



StepStone Real Estate house views

FALL 2024 FULL REPORT

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All data is as of November 2024, unless otherwise noted.

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Market themes & macro setting

Real estate trading prices and volume have bottomed; appraisal-based carrying values lag; high geopolitical risk

- First Fed rate cut in 4.5 years as inflation approaches target and job growth slows. Still, future path and timing uncertain
- Europe central banks also cutting rates amid slower growth outlook
- Central bank easing mostly affects short end of yield curve, longer end likely to settle around higher, long-term averages
- Lower rates ease pressure, and move may catalyze more action; RE deleveraging and loan workouts will continue
- In Asia, Japan maintains strong investment appeal despite BoJ hikes, while China remains largely offline for investors



Property outlooks

- Cyclic slowing of fundamentals in healthy sectors, particularly industrial and residential; longer-term demand drivers remain solid
- Lack of affordability benefits residential sectors, while demographic tailwinds boost seniors housing
- Work from home and physical obsolescence continue to weigh on US Office outlook
- Retail finding its footing post e-commerce, lack of new supply supports fundamentals



Preferred strategies

- Data center demand boosted by growing cloud demand, AI
- Seek entry points with attractive pricing due to dislocation, including harder to access properties – more of asset than beta focus
- Debt strategies remain interesting even as spreads normalize
- Recapitalizations and secondaries to fill funding gaps, facilitate continuation vehicles and solve LPs' liquidity needs
- Distress/motivated sales likely, implying favorable conditions for strong non-core vintages



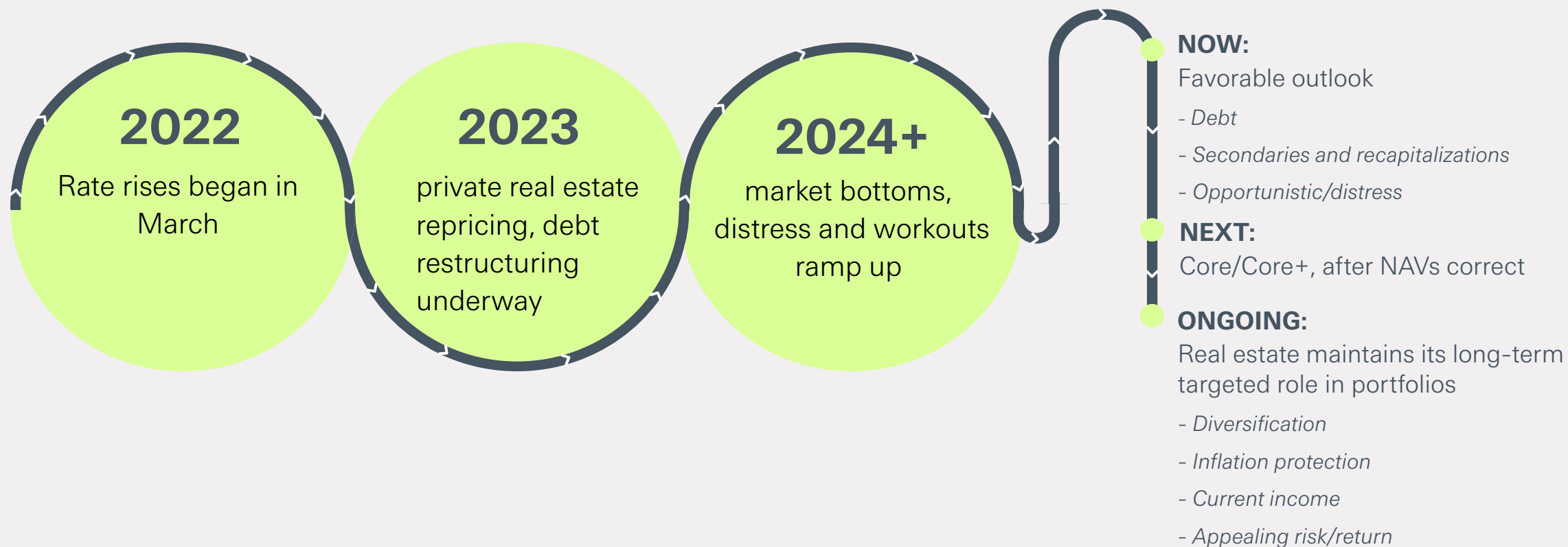
Portfolio construction

- Focus on resilient sectors and those supported by secular trends: industrial, affordable residential, select alternatives
- Position to capitalize on secondaries and recapitalizations as LPs seek liquidity and GPs need additional capital
- NAV reductions progressing for core/core+, much slower in non-core. Selection key for new open-ended fund commitments
- Add to strong non-core managers, favoring those with distress and workout experience across the capital stack and NPLs



Market themes

Higher interest rates mean turmoil and opportunity



Real estate prices and trading volume likely bottomed

Slow workout continues. Still a capital markets story with decent fundamentals outside of office.

Carrying values above trading prices

- Likely to drive further deterioration in NAV particularly for non-core assets and funds
 - Inhibits sales which force loss realization
 - Leaves core money hung up in outflow queues

Distress will manifest even as rates decline

- Little rate movement for 5- and 10-year maturities; overleverage problem resulting from rate rise remains
- Debt availability improving gradually; CMBS recovery helps, banks re-engaging
- Loan-level data indicates ongoing, high-volume distress and workouts

Transaction volume depressed

- Central bank cuts boost sentiment, but high longer-term rates remain an obstacle
- Pent up transaction-demand, including extended loans plus:
 - \$700B+ in non-core funds exceeds target 5-year hold¹
 - \$300B+ fund dry powder late in investment period

New capital allocation still slow

- As reversion of denominator effect flows through annual plans, LP deployment targets likely to rise modestly
- But LPs not getting capital back to reinvest
 - Fund asset sales and distributions in 2023 are down over 50%, while capital call pace has returned to normal²

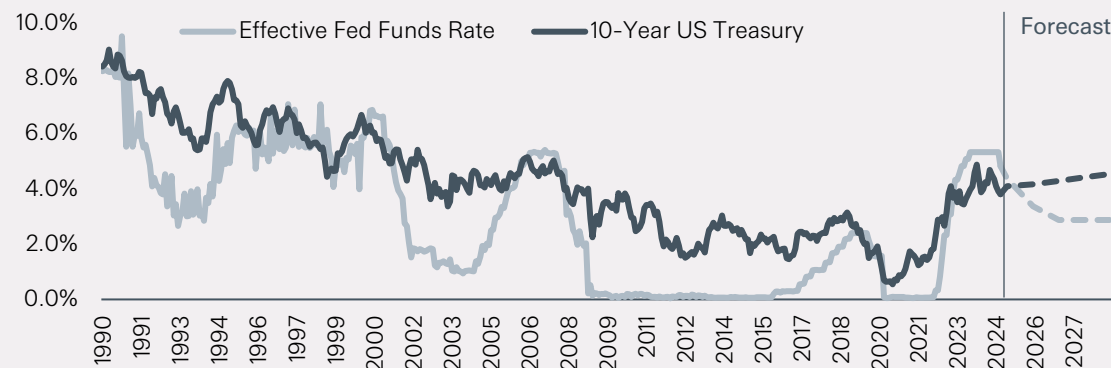
1. Sourced from Preqin Pro, October 2024.

2. Sourced from SPI Research and Reporting, October 2024.

Short rates down some, long rates likely to stay higher

- Rate drop boosts sentiment and helps find pricing floor, even amid tight lending conditions
- Mostly affects short end of the inverted yield curve
- The longer end, which matters to RE pricing and fixed rate borrowers, is expected to remain around higher, long-term averages

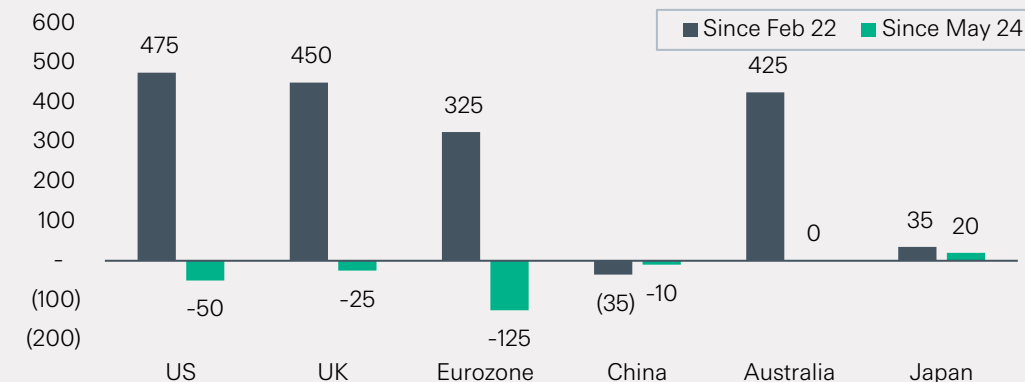
Fed funds rate vs 10-year treasury



Sources: Bank for International Settlements, CapIQ, Fred, October 2024.

1. As of Oct 31st, 2024.

Change (bps) in central bank policy rates



Avg 10-year govt bonds across different periods

Periods	US	UK	France	Germany	Australia	China
1990 - 1999	6.6%	8.0%	7.0%	6.6%	8.5%	NA
2000 - 2007	4.6%	4.8%	4.4%	4.2%	5.7%	NA
2008 - 2019	2.5%	2.4%	2.0%	1.5%	3.6%	3.6%
2020 - 2023	2.6%	2.2%	1.3%	0.9%	2.6%	2.9%
1990 - 2023	4.2%	4.5%	3.9%	3.5%	5.4%	NA
Current ¹	4.3%	4.4%	3.1%	2.4%	4.5%	2.1%

Private market pricing has bottomed

Total return

	2022	2023	Q1 – Q3 2024	Peak-to- Q3 '24	Peak quarter
Public Indices (USD)					
Broad public equities: MSCI ACWI	-18.0%	22.6%	19.0%	19.7%	Q4 2021
Barclays Capital US Aggregate Bond Index (Q2 '24)	-13.0%	5.6%	1.6%	-6.7%	Q4 2021
US Public RE – All Equity REITs	-24.9%	11.4%	14.2%	-4.5%	Q4 2021
Global Public RE – EPRA/NAREIT	-23.6%	9.8%	12.4%	-5.7%	Q4 2021
Commercial Property Price Indices²					
US – Green Street CPPI, w/ODCE Weights	-15.9%	-10.3%	4.5%	-21.4%	Q1 2022
Europe – Green Street CPPI, w/ODCE Weights	-15.5%	-11.8%	1.1%	-26.0%	Q1 2022
Core Fund Indices³					
US – NCREIF ODCE	6.5%	-12.7%	-3.2%	-19.9%	Q3 2022
Europe – INREV ODCE (Q2 '24)	-1.3%	-10.3%	-0.3%	-16.7%	Q2 2022
Asia – ANREV ODCE (Q2 '24)	6.3%	-0.6%	-0.9%	-2.3%	Q1 2023
Non-Core Fund Indices					
Global – Burgiss VA/Opportunistic (Q2 '24)	2.0%	-6.7%	-1.4%	-10.8%	Q1 2022



Investors likely under-allocated to RE

Reversal of denominator effect is slow to translate to higher commitments due to annual deployment planning



Asset trading prices now moving up

Green Street research shows private RE slightly undervalued vs. public RE and bonds; all three are cheap vs. S&P 500



Decline in core valuations may be over

GPs hope rate easing lifts prices enough to close remaining value gap, LP caution advised



Expect ongoing decline in non-core valuations

Index does not reflect ~25% gross asset price fall in fund portfolios that average 55% LTV

Sources: NCREIF, INREV, ANREV, Burgiss, Green Street, NAREIT, Bloomberg and FTSE, StepStone SPI Reporting, October 2024. Note: In aggregate, public REITs are 48% allocated to major property types (retail, residential, industrial, and office) as of Q2 2024 according to NAREIT, compared to 88% exposure to major property types in the private Global Real Estate Fund Index produced by ANREV, INREV, and NCREIF as of Q2 2024.

2. Green Street CPPIs, w/ODCE Weights are reported in local currencies. Property type mix matches regional ODCE. Q3 GS CPPI return is weighted using Q2 regional ODCE property mix due to reporting lag. US: A quality assets; Europe A and B quality.

3. All Fund Indices' returns are net of fees and reported in local currencies.

Core fund gap narrowed slightly as trading prices rose

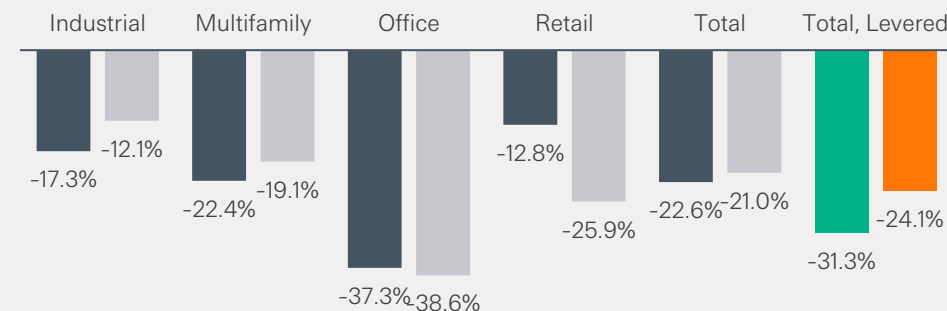
- Funds values have plateaued, NAVs around 5-10% above trading prices per Green Street's analysis
- Trading values reliable for all except office, where uncertainty and downside remain. Yet NAVs do not match them or borrowing costs
- Aided by the opportunity to mark rents up to market, funds with short WALT industrial may offer the best entry points
- European funds have less exposure to problematic office and better pricing. This is more evident at cap rate level than this pricing analysis implies due to quality and market differentials between index and funds

Capital returns as of Q2 2024

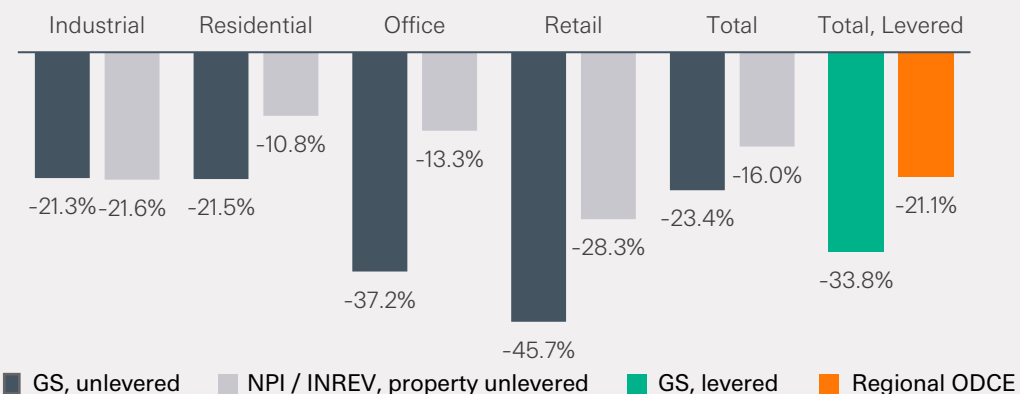
	Peak-to-6/30/2024	LTV %	Exposure to office
US			
GS CPPI w/ODCE Weights, Levered ¹	-31.3%	27.2%	16%
NCREIF ODCE Capital Return	-24.1%	27.2%	16%
Europe			
GS CPPI w/ODCE Weights, Levered ¹	-33.8%	24.9%	33%
INREV ODCE Capital Return	-21.1%	24.9%	33%

Peak-to-current value decline, ODCE vs GS²

US



Europe / UK



Sources: NCREIF, INREV, Green Street, SRE calculation, September 2024. US index returns in USD and Europe index returns in local currency. WALT: Weighted Average Lease Term

1. US Green Street CPPI Levered returns are estimated with regional ODCE's LTV. Borrowing costs are estimated assuming 70% fixed rate and 30% floating rate, where fixed rate is based on SRE manager survey as of Q2 2024.

2. Peak Quarter is Q1 2022 except Retail. US NPI Retail peaked at Q1 2018. Europe GS Retail peaked at Q1 2017. Note CPPI for European Office includes prime and non-prime assets; overstates loss on prime assets.

