



RETIREMENT BOARD MEETING CALENDAR SHEET
September 10, 2025

To: The Retirement Board

Through: Alison Romano
CEO & CIO

From: Tanya Kemp, CFA, CAIA
Managing Director, Private Markets

Christopher Chow, CFA
Director, Real Assets

Chris Terrazzano, CFA
Associate PM, Real Assets

Date: September 10, 2025

Agenda Item: Real Assets Annual Update

Recommendation:

This is a discussion only item.

Background:

As of December 31, 2024, the Real Assets Portfolio had approximately \$5.1 billion of NAV (or 14.0% of total Plan assets) and total exposure (NAV + unfunded) of \$7.1 billion (or 19.6% of total Plan assets). Since inception, the Real Assets portfolio has generated a net IRR of 8.1% and a TVPI of 1.3x.

Staff and Cambridge Associates will present an update including a review of the portfolio's strategy, performance, and composition. Additionally, Staff and Cambridge Associates will discuss the current market environment, opportunities, and initiatives.

Attachment:

Staff Presentation

Consultant Presentation – Cambridge Associates

Real Assets Update

Tanya Kemp, CFA, CAIA, *Managing Director, Private Markets*

Christopher Chow, CFA, *Director, Real Assets*

Chris Terrazzano, CFA, *Associate Portfolio Manager, Real Assets*

September 10, 2025



SFERS

San Francisco Employees' Retirement System

Agenda

- Executive Summary
- Program Overview
- Performance Review
- Portfolio Review
- Initiatives
- Appendix

Executive Summary



Executive Summary

- **Private Real Assets:** Mixed results in 2024 – improved performance but below historical norms, with liquidity and fundraising under pressure
- **SFERS Real Assets:** Stabilized in a higher rate environment; -0.5% return, an improvement from -3.1% in 2023
 - **Real Estate:** Valuations adjusted to higher rates; managers see potential rebound
 - **Natural Resources:** Volatile commodity pricing drove return dispersion
 - **Infrastructure:** Continued strong fundraising, benefiting from AI/data center and power investment trends

Executive Summary (cont.)

- **Allocation:** 14% vs 10% target, down from 14.8% at YE 2023
- **Portfolio Size:** \$5.1 billion NAV and \$2.0 billion in unfunded commitments
- **Exposure:** 55% Real Estate, 27% Natural Resources, and 18% Infrastructure
 - Ongoing focus on growing the Real Estate and Infrastructure exposures

Executive Summary (cont.)

- **Cash Flows:** Roughly flat with \$18.4 million in net contributions in 2024, a significant improvement from \$123 million in 2023
- **New Commitments:** \$395 million across six investments (79% Real Estate, 21% Infrastructure), including one new GP relationship
 - Pacing in line with 2023 levels, below \$500-\$600 million target
 - Moderated by overweight to Real Assets, re-grading of relationships, and muted distribution activity
 - Market challenges continue to result in protracted fundraising timelines, allowing for patience in committing capital

Program Overview



Role of Real Assets

- Designed to provide diversification, total return, yield, and inflation protection
 - Target long-term returns of 10%-12% as program continues transition away from core real estate
- Portfolio comprised of three sub-portfolios: 1) Real Estate; 2) Natural Resources; and 3) Infrastructure
 - Infrastructure formally adopted within benchmark in 2022
 - Other strategies considered, such as Intellectual Property and GP Stakes
- Global program focused on private market investments, emphasizing partnerships with high quality sponsors

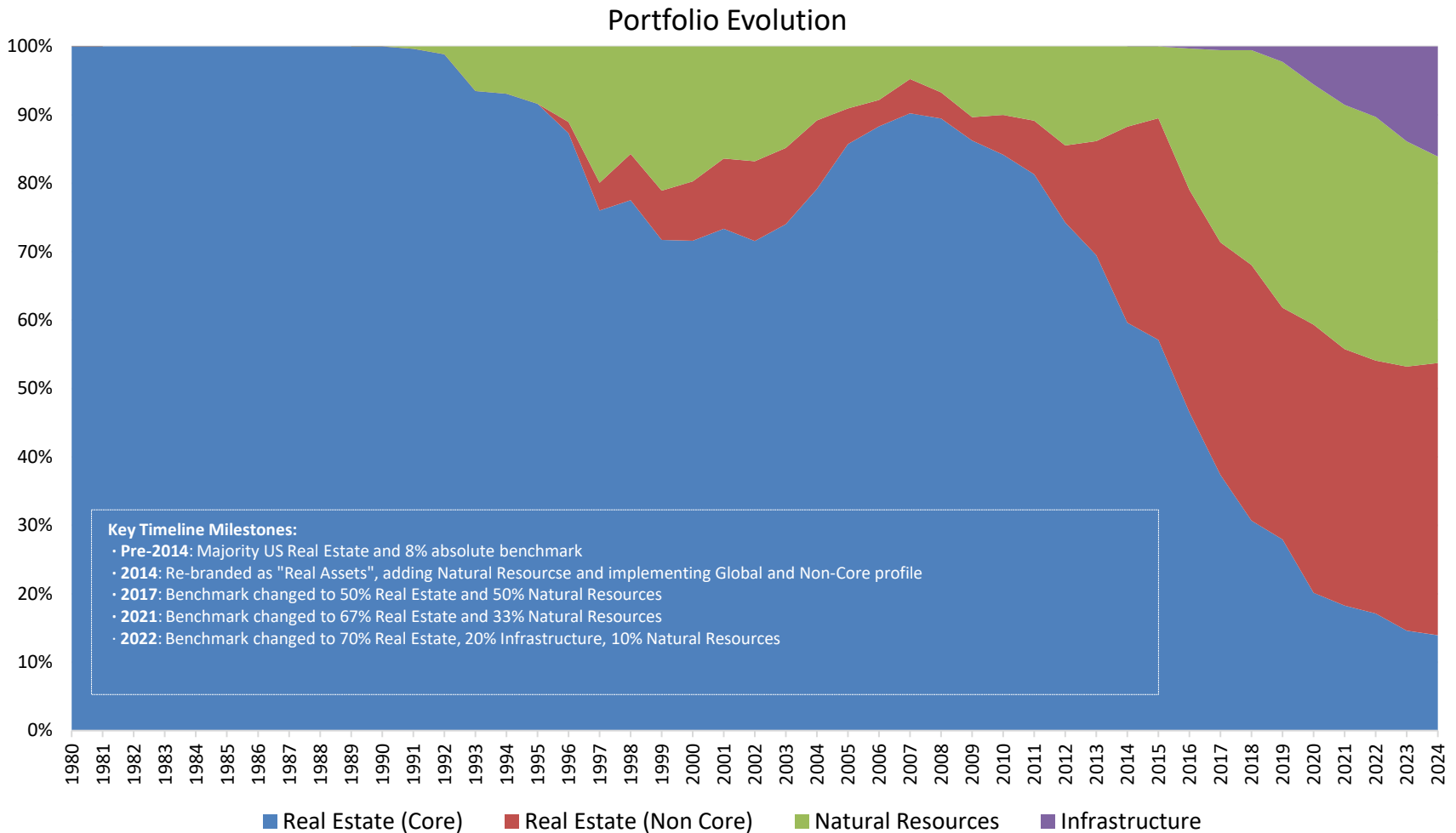
Program Overview

- SFERS began investing in Real Assets in 1978
- As of December 31, 2024, the Real Assets allocation was 14% of Plan Assets, or \$5.1 billion
 - Target allocation reduced from 17% to 10% in 2021 and maintained at 10% in 2024
- 8.1% since inception program IRR and 9.0% 20-year IRR
- Policy benchmark is 70% NCREIF NFI-ODCE/C|A Real Estate Index; 20% C|A Infrastructure Index; and 10% C|A Natural Resources Index*
- Key strategies include Real Estate at 55%, Resources at 27%, and Infrastructure at 18%

Source: Data from Aksia as of 12/31/2024, with sector allocations based on NAV + Unfunded

*The Policy Benchmark uses floating weights based on year-end NAVs until target is reached or until year 10, whichever is first; the Real Estate sub-benchmark uses floating weights based on Core and Non-Core year-end NAVs within the Real Estate portfolio

Program Overview (cont.)



Source: Data based on NAV from Aksia as of 12/31/2024

Performance Review

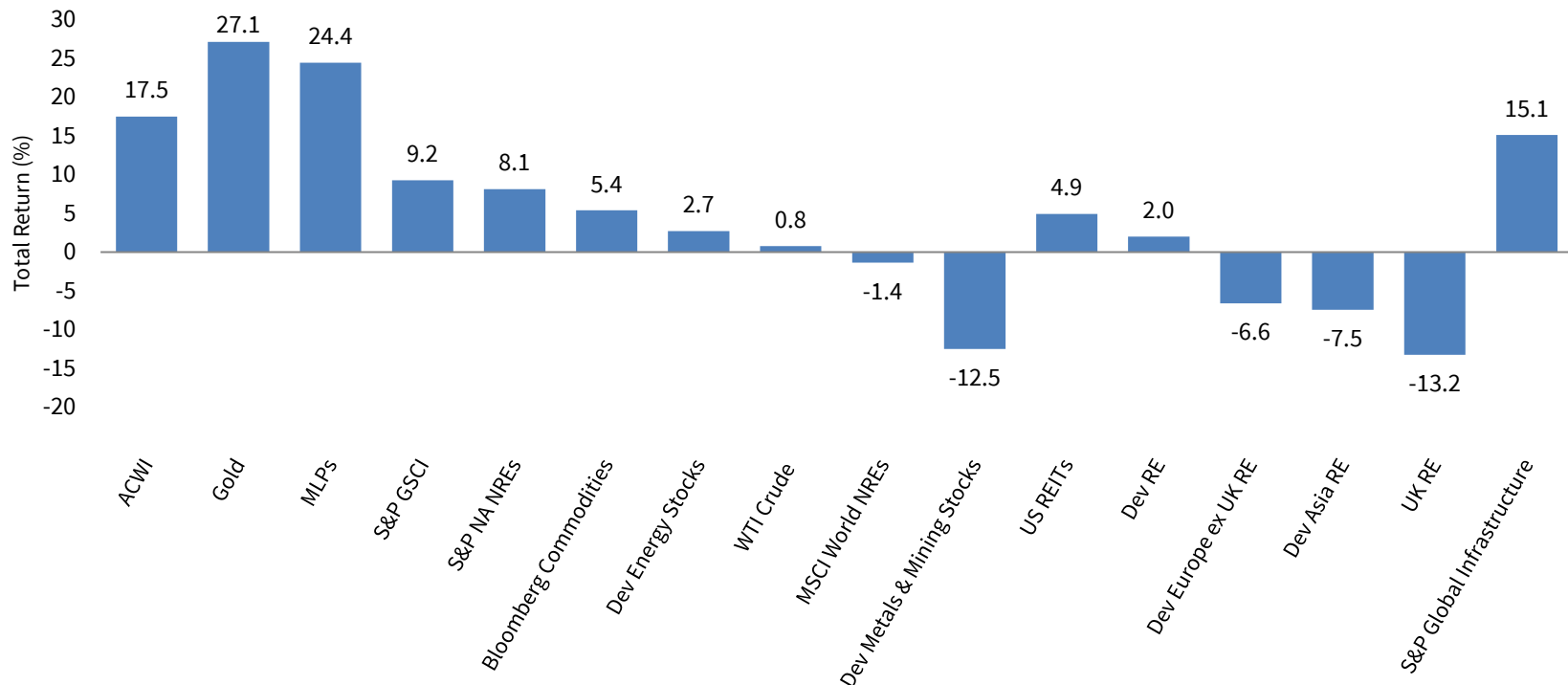


2024 Public Market Returns

Public Real Assets performance was mixed in 2024

- Real estate lagged other major sectors
- Commodity prices trended higher, and gold reached a record high
- Infrastructure benefitted from AI-related growth and increasing demand for electrification

TOTAL RETURNS FOR PUBLIC REAL ASSETS SECTORS
CALENDAR YEAR 2024

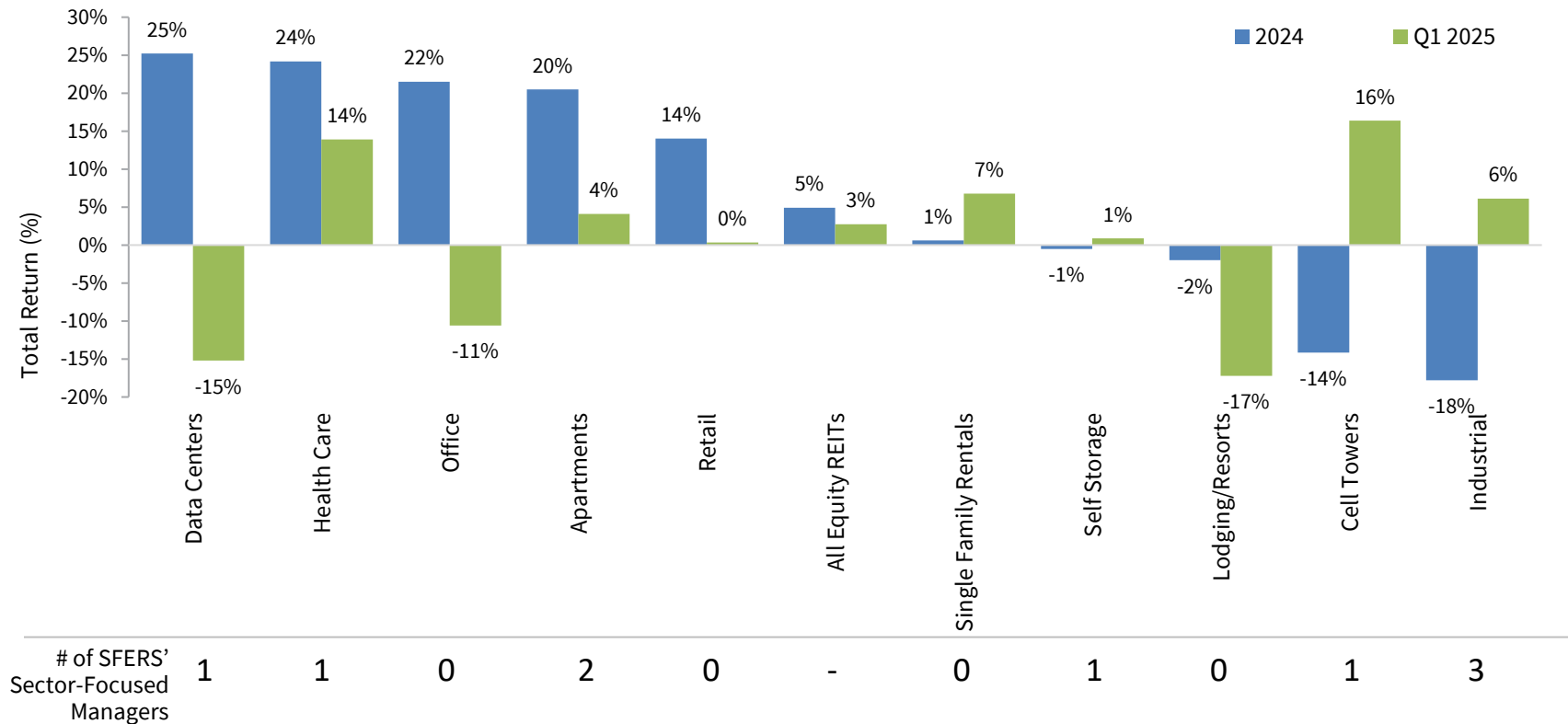


Source(s): Alerian, Bloomberg L.P., European Public Real Estate Association, FTSE International Limited, Intercontinental Exchange, MSCI Inc., National Association of Real Estate Investment Trusts, Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties. Note(s): Data represent total returns, except for Gold ("Gold Bullion Spot Price") and WTI Crude, which are price returns. All returns are in USD terms. Total return data for all MSCI indexes are net of dividend taxes.



2024 REIT Performance By Sector

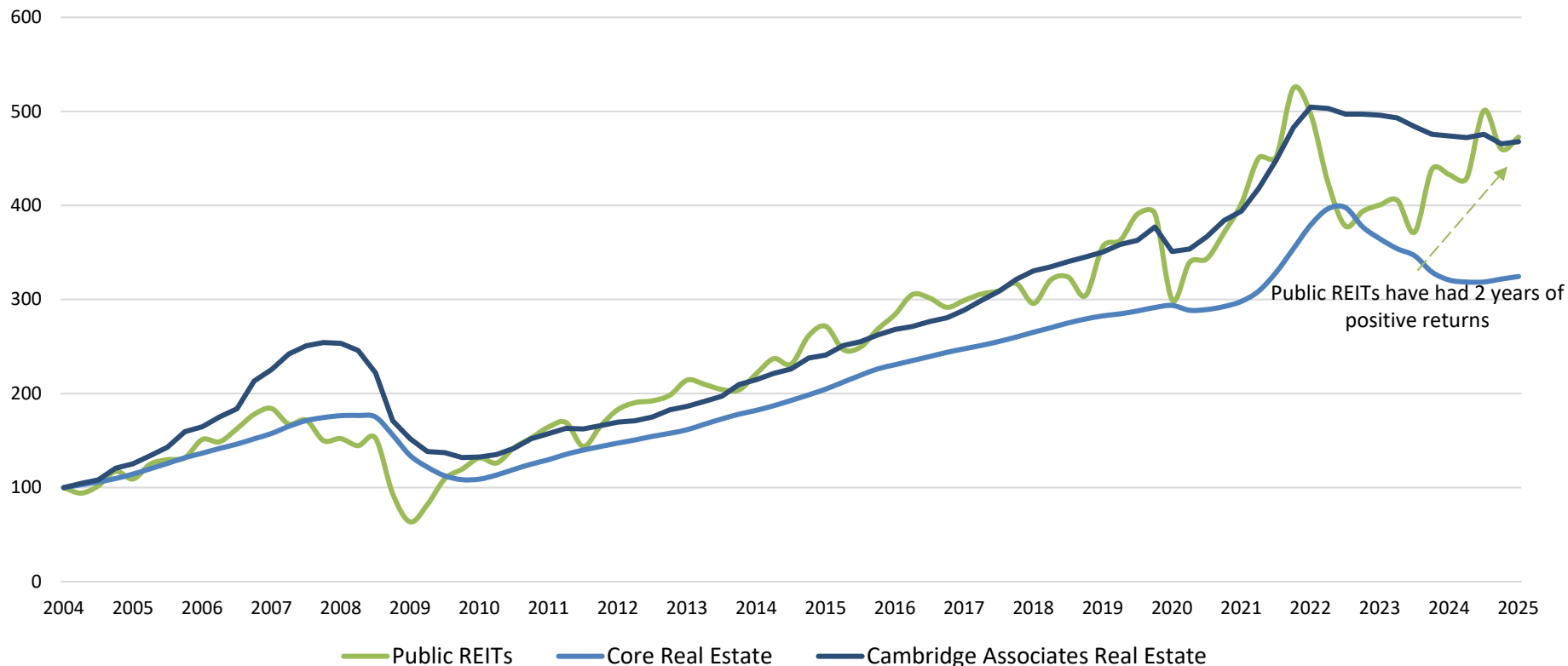
- Public REITs were positive in 2024, though performance varied by sector
- Data Centers and Industrial, the top and bottom respective performers of 2024, both reverted in 1Q2025 given various headlines regarding leasing demand



Source(s): Data provided by FTSE International Limited and National Associate of Real Estate Investment Trusts as of 3/31/2025. SFERS sub-strategy manager classifications provided by Aksia and Cambridge Associates as of 3/31/2025. SFERS Managers are focused on private investments.

Private vs Public Real Estate

- Public market REITs valuations have increased and their indexed returns are now comparable to Cambridge Associates' global private real estate index, eliminating the prior large spread
- Core real estate funds lag REITs but have trended positive since the end of 2024



Source: Cambridge Associates

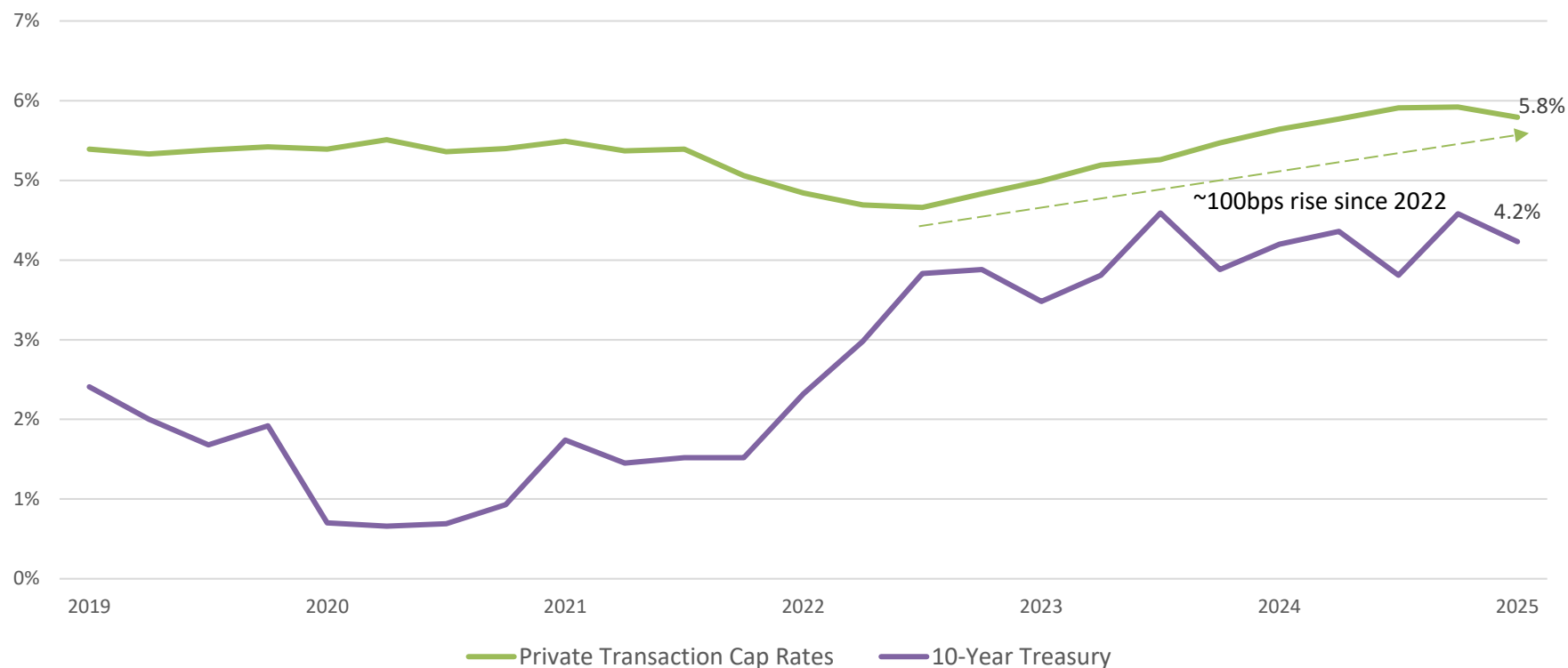
Note: "Public REITs" represents FTSE® NAREIT All Equity REITs Index (Gross), "Core Real Estate" represents NCREIF ODCE Index (Net), "Cambridge Associates Real Estate" represents CA Global Real Estate Index (Net).



