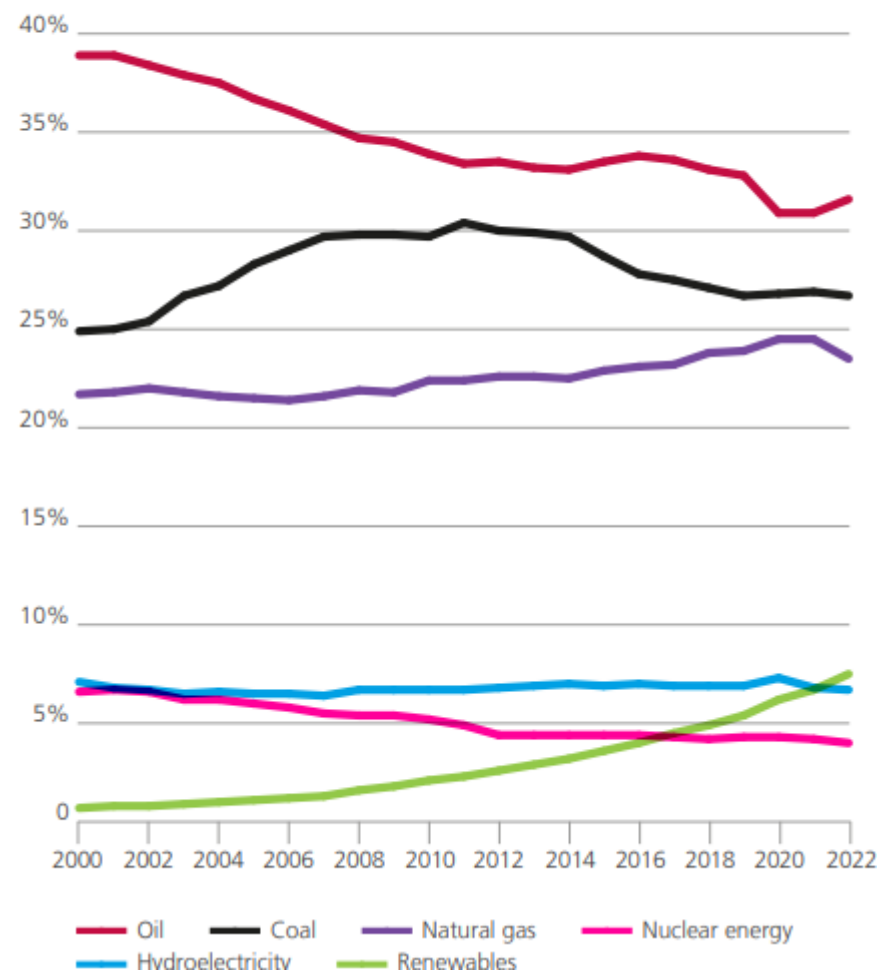


# Hydrocarbons still account for over 80% of world energy consumption

## World consumption

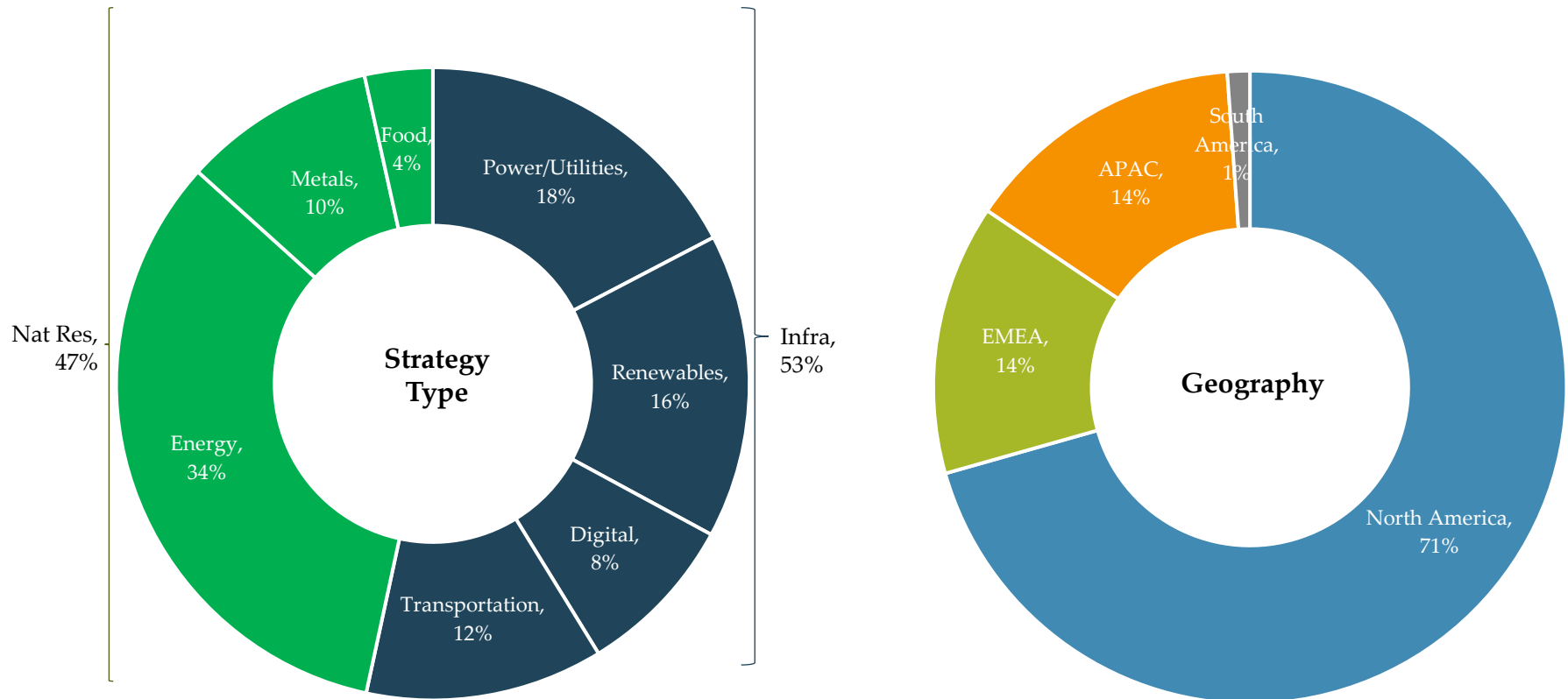