Core funds indices still do not reflect market rates

US

Sector	ODCE appraisal cap rate	Market cap rate		Borrowing cost	ODCE exposure
Industrial	3.7%	5.2%		5.4%	37%
Multifamily	4.3%	Class A: 5.5%	Class B: 6.0%	5.3%	27%
Office	6.5%	Class A: 7.9%	Class B: 10.7%	6.9%	16%
Retail	5.3%	Retail: ex-Mall 7.2%	Mall (Grade A): 7.5%	5.6%	11%

Europe / UK

Sector	ODCE appraisal cap rate ¹	Market cap rate – prime ²	Market cap rate – all ³	Borrowing cost	ODCE exposure
Office	4.8%	4.6%	7.0%	5.8%	33%
Industrial	4.8%	5.0%	5.8%	5.2%	31%
Residential	3.7%	4.2%	4.5%	5.0%	17%
Retail	5.9%	4.4%	8.3%	5.8%	15%

Sources: NCREIF, INREV, Green Street, CoStar, CBRE, Cushman & Wakefield, Catella, September 2024. Europe market cap rates weighted by ODCE country and sector mix. US borrowing rates from Chatham lending market overview Q3 2024 applicable to secured fixed rates. US Retail borrowing cost of 6.2% is for grocery anchored.

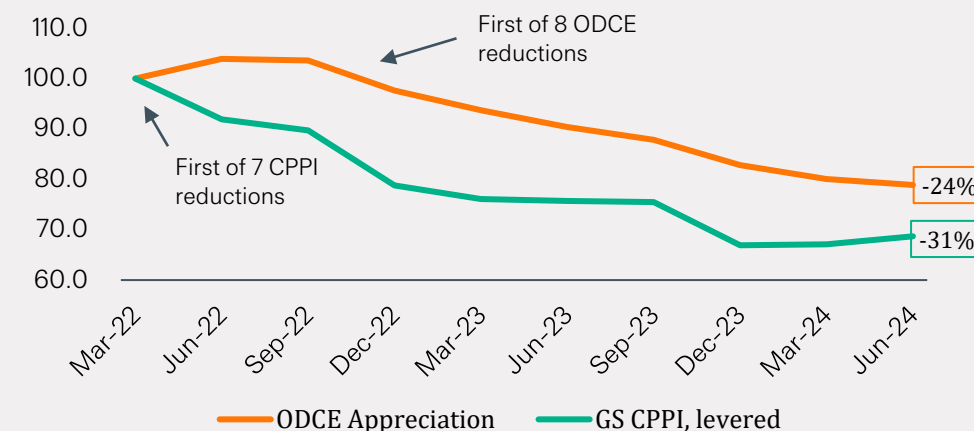
1. Value-weighted appraisal cap rates reported by 12 out of 16 ODCE funds, as of Q2 2024.

2. Residential market cap rates as of Q1 2024.

3. Net Initial Yield from Green Street, inclusive of purchasing costs.

4. US GS CPPI weighted by NCREIF ODCE property mix.

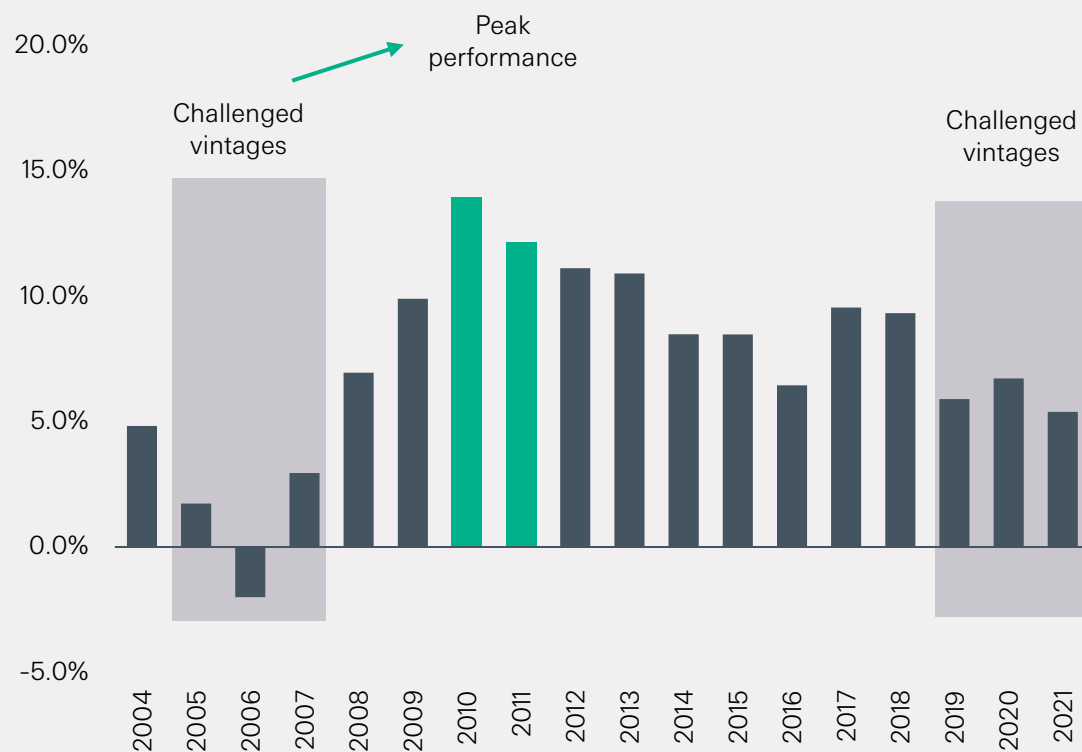
US Pricing – ODCE vs. GS CPPI (at ODCE leverage)⁴



- Appraisal lag is normal; GFC lag was three quarters
- While a roughly 50 bps gap between the two indices is normal, the actual differentials far exceed that. Still, GPs say further mark downs will be limited (despite huge valuations challenges for office) as they wait for market pricing to close the gap
- European pricing is much more aligned at cap rate level. Individual fund level returns diverge considerably, more than US

Recent non-core returns likely to decline over time

Non-core performance by vintage



Recent vintages challenged by acquisitions at peak pricing

- Reported returns, down 11%, clearly don't reflect ~25% trading price drop
- Average leverage is 55%, likely higher for recent vintages, magnifying price drop: a 25% gross price reduction drops a 45% equity value by 55%
- Corresponding to their buy-fix-sell, shorter holds, these funds heavily use floating rate debt that is costly to manage and more likely near maturity
- Asset transition plans more likely to be behind on leasing, cost and timing
- Unused dry powder likely redeployed to save existing assets for funds with investment periods straddling the correction
- Without dry powder, funding gaps can translate to higher loss ratios

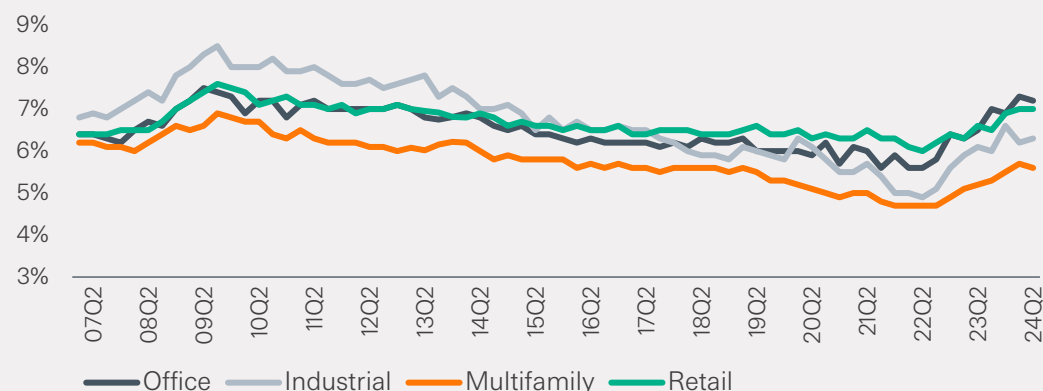
These challenges point to recap funding opportunities and distress sales, setting stage for strong post-correction vintages.

- Post GFC those occurred 2-3 years after crisis point

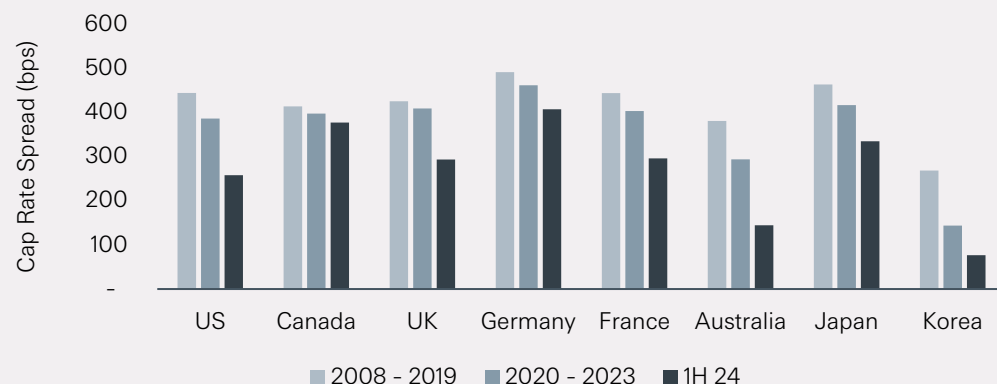
Cap rates turning down, still above year-ago figures

Spreads still thin, likely supported by weight of capital and hope of rate cuts

Median global cap rate trends by property type



Overall cap rate spread to government bond yield by country (bps)



Cap rate quartiles by largest property types, Q2 2024

Region	Property type (volume leaders)	Bottom quartile		Median		Top quartile	
		Cap rate	YoY Chg.	Cap rate	YoY Chg.	Cap rate	YoY Chg.
US	Multifamily	6.2%	39 bps	5.6%	37 bps	5.1%	33 bps
	Industrial	7.4%	40 bps	6.1%	9 bps	5.4%	17 bps
Europe / UK	Office	9.5%	183 bps	7.3%	101 bps	5.2%	44 bps
	Industrial	7.3%	2 bps	6.5%	29 bps	5.7%	70 bps

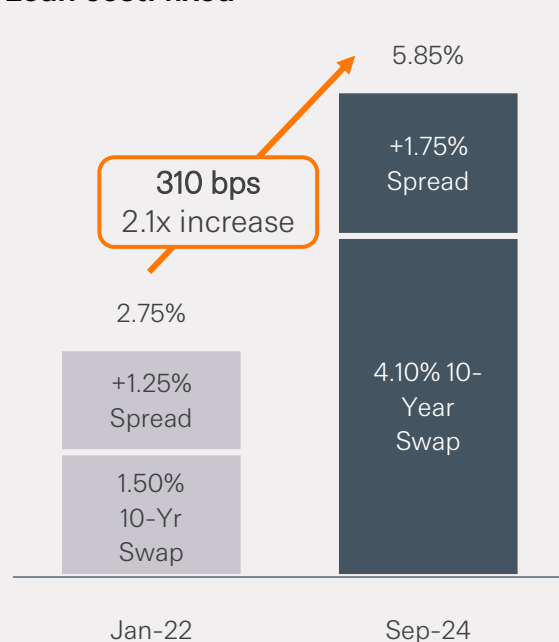
Global cap rate spreads by country, Q2 2024

Country	Cap rate	Spread	15y avg spread	Delta
US	6.80%	247	427	180
Canada	6.80%	386	412	27
UK	6.80%	290	429	140
Germany	6.70%	460	503	43
France	6.50%	301	445	144
Australia	6.00%	155	363	208
Japan	4.30%	333	456	124
Korea	4.30%	104	240	136

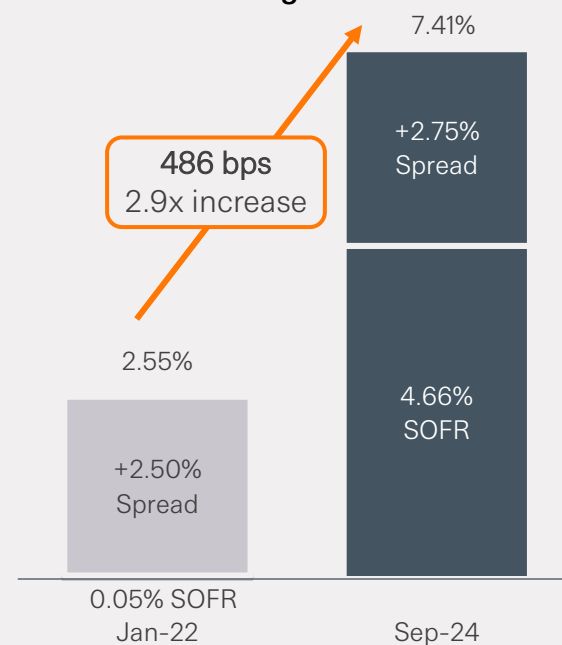
Borrowing costs lower, yet well above 2022 levels

Rising interest rates equate to lower financing proceeds so leveraged owners with near term maturities and/or floating rate debt face funding gaps, or 'cash in' refinancing

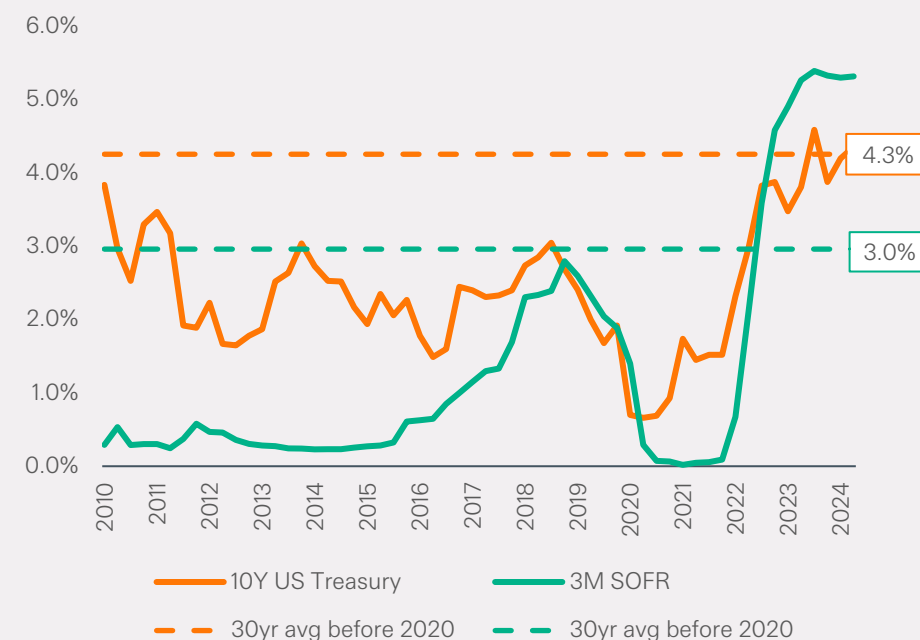
Loan cost: fixed¹



Loan cost: floating²



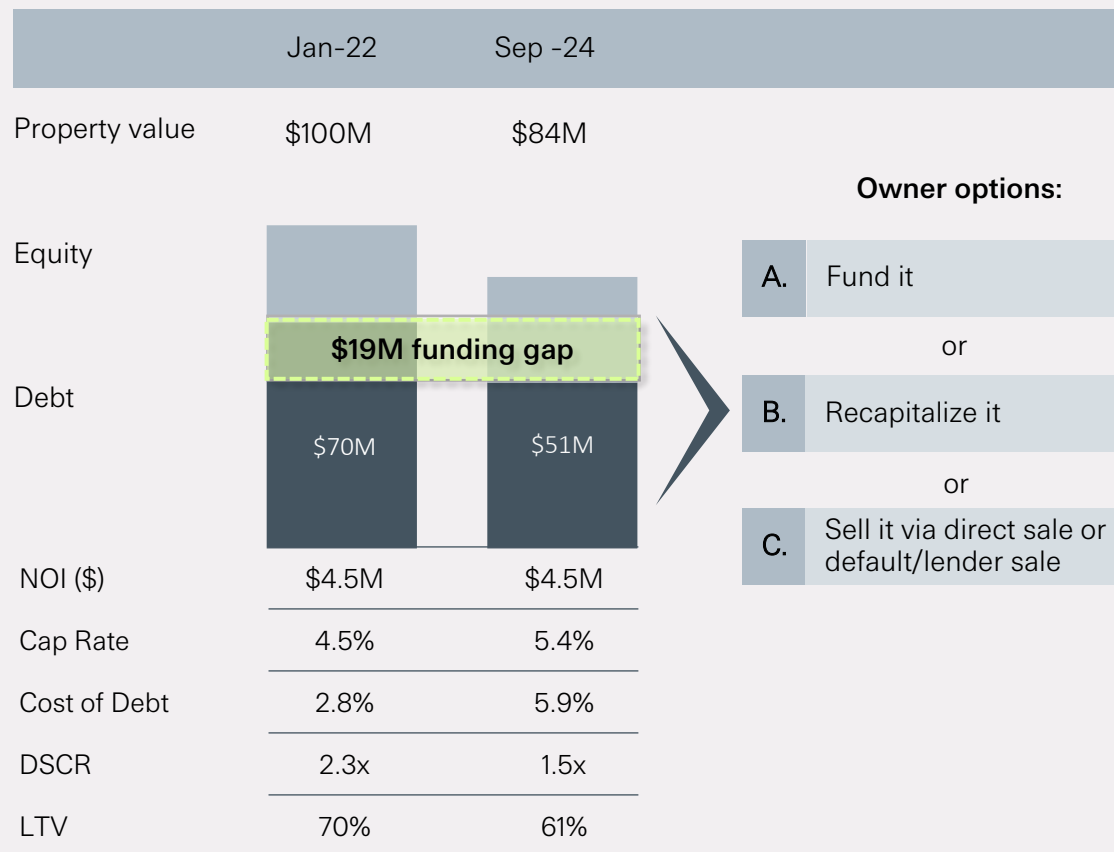
Reference interest rate long-term trend³



Sources: StepStone data, Chatham Financial, Federal Reserve, CBRE, CapIQ, September 2024.