SFERS
San Francisco Employees' Retirement System

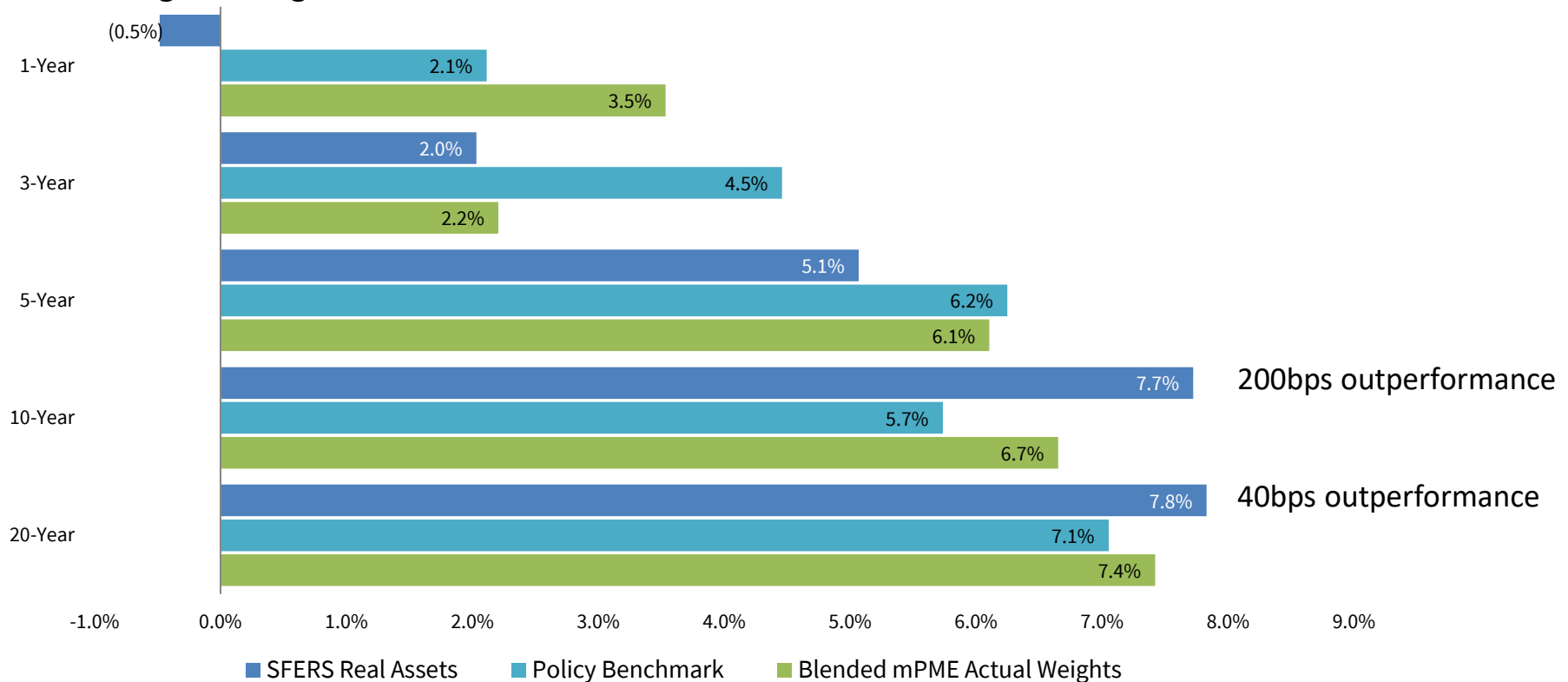
Interest Rates Impact on Real Estate

- 10-Year rates have increased significantly from recent period lows and have impacted real estate transaction cap rates
 - Values are off by ~20% from their 2022 peak



Real Assets Portfolio Performance

- SFERS Real Assets portfolio has underperformed over the near-term but has outperformed over longer time periods
- Asset allocation reduction materially impacted annual pacing and limited post-covid vintage year investing, although macro conditions have also restricted overall market activities



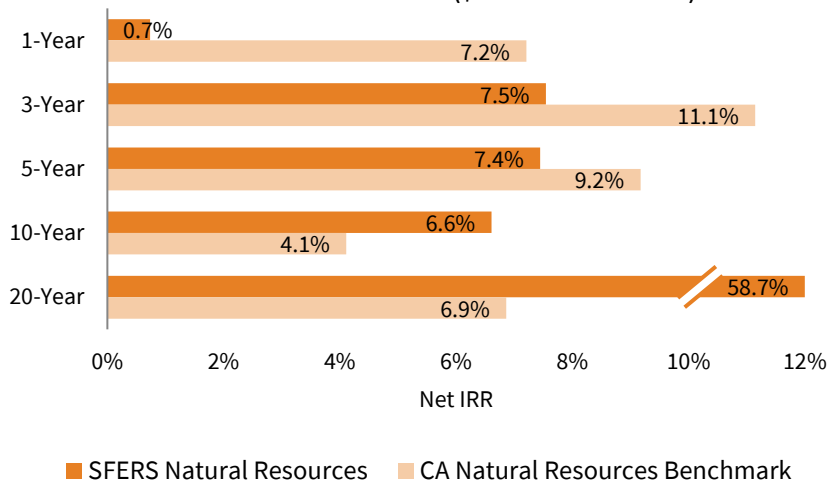
Source(s): mPME and Index return data provided by Cambridge Associates as of 12/31/2024. Total Real Assets Program returns provided by Aksia as of 12/31/2024.
 Note(s): The Policy Benchmark uses the historical benchmark that was in place for each period. The go-forward policy benchmark as of 7/1/2022, uses the NCREIF ODCE (Net) for core Real Estate, the CA Real Estate Benchmark for non-core Real Estate, the CA Natural Resources Benchmark for Resources, and the CA Infrastructure Benchmark for Infrastructure. Weightings are according to the prior year-end NAV weightings. Blended mPME calculation uses SFERS' actual weights over time to determine the blended return. The FTSE NAREIT All Equity REITs Index is used for Real Estate and Infrastructure. The MSCI World Natural Resources Index (Net) is used for Resources and is backfilled with the DataStream World Natural Resources Index to reach inception of SFERS' historical data.



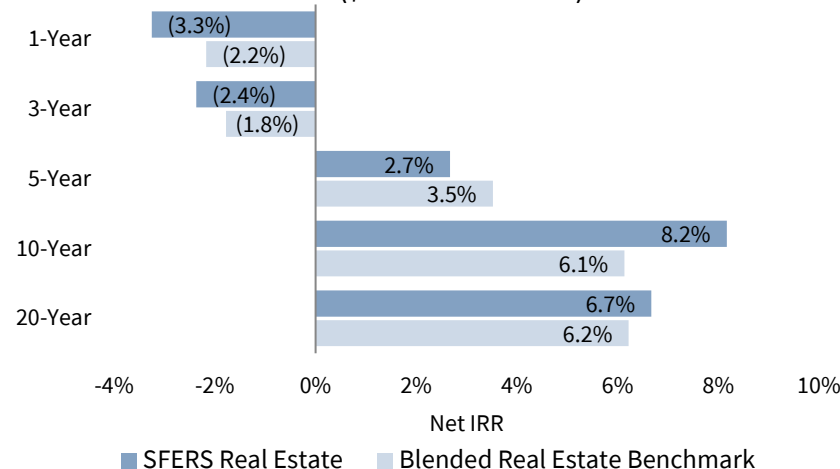
Sub-Strategy Performance

- While performance has faced challenges in recent years, long-term results have been good
- Real Estate performance largely in-line, with recent headwinds in non-US and select GPs underperformance
- Natural Resources performance impacted by negligible post-covid vintage year exposure and strong performance by large-cap funds in the benchmark
- Infrastructure portfolio remains young with recent negative impacts of j-curve

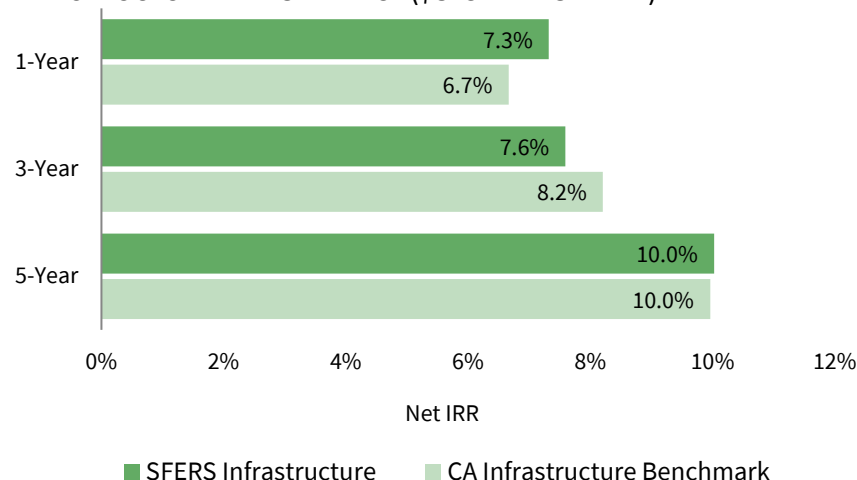
NATURAL RESOURCES PERFORMANCE (\$1.54 BILLION NAV)



REAL ESTATE PERFORMANCE (\$2.75 BILLION NAV)



INFRASTRUCTURE PERFORMANCE (\$823 MILLION NAV)



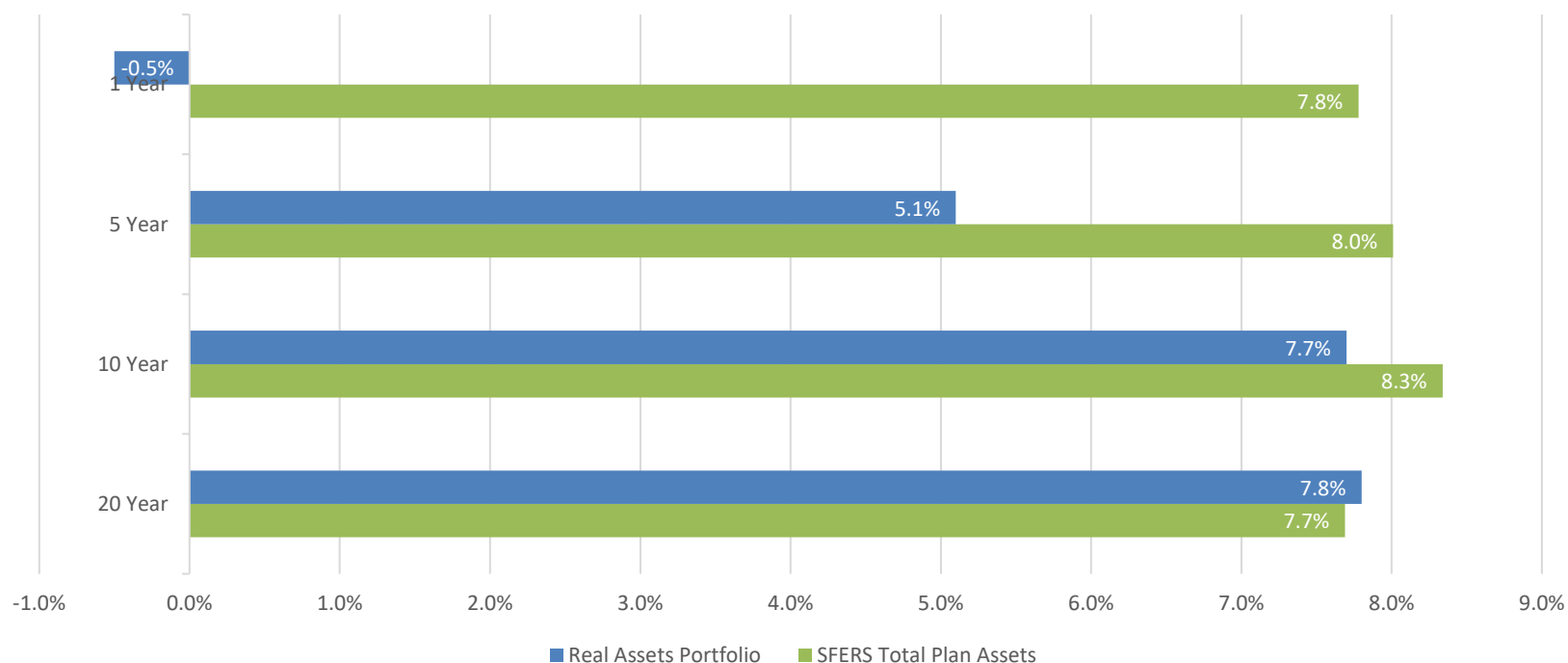
Source(s): Sub-strategy performance provided by Aksia as of 12/31/2024, Cambridge Associates.

Note(s): Blended Real Estate Benchmark uses the CA Benchmark for non-core Real Estate and the NCREIF ODCE (Net) for core Real Estate which is floated based on weights as of 12/31/2023 according to the policy benchmark allocations.

Real Assets Portfolio Performance (cont.)

- Real Assets has lagged overall Plan performance recently due to significant headwinds affecting real estate and natural resources although has outperformed over the 20-year long term period
- The portfolio has provided diversification benefits, most recently in CY2022 when RA was +10.1% while Plan performance was -10.4%

Real Assets vs Total Plan Performance

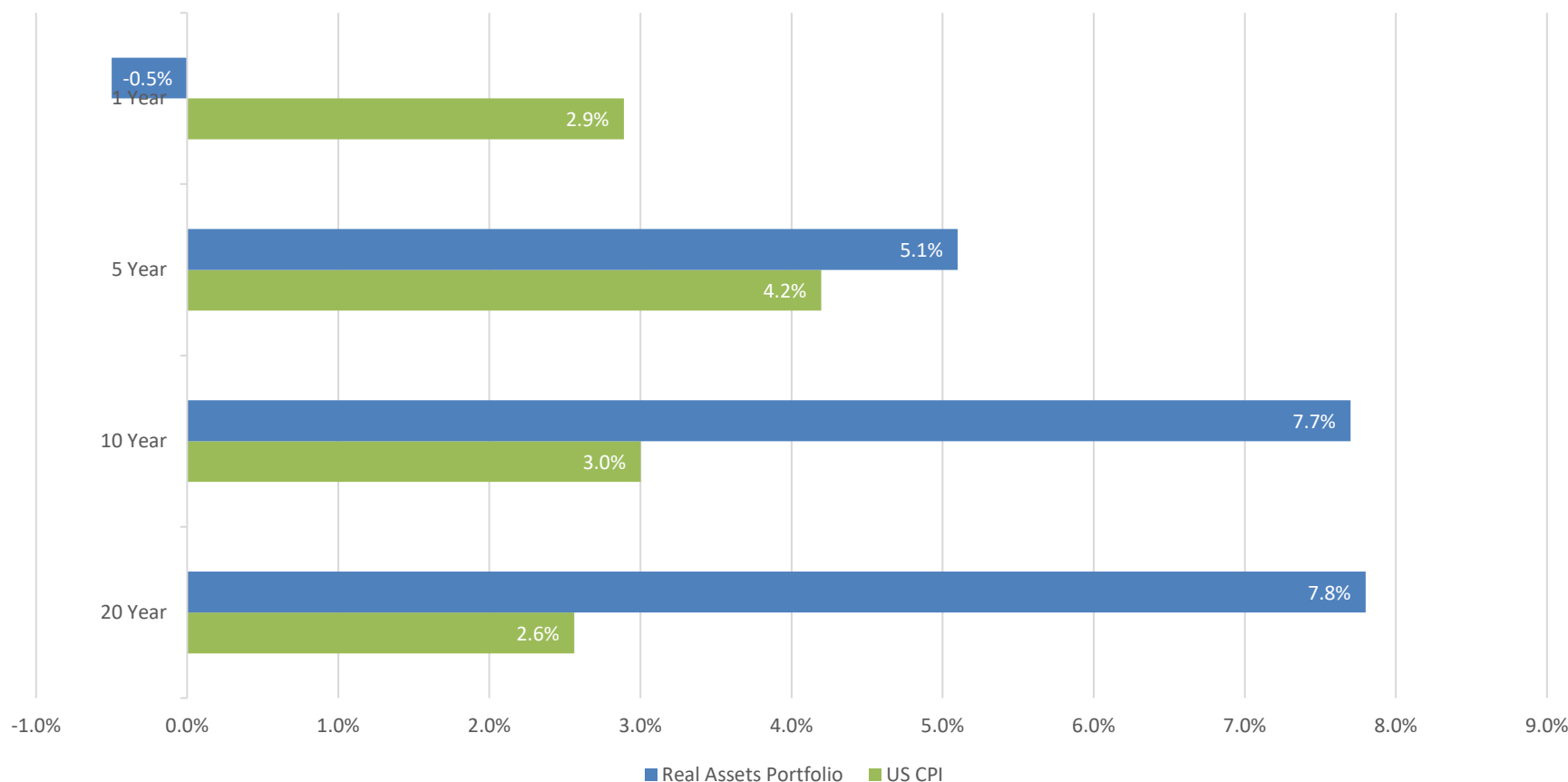


Sources: Real Asset Portfolio returns are time-weighted and provided by Aksia as of 12/31/2024. Total Plan Assets returns provided by BNYM as of 12/31/2023.

Real Assets Portfolio Performance (cont.)

- The Real Assets portfolio continues to outpace inflation over longer periods of time

Real Assets vs Inflation

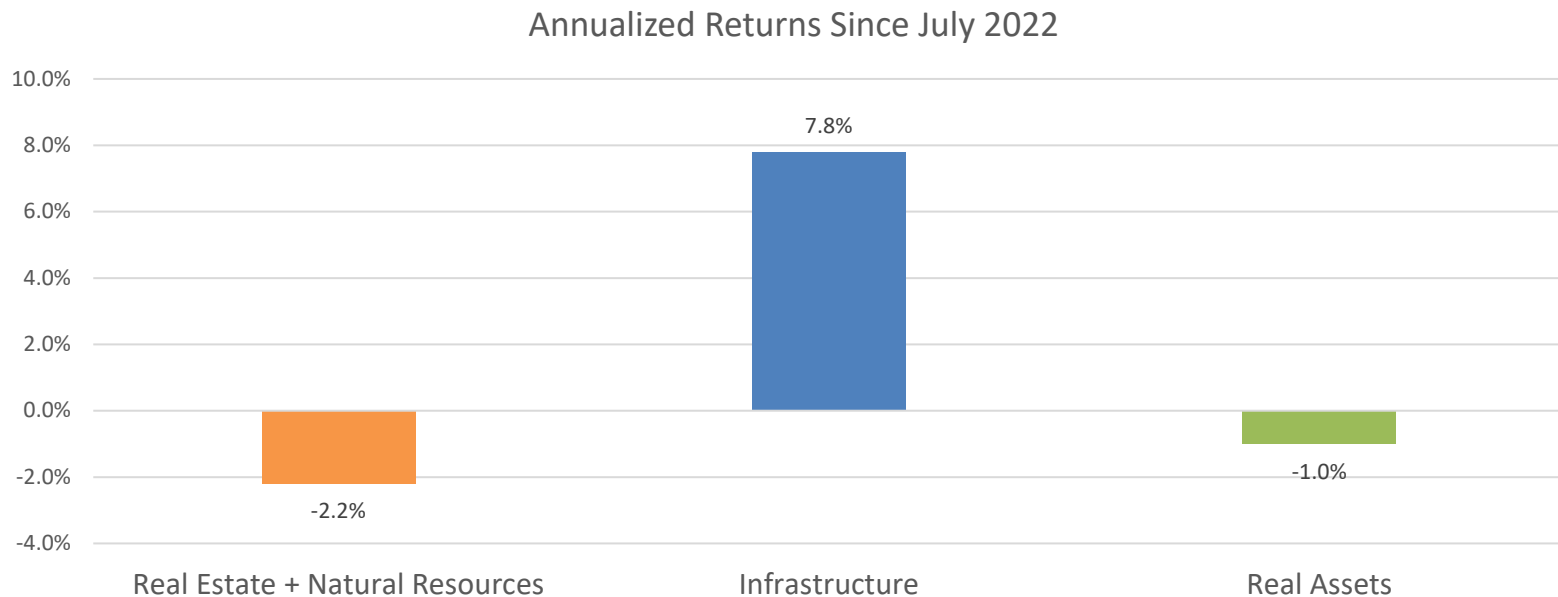


Sources: Real Asset Portfolio returns are time-weighted and provided by Aksia as of 12/31/2024. US CPI data from Organization for Economic Co-operation and Development, Consumer Price Index: All Items for the United States, retrieved from FRED, Federal Reserve Bank of St. Louis.