## Share of global primary energy



Source: Energy Institute Statistical Review of World Energy, June 2023

# Private Real Assets Portfolio Update

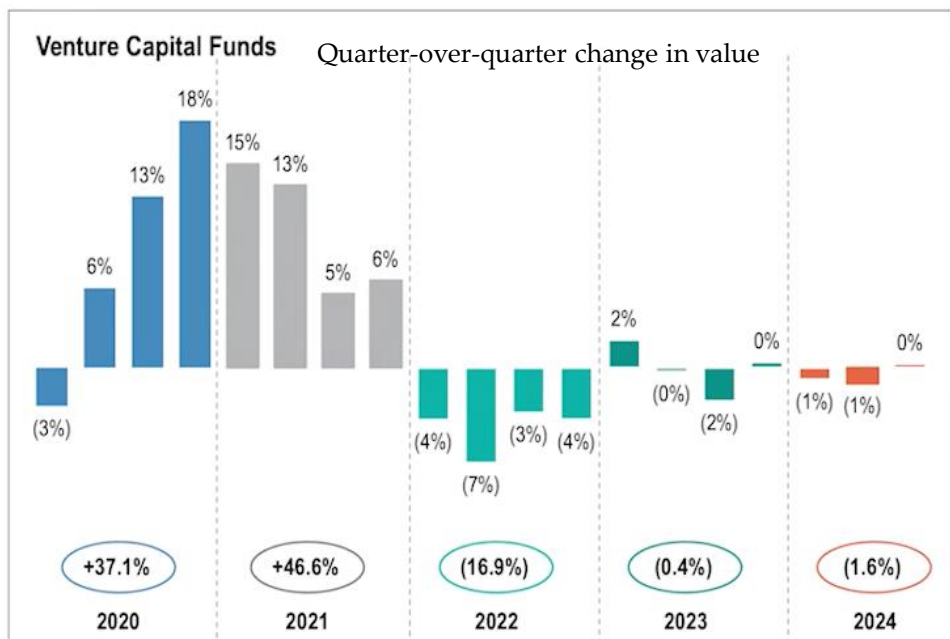