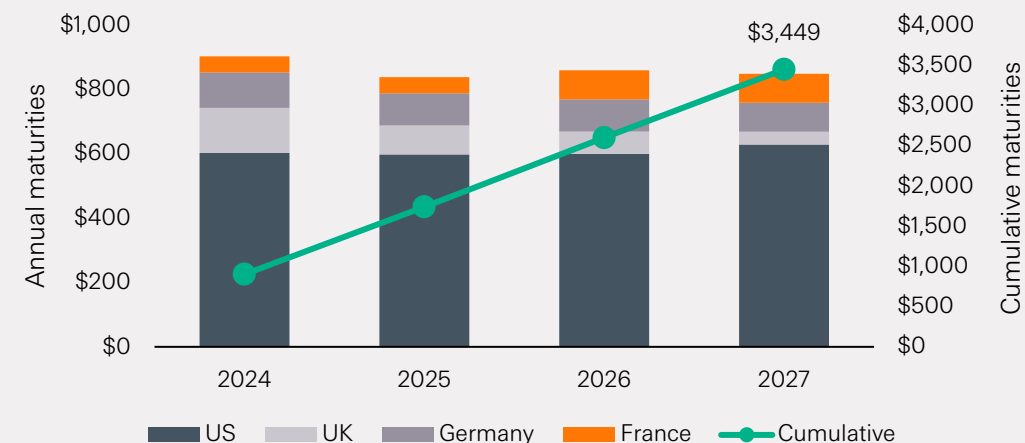
1. Fixed loan cost for stabilized multifamily at 50% to 59% loan-to-value. 2. For illustrative purposes, floating rate example does not consider a SOFR cap. Floating loan cost for transitional multifamily at 65% loan-to-cost and acceptable debt yield. 3. As SOFR was first published in 2018, earlier records use 3M LIBOR.

Higher interest rates drive need for recaps



Commercial / multifamily mortgage maturities¹

\$ in billions



- Recap need likely to persist with higher rates and \$3.4 trillion of maturities
- Tight lending standards further reduce proceeds. Loan availability is a challenge
- Example assumes income is constant, but income is under pressure as is cap ex cost and timing for transitional assets

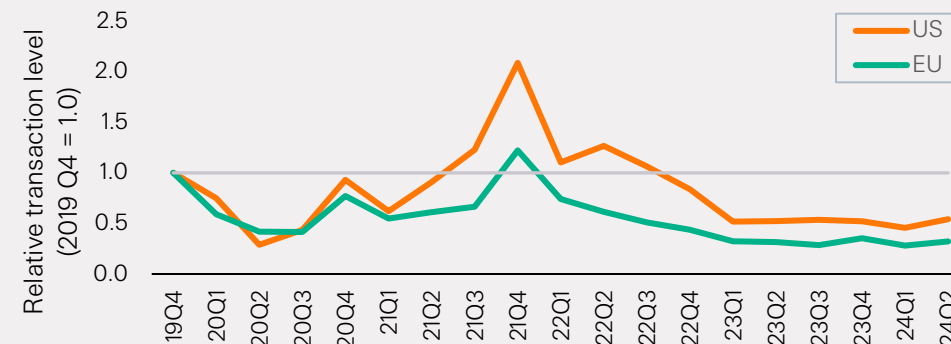
Sources: StepStone data, US Federal Reserve, CBRE, September 2024. Figures reflect hypothetical stabilized asset with 10-year fixed rate debt.

1. US data is sourced from Trepp, July 2024. European data is sourced from PGIM as of August 2024.

Trading volume likely has bottomed

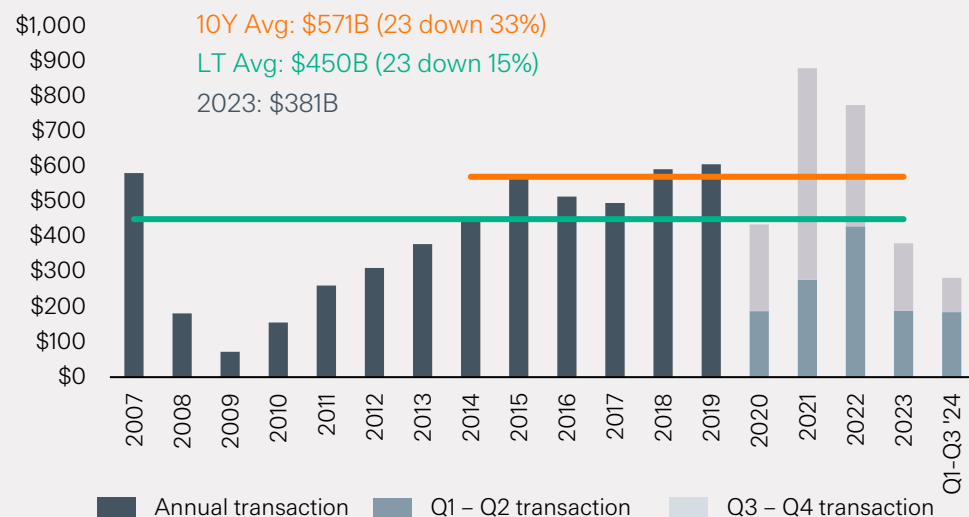
- The transaction market has stabilized, with volume flat YoY in 1H24
- US 2023 trading 15% below long-term average, 33% below expansion period
- EMEA 2023 trading is half of expansion period average
- Property type mix now dominated by multifamily and industrial; big drop in office likely to persist particularly in US
- Larger transactions gradually rising as CMBS issuance recovers

Quarterly transaction volume, relative to pre-covid level



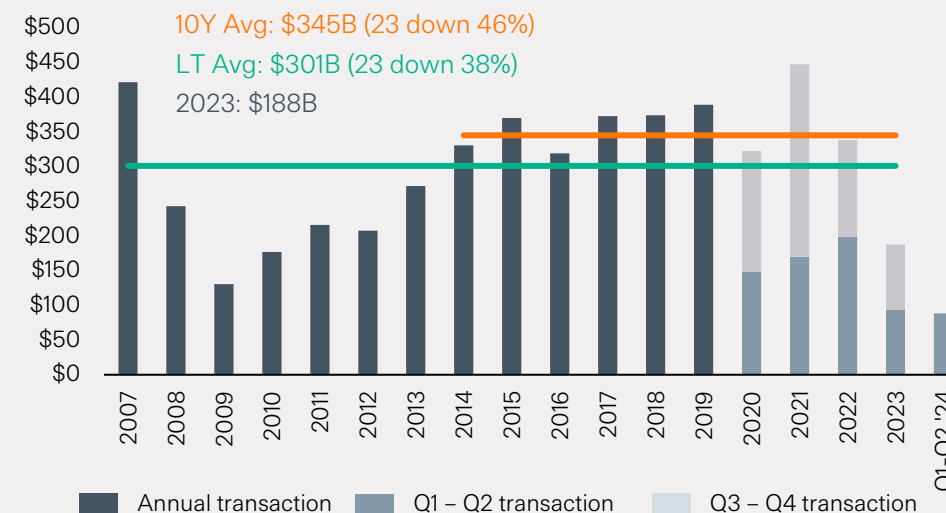
US annual transaction volume

\$ in billions



EMEA annual transaction volume

\$ in billions

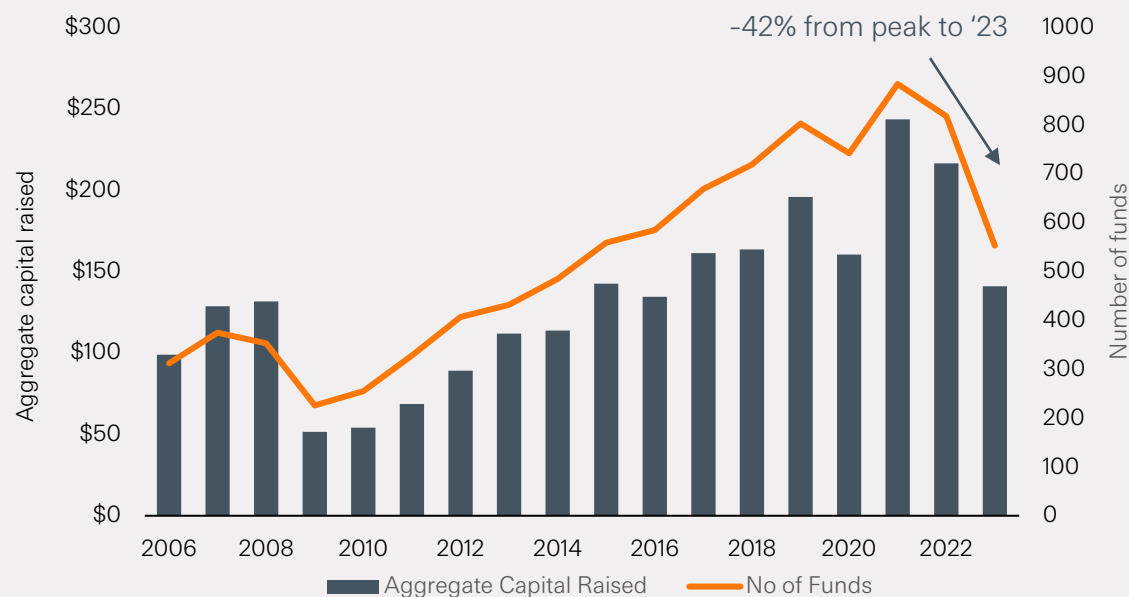


Non-core fundraising down, pressure building to transact

- Reduced distributions impact LPs' ability to re-commit
- Fundraising periods have increased steadily, first to final close now nearly twice 2017 level

Global private real estate fundraising

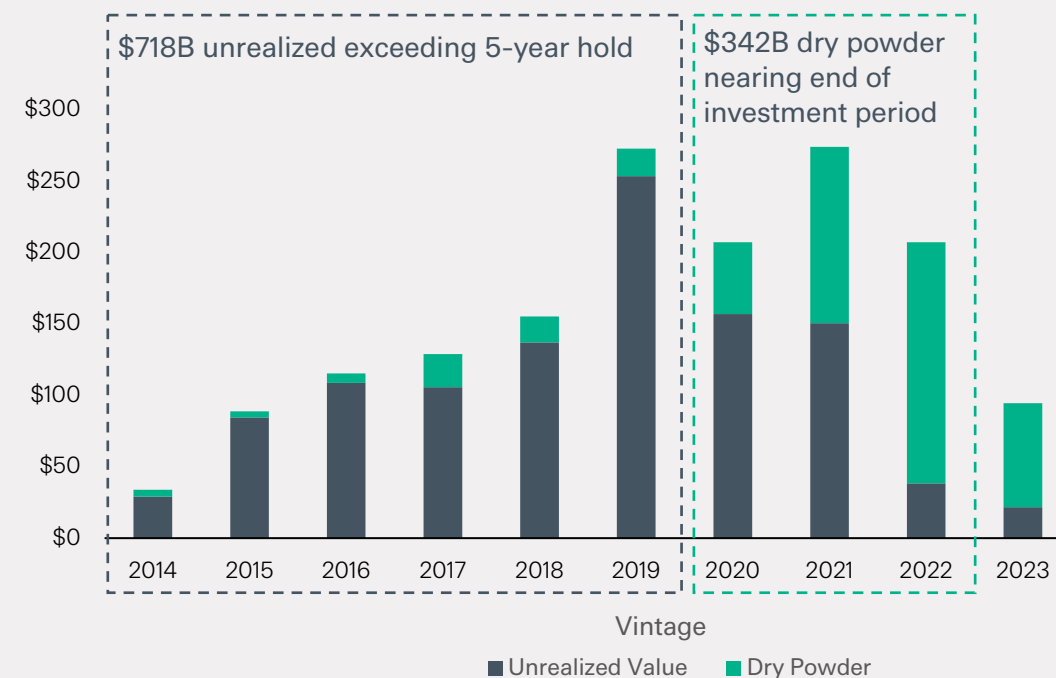
\$ in billions



- Pre-2020 funds need to sell assets and realize values, with more than \$700 billion now exceeding 5-year hold
- Recent vintages need to buy assets, with \$342 billion in dry powder approaching end of investment period

Global private real estate fund exposure by vintage

\$ in billions

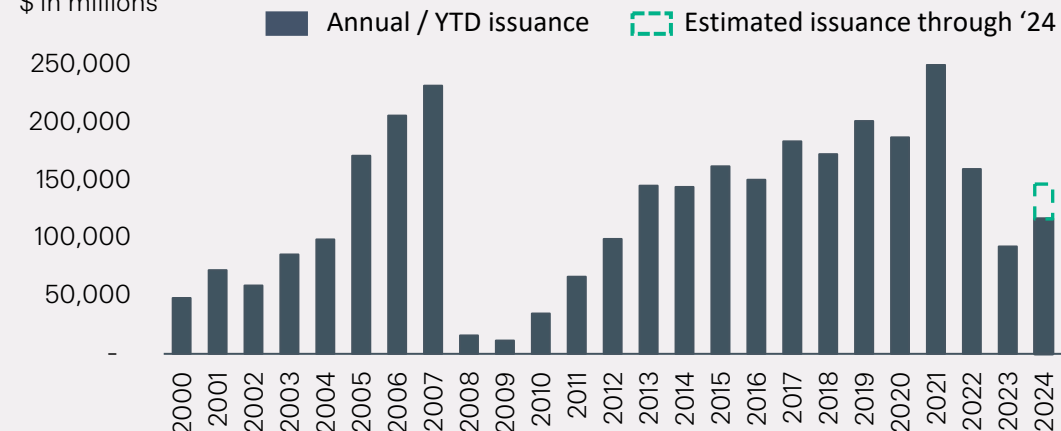


CMBS issuance recovering, rising delinquencies

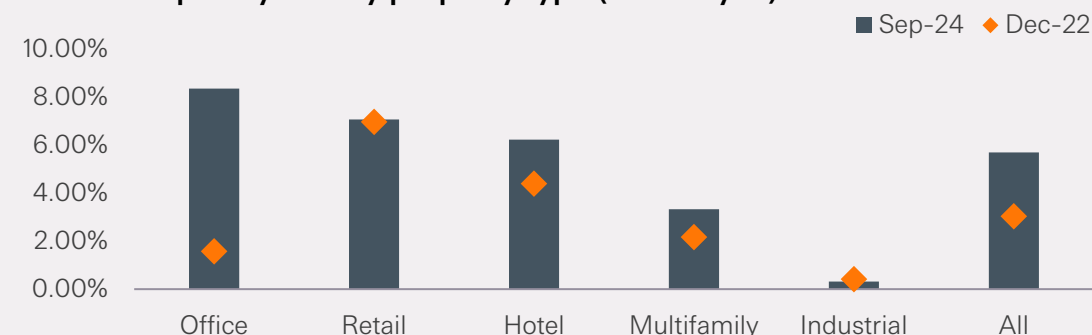
- The transparency of CMBS offers insight on the rest of the market
- Issuance has improved notably YTD, which is important to facilitate larger asset sales
 - Issuance YTD is more than 2.5x year-ago levels
 - Single-borrower deals are a key driver, representing 67% of nonagency issuance (vs. 50% in 2023)
 - There have been several >\$1B transactions
- Delinquency continues to rise, hitting 5.7% as of September 2024, still well below GFC rates which exceeded 10%
 - Multifamily driving increases in last 6 months
- Special servicing rates are also increasing, now at 3-year high
 - Office tops the list, sitting around 12.6%
 - Trends in multifamily are concerning, hitting a 9-year high of 6.1% as of September

CMBS annual issuance

\$ in millions



CMBS delinquency rate by property type (%30 days+)¹



CMBS Exposure %	26%	19%	15%	10%	9%
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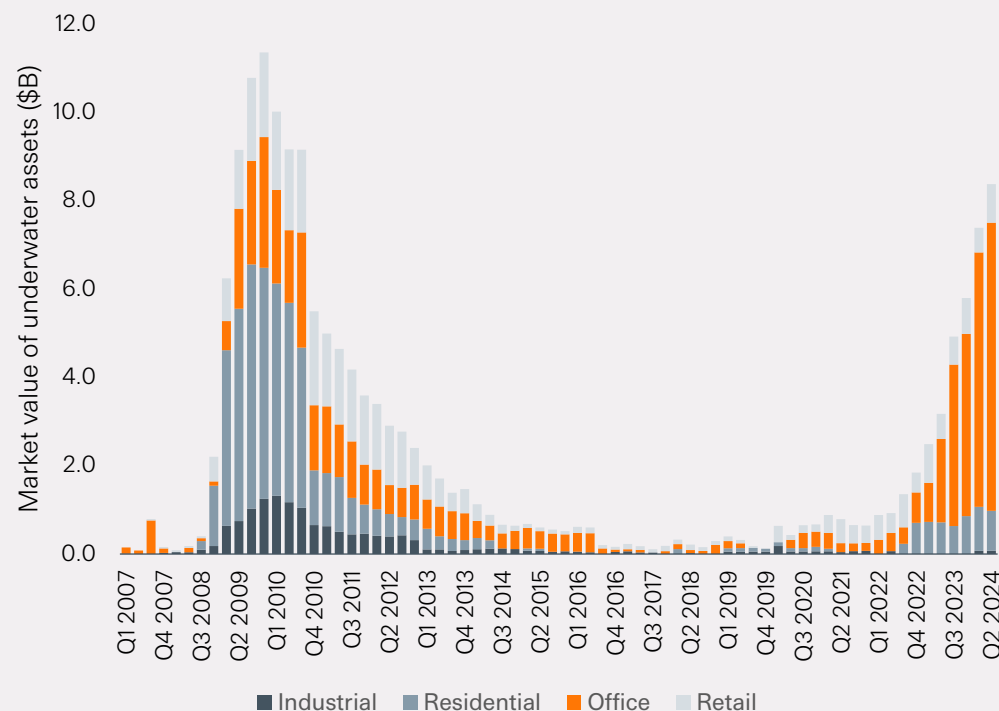
Source: Green Street, CREFC, Trepp October 2024.