Addition of Infrastructure

- The inclusion of Infrastructure investments within the Real Assets portfolio has generated positive performance
 - Infrastructure has also been a strong contributor since being added to the policy benchmark in July 2022 (as shown below), returning +7.8% IRR compared to -2.2% IRR for Real Estate & Natural Resources



Source: Aksia data as of 12/31/2024

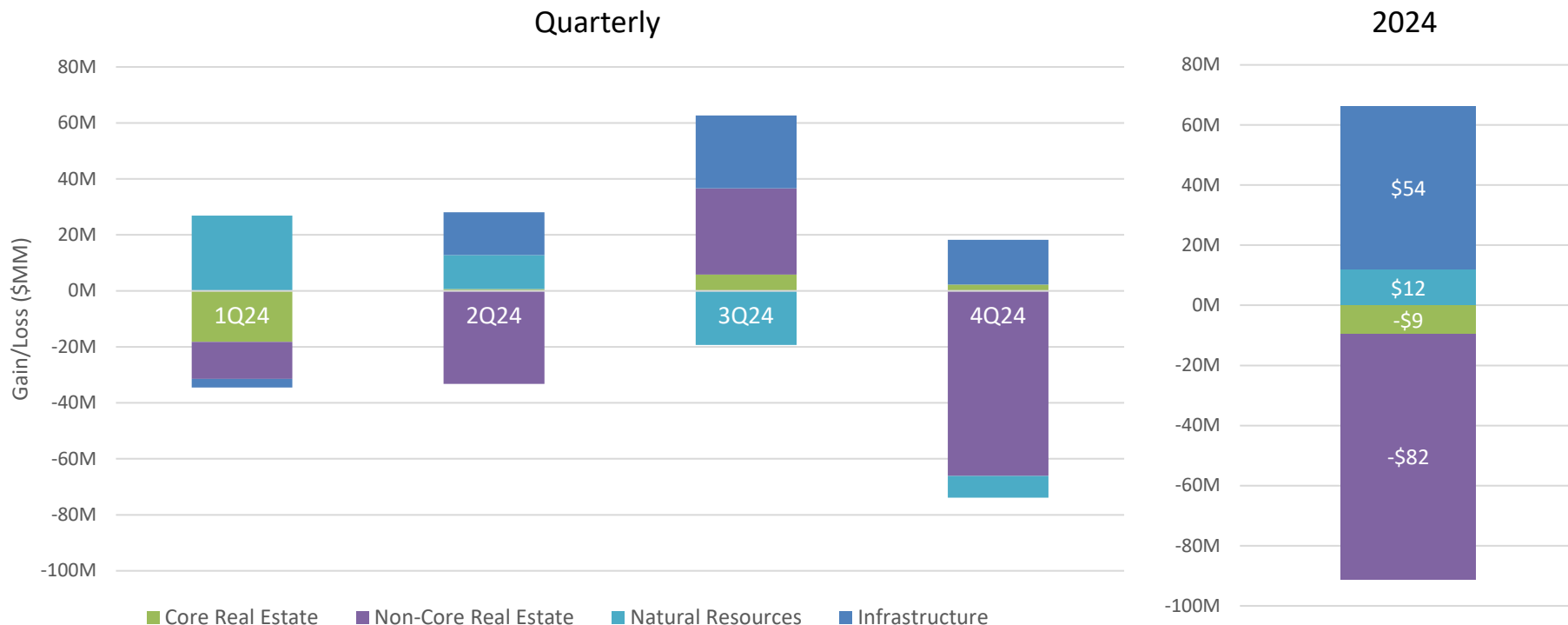
2024 Return Attribution

	Contributors	Detractors
Strategy	Infrastructure Natural Resources	Real Estate
Geography	Asia Pacific North America	Global Europe
Sub-Portfolio	Contributors	Detractors
Real Estate	Residential Industrial Alternatives	Diversified Debt
Natural Resources	Power Oil and Gas Mining	Agriculture
Infrastructure	Transportation, Music IP Digital, Energy Diversified	

Note: Based on absolute performance contribution

2024 Return Attribution (cont.)

- Returns continued to face headwinds in 2024, with Q3 being the only positive quarter due to a rebound in Real Estate driven by a temporary decline in the interest rate futures curve
- Core Real Estate was flat in Q2 and turned positive thereafter; however, Non-Core Real Estate tends to lag and therefore experienced significant write-downs in Q4
- Infrastructure continued to provide upside throughout the year, although in relatively smaller amounts.
- Natural Resources performance was mixed although up for the year

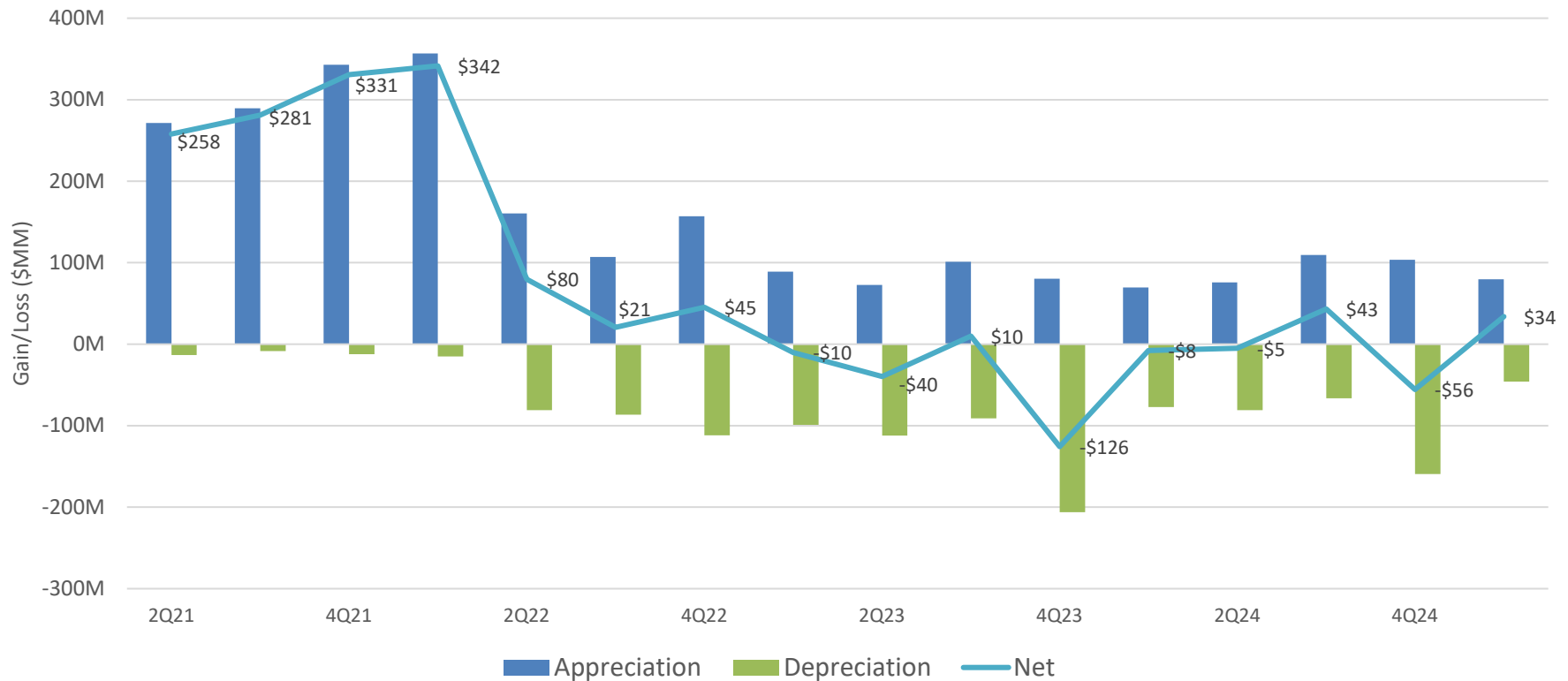


Source: Data provided by Aksia as of 12/31/2024



Q1 2025 Performance

- Returns were positive in Q1 as the portfolio was up 0.67%
- Real Estate and Infrastructure were both positive at +131bps and +57bps, respectively, while Natural Resources was down 47bps



Source: Data provided by Aksia as of 8/1/2025

Portfolio Review



Thematic Strategy Assessment

- Near-term opportunities focused on Real Estate and Infrastructure
 - Themes remain investing behind capital markets volatility, continuing population demographic and migratory trends, and assets with strong long-term market fundamentals

	Less Attractive	Neutral	More Attractive
Real Estate	Office Development	Hospitality Retail	Industrial Residential Special Situations 'Alternatives'
Natural Resources	Timber	Agribusiness	Conventional Energy Metals & Mining
Infrastructure	Social	Transportation	Digital Decarbonization

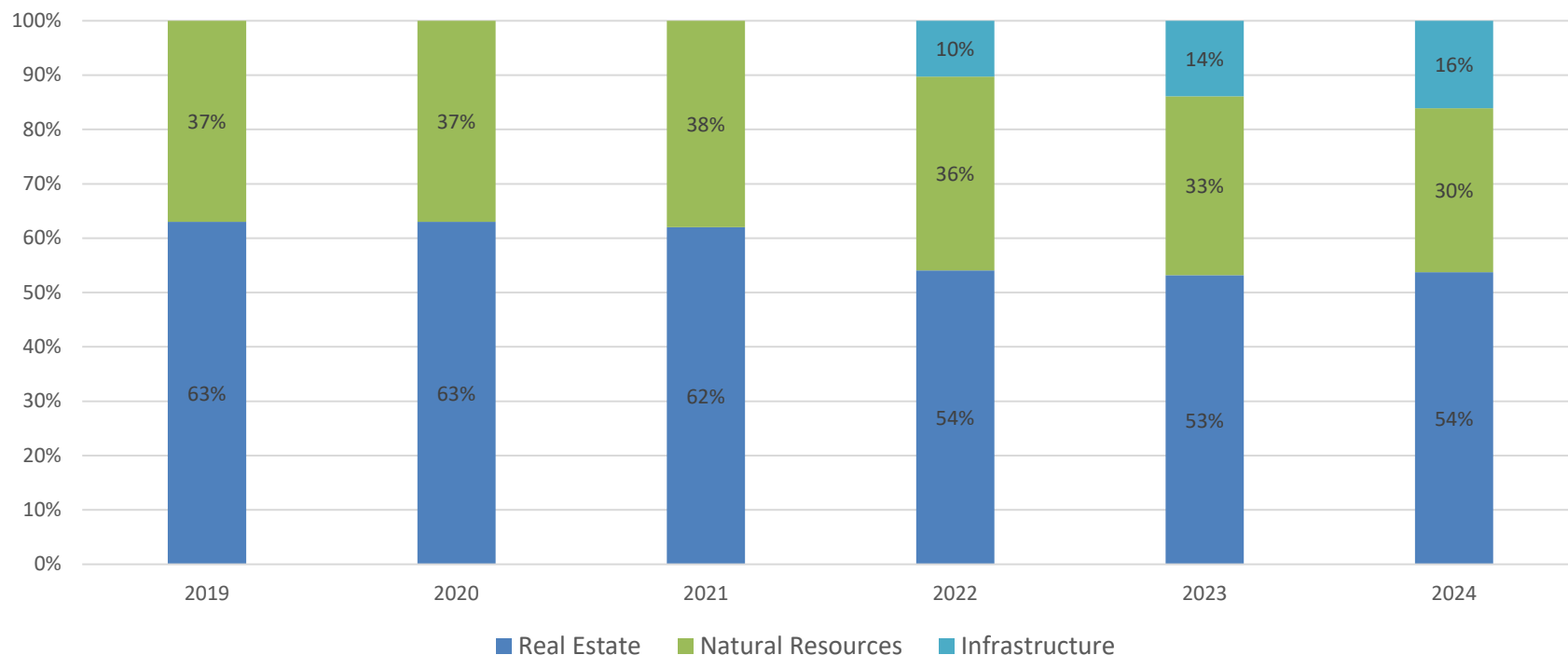


Portfolio Construction

- Real Estate to remain the largest exposure given mature, global opportunity set
 - Sub-portfolio is well-diversified by sector and geography
 - Overweight alternative sectors and hospitality; underweight retail and residential; in-line for industrial and office
 - Overweight non-US although recent commitments and focus is domestic
 - Given underweight to long-term target, anticipate additional commitments which can capitalize on relative attractive entry valuations
- Natural Resources exposure gradually declining over time
 - Expecting greater distribution activity through underlying operating cash flow and sales activity as funds are mature
 - Limited new commitment activity expected
- Infrastructure has grown from a low base
 - GP universe continues to increase, and the largest funds rival real estate ones

Portfolio Construction By Strategy

- Future commitments focused on Real Estate and Infrastructure given current underweights relative to long-term target allocations
- Allocation to Natural Resources peaked at 38% in 2021 and has continued to decrease
- Real Estate exposure expected to increase going forward and previously impacted by a secondary sale, core fund redemptions, and infrastructure sub-portfolio addition



Source: SFERS fund-level NAV exposure provided by Aksia as of 12/31/2024.

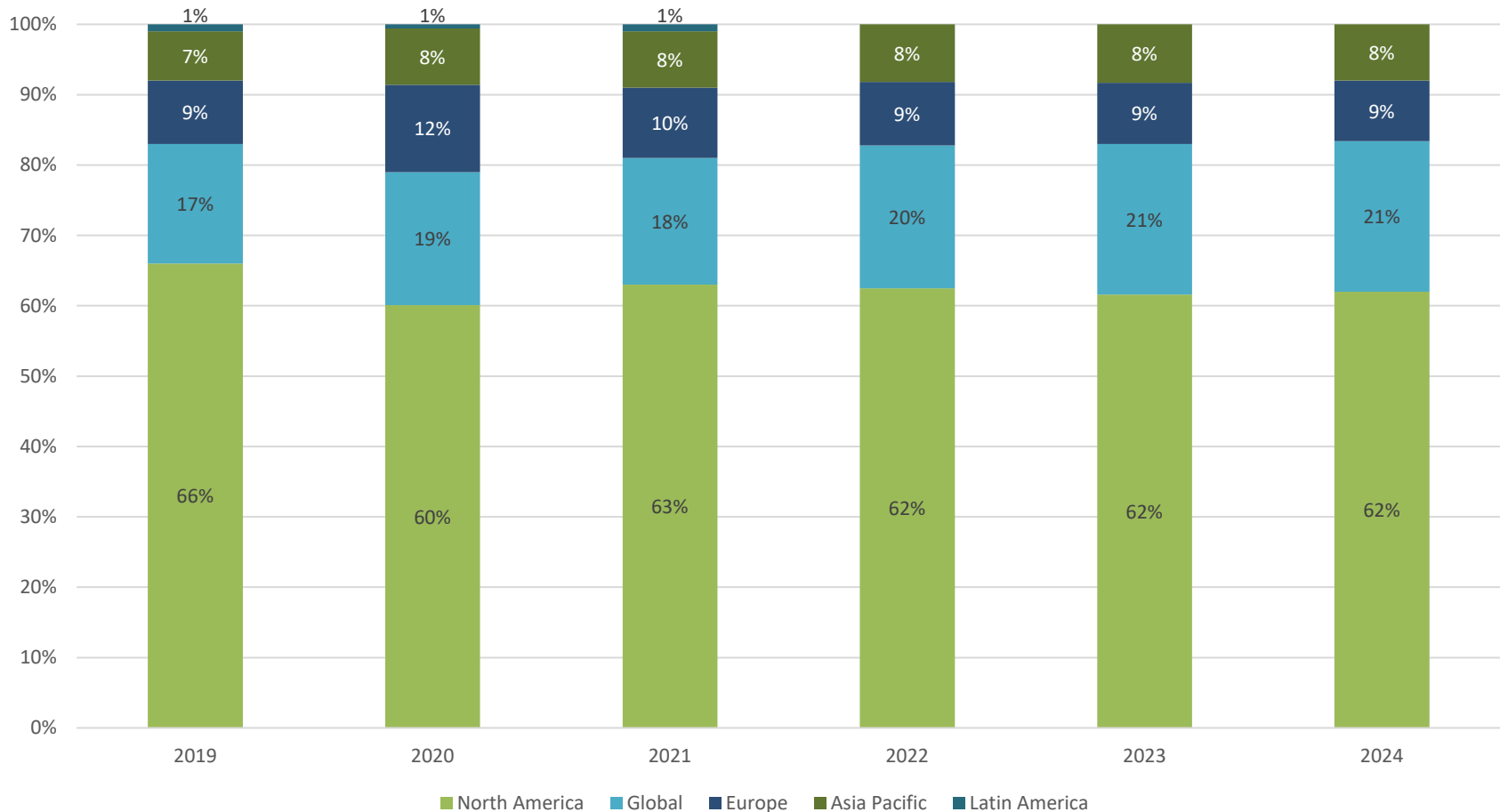
Note: Infrastructure formally introduced as a sub-composite in 2022.



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Portfolio Construction By Geography

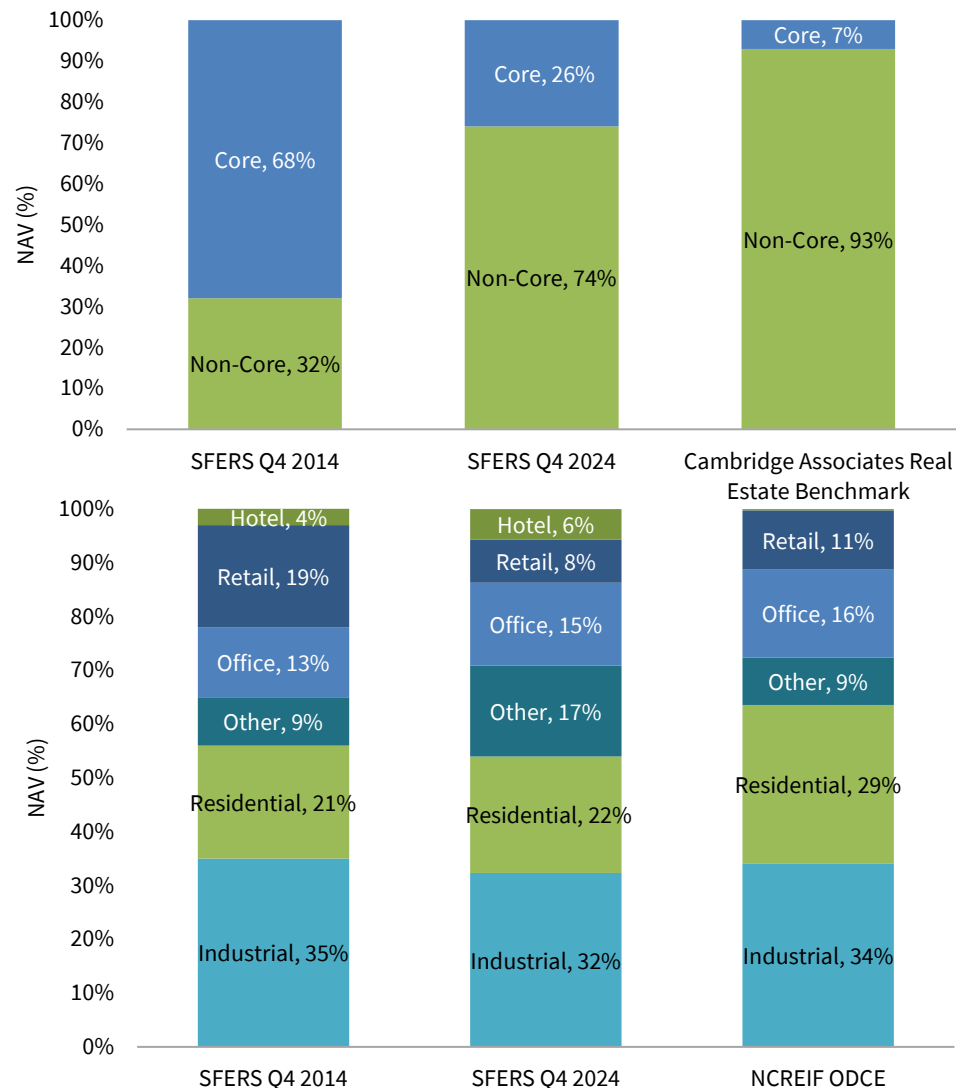
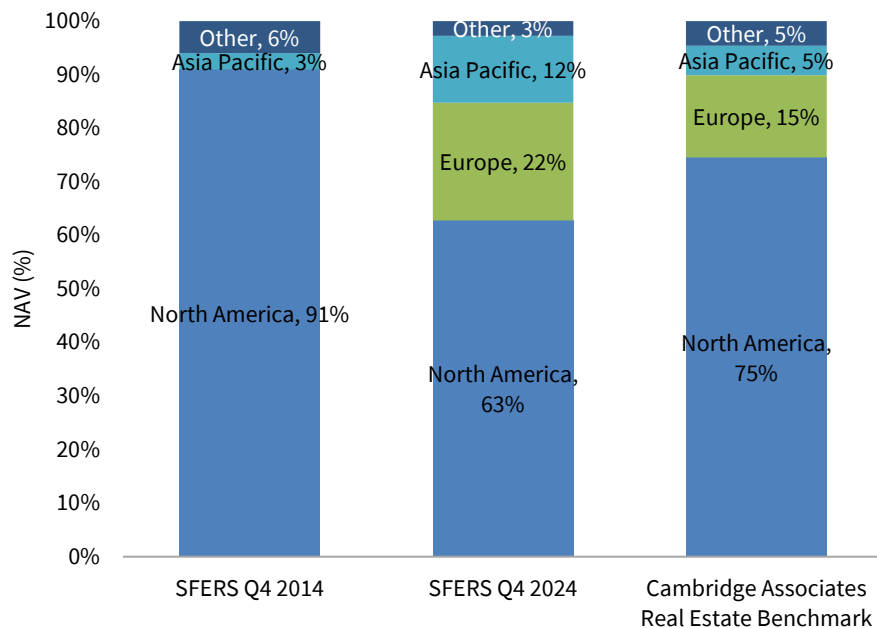
- North America exposure has remained consistent over the last few years



Source: SFERS fund-level net asset class (NAV) exposure provided by Aksia as of 12/31/2024.

Real Estate Exposures Over Time

- Portfolio exposures have shifted over time to increase diversification and target Non-Core assets
- Exposure is well diversified across sectors; “Other” segment has been intentionally increased driven by niche and non-traditional asset types
- North America exposure is expected to remain stable as recent commitments have been predominantly US-focused strategies



Source(s): SFERS property-level Real Estate data provided by Aksia as of 12/31/2024. NCREIF Data is from NFI Quarterly report as of 12/31/2024.

Note(s): “Other” includes diversified assets and assets defined at the GP’s discretion. NCREIF ODCE exposures are value-weighted. Other includes Latin America, Global, and geographies noted as “other” at the GP’s discretion.

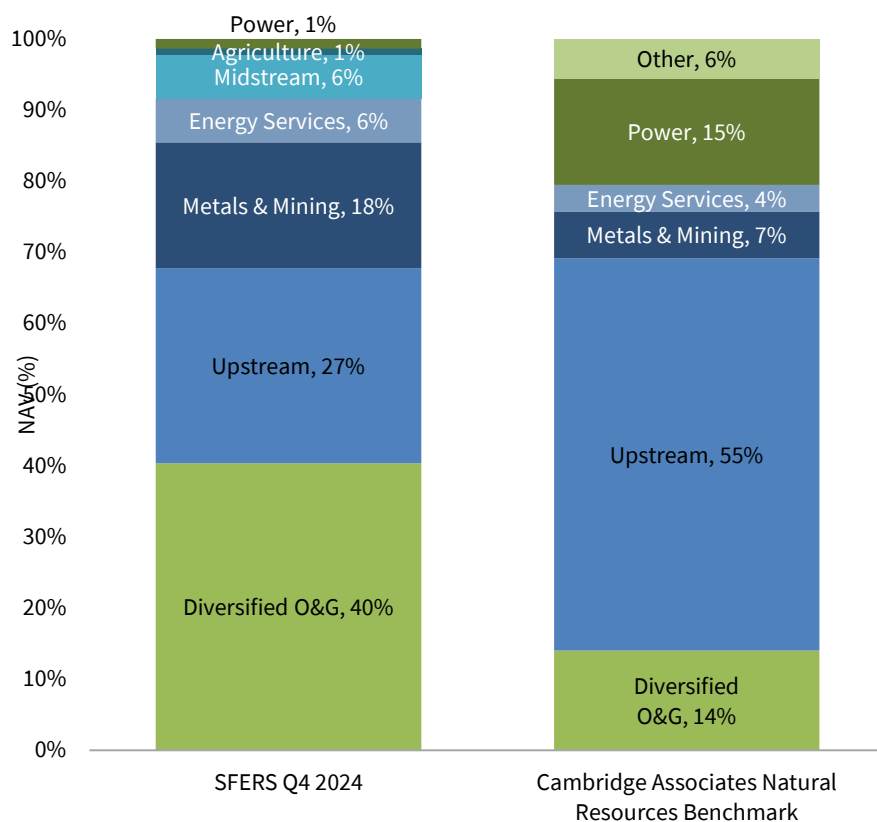


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Natural Resources and Infra. Exposures

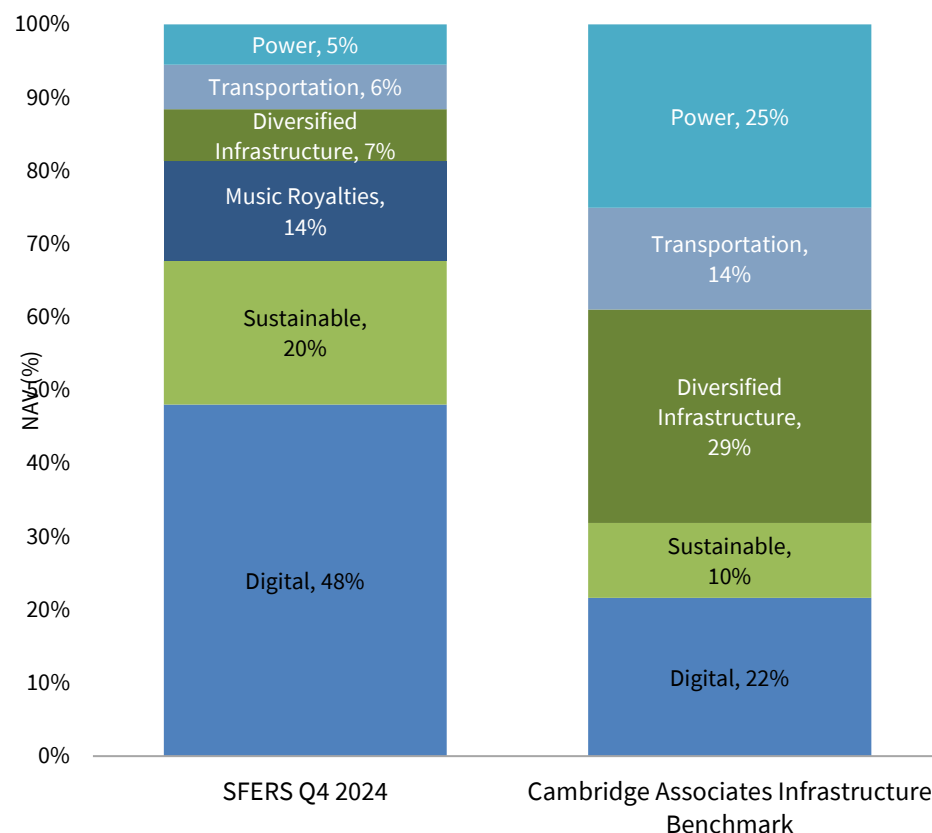
Natural Resources

- Overweight Metals & Mining
- Underweight Upstream



Infrastructure

- Overweight Digital given long-term demand drivers
- Underweight Power



Source(s): Fund-level data provided by Aksia as of 12/31/2024. Cambridge Associates Natural Resources Benchmark sector exposure as of 12/31/2024. Cambridge Associates Infrastructure Benchmark sector exposure as of 9/30/2024. Note(s): Cambridge Associates Natural Resources diversified energy classification represented as upstream and diversified O&G for purpose of analysis. Energy infrastructure and power categorized as power for purpose of analysis. Other for resource-type exposure includes royalty interests, construction, capital goods, and timber. Towers, fiber, and diversified communications categorized under digital for purpose of analysis.