Source: San Jose Staff, as of June 30, 2024  
Values based on NAVs plus unfunded commitments

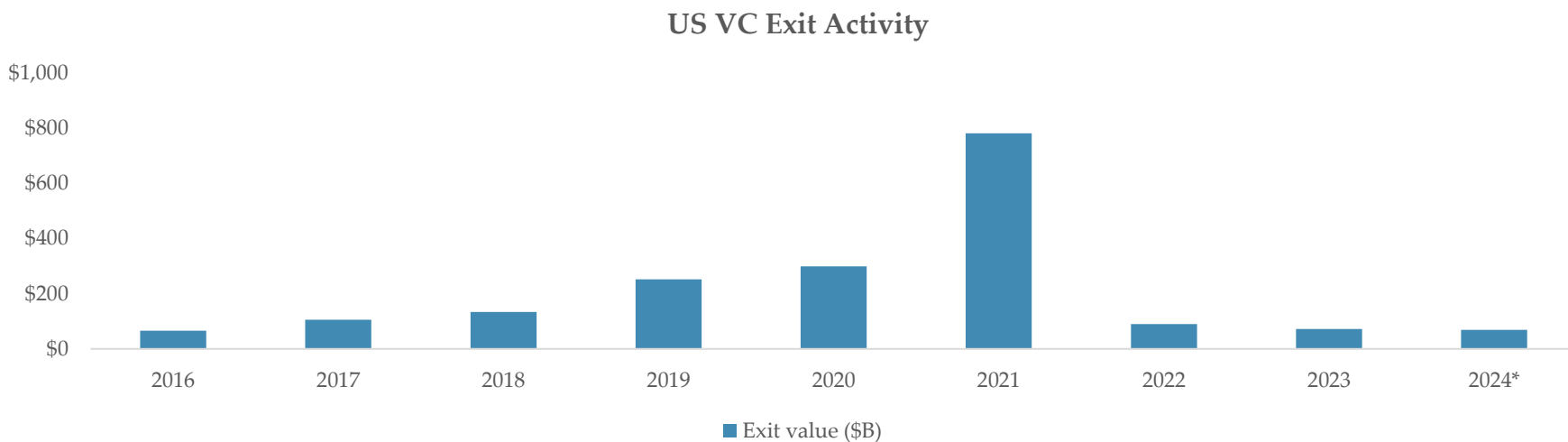
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# Venture Capital