1. Sourced from MBA, Q2 2024. The remaining CMBS exposure include self storage, healthcare, and defeased CMBS.

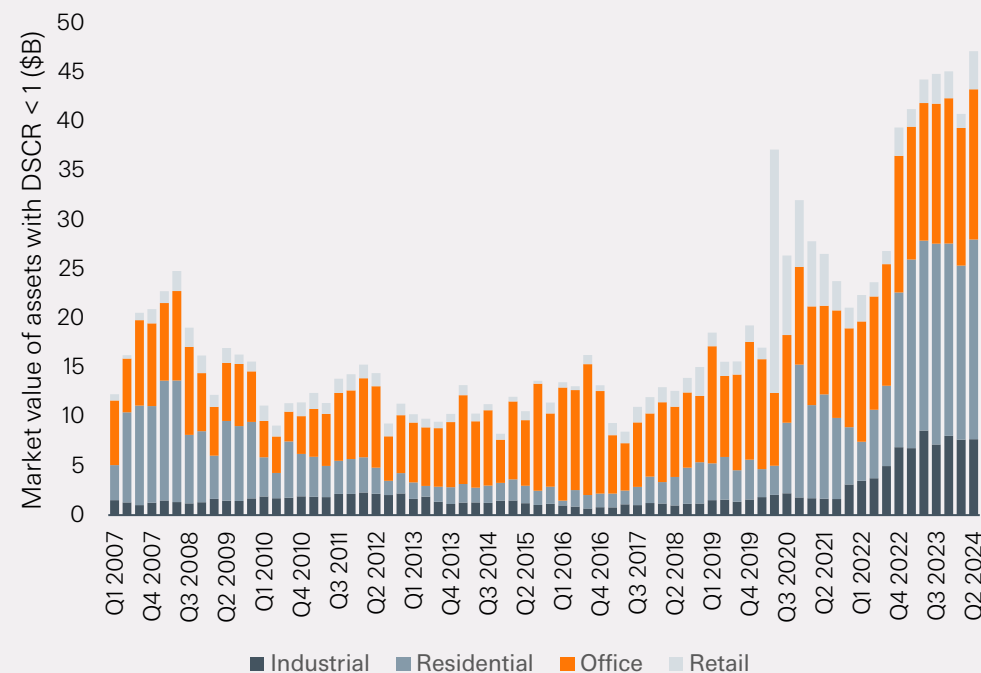
Loan-level detail points to large pool of potential distress

- The total value of assets with carrying values below loan values (“underwater”) is rising dramatically, reaching \$8.4 billion in Q2
- Coverage ratios are also deteriorating. Multifamily represents the greatest share. Unlike post GFC era, declining rates are not likely to solve the problem; most are held for income, likely to have mid-long term fixed rate debt

NPI underwater assets, over 75% in office



NPI asset value with DSCR below 1: led by residential, office

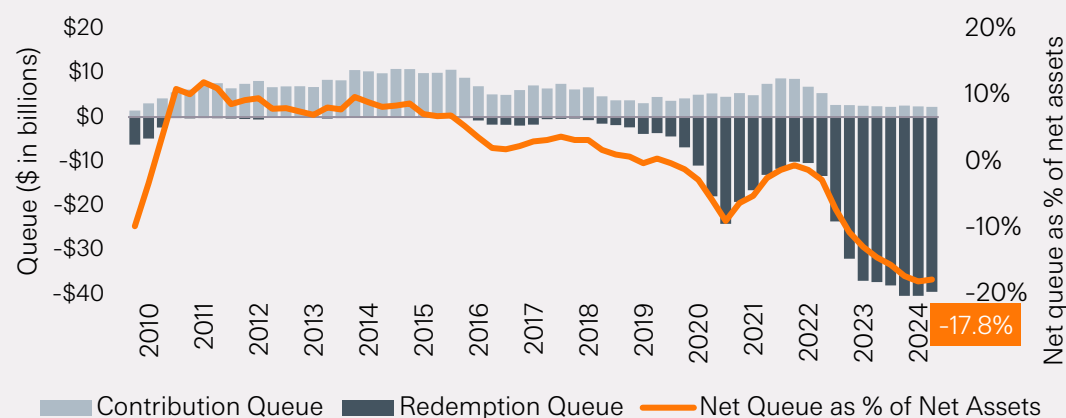


Source: NCREIF NPI, September 2024. Levered properties with outstanding balance exceeding carrying value are considered underwater. At the beginning of the crisis at Q2 2022, the average occupancy for NPI levered assets was 93% and LTV was 42% (now 50%). Mainly via higher leverage, the NPI extends somewhat beyond the core level risk of NFI-ODCE index, but does not include assets with non-core (transitional) strategies..

Open-ended fund redemption queues sizable, diverging

US

NCREIF ODCE fund queues; 2Q24

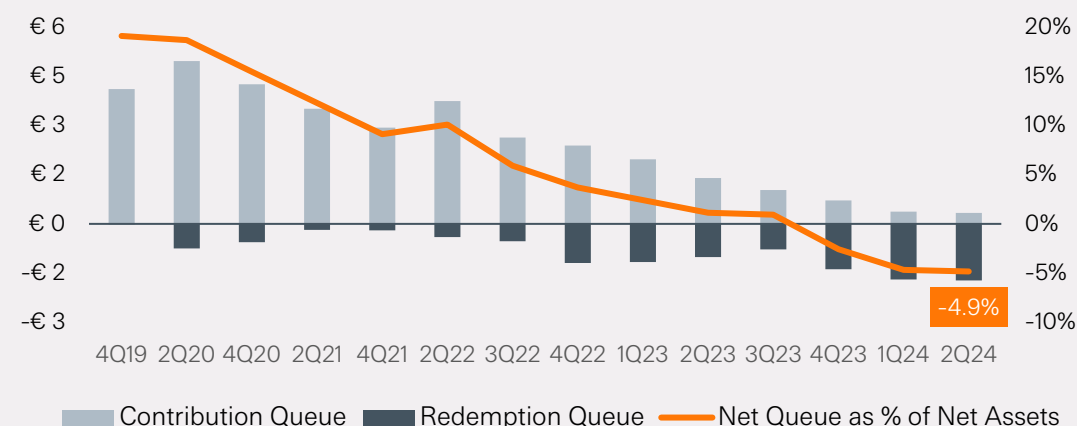


Fund level net redemption queue as % of its NAV	# of Funds	% of total queue
Under 10%	8	9%
10% - 20%	9	31%
Over 20%	8	60%
Total	25	100%

- 2 of 25 NCREIF ODCE funds have no net redemption queues at 2Q 24

Europe

INREV ODCE fund queues; 2Q24¹



Fund level net redemption queue as % of its NAV	# of Funds	% of total queue
No net redemption	8	0%
Under 10%	4	29%
Over 10%	3	71%
Total	15	100%

- INREV redemption queue expanded slightly for fund-specific reasons

Source: StepStone Real Estate Manager Surveys data.

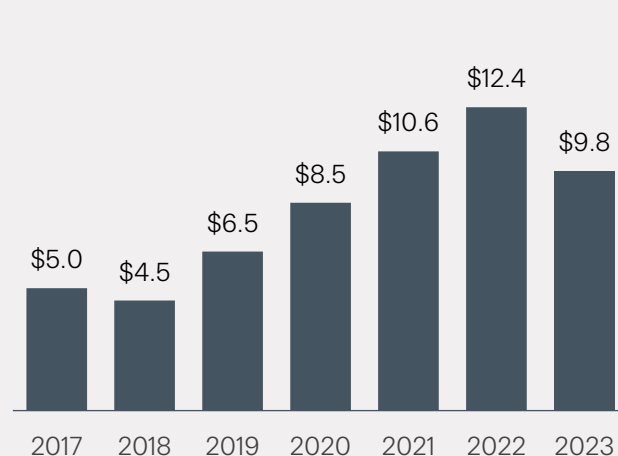
1. Based on 15 out of 16 INREV ODCE constituent funds.

Secondary sales growth anticipated

- GP led secondaries likely to be in heavier use to manage funding gaps and address LP liquidity requests
- A significant portion of GP led secondaries trading is bespoke and unreported, therefore not well captured in the data
- Two main factors contribute to price drop for LP secondaries
 - Investors selling funds with weak outlook, especially office
 - Declining (and lagging) NAV means buyers need higher discounts
- Until this corrects, LP secondaries volume likely to stay well below projected amounts

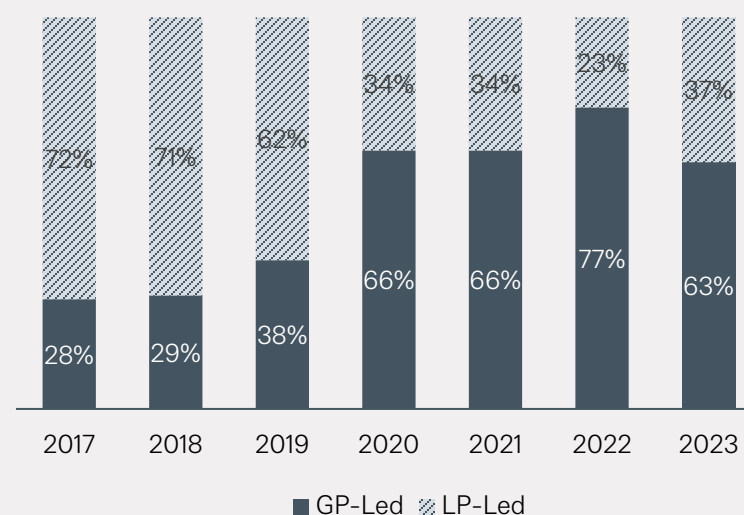
Global real estate secondaries volume

\$ in billions

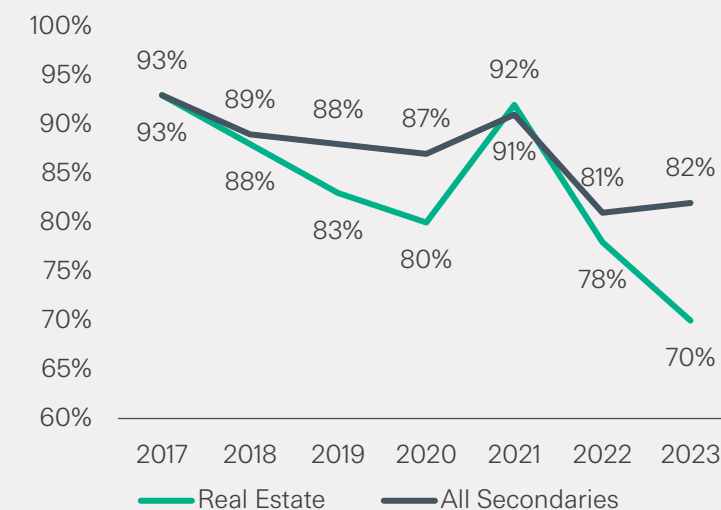


Share of real estate secondaries volume by type

% of global volume



Global secondaries pricing as share of NAV



A low-angle, upward-looking photograph of a modern building's glass facade. The image shows a complex network of dark metal frames holding large glass panels. The perspective creates a sense of height and architectural scale. The sky is visible in the background, appearing as a pale blue. A semi-transparent dark grey rectangular box is overlaid on the right side of the image, containing the title text. A solid light green horizontal bar is positioned below the text box.

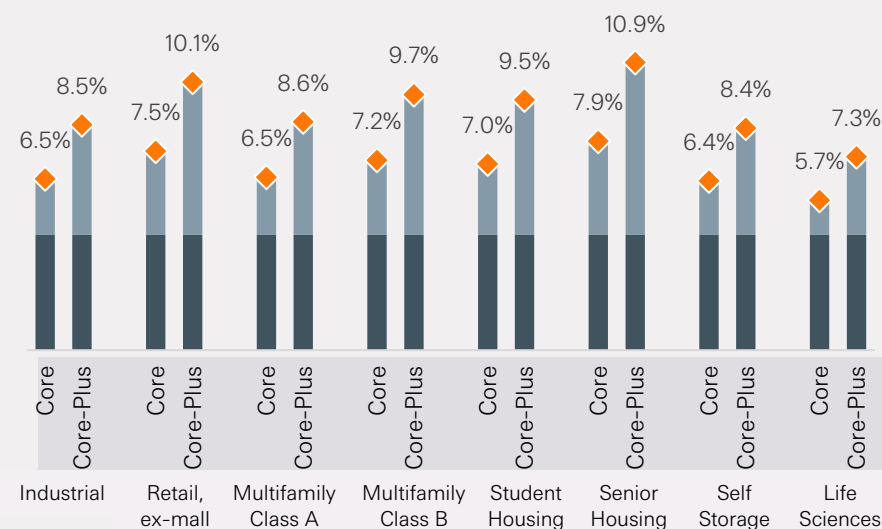
Preferred strategies & portfolio construction

Core/core+: property-level performance prospects

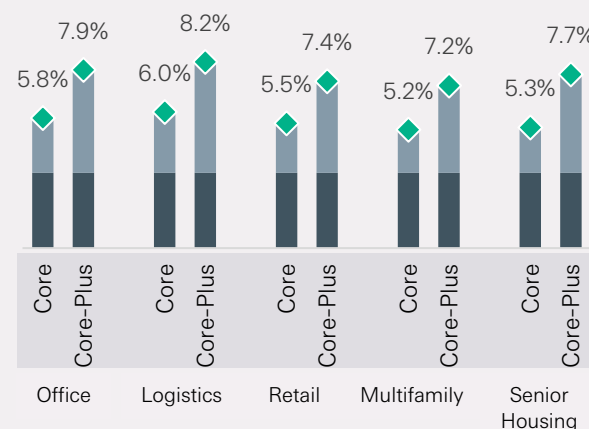
Indicative five-year prospective core/core+ property performance in local currency¹

- Returns based on initial investment per current market price data. Open-ended fund commitments made at above market NAVs will yield lower returns
- Fundamentals in all sectors except office are reasonable with secular lift helping to mitigate cyclic slowing
- SRE has temporarily removed US office from the projections due to lack of visibility on demand, future capital expenditure and exit market

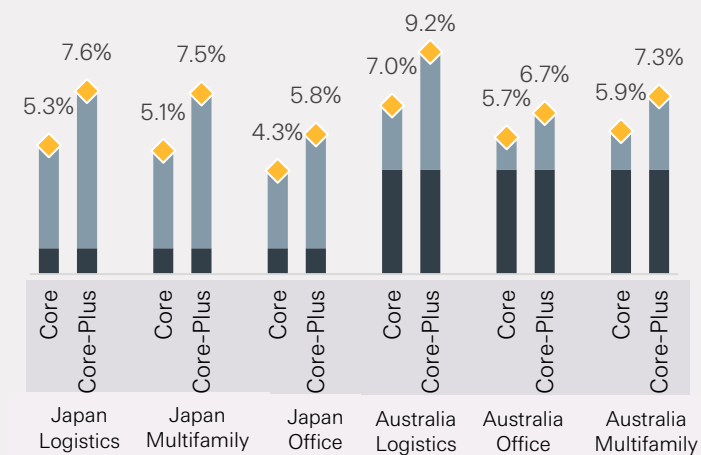
United States



Europe / UK²



Asia-Pacific



Prospective Return Spread 10-Yr Bond Yield

Past performance is not indicative of future results and there can be no assurance that the investment will achieve comparable results or avoid substantial losses. Source: StepStone Real Estate calculations, Green Street, MSCI RCA, Cushman & Wakefield, Catella, CBRE, IPF European Consensus, NCREIF, INREV, Oxford Economics, Chatham Financial, Consensus Economics, September 2024. Prospective five-year buy-and-hold return for a representative Grade-A/Core asset reflecting a market average level of return. For illustrative purposes only. Target returns are hypothetical and are neither guarantees nor predictions or projections of future performance. Future performance indications and financial market scenarios are no guarantee of current or future performance. There can be no assurance that such target IRRs will be achieved or that the investment will be able to implement its investment strategy, achieve its investment objectives or avoid substantial losses. Further information regarding target IRR calculations is available upon request. The opinions expressed herein reflect the current opinions of StepStone as of the date appearing in this material only. There can be no assurance that views and opinions expressed in this document will come to pass.