Annual Deployment Pace

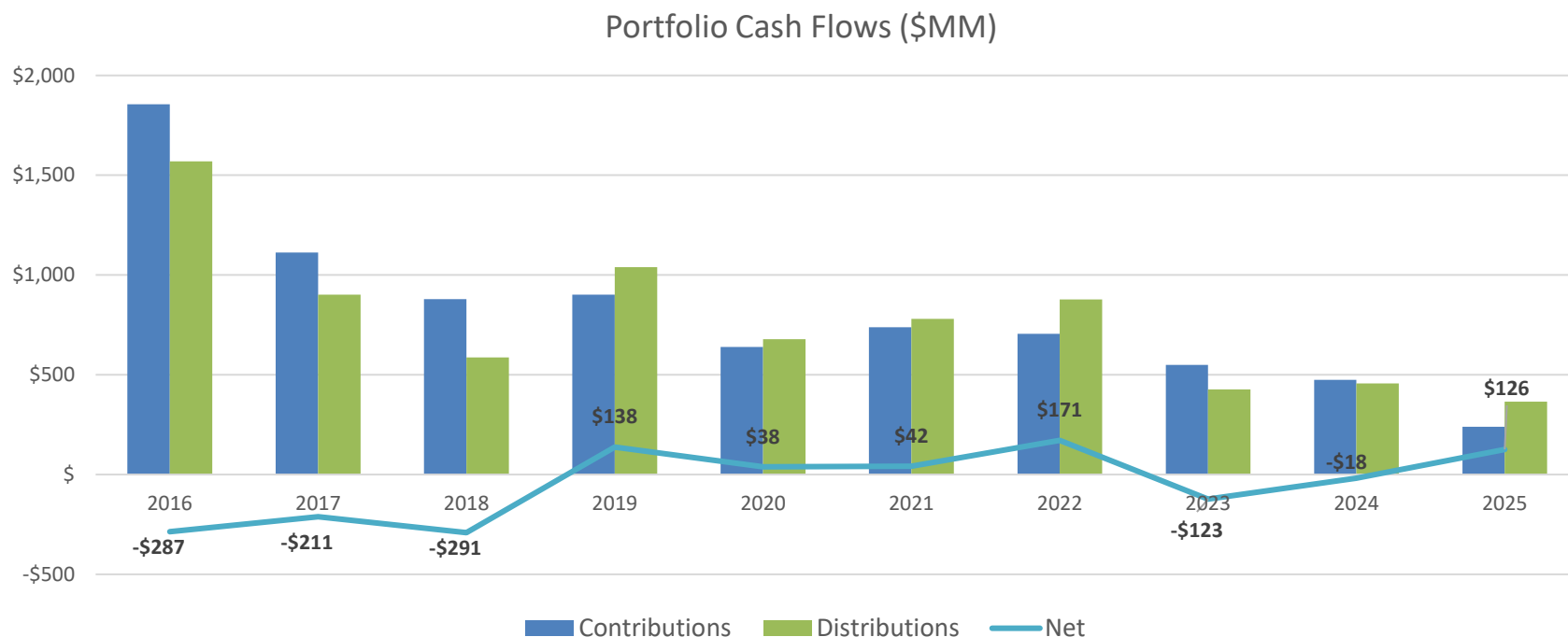
- 2021: \$563 million
- 2022: \$583 million
- 2023: \$383 million
- 2024: \$395 million

Target deployment pace is roughly \$500-\$600 million annually over the next 3 years

2022-2024	# Funds	\$MM Committed	%
Real Estate	16	\$964	71%
Natural Resources	0	\$0	0%
Infrastructure	9	\$397	29%
Total	25	\$1,360	100%

Portfolio Cash Flows

- The Real Assets portfolio produced positive cash flow from 2019 to 2022 but experienced negative cash flow in 2023 and 2024 as higher interest rates resulted in muted distribution activity, principally in real estate
- Distributions have started to rebound in 2025 and YTD cash flow is strong at +\$126 million, driven by Natural Resources



Source: Data provided by Aksia, 2025 YTD cash flow as of 8/22/2025



Initiatives



Portfolio Initiatives

Initiatives	Details
Maintain consistent yet flexible pacing	Deploy roughly \$500 million while considering the current market environment and portfolio weight
Progress towards long-term policy benchmark weights	Currently underweight real estate and overweight natural resources
Continue to diversify portfolio in a risk-adjusted manner	Given portfolio maturation, high threshold for new relationship additions; ongoing research initiatives in various strategies
Further concentrate portfolio relationships	~75% of pacing is currently expected to be with existing managers
Explore liquidity solutions	Evaluate opportunities in the secondary markets
Expand RA investment team	Open recruitment for Investment Officer
Continue to strengthen internal analysis and network of relationships	Maintain internal strategy meetings; continue development and usage of internal monitoring tools and templates; regular usage of third party subscription and consultant and LP network resources

Appendix



Co-investment Performance

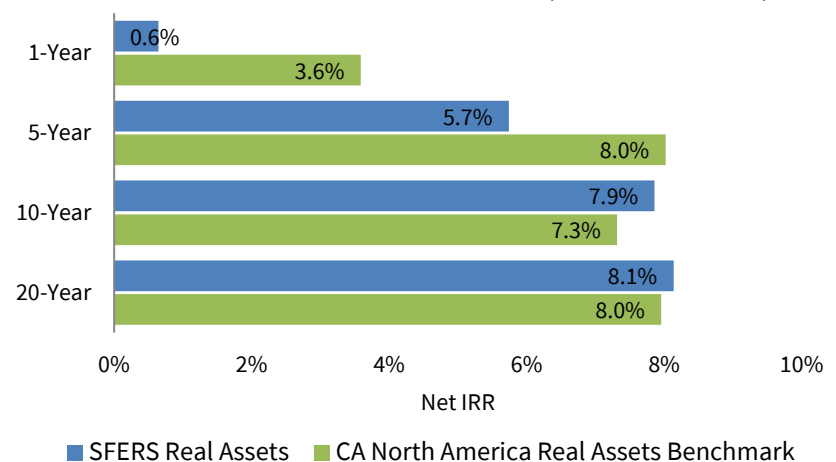
Co-investments	Total Invested	Total Distributions	Total Value	TVPI	DPI	Net IRR
18	\$244MM	\$68MM	\$168MM	1.0x	0.3x	-0.2%

- No new co-investments in 2024
- Approximately 3% of portfolio NAV
- 43% Natural Resources, 49% Real Estate, 9% Infrastructure based on NAV
- Six investments have been fully realized; two investments partially realized
- Material negative impact from one specific sponsor in the conventional energy sector

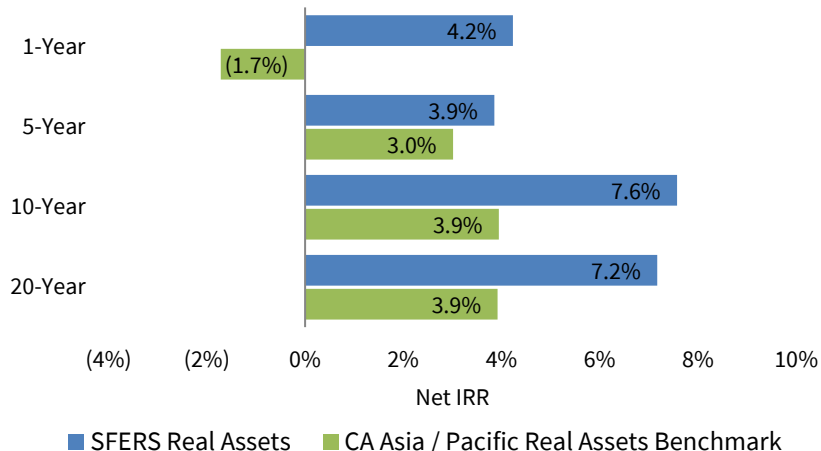
Real Assets Performance By Geography

- North America portfolio underperforms the benchmark in the 1- and 5-year but outperforms over the 10- and 20-year periods
- Europe portfolio underperforms the benchmark over the 1-year but outperforms over all other time periods
- Asia outperforms the benchmark across all time periods

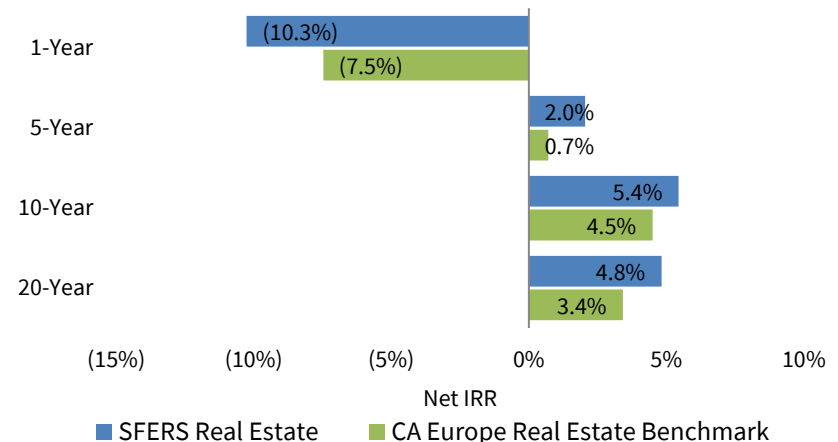
NORTH AMERICA REAL ASSETS PERFORMANCE (\$3.17 BILLION NAV)



ASIA / PACIFIC REAL ASSETS PERFORMANCE (\$408 MILLION NAV)



EUROPE REAL ASSETS PERFORMANCE (\$437 MILLION NAV)



Source(s): Performance data provided by Aksia as of 12/31/2024, Cambridge Associates.

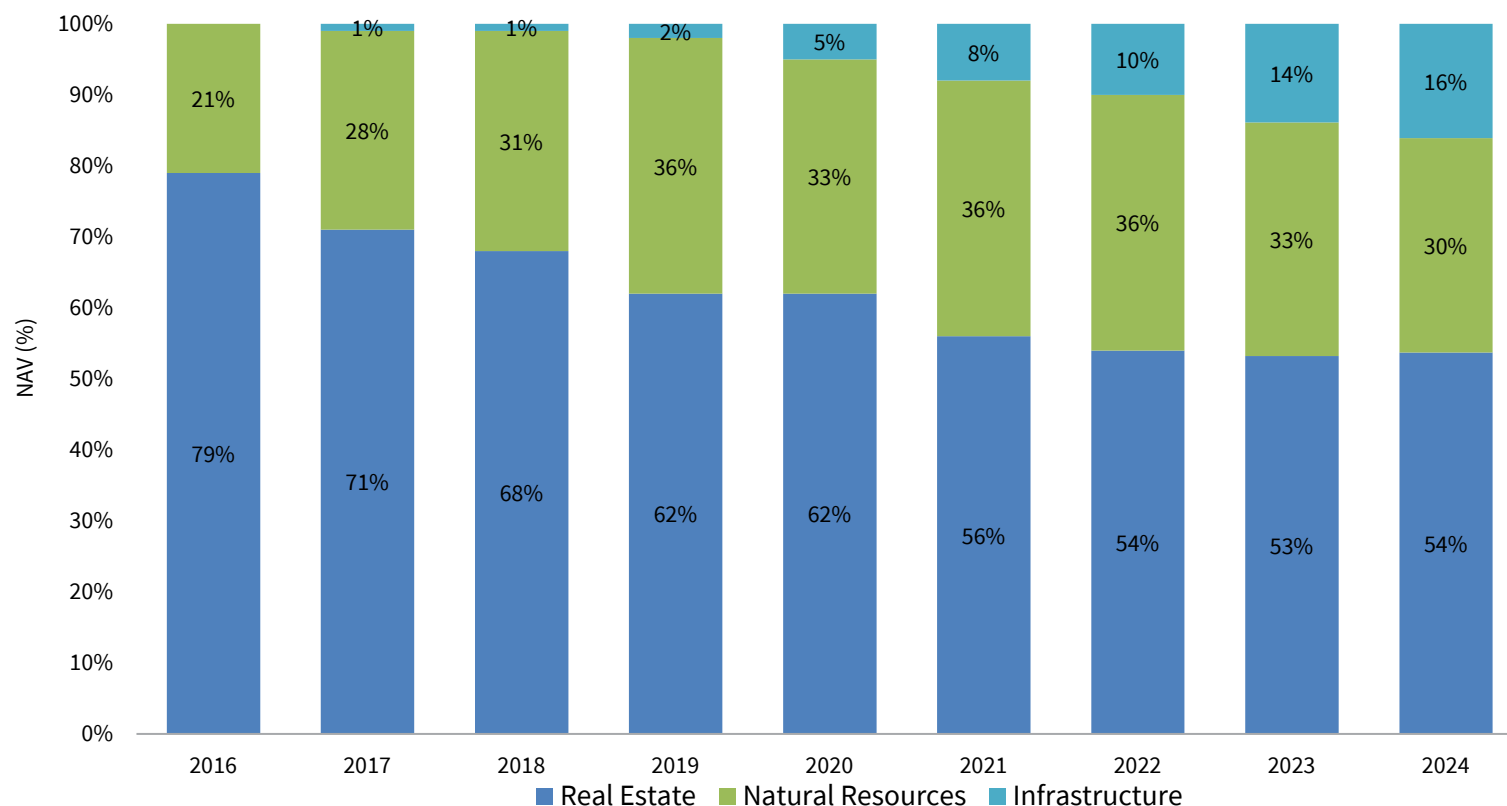
Note(s): Excludes 'Global' and 'Latin America' funds. SFERS European real assets performance includes only European Real Estate as this is SFERS' only fund level exposure to the region.



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Portfolio Construction By Strategy

- Infrastructure was formally introduced as a sub-portfolio in 2022
- Illustration depicts historical allocations as if Infrastructure was formally adopted at time of first investment in 2016, with investments reclassified from Real Estate or Natural Resources



Source(s): SFERS fund-level net asset class (NAV) exposure provided by Aksia as of 12/31/2024.

Note(s): Infrastructure formally introduced as a sub-composite in 2022. Illustration depicts historical allocations as if Infrastructure was formally adopted as a sub-composite in 2016.



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SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM

REAL ASSETS PORTFOLIO UPDATE

PRESENTED BY MARIA SURINA, INVESTMENT MANAGING DIRECTOR



Executive Summary

- The objective of SFERS' Real Assets portfolio is to provide portfolio diversification, current income, and protection against unanticipated inflation through a focus on alpha-generating, higher-returning private investment strategies.
- SFERS' Real Assets portfolio has outperformed the policy benchmark over the long term, although performance over the short term has lagged. The Real Assets portfolio has generated approximately 200 and 70 basis points of outperformance over the trailing ten- and twenty-year periods, respectively.
- The Real Assets portfolio stands at 14%¹ of total plan assets by NAV as of December 31, 2024, above the 10% target. Meaningful decreases in commitment pacing over the past few years have contributed to a gradual and steady reduction in the allocation.
- In 2024, real assets commitments focused on existing managers, with the addition of one new real estate manager, representing \$395 million in total commitments.²
 - The Real Estate portfolio has focused primarily on sector-specific and diversified opportunistic managers that benefit from ongoing market dislocation, along with a commitment to an existing high-conviction manager in Japan.
 - SFERS has continued to build out the Infrastructure portfolio, which has now approximately reached the target NAV allocation of 20%³. The Infrastructure allocation provides exposure to sectors such as renewable energy and telecommunications/digital infrastructure that have compelling long-term drivers. This allocation also serves as a diversifier in SFERS' portfolio with the potential to generate current income and/or drive growth.
 - The Natural Resources portfolio allocation is expected to continually decrease as mature energy funds wind down and distribute capital back to investors.

REAL ASSETS MARKET UPDATE



REAL ESTATE



Real Estate Themes 2025

Favorable sectors

Industrial

On-shoring, e-commerce penetration, “just-in-case” inventory strategies, and consumer preferences continue to support traditional logistics along with subsectors such as cold storage and industrial outdoor storage.

Residential

Demographic trends remain favorable for multifamily, affordable, and senior housing. However, oversupply and valuation resets create distressed opportunities.

Niche Real Estate

Remains attractive due to low CapEx requirements and fragmented, non-institutional ownership (i.e., self storage).

Additional opportunities

European Real Estate

Favorable opportunities in select sectors such as logistics and residential.

Real Estate Credit

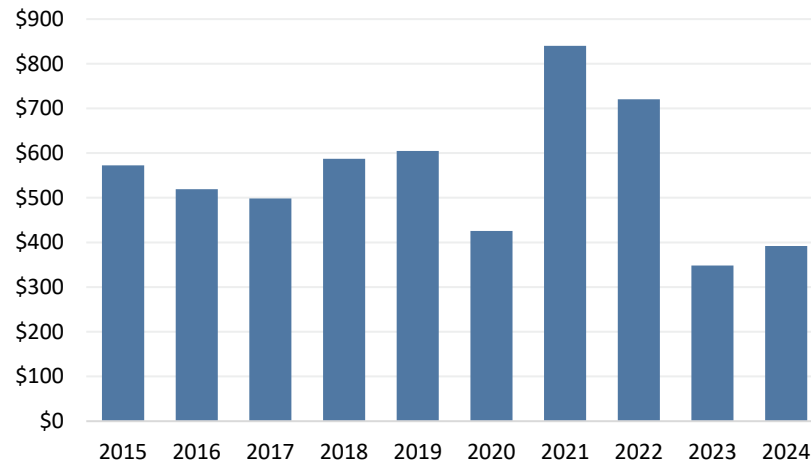
Broken capital structures will require capital infusions, creating opportunities for funds that can position themselves as “solution providers”.

Digital

Extraordinary demand for data centers fueled by AI and hyperscalers creates opportunities for traditional build-to-suit developments and powered land strategies where site selection and access to power are key.

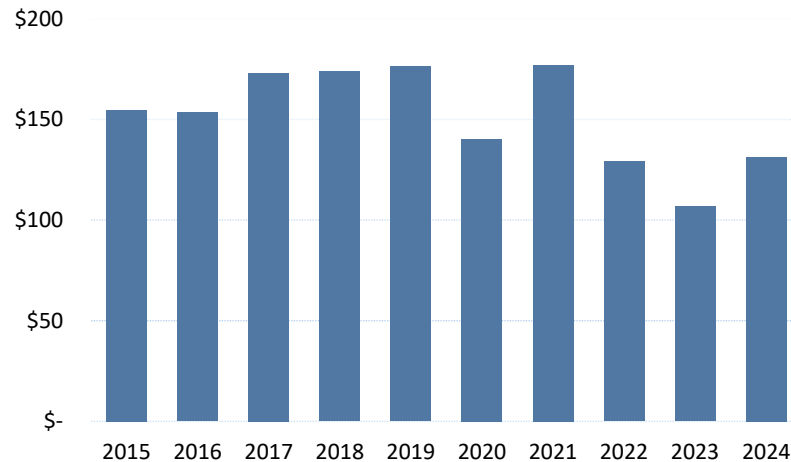
Transaction volumes across all regions exhibited a slight uptick in activity in 2024 relative to 2023, but overall activity remains muted

US REAL ESTATE TRANSACTION VOLUMES
2015 – 2024 • Billions (\$)

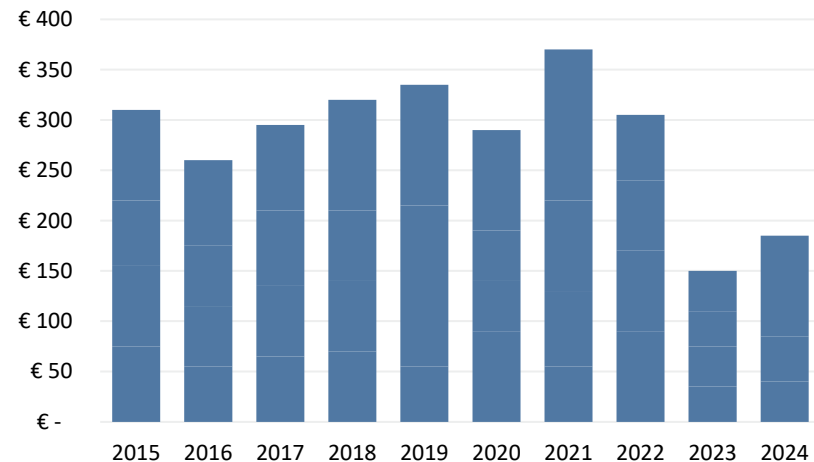


- Following the peak years of transaction activity in 2021–2022, deal volume slowed significantly in 2023–2024.
- While 2024 has seen a slight increase compared to 2023 across all regions, overall activity remains muted due to ongoing market uncertainty, persistent bid-ask spreads, and tight lending conditions.