# Challenging period for VC – Poor returns coupled with a challenging exit environment



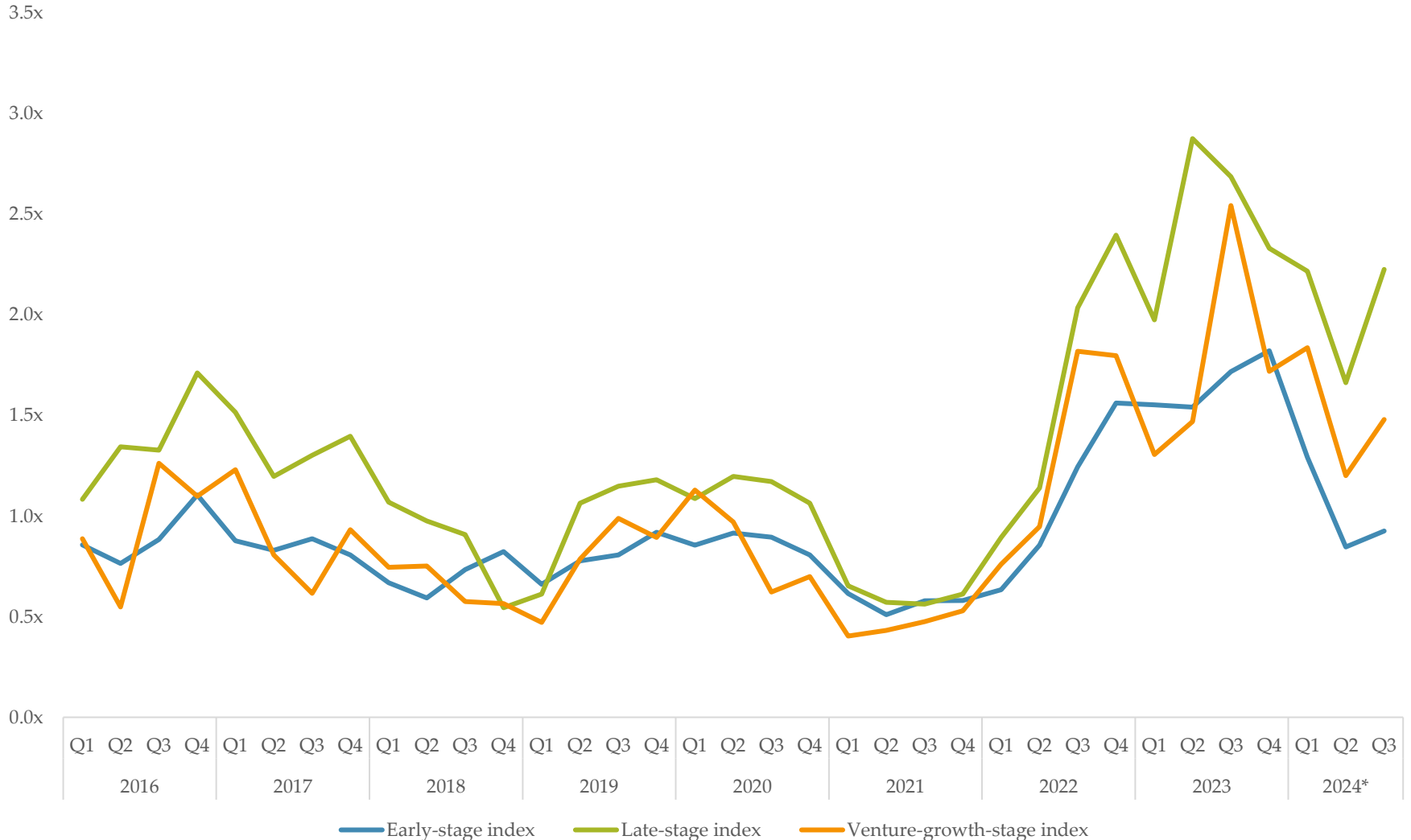
Source: Neuberger Berman Q3 2024 Valuation Summary