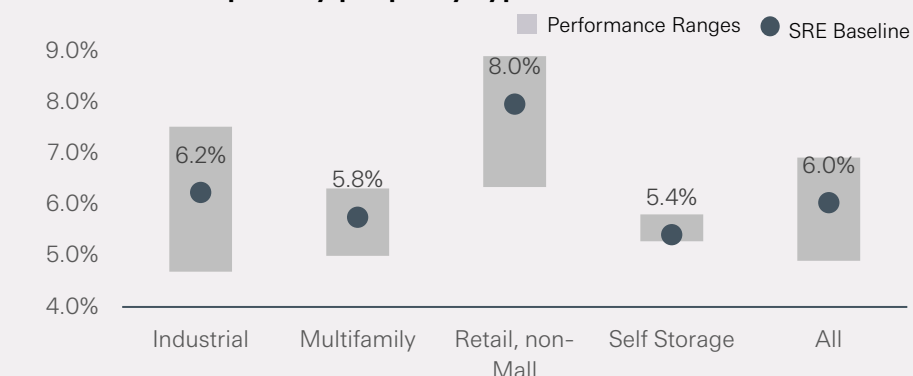
1. All return projections are in local currency. 2. 10-Yr Bond yield is blended average of 80% Europe and 20% UK.

Possible core/core+ performance scenarios

Third-party baseline		▲ Scenarios ▼
Growth	<ul style="list-style-type: none"> Downside risks are growing as economy loses momentum Eurozone growth remains modest and still below other regions Asia-Pacific leads growth, but at a slower pace 	<p>▲ Inflation remains under control and central banks still cut rates, which boosts growth</p> <p>▼ Rate cuts fail to prevent recession and/or re-ignite inflation, resulting in stagflation</p>
Inflation	<ul style="list-style-type: none"> Slowly declines, reaching central bank targets in 2025 Diverges by country 	<p>▲ Inflation hits 2% target (even as central banks cut rates) faster than planned</p> <p>▼ Core inflation stays above central bank targets through 2025, rate cuts continue</p>
Monetary policy	<ul style="list-style-type: none"> Focus shifted to labor market softening Rate cuts expected to continue, although remain data dependent Government bond yields stabilize at higher, “normal” levels 	<p>▲ Inflation moves further downward, allowing faster pace of policy easing</p> <p>▼ Inflation moves higher once again, central banks postpone additional easing</p>
Employment	<ul style="list-style-type: none"> Job growth continues to slow, leading to gradual rise in unemployment Immigration also slows, keeping a lid on labor supply growth 	<p>▲ Policy easing drives investment and boosts job growth, limiting rise in unemployment</p> <p>▼ Unemployment rises more and stays elevated as economic growth falls below trend</p>
Geopolitical	<ul style="list-style-type: none"> Geopolitical concerns ease but still top risk as per OE survey of businesses ME escalation and impact on supply lines not in baseline 	<p>▲ Easing of tensions, resolution of conflicts</p> <p>▼ Increased tension China/Taiwan or Middle East escalation; oil price spike and supply disruption</p>

Range of five-year real estate core fund performance expectations¹

US core fund perf by property type, net of fees



- Range in performance varies by property type, driven by cyclic changes in forecasted rent growth
- New supply in 2024/25 weighs on multifamily returns; relatively narrow range in performance reflects sector’s defensive, counter-cyclical nature
- Industrial is cyclic, driving wide range in performance; baseline benefits from strong, offsetting structural demand drivers
- Non-mall, necessity-based retail is less sensitive to changes in consumer spending; higher baseline returns reflect lack of new supply
- Self-storage more range bound, reflecting its non-cyclical demand drivers

Past performance is not indicative of future results and there can be no assurance that the investment will achieve comparable results or avoid substantial losses. Table source: Oxford Economics, Consensus Economics, StepStone Real Estate analysis, as of September 2024. Prospective five-year buy-and-hold return for a representative Grade-A/Core asset reflecting a market average level of return. Leverage is applied at the current level of the NFI-ODCE at a 27% LTV using StepStone Real Estate estimates for debt finance costs. The NFI-ODCE estimate is calculated using the 2Q2024 index weightings, adjusted for office depreciation projection. Office projections currently suspended due to lack of visibility. The opinions expressed herein reflect the current opinions of StepStone as of the date appearing in this material only. There can be no assurance that views and opinions expressed in this document will come to pass.

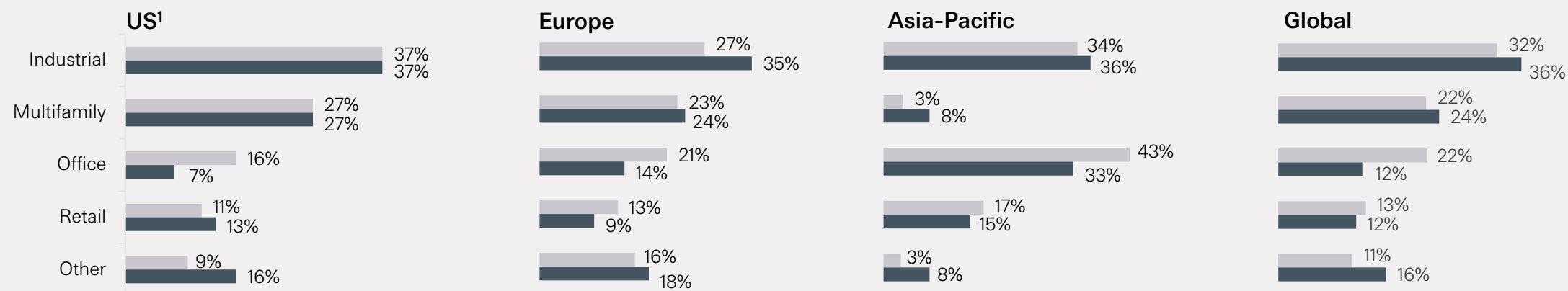
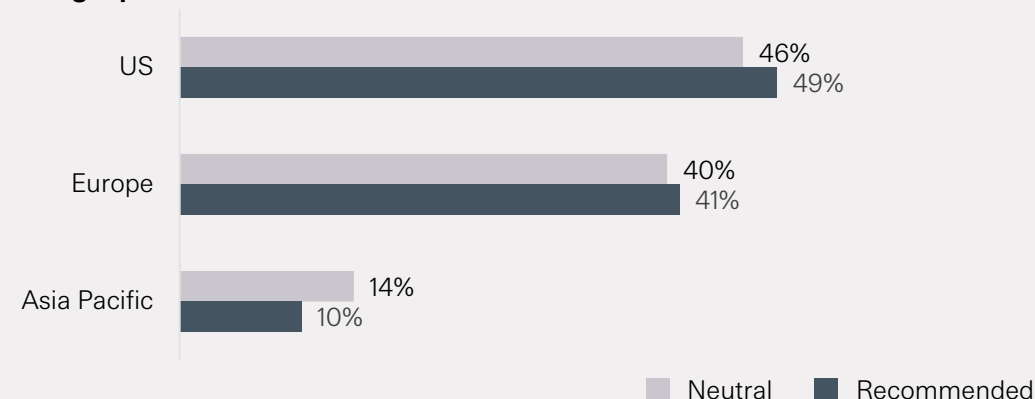
1. For illustrative purposes only. Target returns are hypothetical and are neither guarantees nor predictions or projections of future performance. Future performance indications and financial market scenarios are no guarantee of current or future performance. There can be no assurance that such target IRRs will be achieved or that the investment will be able to implement its investment strategy, achieve its investment objectives or avoid substantial losses. Further information regarding target IRR calculations is available upon request.

Global real estate portfolio positioning

Considerations

- Recommendations are for mature, core portfolios; encourage greater tilts for newer, core+ and non-core portfolios
- Overweight US for distress opportunity, better growth outlook
- Slight overweight to Europe, distress, lower interest rates and growth
- Asia opportunity largely focused on Japan; limits overweight ability
- Recommended tilts for risk exposure:
 - Selective open-ended funds contributions post repricing
 - Overweight non-core for distress, including recaps and secondaries
 - Overweight debt for current income with attractive risk/return

Geographic



Sources: StepStone Real Estate calculations, September 2024. Neutral weightings sourced from Global Real Estate Fund Index and StepStone quarterly OEF surveys for global property and geographic allocations and ANREV, INREV, and NCREIF core fund indices as of Q2 2024 for property allocations by region. Other property includes hospitality, healthcare, self-storage, senior housing, and student housing. Recommendations are recast in relation to new neutral weightings. The opinions expressed herein reflect the current opinions of StepStone as of the date appearing in this material only. There can be no assurance that views and opinions expressed in this document will come to pass.

1. US property mix is based on NFI-ODCE index. If accounting for non-ODCE funds tracked by StepStone, the property neutral weights are Industrial 39% / Multifamily 25% / Office 13% / Retail 9% / Other 14%.

Preferred themes in non-core real estate and debt

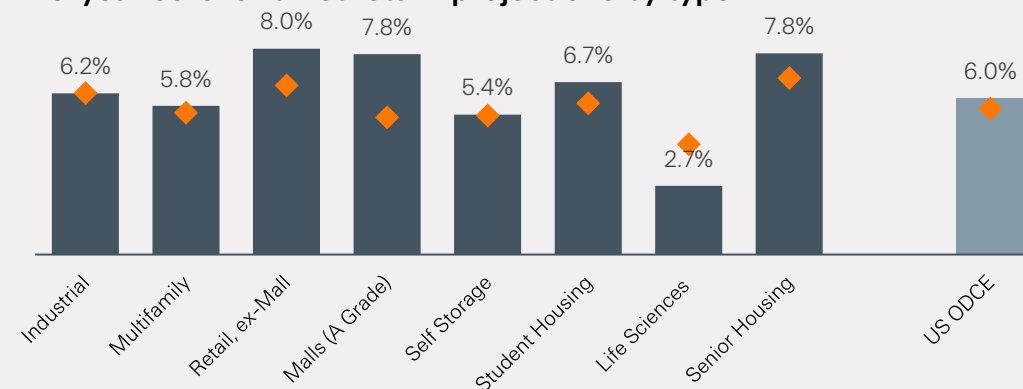
	Sector	Drivers		Identified strategies
PROPERTY TYPE	Industrial / logistics	Demand support: <ul style="list-style-type: none">- Near & on-shoring- E-commerce	Supply constraint: <ul style="list-style-type: none">- Construction costs incl financing	<ul style="list-style-type: none">- US: Potential to access high quality assets at attractive bases through dislocation. Niche opportunities in cold and outdoor storage- Europe: Demand exceeds supply of last mile logistics in key locations. Short lease term attractive, sustainability credentials matter- Asia-Pacific: Prime locations in Japan and infill locations in Australia. Select opportunities in South Korea (greater Seoul)
	Alternative Rental Housing	Demand support: <ul style="list-style-type: none">- High cost to own- Higher cost of living	Supply constraint: <ul style="list-style-type: none">- Construction costs incl financing- Rent regulation	<ul style="list-style-type: none">- US: Student housing enjoying higher yields and better near-term growth outlook, as does affordable/workforce and manufactured housing. Avoid Class A multi in heavy supply sunbelt multifamily markets until 2H25 and caution on SFR, which is expensive- Europe: Select opportunities across London, Berlin, Copenhagen and Madrid, navigating rent control risk. Window of opportunity to execute on SFR strategy in the UK. Student housing fundamentals remain strong although weaker lease-up in UK for AY 24/25- Asia-Pacific: Japan living strategies in key urban centres. Australia student housing fundamentals remain strong, despite a recent legislative change that caps international students
	Healthcare	Demand support: <ul style="list-style-type: none">- Aging populations- Government support- Non-discretionary	Supply constraint: <ul style="list-style-type: none">- Construction costs incl financing- Operator distress	<ul style="list-style-type: none">- US: Medical office with credit/health system tenancy at repriced yields, including build-to-suit developments. Newer vintage senior product with stable financing or new construction lease-up risk in strong markets. Avoid lower margin skilled nursing/hospitals- Europe: Fund development of private-pay, needs-based care homes and hospitals on long-term leases to operators. Increased distress in continental Europe, and US REITs with European non-core assets facing debt maturities- Asia-Pacific: Generally undersupplied/nascent across the region. Focus on developed markets and high-quality assets in Australia
	Data Centers	Demand support: <ul style="list-style-type: none">- Exponential growth in data use and storage, AI boost	Supply constraint: <ul style="list-style-type: none">- Power- Large scale investment required	<ul style="list-style-type: none">- US/Europe: Common and structured equity investments in development and lease up of new sites aimed at hyperscalers, more so than co-location. Also core+ opportunity for stabilized properties. Entry points slightly more attractive in Europe- Asia-Pacific: Opportunities in developed markets, particularly in Japan and South Korea. Robust development pipeline across APAC
CAPITAL STRUCTURE	Secondaries / recaps	Capital markets effect: <ul style="list-style-type: none">- Funding gaps, LP liquidity demands, fundraising challenges etc pressing GPs- Desire for liquidity for other uses pressing LPs		<ul style="list-style-type: none">- GP-led secondaries/recaps resolve funding gaps, allow completion of business plans and orderly exit in recovered exit market, avoiding selling in a trough. Can be highly selective. Entry at current pricing, with new terms, attractive structuring to mitigate risk- LP-led volume will remain low until NAVs approach property values, otherwise would be desired source of LP liquidity
	Debt	Maturity walls facing supply constraint: <ul style="list-style-type: none">- Wall of maturity needs refinancing- Traditional lenders less active		<ul style="list-style-type: none">- Lending in both US and Europe enjoy higher base rates spreads vs. 2022 (moderated since 23) and greater selectivity across the risk spectrum. Likely to end cycle with more non-bank lending. Leveraged debt funds benefit from lower spreads on financing facilities- Possibility to achieve equity-like returns for some strategies

US core/core+ fund portfolio positioning

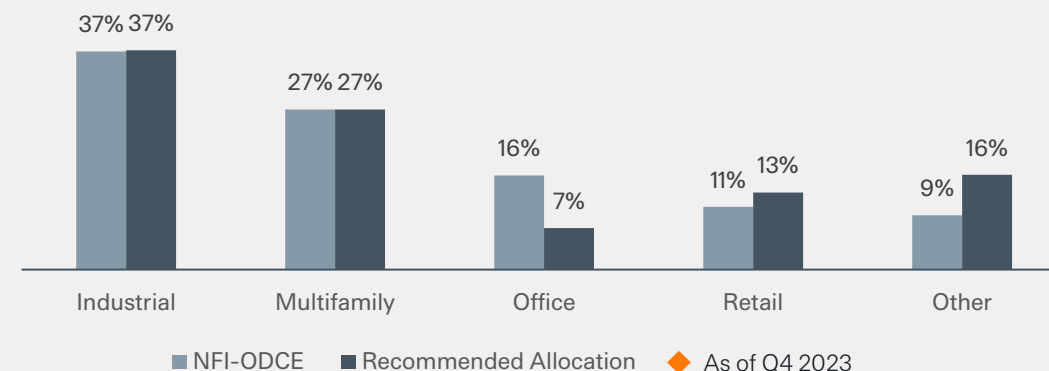
Considerations

- Asset/fund selection will drive performance
- Growth outlook better in primary and larger secondary markets
- Fund NAVs overvalued, so exit queues persist and return outlook is dampened. GP/Valuers' unwillingness to reduce marks of concern
- Non-ODCE funds better priced, offering more attractive entry basis
- Secondary market NAV discounts offered by sellers have fallen due to perceived market bottoming, widening the bid-ask spread
- Returns based on initial investment at NFI-ODCE NAV. SRE has temporarily removed office projections due to lack of visibility
- NCREIF changed ODCE property type categories in April, 2024 (see appendix). Changes will be reflected in published data in 2025, so SRE has not been able to recategorize for this report