ASIA TRANSACTION VOLUME
2013 – 2024 • Billions (\$)

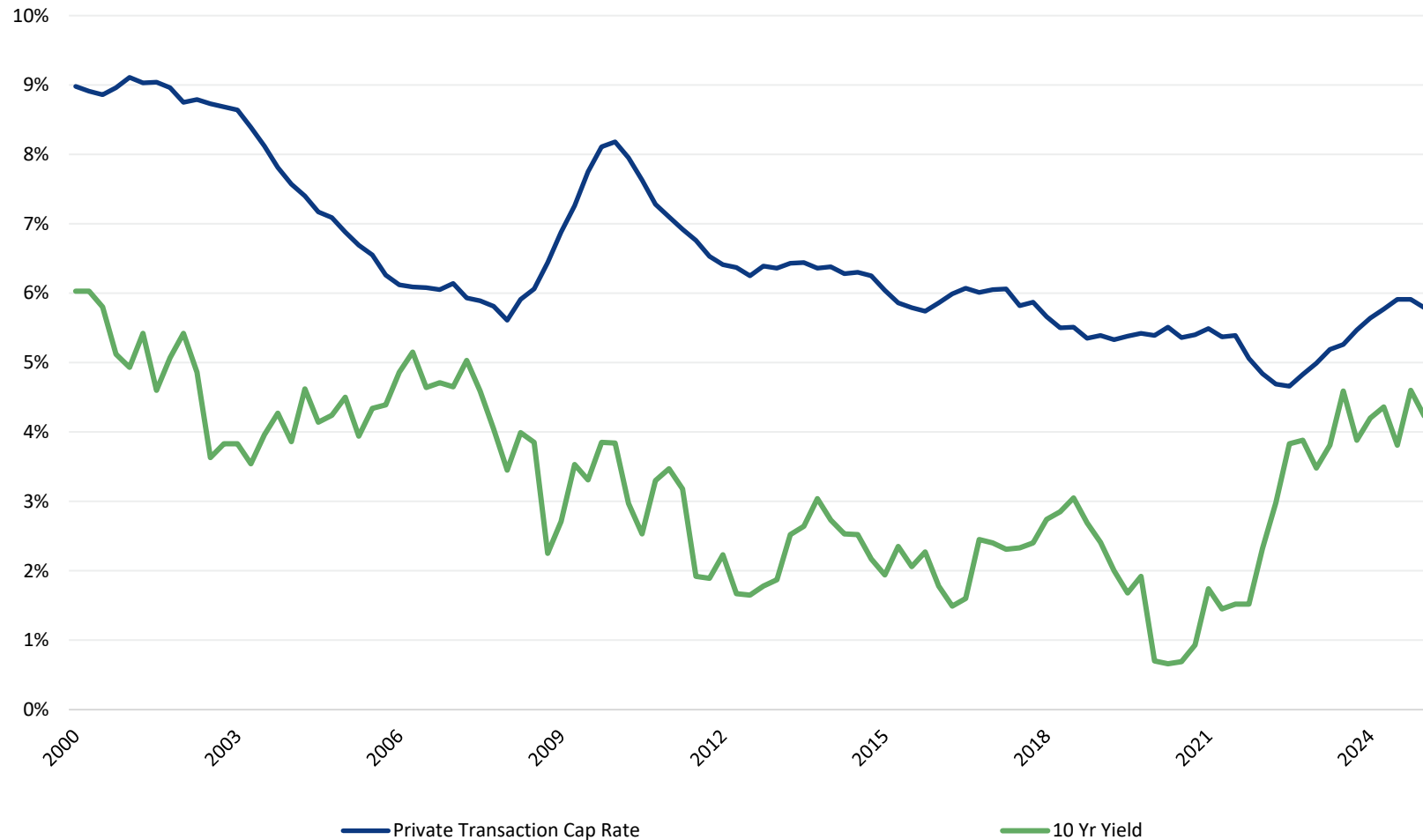


EMEA TRANSACTION VOLUMES
2015 – 2024 • Billions (€)



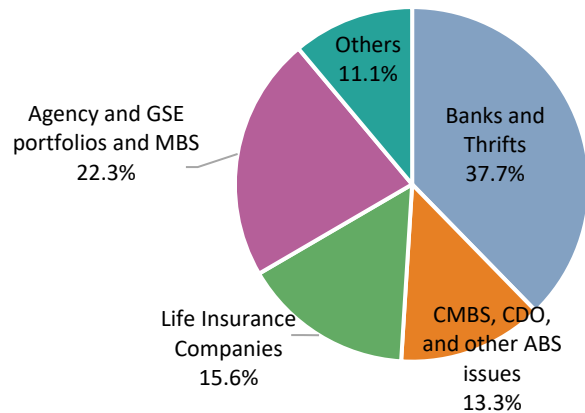
US Real Estate valuations stabilizing, but the spread between the 10-year Treasury rate and private transaction cap rates remains narrow compared to historical averages

US TRANSACTION CAPITALIZATION RATES SPREAD OVER 10-YEAR TREASURY
Q1 2000 – Q1 2025 • Percent (%)

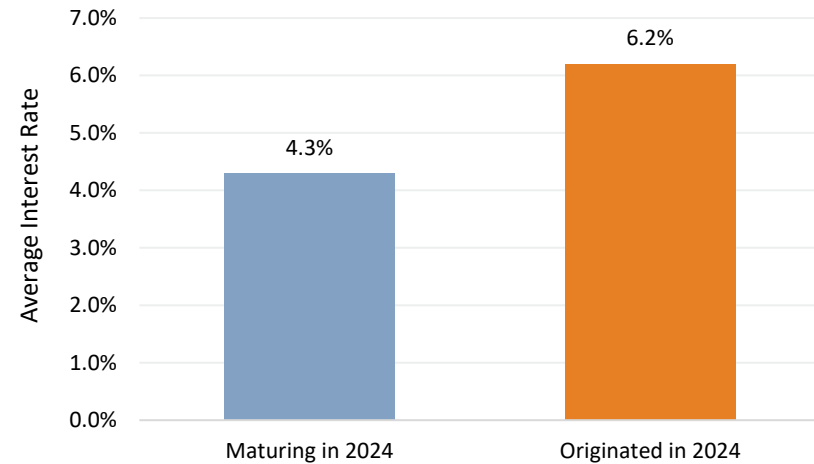


The historically large “maturity wall” through 2028 could act as a catalyst to accelerate deal flow (especially from banks) and present attractive credit entry points

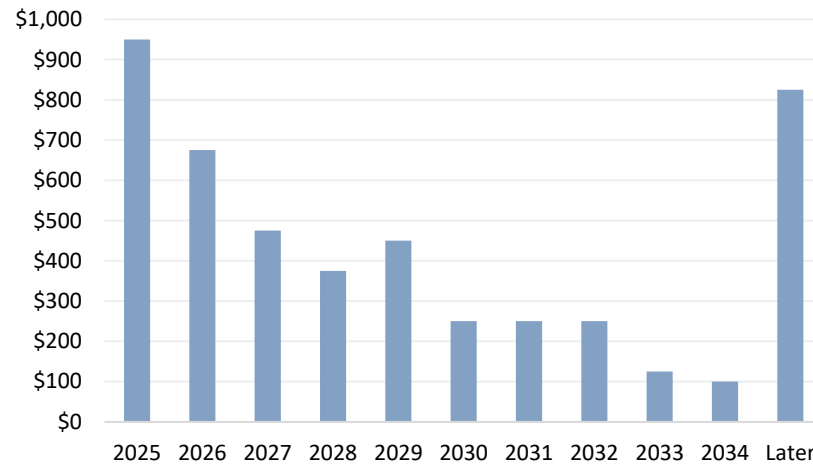
COMMERCIAL & MULTIFAMILY MORTGAGE DEBT OUTSTANDING
As of March 31, 2024 • Percent (%)



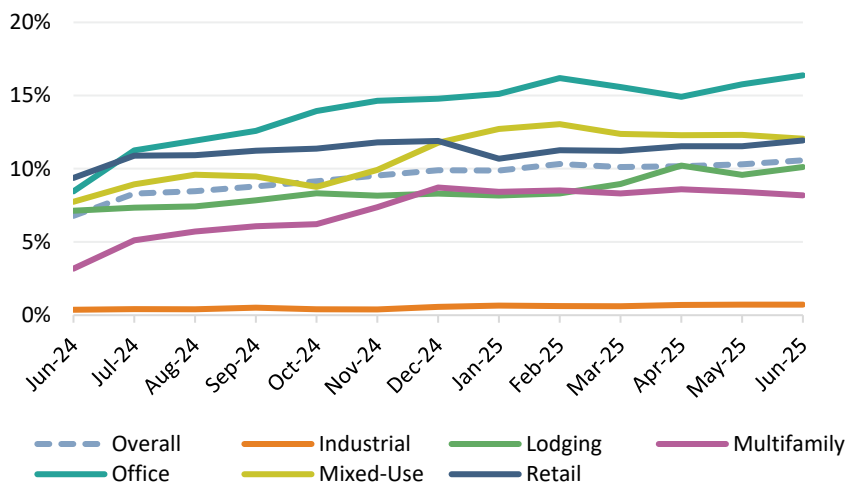
COMMERCIAL REAL ESTATE MORTGAGES AVERAGE INTEREST RATE
As of August 19, 2024 • Percent (%)



ANNUAL COMMERCIAL MORTGAGE MATURITIES
As of December 31, 2024 • Billions (\$)



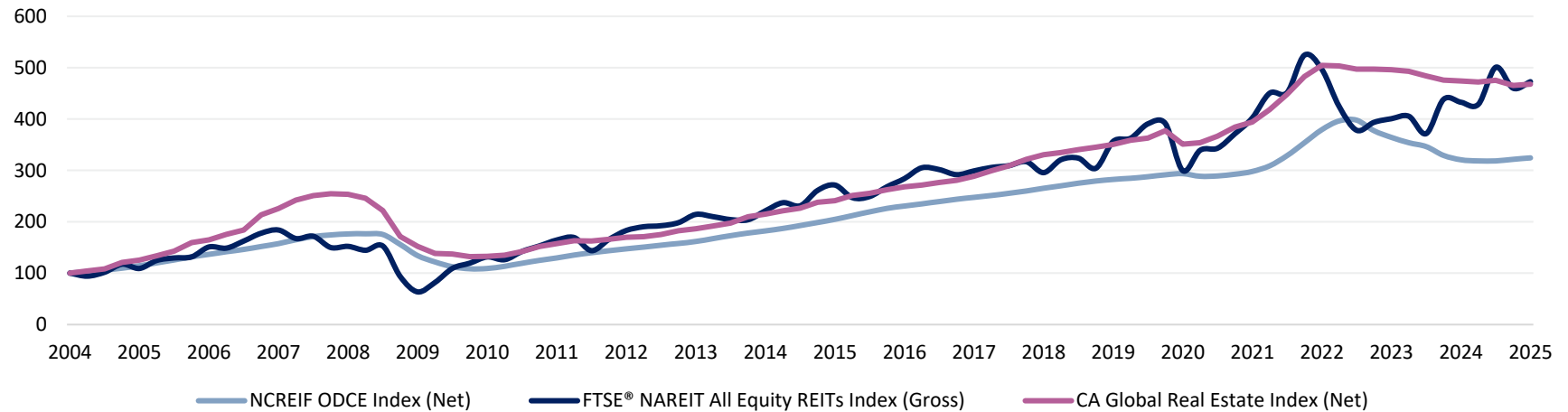
CMBS SPECIAL SERVICING RATES BY SECTOR
As of June 30, 2025 • Percent (%)



REIT returns exhibit more volatility than private real estate as they are quicker to reflect changes in market fundamentals and capital markets. However, longer term returns are comparable to private real estate.

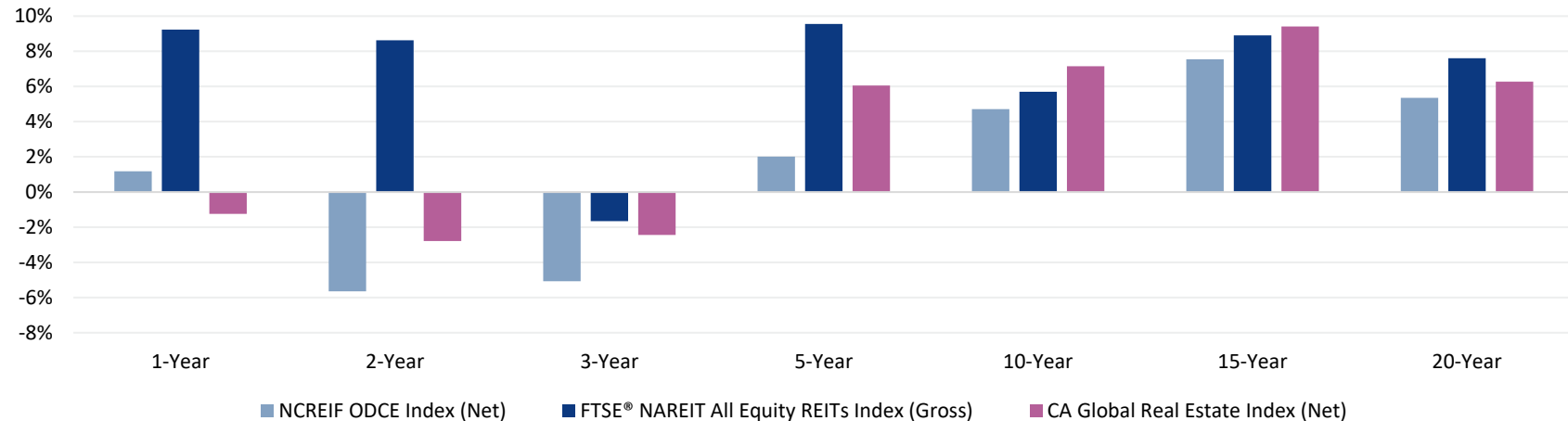
CA REAL ESTATE INDEX CUMULATIVE RETURN COMPARED TO CORE AND PUBLIC MARKET EQUIVALENT

2004– Q1 2025 • US Dollar • Indexed to 100



TRAILING PERIOD AVERAGE ANNUAL COMPOUNDED RETURNS (AACR)

As of Q1 2025 • AACR (%)



Source(s): Cambridge Associates LLC, National Council of Real Estate Investment Fiduciaries (NCREIF), FTSE International Limited, National Association of Real Estate Investment Trusts. The NCREIF ODCE Index represents quarterly, unleveraged composite total return for private commercial real estate properties held for investment purposes only. All properties in the ODCE have been acquired, at least in part, on behalf of tax-exempt institutional investors and held in a fiduciary environment. US REITs are represented by the FTSE® NAREIT All Equity REITs Index representing both income and appreciation. The CA Global Real Estate Index data are pooled horizon internal rate of return (IRR) calculations (net of fees, expenses, and carried interest) based on data compiled from real estate funds (including opportunistic and value-added funds).

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INFRASTRUCTURE



Infrastructure Themes 2025

Key Secular Trends

Decarbonization

Support the transition to a low-carbon economy, meet regulatory requirements, and capitalize on global demand for cleaner energy solutions.

Digitalization

Support digitalization by investing in hyperscale data centers and digital assets, enabling greater data capacity, connectivity, and adoption of advanced technologies.

Key Sub Sectors

Data Centers, Towers

Hyperscale and edge data centers, plus supporting fiber networks, driven by digitalization and AI.

Energy Transition

Renewables (solar, wind, storage), grid modernization, electrification (EV charging), and decarbonization projects.

Transportation

Sustainable transport (EV charging, public transit upgrades), and logistics infrastructure (ports, supply chain assets).

Secondaries

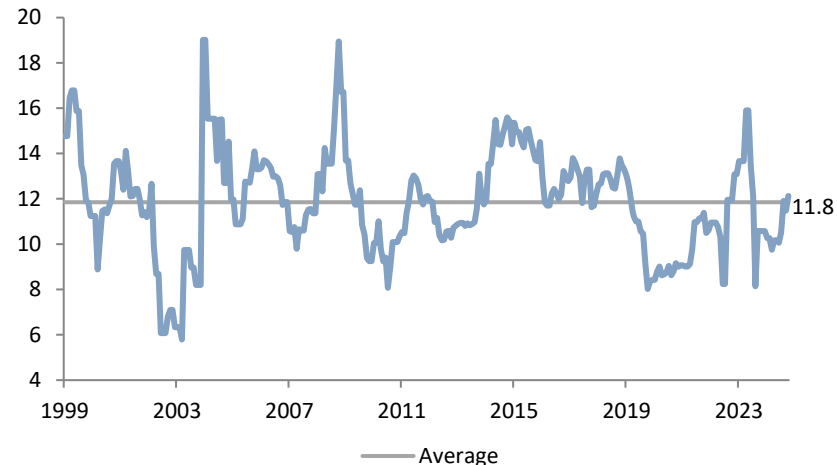
Secondary market investments in mature infrastructure assets. Opportunities to access established projects, often at a discount.

Infrastructure valuations normalizing in line with the historical average

- In 2023 and 2024, downward pressure on private infrastructure valuations brought multiples in line with the historical average.
- Utility valuations have converged downwards given rising interest rates and inflation impacts on capital expenditure and financing.
- In 2025, persistent inflation has slowed expected interest rate cuts, keeping financing costs elevated and limiting EV/EBITDA multiple growth, especially in the US and major markets.
- Robust demand for digital connectivity, transport logistics, and energy transition assets continues to support valuations in these sectors, partially offsetting the negative impact of higher rates.
- Development (greenfield) assets are commanding relatively higher valuations than operational assets, driven by demand outpacing supply - particularly in data centers and renewables - creating a scarcity premium and intense investor competition.

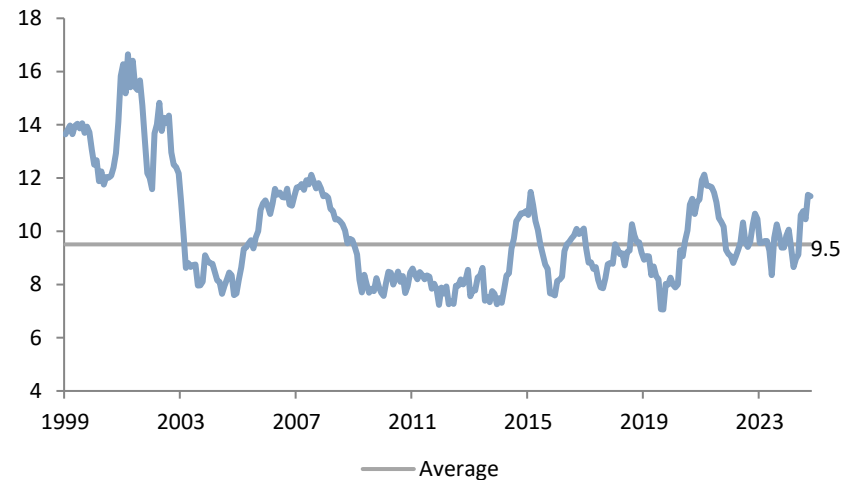
TRANSPORTATION

PRICES OF TRANSACTIONS (EV/EBITDA) - Mar 31, 1999 – Dec 31, 2024 • Rolling 12M Average



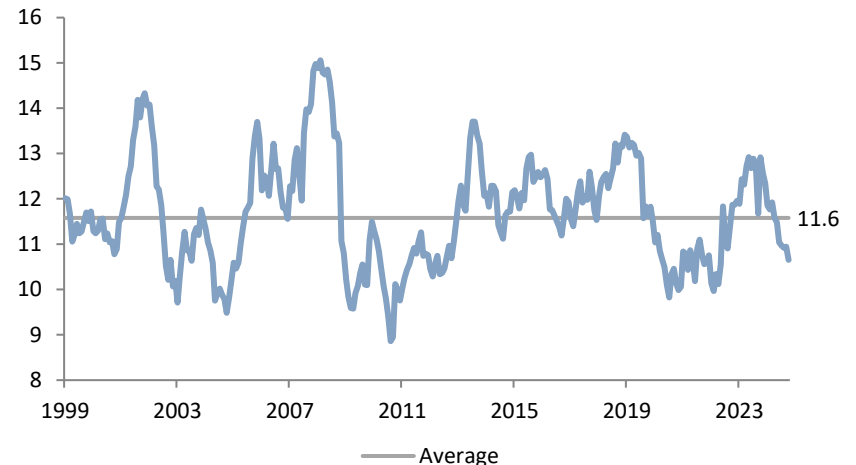
TELECOMMUNICATIONS

PRICES OF TRANSACTIONS (EV/EBITDA) - Mar 31, 1999 – Dec 31, 2024 • Rolling 12M Average



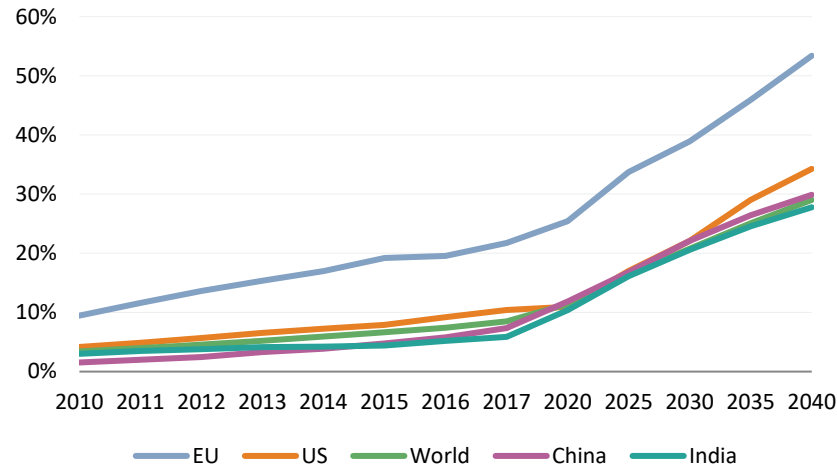
UTILITY & ENERGY

PRICES OF TRANSACTIONS (EV/EBITDA) - Mar 31, 1999 – Dec 31, 2024 • Rolling 12M Average

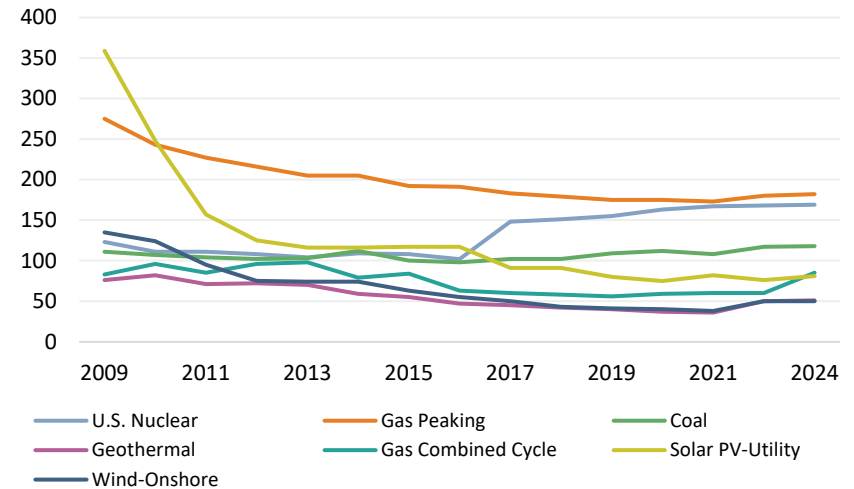


Renewable energy continues to offer various opportunities to support the energy transition