Source: Pitchbook, as of September 30, 2024

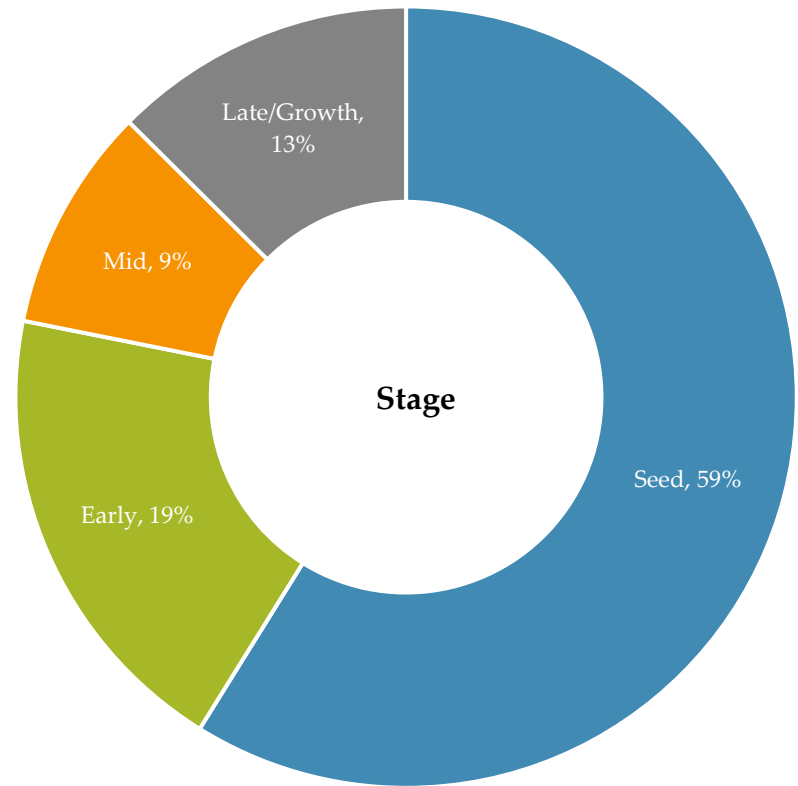
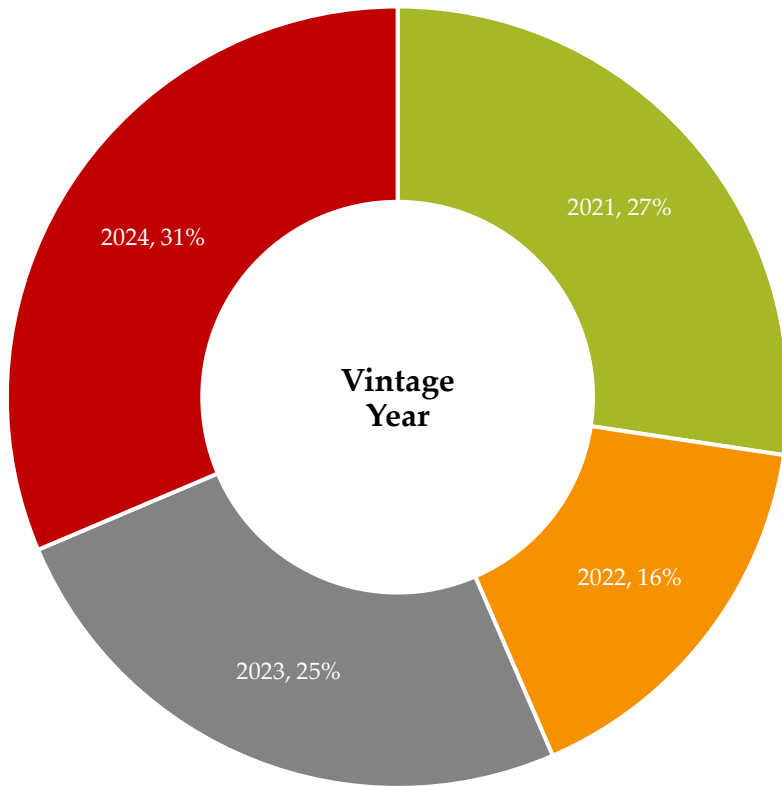
# AI Optimism Driving Early Stage Investment Interest