Five-year core fund net return projections by type



Recommended property type Tilts vs. NFI-ODCE



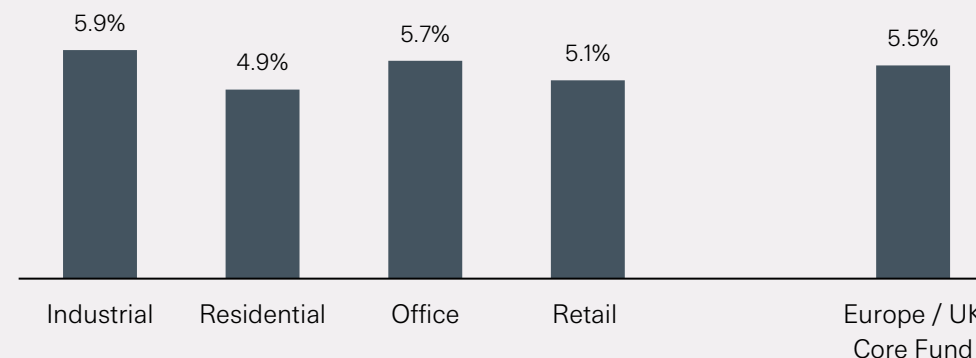
Sources: StepStone Real Estate calculations, NCREIF, September 2024. Prospective five-year buy-and-hold return for a representative Grade-A/Core asset reflecting a market average level of return. Leverage is applied at the current level of the NFI-ODCE at a 27% LTV using StepStone Real Estate estimates for debt finance costs. NCREIF ODCE weightings are the value-weighted share of net real estate assets as of Q2 2024. Other property includes hospitality, healthcare, self-storage, senior housing. The opinions expressed herein reflect the current opinions of StepStone as of the date appearing in this material only. There can be no assurance that views and opinions expressed in this document will come to pass. For illustrative purposes only. Target returns are hypothetical and are neither guarantees nor predictions or projections of future performance. Future performance indications and financial market scenarios are no guarantee of current or future performance. There can be no assurance that such target IRRs will be achieved or that the investment will be able to implement its investment strategy, achieve its investment objectives or avoid substantial losses. Further information regarding target IRR calculations is available upon request.

Europe core/core+ fund portfolio positioning

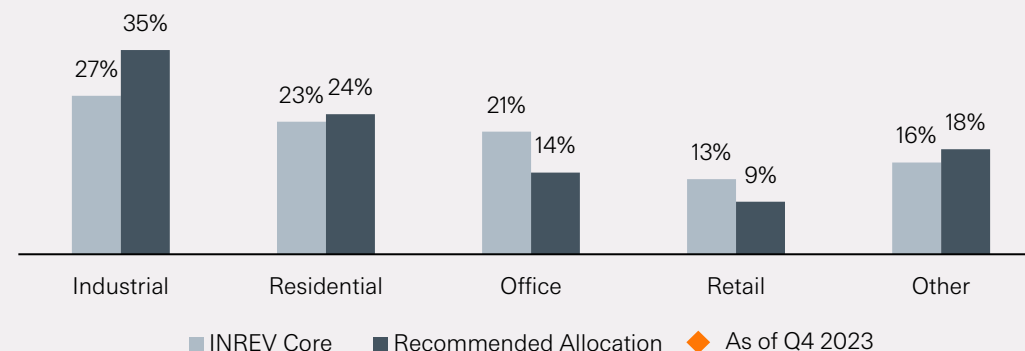
Considerations

- Asset/fund selection will drive performance
- Industrial and residential are appealing however residential is challenged by new rent regulations
- Spread of fund level NAV to property pricing has declined
- Secondary volumes rising while redemption queues are declining, LPs willing to seek liquidity more aggressively after long periods of GPs not being able to grant redemptions
- Returns based on initial investment at NAV. SRE focuses on the larger INREV Core, which includes country specific funds; INREV ODCE is only pan-European funds

Five-year core fund net return projections by type¹



Recommended property type Tilts vs. INREV Core



Past performance is not indicative of future results and there can be no assurance that the investment will achieve comparable results or avoid substantial losses. Sources: StepStone Real Estate calculations, INREV, September 2024. Prospective five-year buy-and-hold return for a representative Grade-A/Core asset reflecting a market average level of return. Leverage is applied at the current level of the INREV-ODCE at a 25% LTV using StepStone Real Estate estimates for debt finance costs. INREV Core weightings are based on INREV Core Index as of Q2 2024. Other property includes hotel, leisure, parking and agricultural, etc. The opinions expressed herein reflect the current opinions of StepStone as of the date appearing in this material only. There can be no assurance that views and opinions expressed in this document will come to pass. For illustrative purposes only. Target returns are hypothetical and are neither guarantees nor predictions or projections of future performance. Future performance indications and financial market scenarios are no guarantee of current or future performance. There can be no assurance that such target IRRs will be achieved or that the investment will be able to implement its investment strategy, achieve its investment objectives or avoid substantial losses. Further information regarding target IRR calculations is available upon request. 1. StepStone updated European return forecast methodologies in Fall 2024 HV, therefore removing projected return comparison against last HV edition.

Preferred market/property type strategies

Property type	Trends	North America	Europe	Asia-Pacific
Office	Cyclical and secular changes reduce demand	Best quality properties. Severely limited debt and liquidity can create entry opportunity	High quality assets or assets that can be refurbished to modern ESG-relevant space in primary locations only	Well-located, under-managed assets in greater Tokyo, Osaka, and Seoul
Industrial & logistics	Secular changes (ecommerce, onshoring) lift demand; offset by cyclic slowing	Attractive longer-term fundamentals. Possibly better pricing due to stressed situations	Last mile and assets close to transportation hubs connecting key markets with sustainability credentials	Prime locations in Japan, Australia, and select submarkets in greater Seoul
Retail	Historically low new supply means rent growth in strong markets. Cyclic risk	Suburban grocery-anchored, strip and necessity-based retail. Focus on centers with strong in-line tenant demand and mark-to-market potential	Necessity-based retail across the region and prime retail in touristic destinations	Necessity-based retail across the region and prime retail in Tokyo
Multifamily	Secular affordable housing shortage and high mortgage rates, cyclic weakness	Caution around Sunbelt, with new supply still causing softness. Coastal high-barrier markets recovering	Select supply constrained major cities, affordable housing and schemes not impacted by rental regulation	Major markets in Japan and greater Seoul
Hospitality	Steady leisure/group travel at upper end, US outbound, weak demand for economy	Loan funding gaps create entry opportunities. Strong barriers to new supply in long-term	Affordable and luxury, in key city or vacation locations that can leverage business and leisure demand	Record high inbound tourism in Japan reinforces opportunity
Life sciences / R&D	Venture investment normalized post-pandemic	Weak fundamentals in wake of significant new supply and sharp slowdown (normalizing) of demand	Purpose-built developments, often as part of R&D Parks and in proximity to anchor-institutions	R&D labs and medical offices in Australia
Data centers	High growth in data use and storage; boosted by AI, ltd power caps supply	Development of hyperscaler BTS facilities; targeted edge facilities	Structured solutions for hyperscale development	Structural growth in demand across APAC, particularly in Japan and South Korea
Self-storage	Supply impacts fundamentals in U.S.; nascent sector elsewhere	Improving appeal as operations stabilize; occupancies holding and moderating downward pressure on rents	Nascent and fragmented. Focus on major cities and on businesses with experienced management	Supply constrained locations across the region; focus on Japan and Australia
Cold storage	Secular changes (ecommerce etc) offsetting cyclical slowing	Persistent supply-demand imbalance continues to boost operating fundamentals. High quality assets in critical locations for tenants create sticky customer base		
Senior housing	Secular support from aging global population; margin challenges post COVID	Stabilized or near-stabilized newer vintage assets in top MSAs at repriced higher yields. Lease-up of new construction assets	Limited liquidity of core institutional buyers creates opportunity for attractive pricing on high quality assets in the UK and Continental Europe	Nascent across the region despite supportive demographic trends
Student housing	Enrollment growth at major universities; underinvestment post COVID	Target universities with growing enrolments and limited new supply. Pre-leasing velocity off prior year levels but still above historical averages	Focus on major markets that also lack broader residential supply	Despite recent cap on international students, Australia benefitting from return of Chinese students and tight supply. Select opportunities in Japan
Other rental housing	Cheap alternative amid affordable housing shortage, less homebuying	Manufactured housing: limited supply, strong demand. SFR more viable than home ownership due to mortgage rates but expensive	SFR emerging in UK, Denmark and Spain	Underserved

Overweight Neutral Underweight

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STEPSTONE GROUP

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Private debt: better terms, less competition, higher returns

Landscape increasingly favors private lenders

- **Market remains tight** with bank lending likely depressed for some time. Other lenders active in desirable segments. Mortgage Bankers Association projects a 29% lift in loan volume for 2024 vs. 2023 in US. Wider spreads are holding; very slight decrease at investment grade level over past 6 months
- **Short rates coming down; yield curve correcting, still inverted.** Long-term rates expected to remain higher than recent years; they are near long-term averages
- **Better structures, more attractive returns available:** Alternative lenders can originate at lower LTVs than CMBS, with better structure and covenants, to better sponsors and high-quality assets, still meeting their overall return targets. Transitional lending strategies can offer equity like returns at lower risk

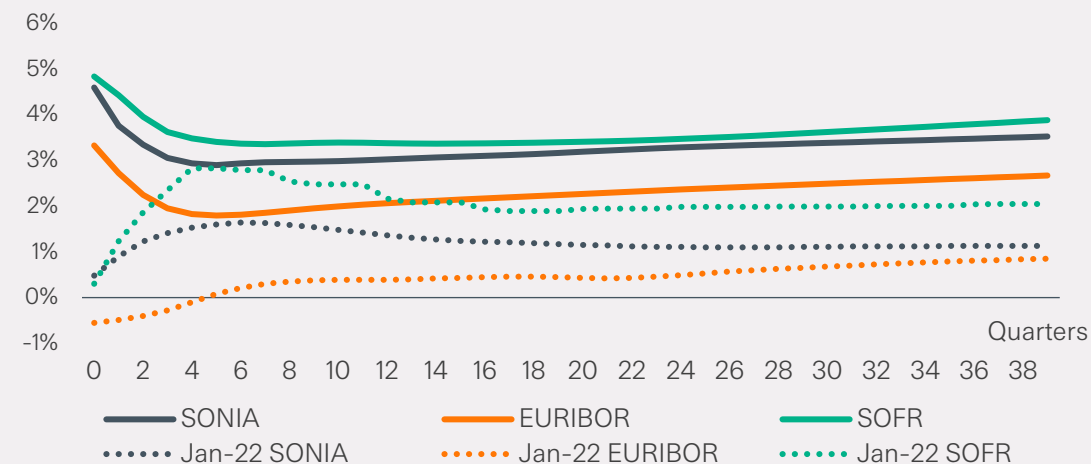
All-in lending spreads over base rate by loan type

As of September 2024



Three-month forward curves

Q3 2024 vs. Q1 2022



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Source: PGIM (Nov-23), AIG, StepStone Real Estate analysis (October 2024), Source: Chatham financials as of September 2024.

Private debt: preferred strategies

Loan type	Features	US	Europe
Senior loans / investment grade	<ul style="list-style-type: none"> - Senior commercial real estate mortgages on high-quality stabilized properties - Max 60% LTV - European lenders incur low solvency capital charges 	<ul style="list-style-type: none"> - Pricing and terms favor life company and certain unlevered debt fund originators - Bank liquidity remains severely constrained - Refers mainly to lower LTV, fixed rate product so the impact of higher base rates and an inverted yield curve not as onerous, but locking in now for longer duration still considered costly 	<ul style="list-style-type: none"> - Banks are re-entering the market in the core sectors and assets with spreads starting to tighten - These generally back well-capitalized assets where sponsors have been able to de-lever the position when needed - Banks are reducing direct lending but continue to also lend to alternative lenders, leaving them and insurance companies with more share
Whole loans / stretch senior	<ul style="list-style-type: none"> - Whole loans on core-plus and light value-add properties - Max 65-70% LTV 	<ul style="list-style-type: none"> - Life companies, REITs, and core-plus debt funds with stable balance sheets but less available capital in face of looming maturities. Acquisition financing and refinance markets up slightly. Office loan problems persist - 2024 agency quotas total \$140B, down from \$170B in 2020, with LTVs down 5-10%;. 50% of agency purchases must support affordable housing 	<ul style="list-style-type: none"> - Whole loans currently generate slightly tighter high single-digit returns coupled with first-lien security, on LTVs that are 10-15% lower than 1H22 and based on new valuations - Equity investors are returning to market following capital value adjustments. This is expected to stimulate transactions and therefore more acquisition funding (which is preferred by lenders over refinancing)
Levered whole loan / high yield / mezzanine	<ul style="list-style-type: none"> - Floating rate whole loans on transitional properties with financial leverage or retention of high yield subordinate/mezzanine positions - Typical whole loan is 65% LTC advance rate and 75% stabilized LTV 	<ul style="list-style-type: none"> - Double digit yields on 2-2.5/1 levered transitional loans and high-quality mezzanine debt at 50%-70% LTC - Mezzanine spreads ~700 bps on stabilized and 900+ bps on deeper transitional business plans - New warehouse/facility finance available and competitive, but regional bank leverage very limited. CLO executions selectively available but not as accretive as in past years; issuance down materially in 2024 	<ul style="list-style-type: none"> - As in US, loan-on-loan financing is available to lever quality transitional loans, enhancing whole loan returns to double digits - Multi-strategy lenders can also achieve target returns by providing mezzanine or subordinated tranches to cover any funding gap - Elevated execution risk as lenders have limited appetite to take syndication risk on the senior and therefore require simultaneous close
Development financing	<ul style="list-style-type: none"> - Lending to a narrower range of property types including multifamily, other living sectors, industrial, and health sciences - Max 80% LTC 	<ul style="list-style-type: none"> - Focus on industrial and multifamily, build to suit, and pre-leased credit; late cycle interest in storage, student, niche sectors - Partial recourse levels from traditional lenders are up sharply, also increasing use of mezzanine debt and preferred equity - Regional bank pullback creates private opportunity to lend and buy loans 	<ul style="list-style-type: none"> - Development activity is slowly returning; starting to see interesting selective opportunities - Alternative lenders are stepping into high quality projects in the right sectors, but capital provision is muted across most sectors
Special situations / opportunistic debt	<ul style="list-style-type: none"> - Recapitalizations - Sub-performing Loans (SPLs) 	<ul style="list-style-type: none"> - Opportunities for recaps and select placements (i.e., loan acquisitions, recap funding including of DPOs); strong relationships benefit - Regulators' bank problems will require a private markets solution. To date, few significant portfolio sales, but single and small portfolios trading - NPL investing aimed at equity ownership 	<ul style="list-style-type: none"> - Continued focus on refinancing driven by the 'funding gap'; however, this has not yet widely resulted in distressed borrowers or lenders - Some financial institutions are overexposed to CRE loans, but this does not seem to pose a systemic risk

■ Overweight
 ■ Neutral
 ■ Underweight

Source: StepStone Analysis, March 2024. The opinions expressed herein reflect the current opinions of StepStone Real Estate as of the date appearing in this material only. There can be no assurance that views and opinions expressed in this document will come to pass. No representation or warranty is made as to the returns which may be experienced by investors.