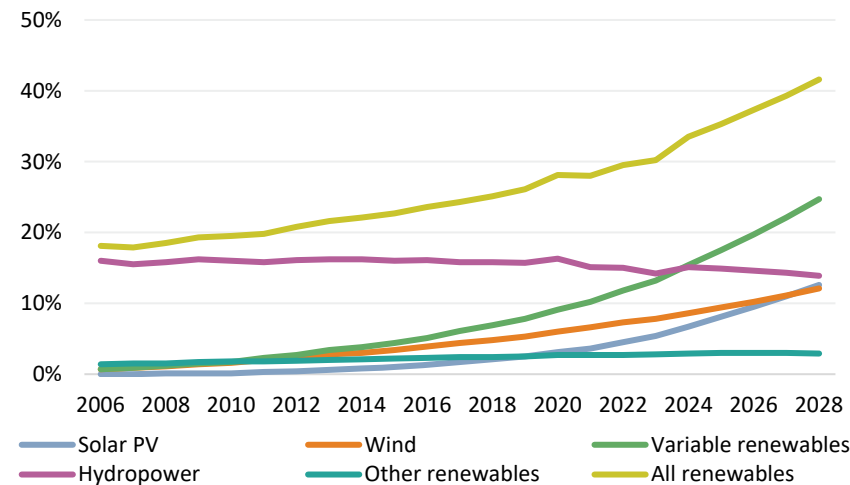
RENEWABLE SHARE OF POWER GENERATION BY REGION
2010-2040



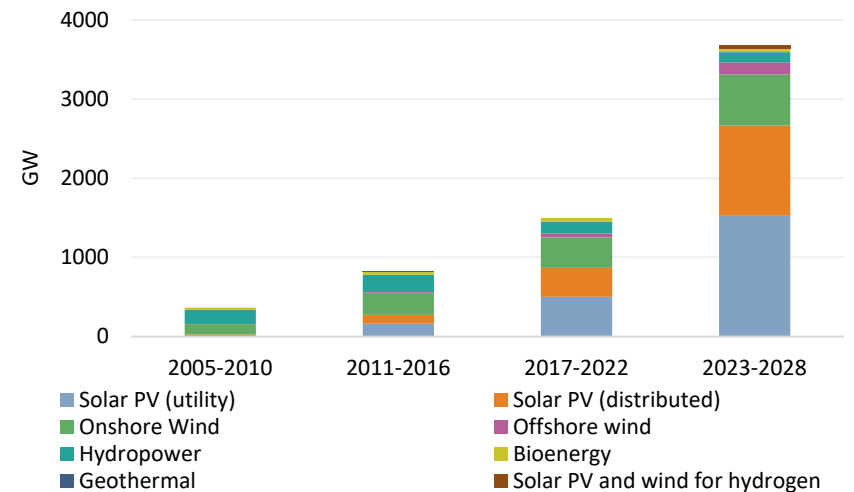
LEVELIZED COST OF ENERGY BY SOURCE
2009-2024 • USD/MWh



SHARE OF RENEWABLE ELECTRICITY BY TECHNOLOGY
2006-2028F

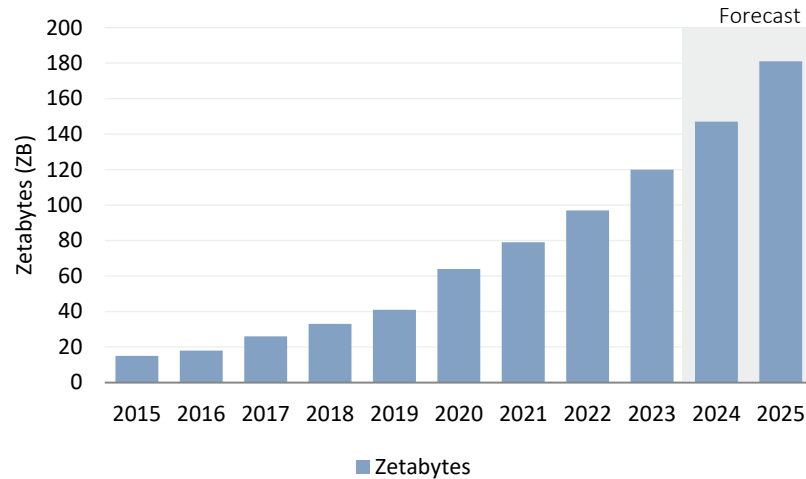


RENEWABLE CAPACITY GROWTH BY TECHNOLOGY
2005-2028F

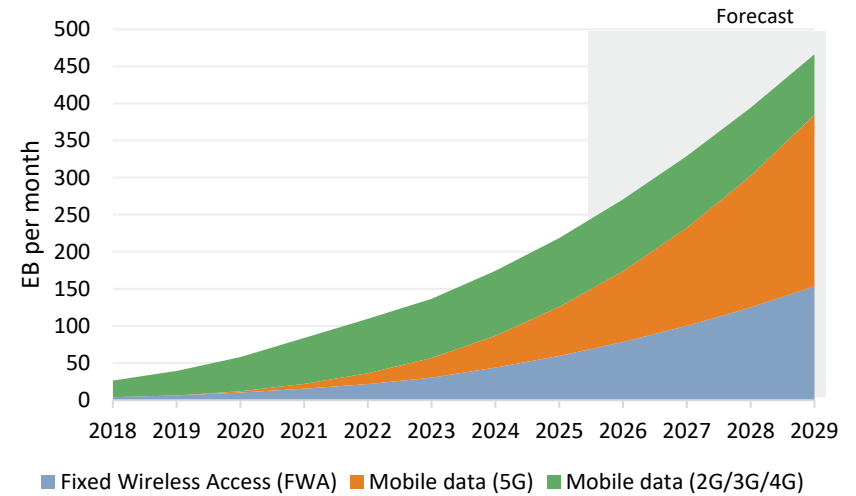


Rising demand for data, data storage, bandwidth, hardware, and software continues to create a pressing need for digital infrastructure upgrades globally.

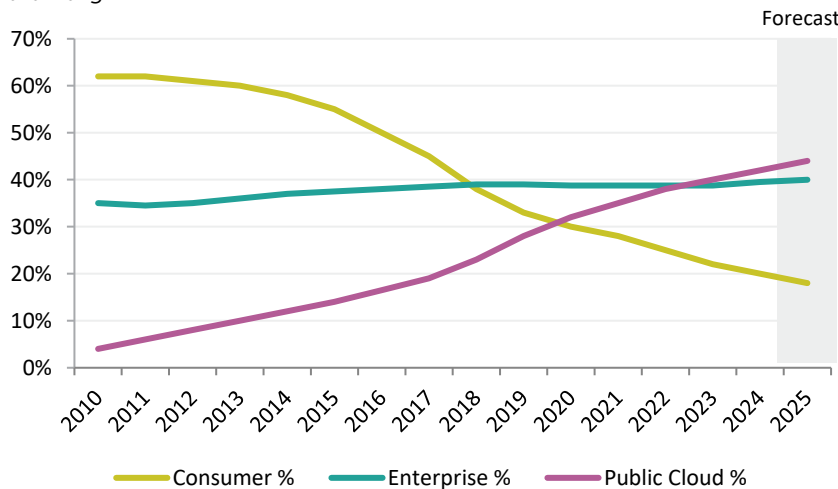
DATA CONSUMPTION FORECASTED TO GROW BY 300% BY 2025
2015-2025



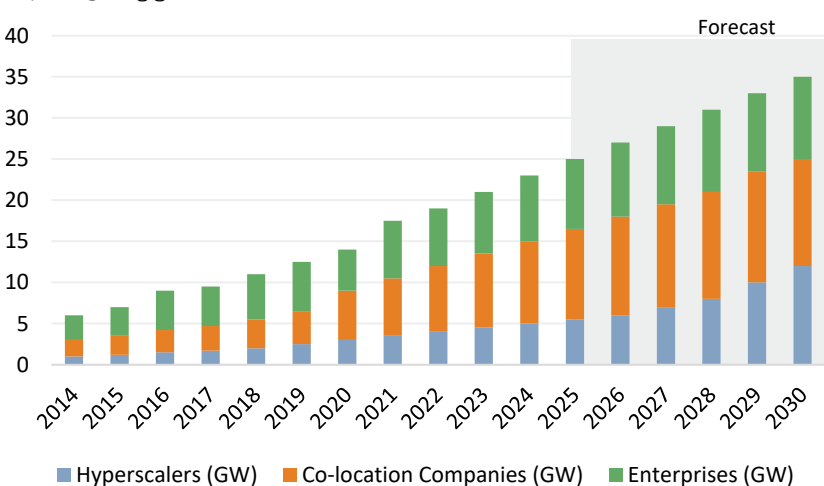
GLOBAL MOBILE NETWORK DATA TRAFFIC
2018-2029



DATA STORAGE DESTINATIONS OVER TIME
2010-2025



DATA CENTER POWER CONSUMPTION BY PROVIDERS/ENTERPRISES
2014 – 2030 • gigawatts



NATURAL RESOURCES



Natural Resource Themes 2025

Secular Trends



Increasing Energy Demand

Demand growth driven by electrification, cloud/data centers, and industrial re-shoring is expected to increase energy demand across the board with a focus on 24/7 baseload power.



Energy Transition 2.0

The 'messy middle' of the transition is going to require traditional energy solutions. Further investment is needed to decarbonize hard-to-abate industrial sectors that have a high energy need.

Dislocation Opportunities



Energy Secondaries

Capital shortages in exit markets are causing an increase in continuation vehicles, while simultaneously many LPs want to exit. Many mature assets are yielding significant cash flows, presenting a potentially attractive entry point.

Sectors of Interest



Energy PE Services

Services and equipment related to improving operational efficiency and sustainability characteristics across the energy and industrial value chain.



Specialty Agriculture /Agribusiness

There is limited institutional capital in a sector that is typically less correlated with broad equity markets.



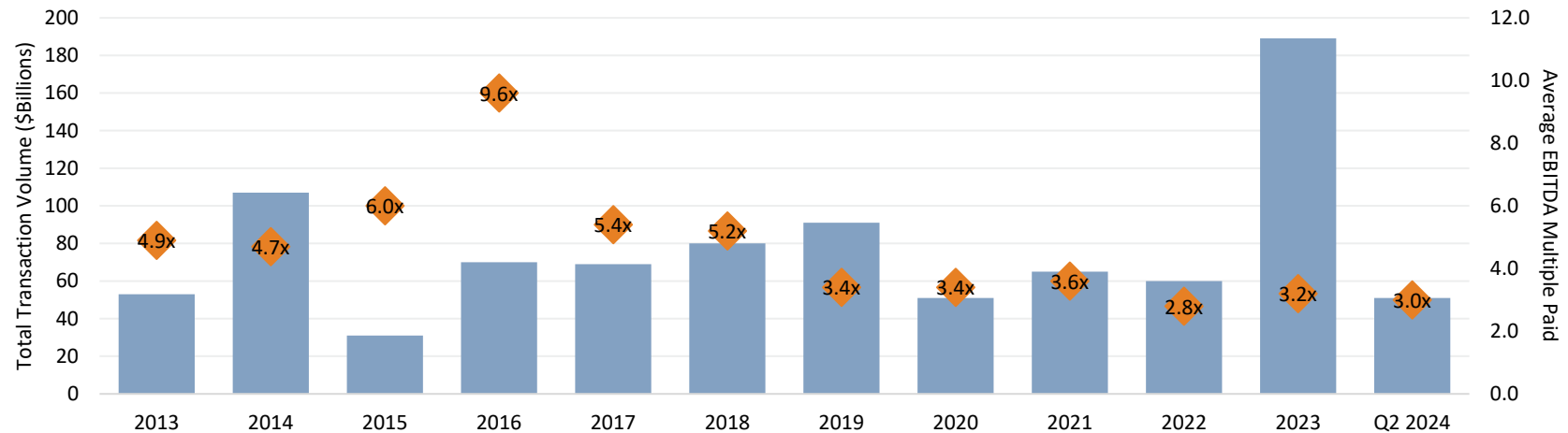
Natural Capital

Increasing water demand, increasing droughts, and aging water infrastructure present opportunities for those with sector expertise.

As E&Ps have focused on growing cash flows from existing assets, reserves and valuations relative to earnings have declined, which has driven consolidation and demand for high quality producing assets.

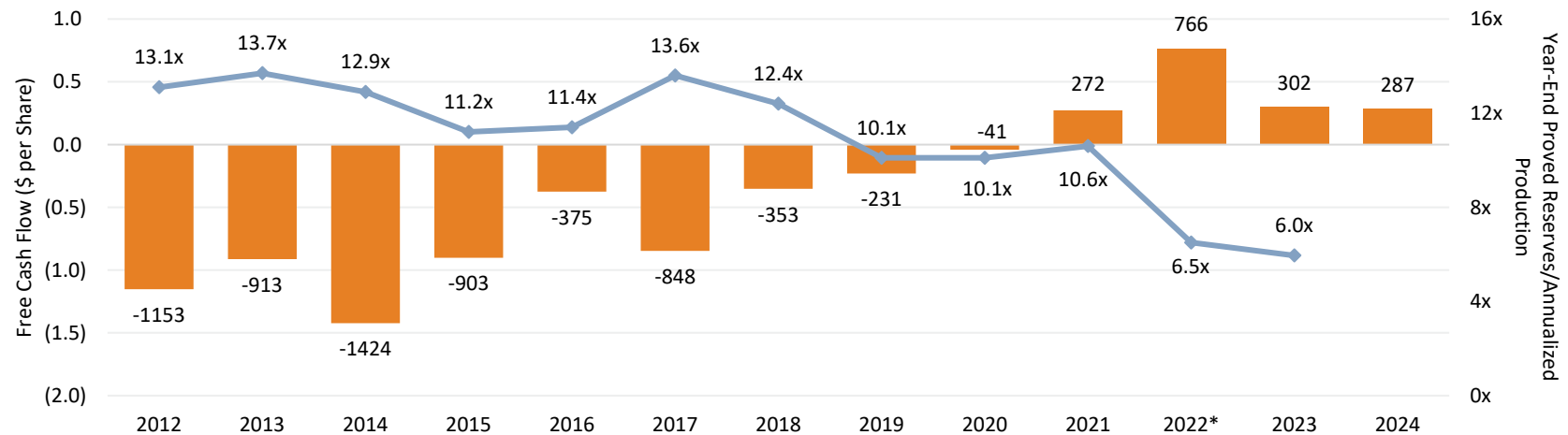
LOW MULTIPLES DROVE AN INCREASE IN PUBLIC M&A ACTIVITY IN 2023

2013 – Q2 2024



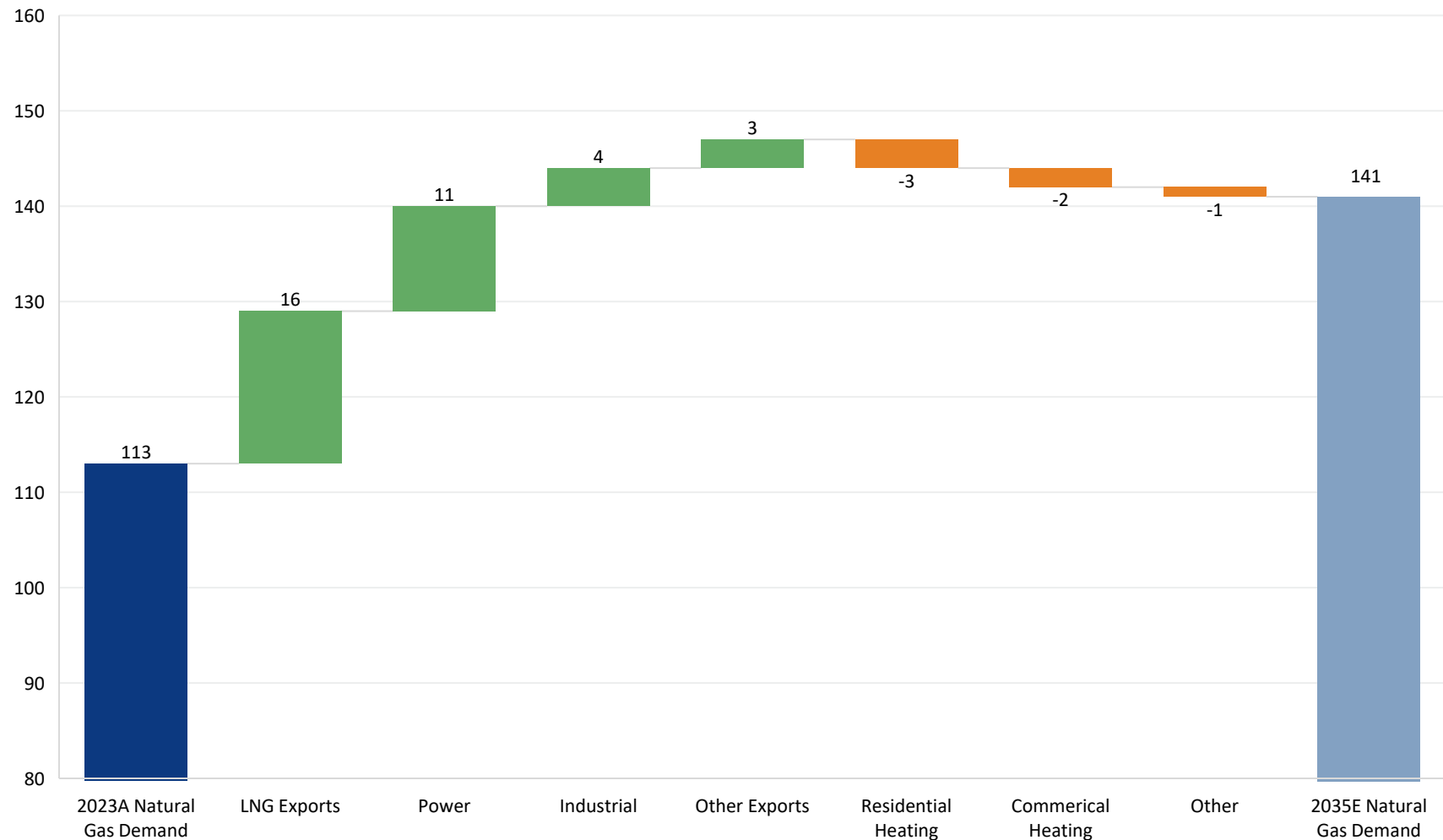
GROWING FREE CASH FLOWS AND A HISTORICALLY DECLINING RESERVE LEVELS SUPPORT CONSOLIDATION

2013 – 2024



Demand for US natural gas is expected to grow, driven by LNG export capacity, increasing power load, and re-shoring of manufacturing. The Henry Hub forward curve is showing upward pressure on prices.

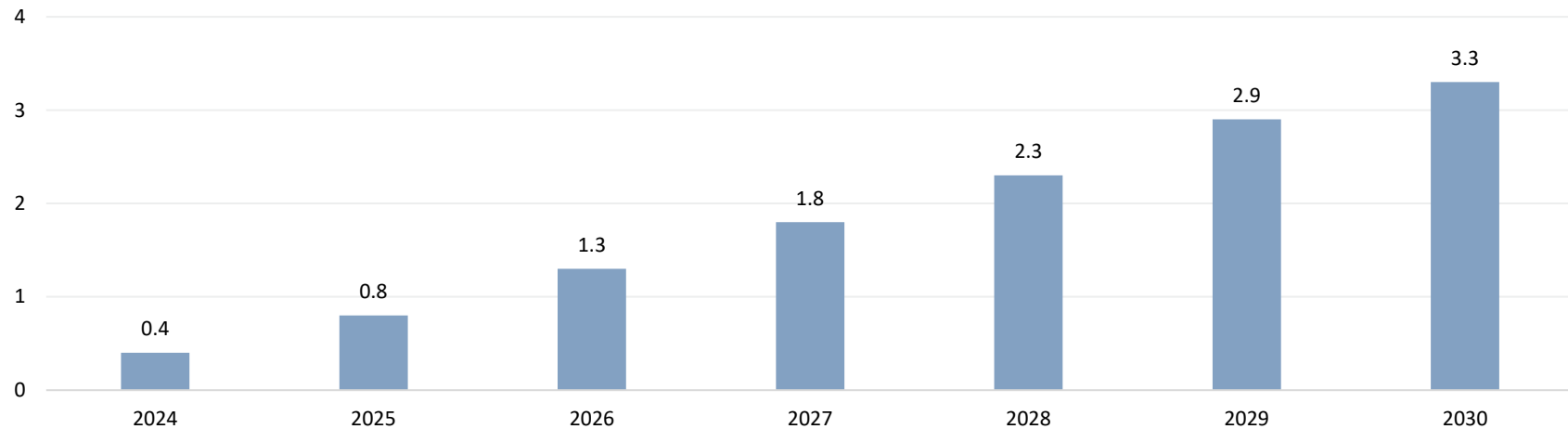
U.S. NATURAL GAS DEMAND GROWTH (2023 – 2035E)
As of October 24, 2024 • Billion Cubic Feet per Day (Bcf/d)



The data center build out is expected to drive an increase in natural gas demand

US DATA CENTERS' INCREMENTAL INCREASE IN NATURAL GAS DEMAND

Projections as of April 2024 (2024E – 2030E) • Billion cubic feet per day (Bcf/d)



- U.S. data centers' increasing energy demands will lead to an estimated additional gas demand of between 3 and 6 billion cubic feet per day.
- Low-risk, manageable CapEx projects that expand capacity will likely meet demand, notably in natural gas fields near data center growth hubs in Texas and the Southeast.
- Renewables will be a significant part of the energy load, but the insatiable appetite for power by data centers and the need for reliable baseload energy should support data center demand for natural gas. Data center developers are already looking to take natural gas pipelines 'behind the meter'.

APPENDIX



SFERS PORTFOLIO OVERVIEW



SFERS Real Assets Portfolio 2024 Observations and Recommendations

Real Estate – 2024 Observations

- The Real Estate portfolio has delivered strong long-term returns but has lagged over the short term. The portfolio distributed \$193.5 million in 2024 and is well-diversified across sectors and markets.
- SFERS added one new manager and made four additional commitments. Higher interest rates and uncertainty have slowed distributions, but market dislocation is creating new opportunities.

Infrastructure – 2024 Observations

- Performance of the Infrastructure portfolio is less meaningful given the newer allocation; \$32.9 million was distributed.
- Infrastructure fundraising surpassed real estate, with growth driven by decarbonization and digitization trends. SFERS re-upped with two managers and evaluated the infrastructure secondaries landscape, which culminated in a commitment to a new strategy in 2025.

Resources – 2024 Observations

- The Resources portfolio has delivered solid long-term returns but still lags the benchmark. The portfolio distributed \$230.2 million in 2024. Exposure will decline as energy funds wind down.
- Rising energy demand is driven by electrification, data centers, and onshoring of manufacturing.

Real Estate – Strategic Recommendation

- Invest across sector and region specialists, plus diversified managers.
- Evaluate tactical allocations outside the US and monitor opportunities in distressed assets, real estate credit, and niche sectors. Continue assessing REITs and other liquid strategies.

Infrastructure – Strategic Recommendation

- Continue allocations to middle-market and large-scale managers. Consider expanding allocation to renewables and digital sectors.
- Diversify with 1–2 new relationships, monitor re-ups, and keep allocations aligned with benchmarks.