## Capital Demand/Supply Ratio



Source: Pitchbook, as of September 30, 2024

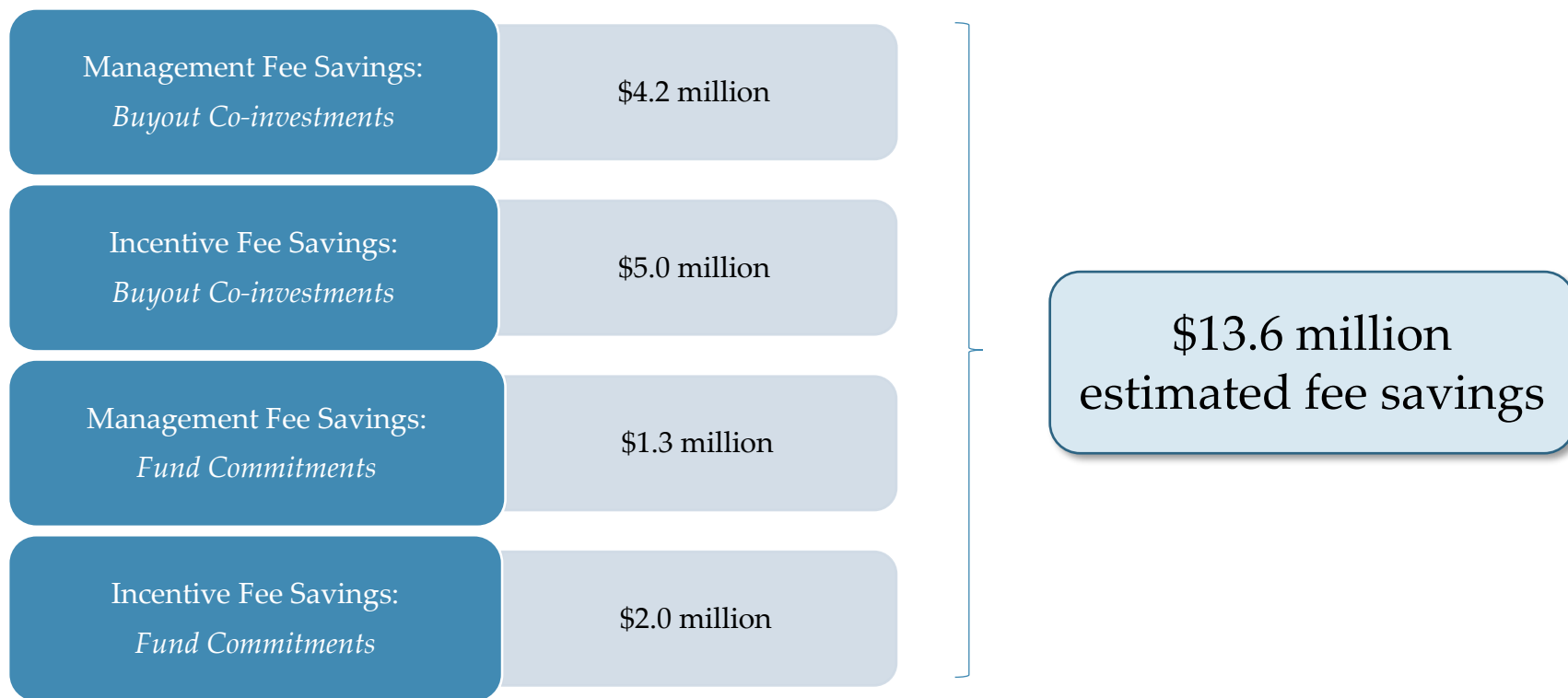
# Venture Capital Portfolio Update



Source: San Jose Staff, as of June 30, 2024  
Values based on committed capital

# \$13.6mm estimated fee savings for CY 2023 investments

- Estimated fee savings from commitments made in calendar year 2023 over the projected life of the investments for both San Jose Police and Fire and Federated plans:



- Fund Commitments fee savings from Staff negotiations, early closing discounts, and volume discounts.
- Additional fee savings not modeled: fee structures of fund-of-ones compared to fund-of-funds alternative, upside performance of investments with incentive fee discounts, commitments to funds with standard fees below asset class averages, and fee savings from investments made prior to January 2023.