Macro setting

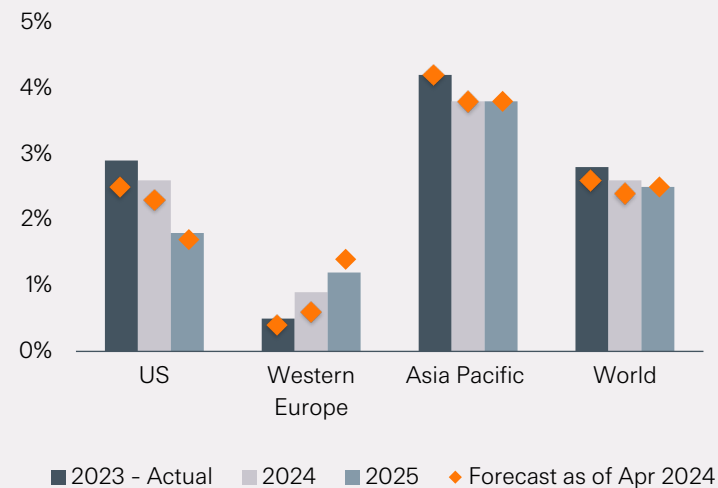
Themes impacting real estate performance

Changing space use	Cultural and technology-driven changes in the way people use space are having a profound effect on the built environment, affecting space configuration and location preferences. This includes behavioral changes in how people live, work and shop
Changing debt market	Debt has been catalyst for real estate market repricing . While short-term borrowing costs are coming down, debt is still more expensive with higher rates, spreads and hedging costs vs. 2022. New loans have lower proceeds, requiring 'cash in' refis. Lenders are returning to the market, but remain constrained by workouts and lack of repayments. Longer term, non-bank lenders gaining share
Monetary policy	Policy shifted to easing, which is boosting sentiment and bank liquidity. However, higher for longer remains the interest rate prognosis in the US, UK, Europe and Australia. Lending standards are still relatively tight, although moving in the right direction
Environment: sustainability	Increasing carbon emissions regulation (particularly in Europe), energy costs, and tenant preferences driving strategy and asset selection . Growing ' green-to-brown ' spread may create opportunities around retrofit and electrification. Though historically minor, insurance costs are rising rapidly in the US; inability to get insurance in certain areas is a risk. Prevalence of natural disasters factors into asset choices and affects supply lines
Environment: geopolitics	Geopolitical risks now score as the leading concern of businesses in Oxford Economics survey. This includes key elections as well as conflicts in the Middle East and Ukraine

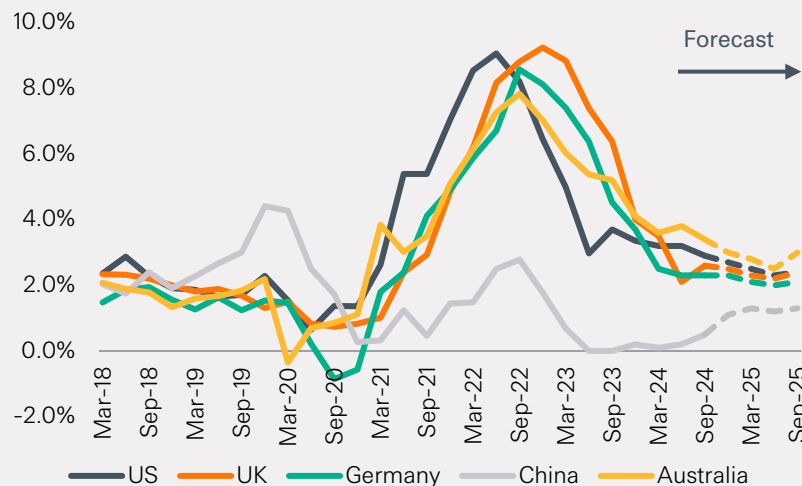
Growth slowing, inflation subsiding, central banks easing

- The base case for global growth is still soft landing, with growth moderating but not stalling
- In Europe, growth varies and remains vulnerable. UK improving, still slow. Germany (0% growth in 24) and France weak. Tourism boosting economies of southern Europe
- APAC leads global growth, trend well below pace for the region due to China slowing
- US and Europe have shifted from fighting inflation to supporting labor markets
- China struggling; gov't stimulus may help. BoJ shifted to minor tightening as solid wage growth supports consumption
- Outside of Japan, central banks expected to continue gradual pace of easing. While inflation is consistently moving toward target, rapid easing could re-ignite
- Despite falling short rates, multiple factors will keep upward pressure on long-term bond yields, including deglobalization (which boosts inflation) and elevated issuance of bonds in recent years
- Geopolitical risk is high, leaving uncertainty and potential volatility

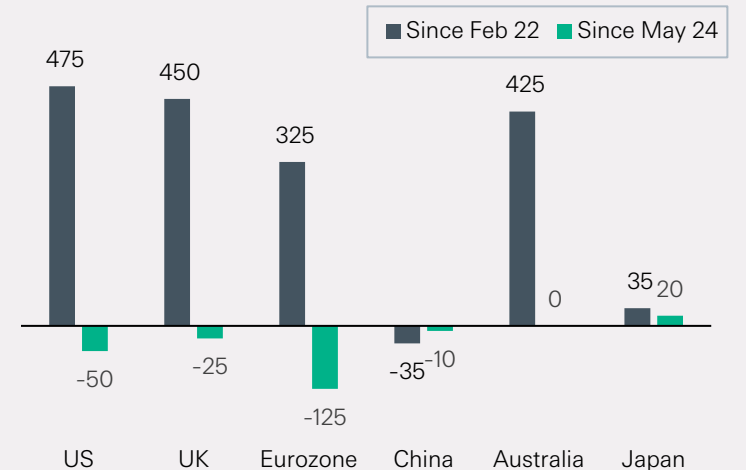
Real GDP annual growth outlook¹



Annual CPI inflation



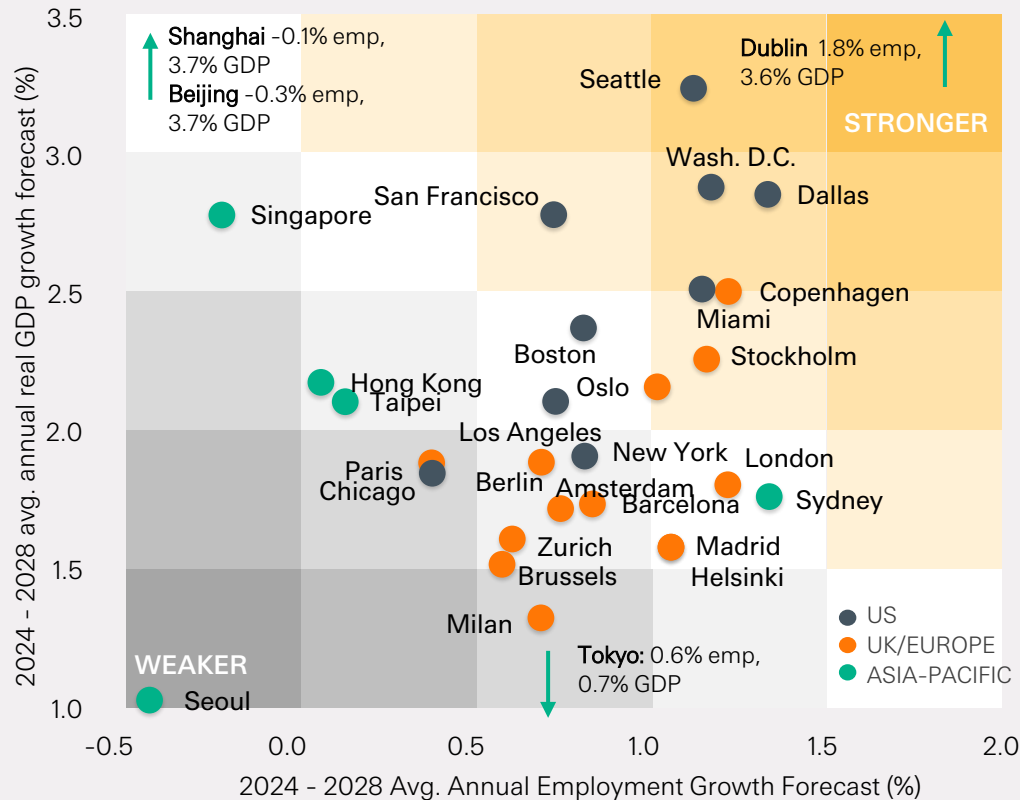
Change (bps) in central bank policy rates



Sources: Consensus Economics. OECD, Chatham Financials, Consumer Price Index All Items and Federal Funds Effective Rate, retrieved from FRED, Federal Reserve Bank of St. Louis, October 2024.

City-level economic drivers of real estate demand

Employment and GDP growth prospects, key cities by region



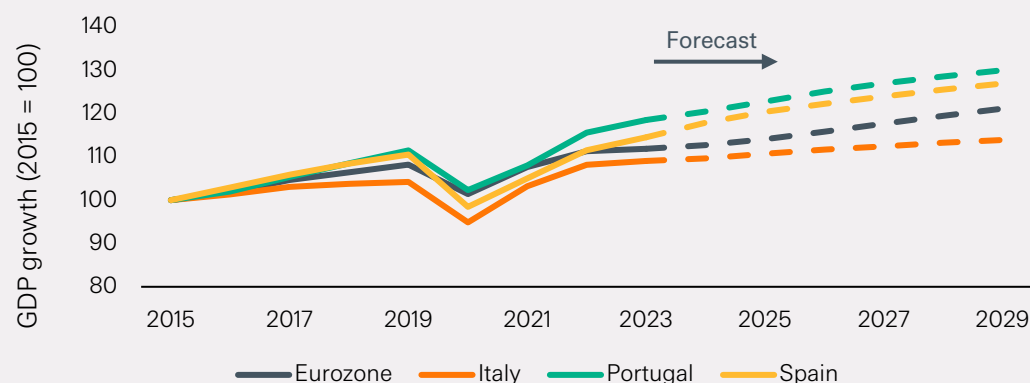
Top 10 cities by job growth	5Y avg. job forecast	5Y avg. GDP forecast
Dublin	1.8%	3.6%
Sydney	1.3%	1.8%
Dallas	1.3%	2.9%
Copenhagen	1.2%	2.5%
London	1.2%	1.8%
Wash. D.C.	1.2%	2.9%
Stockholm	1.2%	2.3%
Miami	1.2%	2.5%
Seattle	1.1%	3.3%
Madrid	1.1%	1.6%

- GDP outlook improving for many top cities, although job growth prospects remain muted
- Dallas, Seattle and Wash. D.C. rank among top 10 global markets for job growth with higher numbers than 6 months ago
- Europe includes 6 of the top 10 expected global job growth leaders. Dublin, Copenhagen and Stockholm have Europe's best outlooks for job and GDP growth
- While slowing, reported GDP growth in China's major cities still tops global charts, albeit with minimal job growth. Sydney had dropped to second place for job growth with no other Asian cities in the top 10

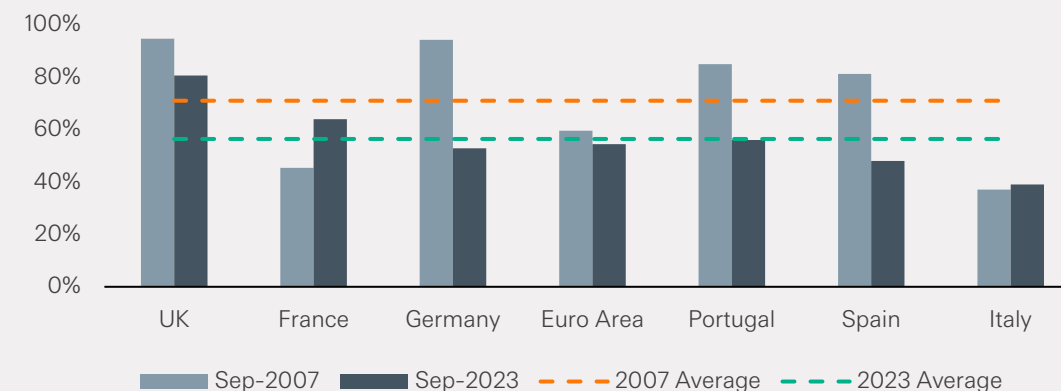
Regional spotlight - Southern Europe

Multiple factors are boosting the region's investment appeal including relatively solid economic growth, lower household debt (much reduced vs post GFC period), and higher projected core real estate returns than other major European economies, amid growing volume

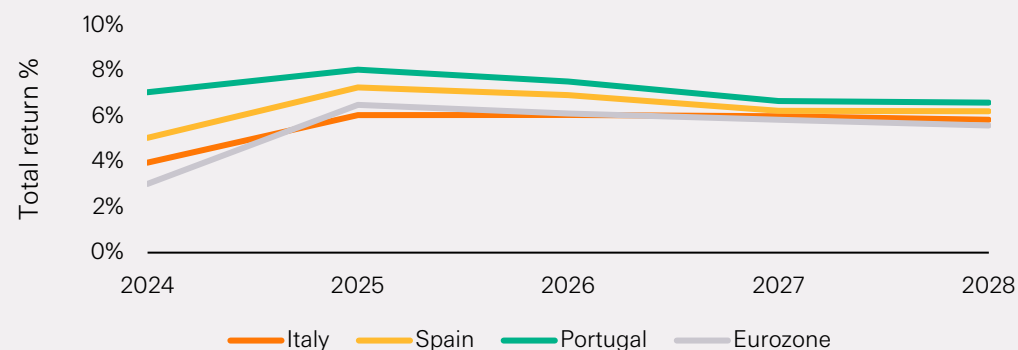
GDP Growth by Country



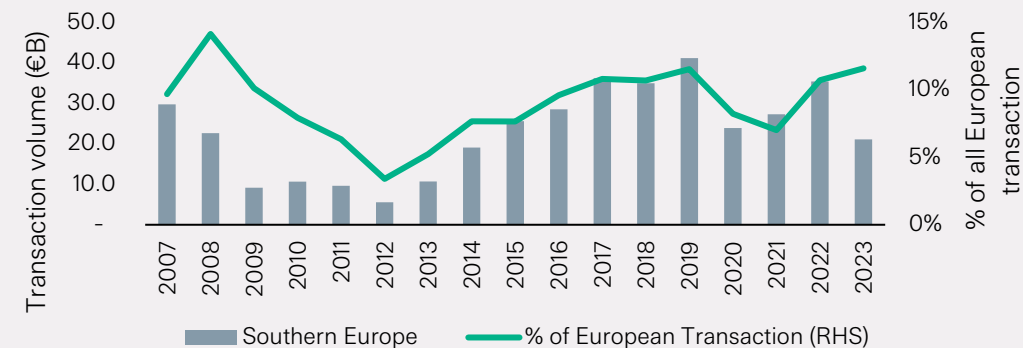
Household Debt as a % of GDP²



Projected Core Total Return by Country³



Comparison of Transaction Activity in Europe⁴



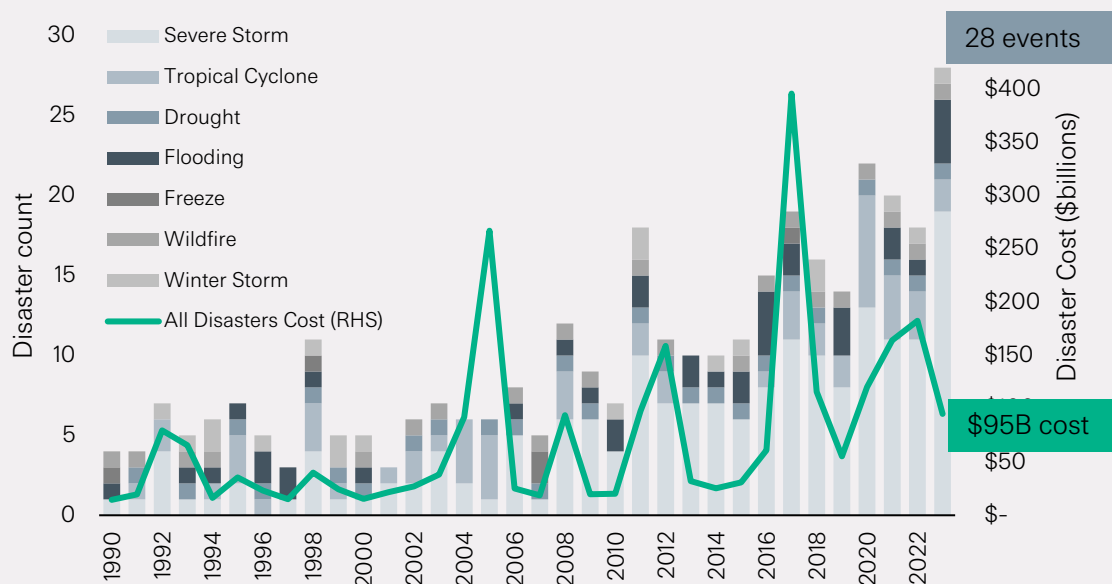
Sources: 1. Oxford Economics, October 2024. 2. Trading Economics, as of September 2023. 3. Oxford Economics, October 2024. 4. Southern Europe activity sourced from MSCI RCA, October 2024. Southern European countries include Greece, Italy, Portugal, Spain, Malta and Cyprus.