Resources – Strategic Recommendation

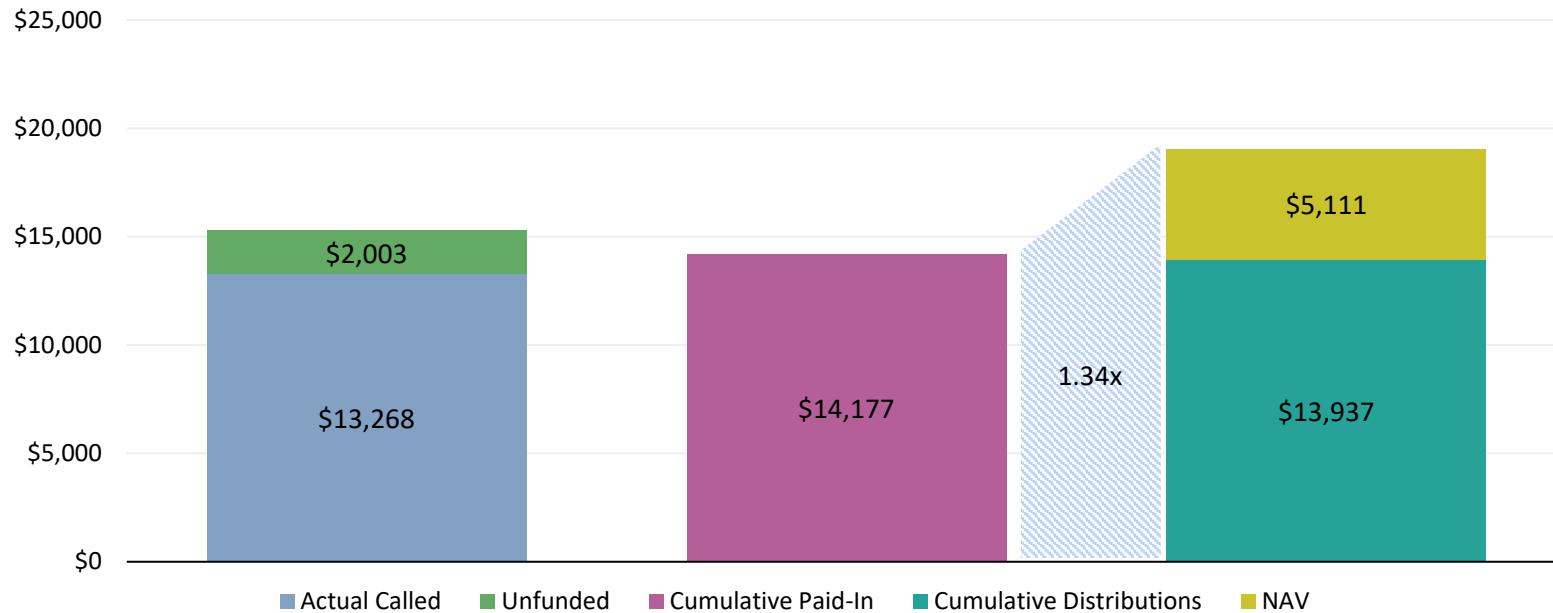
- Continue reducing natural resources exposure as the portfolio winds down.
- Ensure GPs focus on realizations over fees, actively engage on distributions, and identify positions for potential secondary sales.

SFERS Real Assets Portfolio Snapshot

- Since inception (1978) through December 31, 2024, SFERS has committed \$14.3 billion. The portfolio has cumulative paid-in capital, including reinvested capital, of \$14.2 billion.
- The portfolio has a total value to paid-in (TVPI) multiple of 1.34x and has generated \$4.9 billion in total value creation, net of fees and carried interest.
- SFERS received \$13.9 billion in distributions, and the current portfolio NAV stands at \$5.1 billion (14.0% of total plan assets¹). Unfunded commitments of \$2.0 billion will be contributed to the portfolio over a period of several years (and offset by portfolio distributions). Approximately \$573 million of unfunded commitments (~29% of total) are in vintages 2018 or older and, therefore, have a lower likelihood of being called.

SFERS REAL ASSETS PORTFOLIO

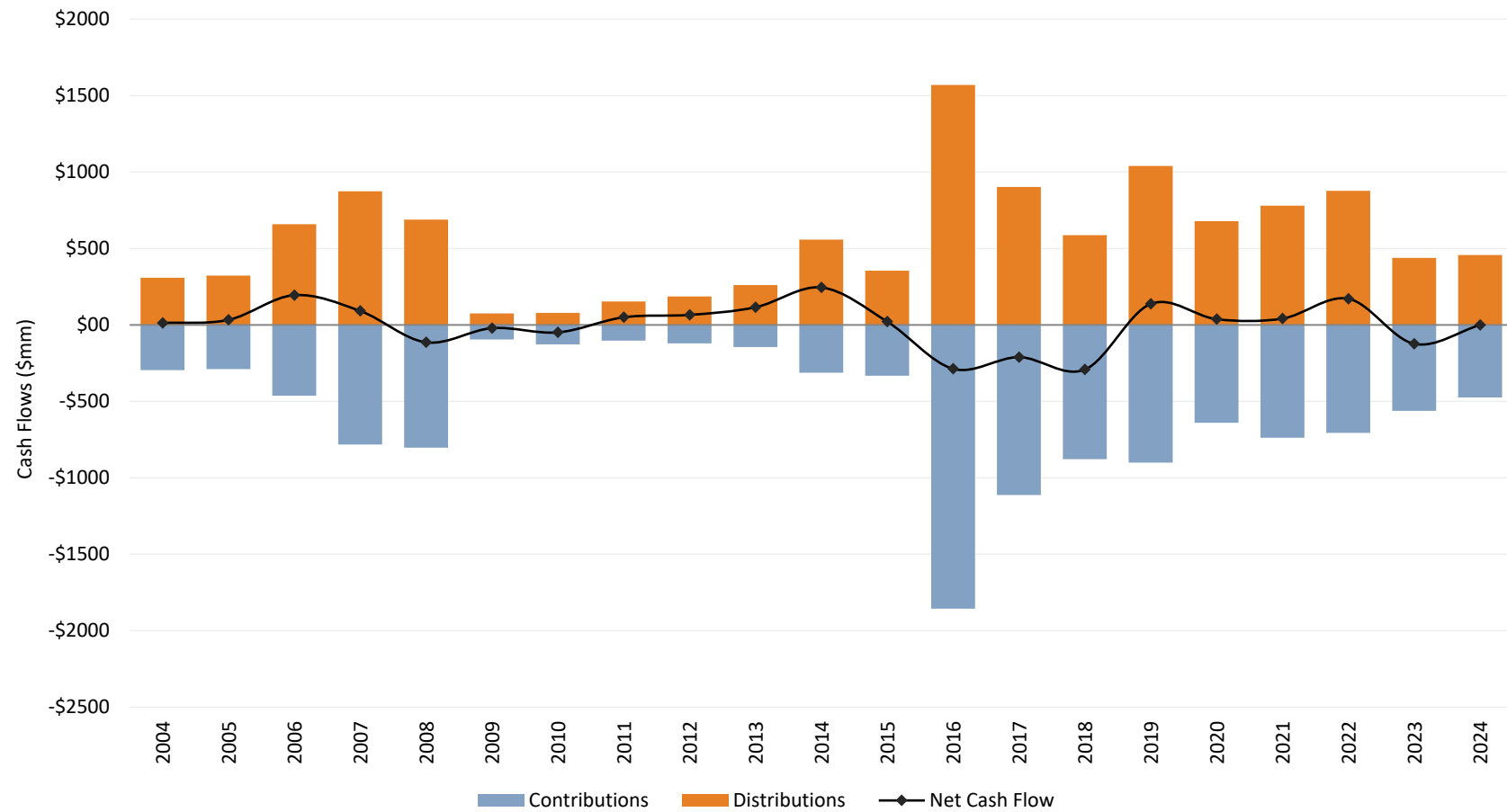
As of December 31, 2024



COMMITMENT PACING



Annual Real Assets Cash Flows



NET CASH FLOW (\$mm)

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
\$13	\$34	\$195	\$92	(\$113)	(\$21)	(\$49)	\$51	\$66	\$116	\$245	\$22	(\$287)	(\$211)	(\$291)	\$138	\$38	\$42	\$171	(\$123)	(\$18)

Real Assets Modeling Assumptions Overview

Base Case	No Growth Stress Case	GFC Stress Case
- Assumes (nominal) pool growth of 4% - Assumes “normal” market environment assumptions for contributions, distributions, and NAV growth	- Assumes (nominal) pool growth of 0% from 2025-2027, and 4% thereafter - NAV experiences no growth from 2025-2027 and then returns to normal growth in 2028+ - Distributions are cut by 50% in 2025-2027, before returning to normal in 2028+ - Contributions are cut by 25% in 2025-2027, before returning to normal in 2028+	- Applies GFC-like changes to pool value for 2025-2027 (~28% drop in 2025, followed by two years of ~10% gains) - NAV declines 28% in 2025, before returning to normal growth in 2026+ - Distributions are cut by 75% in 2025-2027, before returning to normal in 2028+ - Contributions are cut by 25% in 2025-2027, before returning to normal in 2028+

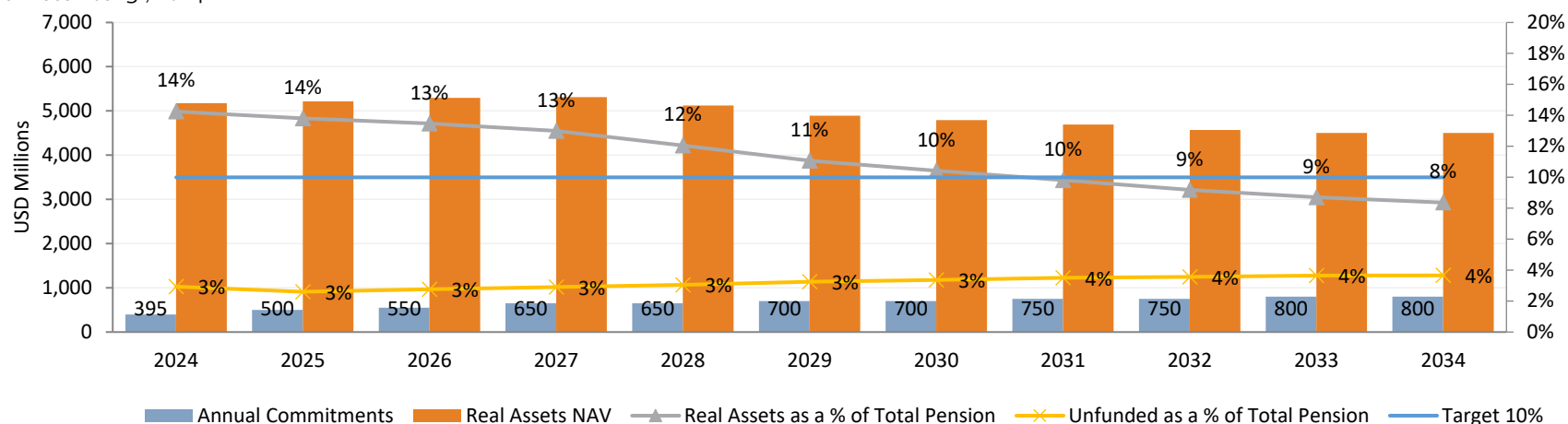
Assumptions

- Total pool value of \$36.3 billion (as of 12/31/2024)
- Target Real Assets allocation of 10%
- Allocation mix: 70% Real Estate, 20% Infrastructure, 10% Natural Resources
- Return assumptions: 10% net IRR for Real Estate, 10% net IRR for Infrastructure, 9% net IRR for Natural Resources
- Fund life assumptions: 14 years for Real Estate, 14 years for Infrastructure, 13 years for Natural Resources
- CIM Distributions: Currently assumes no realizations and baseline dividend yield of ~4%

Real Assets: Base Case (4% Pool Growth). Starting Pool Value: \$36.3 billion (as of 12/31/2024)

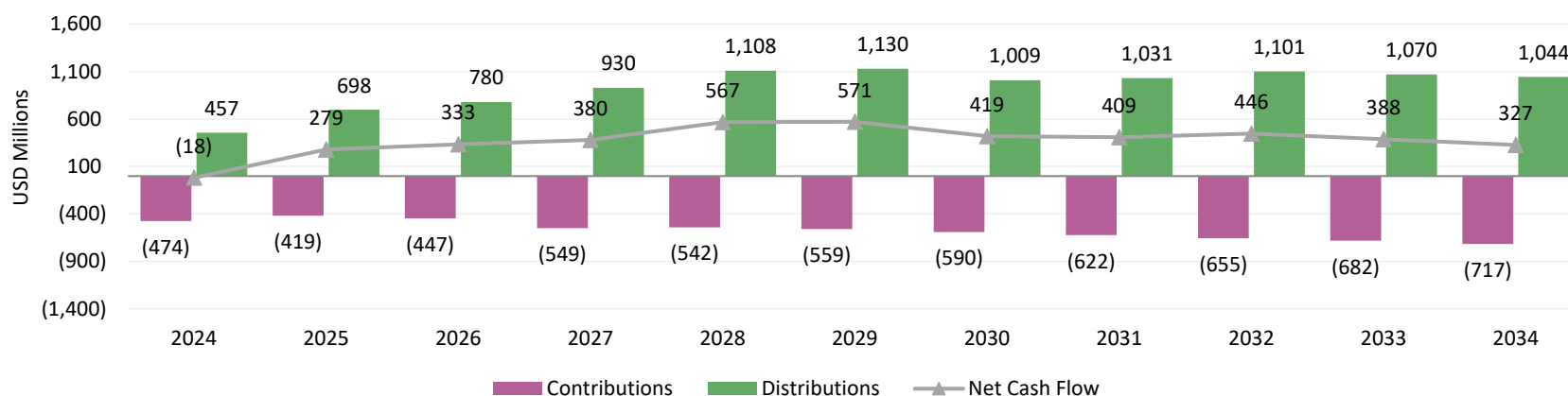
COMMITMENT PACE

As of December 31, 2024



ESTIMATED ANNUAL CASH FLOWS

As of December 31, 2024

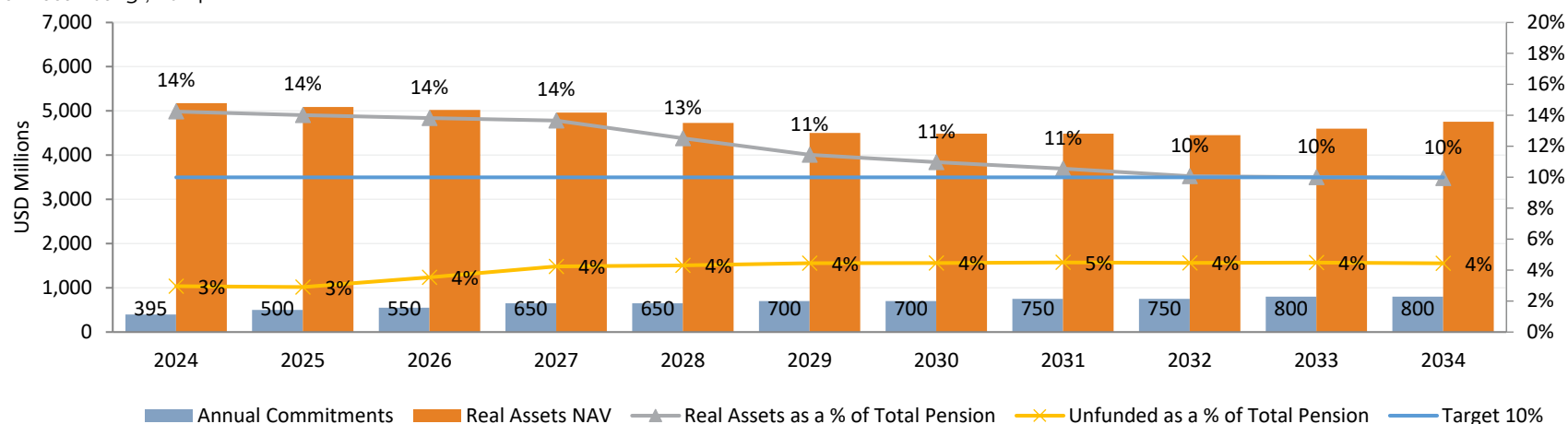


Note: Model populated with historical portfolio data as of December 31, 2024, unless otherwise noted. 2024 Annual Commitments and 2024 Annual Cash Flows are as of December 31, 2024. Projected cash flows and allocations based on CA modeling and proprietary assumptions. Modeling is intended to be used as a guideline; actual capital calls, distributions, and exposure may differ materially from projections, depending on macroeconomic and fund-specific variables. Copyright © 2025 by Cambridge Associates LLC. All rights reserved.

Real Assets: No Growth Stress Case. Starting Pool Value: \$36.3 billion (as of 12/31/2024)

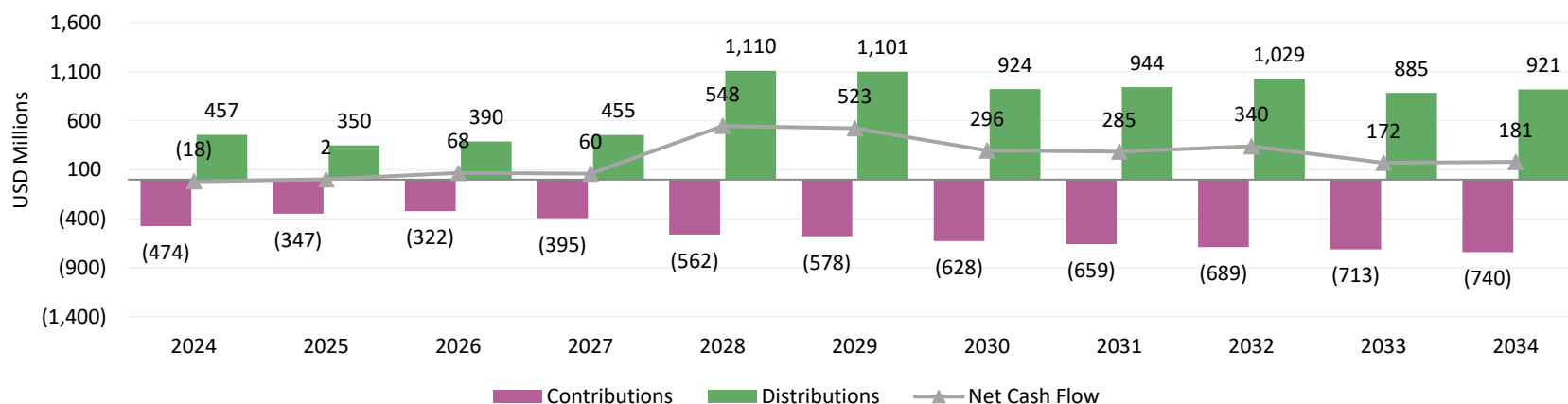
COMMITMENT PACE

As of December 31, 2024



ESTIMATED ANNUAL CASH FLOWS

As of December 31, 2024

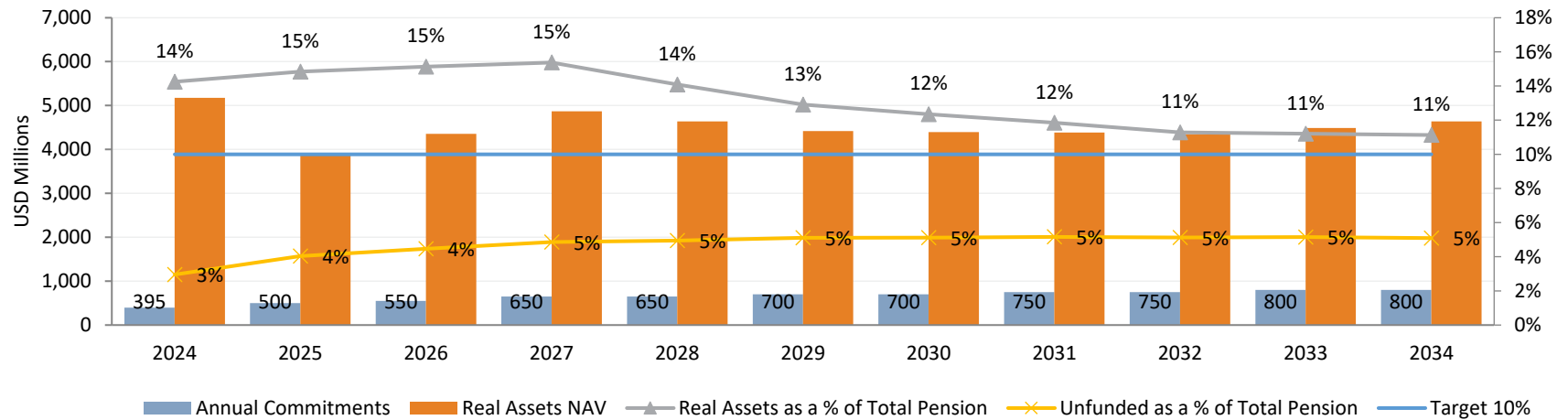


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Real Assets: GFC Stress Case. Starting Pool Value: \$36.3 billion (as of 12/31/2024)

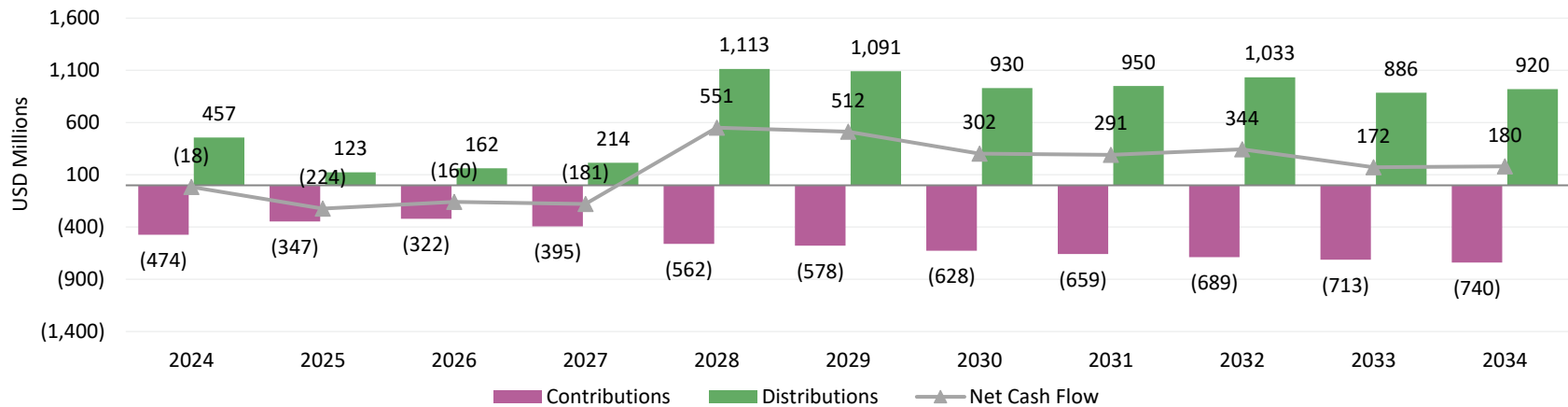
COMMITMENT PACE

As of December 31, 2024



ESTIMATED ANNUAL CASH FLOWS

As of December 31, 2024



Note: Model populated with historical portfolio data as of December 31, 2024, unless otherwise noted. 2024 Annual Commitments and 2024 Annual Cash Flows are as of December 31, 2024. Projected cash flows and allocations based on CA modeling and proprietary assumptions. Modeling is intended to be used as a guideline; actual capital calls, distributions, and exposure may differ materially from projections, depending on macroeconomic and fund-specific variables. Copyright © 2025 by Cambridge Associates LLC. All rights reserved.

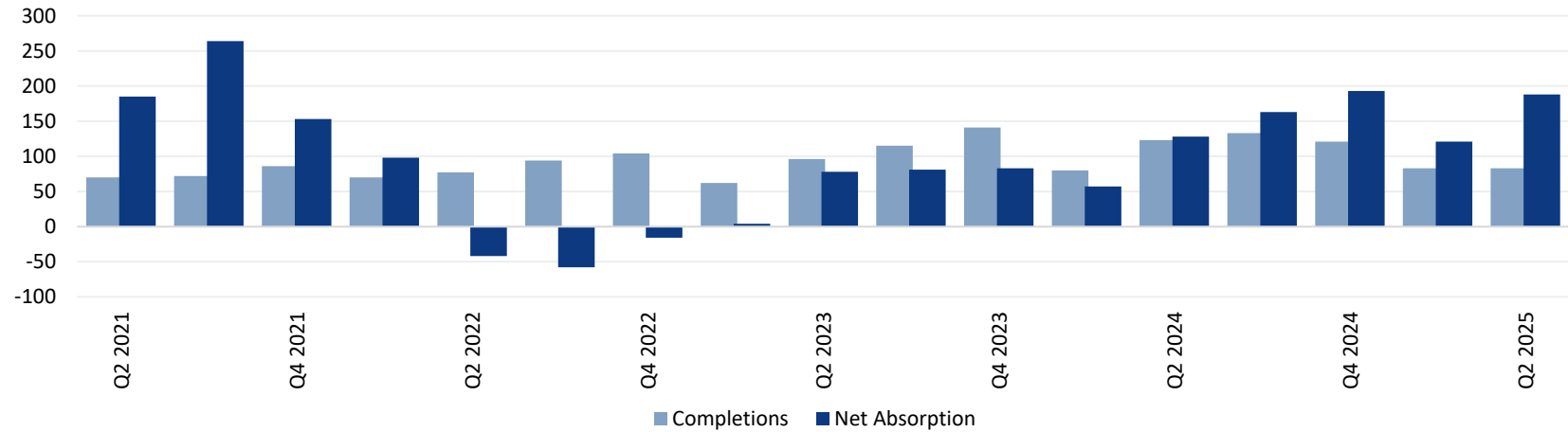
REAL ESTATE SECTOR OUTLOOKS



Multifamily: the sector continues to navigate through a wave of new supply as valuations reset

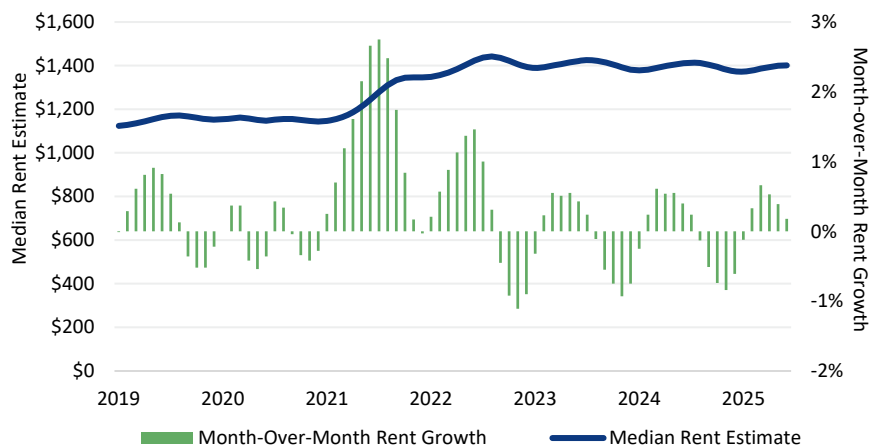
MULTIFAMILY UNIT COMPLETIONS AND NET ABSORPTION

Q2 2021 – Q2 2025 • Units (Thousands)



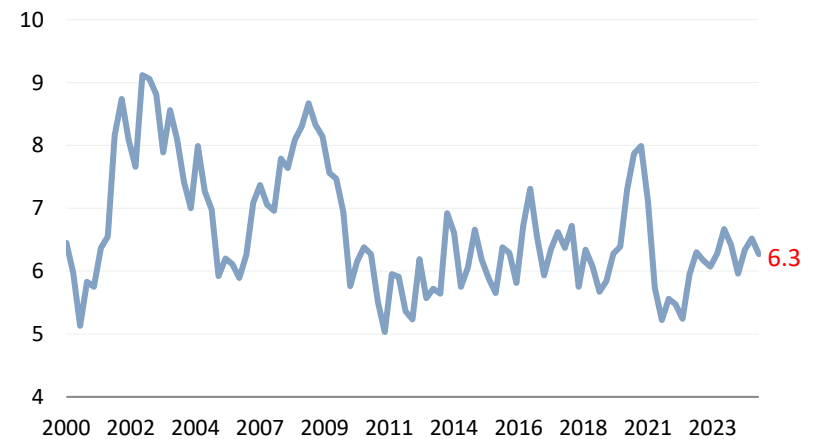
MONTH-OVER-MONTH RENT GROWTH

2019 – Q2 2025



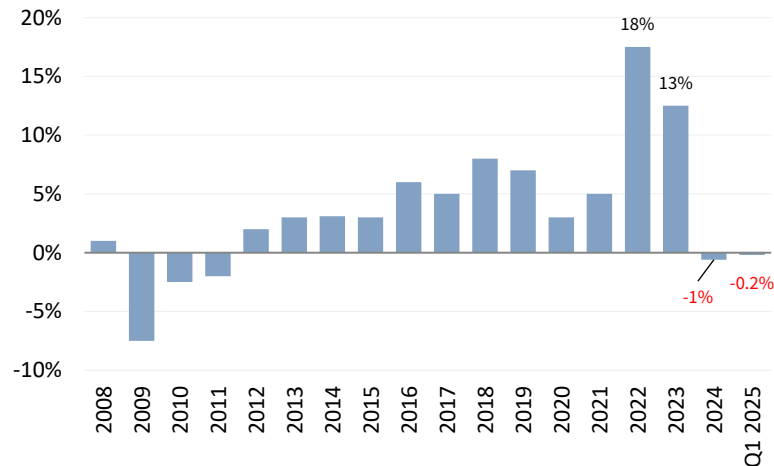
VACANCY RATE

2000 – Q1 2025 • Percent (%)



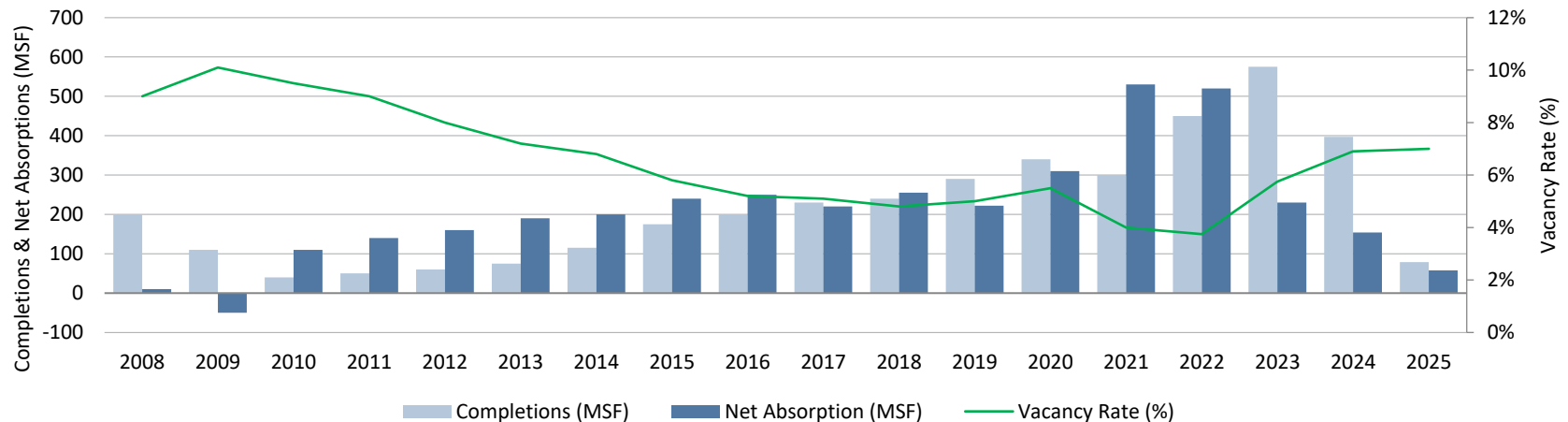
Industrial: despite a wave of new supply and softening demand, the sector continues to exhibit positive rent growth

YEAR-OVER-YEAR US INDUSTRIAL RENT GROWTH
2008 – Q1 2025 • (%)



- Rent growth has trended down after peaking at 18% in 2022. While certain markets such as Jacksonville, New Jersey Corridor, and Nashville continue to benefit from favorable supply-demand dynamics, the double-digit rent growth story is over for most markets.
- Vacancy rates bottomed out at 3.75% in 2022. Rates have trended up above 7% as markets navigate new supply that delivered almost 900 million sq. ft. of new product in 2023 and 2024.
- Overall market uncertainty and cooling down of the economy have impacted absorption that is now on par with the pre-COVID levels.

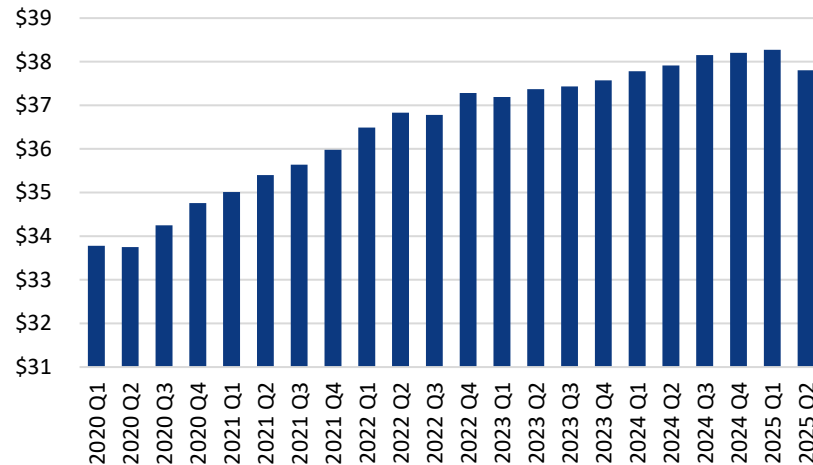
US INDUSTRIAL UPTAKE
Q1 2019 – Q1 2025 • (MSF) (%)



Office: the US national office vacancy rate is ~20%, the lack of new deliveries in key markets is a modest tailwind for existing stock

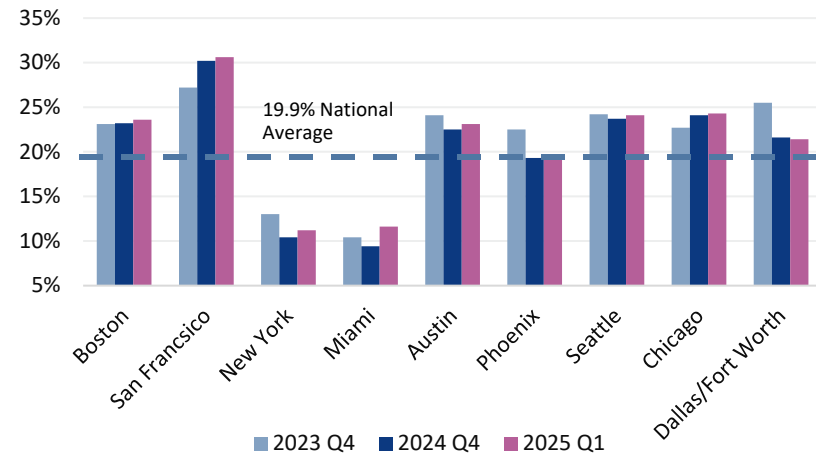
OFFICE ASKING RENTS

2020 – Q2 2025 • \$ PSF



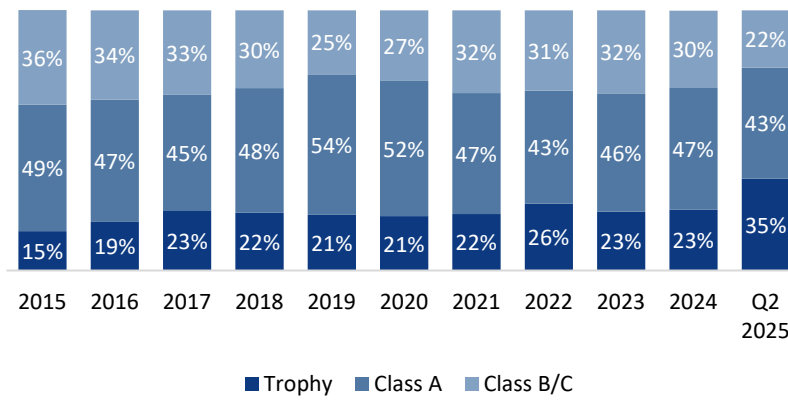
OFFICE VACANCY BY MARKET

As of Q1 2025



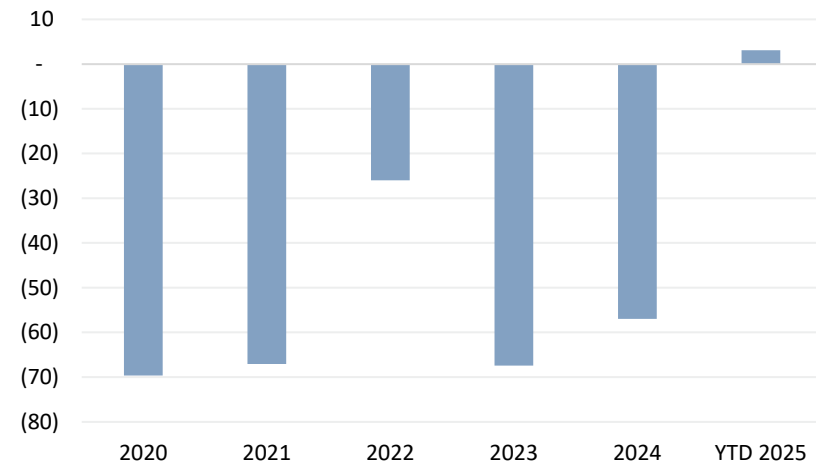
OFFICE TRANSACTION ACTIVITY BY ASSET QUALITY

2015 – Q2 2025



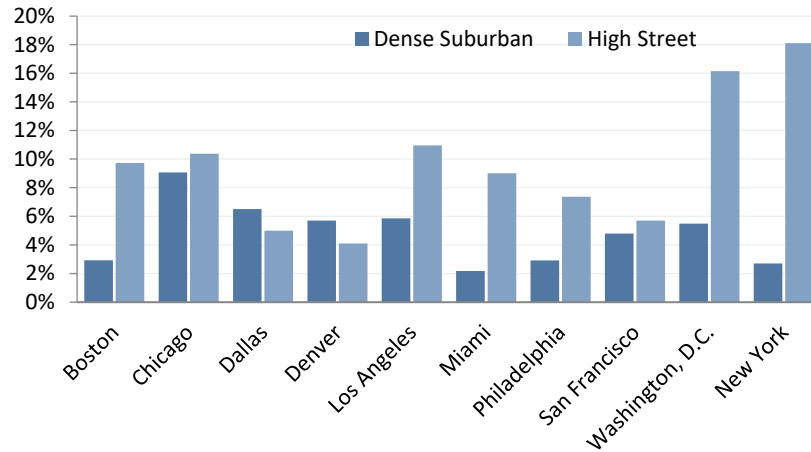
NET ABSORPTION

2020 – Q2 2025 • MSF

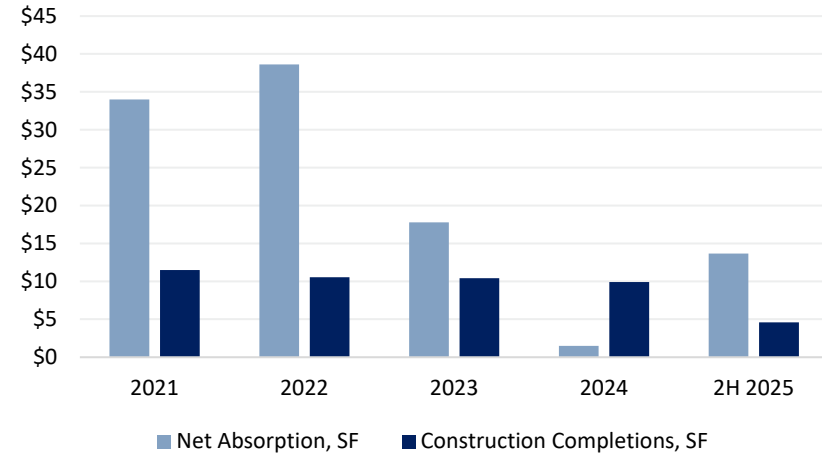


Retail: the sector shows signs of stabilizing as vacancy rates moderate and asking rents level out

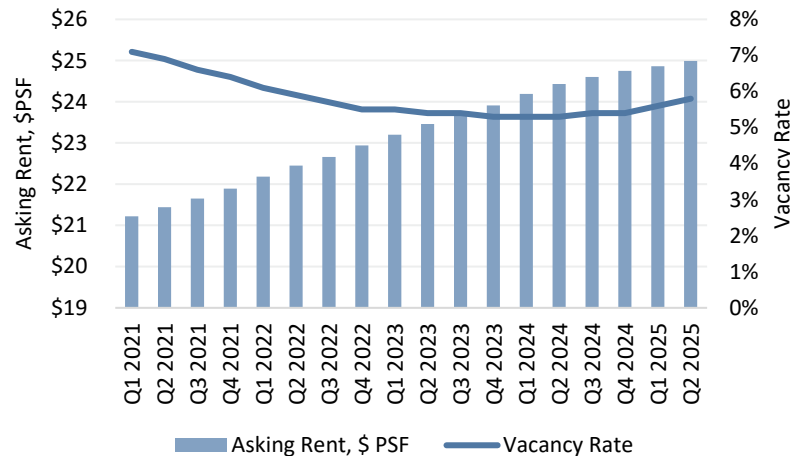
AVAILABILITY RATE
Q4 2024 (%)



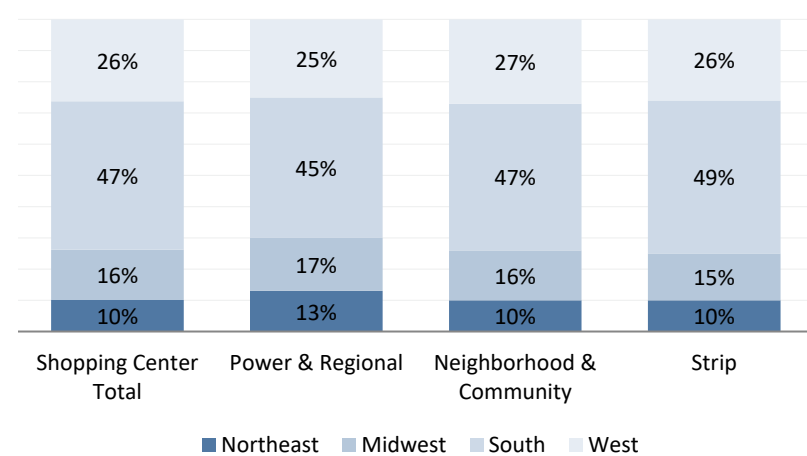
DEMAND AND DELIVERY SPACE
Q2 2025



OVERALL RETAIL VACANCY AND ASKING RENT
Q2 2025



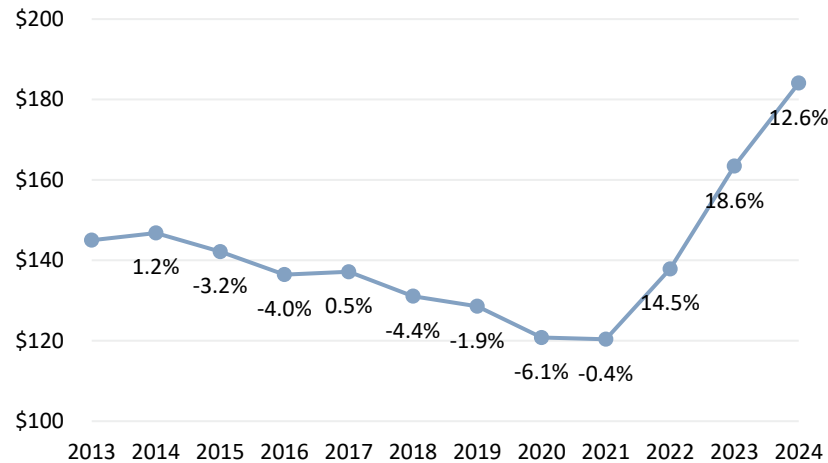
LEASING ACTIVITY BY REGION AND TYPE
Q2 2025 • % of total



Data Centers: demand is surging while supply is constrained, supporting a strong near- and medium-term outlook

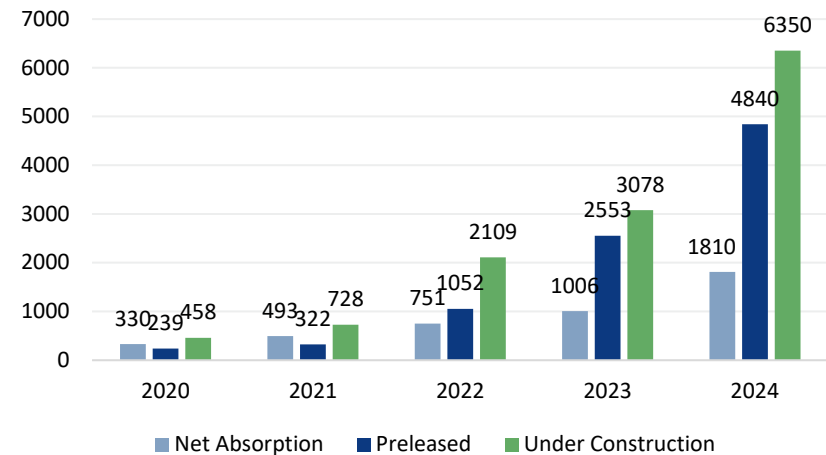
AVG ASKING RENTAL RATE FOR PRIMARY MARKETS

As of June 30, 2024 • \$ kW/month



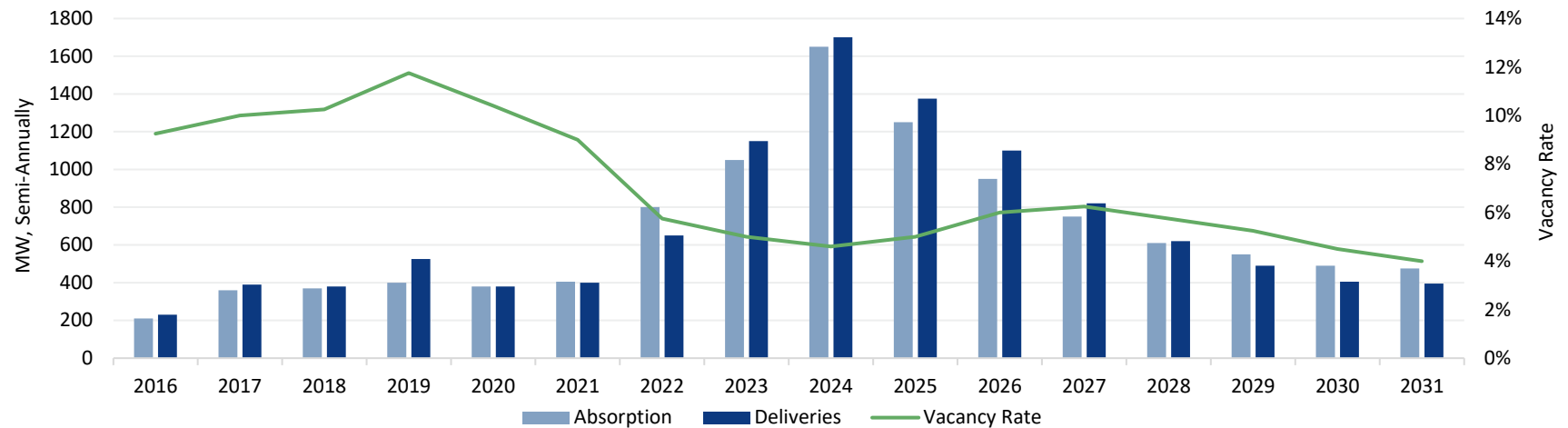
PRIMARY MARKETS ABSORPTION AND CONSTRUCTION

As of June 30, 2023 • Megawatts (MW)



US DATA CENTER SUPPLY, DEMAND, AND VACANCY

2016 – 2031E





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