Climate risk is fueling rapid expense growth

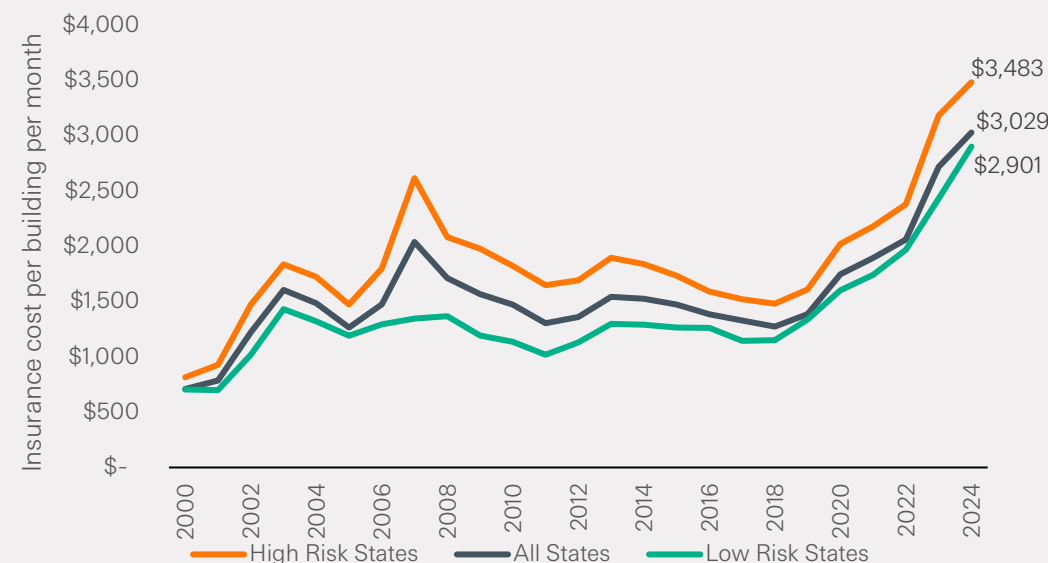
Insurance and recovery costs are way up, with some insurers exiting high risk markets

- In 2023, there were 28 extreme weather events costing >\$1B that totaled \$95 billion in recovery costs. This represents a 10-year CAGR around 11%. Costs will surge in 2024 with 2 recent catastrophic hurricanes not included in this data
- RE exposure to climate risk is poised to increase, with population growth concentrated in metros facing the highest risk of natural disasters
- Extreme weather is driving insurance costs for commercial real estate higher, doubling over the past decade
- Costs have increased the most in higher risk states – among them CA, FL and TX. According to Deloitte Center for Financial Services, high risk premiums could be 24% above the national average by 2030¹

US disaster events costing >\$1B, 1980 – 2023 (CPI-adjusted)



Insurance cost by risk group



Source: National Oceanic and Atmospheric Administration, Federal Emergency Management Agency, NCREIF, September 2024.

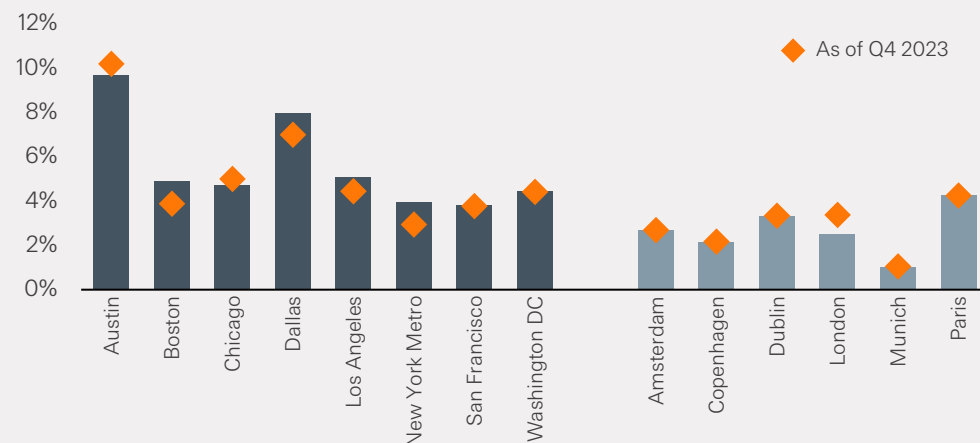
1. Climate change impacts elevate US commercial real estate insurance costs, Deloitte Center for Financial Services, May 2024.

A low-angle, upward-looking photograph of a modern building's glass facade. The image shows a complex network of dark metal frames holding large glass panels. The perspective creates strong diagonal lines that converge towards the top of the frame. The sky is visible through the glass, appearing as a pale blue. A semi-transparent dark grey rectangular box covers the upper right portion of the image, serving as a background for the title text. A solid light green horizontal bar is positioned below the dark grey box.

Property type outlooks

Multifamily

Vacancy rates¹



Key market trends

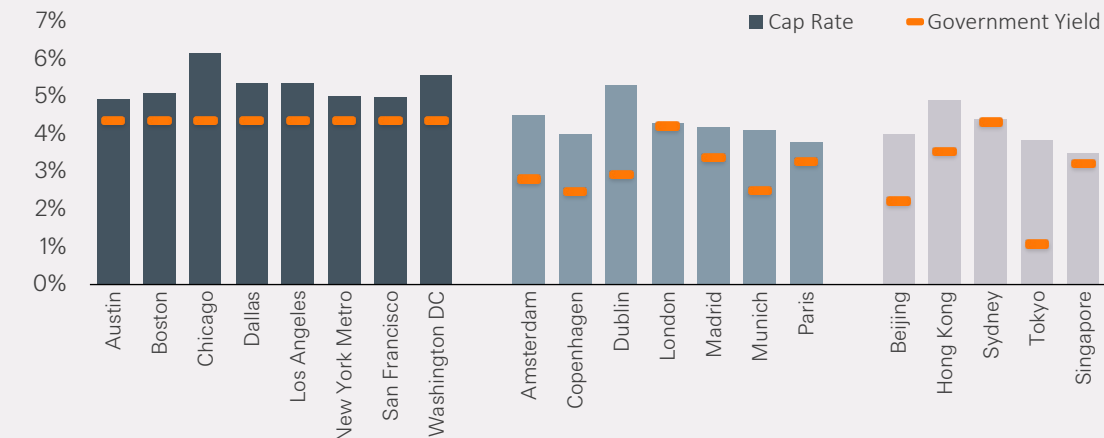
Stable operating conditions. Rent regulation increasingly prevalent and an ongoing risk, presently greatest in parts of Europe

- **US:** Good source of beta. Solid long-run fundamentals. Rents now weak, especially in Sunbelt; effective rents falling in supply-heavy submarkets. Declining construction pipeline boosts longer term outlook. Expense growth trimming margins. Many over-levered and peak buyers under stress. True distress remains very limited. Debt and equity financing are available. Workforce and affordable more resilient, with better debt availability vs new, luxury/Class A
- **Europe:** Operating fundamentals strong. Housing shortages and affordability challenges exacerbated by material drop in construction starts. Political /regulatory risk remains relatively difficult to navigate. Yields have settled, investment volumes higher than 2023 although below LT average
- **Asia-Pacific:** Mature multifamily markets in Japan, such as Tokyo and Osaka, benefitting from urbanization and limited supply. Increasing adoption of a regular monthly rental structure creates more opportunities in greater Seoul. Uncertain economic outlook in mainland China and Hong Kong continues to negatively impact sentiment there

1. Sourced from Green Street as of Q2 2024.

2. Sourced from Green Street, MSCI RCA, CapIQ, Oxford Economics as of Q2 2024. European residential cap rates from Catella European residential market overview Q1 2024. Asia cap rates from MSCI RCA and DWS.

Grade-A cap rates & 10yr govt yields²



Sector house views

Distress entry changes appeal

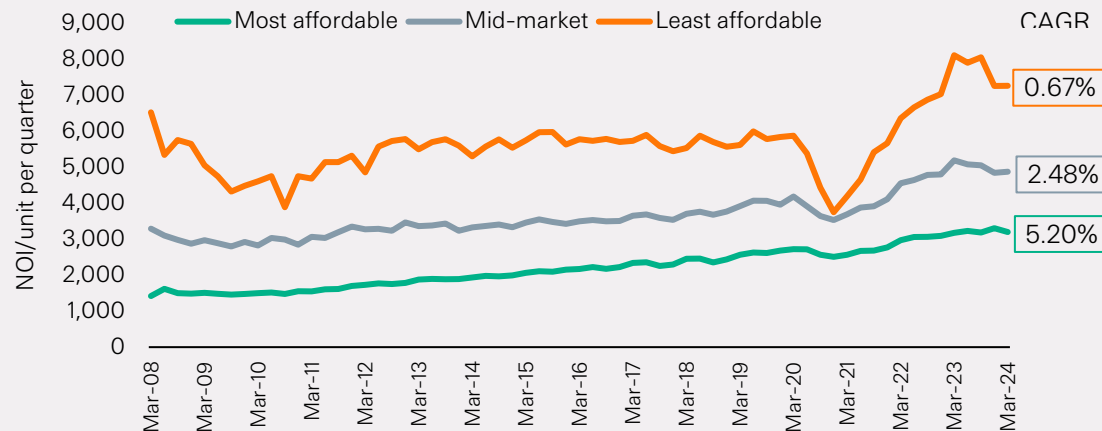
	North America	Europe	Asia-Pacific
Winners	<ul style="list-style-type: none"> - Supply constrained coastal and urban markets - Class B where there is now a healthy discount vs. Class A 	<ul style="list-style-type: none"> - Select assets in Copenhagen, London, Berlin, Stockholm and Madrid - SFR in UK while housebuilders' volumes remain subdued 	<ul style="list-style-type: none"> - Mature markets in Japan
Losers	<ul style="list-style-type: none"> - Highly-levered, fully-priced transitional business plans requiring outsized rent growth - Certain sunbelt markets with historic levels of new supply in next ~2 years 	<ul style="list-style-type: none"> - Over-levered listed PropCos - Dublin due to uncertain regulatory environment 	<ul style="list-style-type: none"> - Mainland China and Hong Kong due to uncertain economic recovery
Distress Potential	- Above average	- Above average	- Below average

Affordable housing offers solid returns

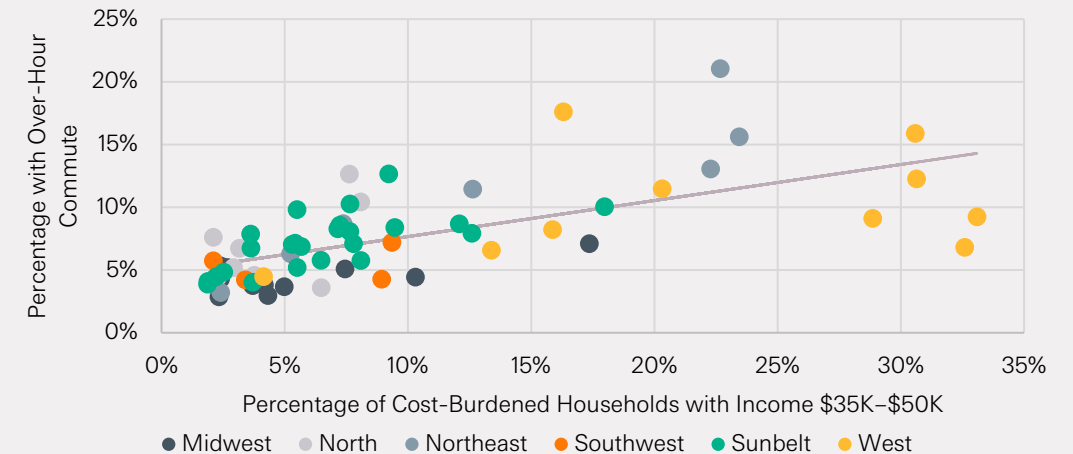
Investors gain exposure to the residential sector, and less emphasis on raising rents reduces headline risk

- A recent study showed that the most affordable properties outperformed the least affordable by >400 bps per year of NOI CAGR since 2008
- In addition to delivering better income growth, lower volatility bolsters investment returns from mid-market and most affordable housing categories versus the least affordable category, which tends to be Class A, new/newer properties
- Affordable housing supports ESG initiatives. A shortage of >7 million affordable units leaves many cost burdened and/or in low quality housing
- The shortage near employment centers is driving households further from the urban core in search of lower cost alternatives or to cheaper cities
- This fuels urban sprawl and has environmental impact; transportation generates over 20% of global greenhouse gas emissions

NOI growth by housing affordability group¹







Long commute vs. cost-burdened households²



1. MacKinnon, Greg. 'Can Investors Afford to Ignore Affordability? The Investment Characteristics of Affordable Housing.' PREA Quarterly, Pension Real Estate Association, Summer 2024.

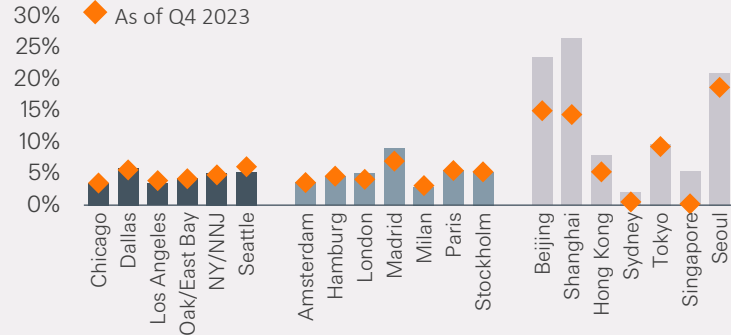
2. Urban Land Institute. Home Attainability Index: 2024 Release. Washington, DC: Urban Land Institute, 2024.

Other rental housing sectors

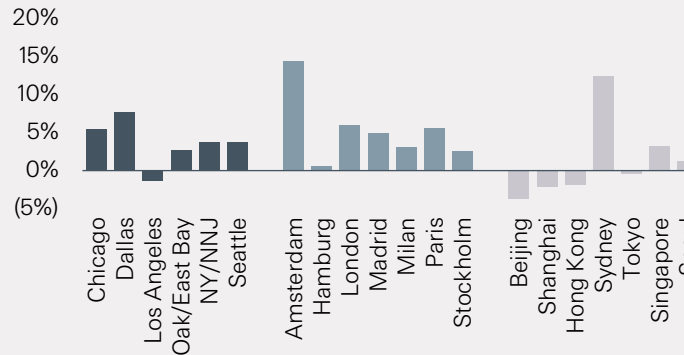
Sector	Commentary	Distress potential
Manufactured housing 	<ul style="list-style-type: none"> - Operating fundamentals strong due to affordability, limited supply and development pipelines. Demand bolstered by rising housing costs and increased government support to improve access - Capital markets comparatively strong with both investor and lender demand for well-located, high-quality product 	Low
Single family rental 	<ul style="list-style-type: none"> - Rise in mortgage rates is keeping likely buyers in rental market and limiting supply by reducing existing home sales (due to mortgage lock-in effect). Both factors support operating fundamentals - Retail home values buoyed by supply-demand imbalance leaving the sector expensive on an income basis - Perpetual housing shortage supports long-term sector outlook, construction will continue through this market dislocation 	Average
Senior housing 	<p>US: Recovery in operating fundamentals ongoing. Rising occupancy (approaching pre-COVID levels) and far above-inflationary rent growth has continued for last ~24 months. NOI margins remain below pre-COVID levels due to OPEX pressures. Assets have repriced well below peak pricing, presenting attractive entry points for the sector in general. Older assets have obsolescence risk</p> <ul style="list-style-type: none"> - Lack of debt financing for necessary improvements has led to significant repricing and opportunity - Overall, attractive mid-term sector outlook <p>Europe: Post-COVID recovery slower than expected and still ongoing. Needs-based, rather than discretionary, is less cyclic and more attractive in weakening economy</p> <ul style="list-style-type: none"> - UK supply and demand imbalance persists, with the sector receiving funding from public sources - Falling prices increase investment opportunity in continental Europe, especially with core buyers largely offline; local funding systems and lease standards crucial to assessing relative value between markets 	Average
Student housing 	<ul style="list-style-type: none"> - US: Strong fundamentals due to limited deliveries and development pipeline. Pre-leasing cycle disruption due to Federal aid application system failure, which resulted in a 9% decline in financial aid awards - Europe: Continued undersupply that will last; increasing financing and construction costs limit new development. Prices down across Continental Europe, except Nordics. Milan a major focus for pan-European educational ventures - Australia and Japan: In Australia, international student demand and undersupply drive rental growth. The 2025 international student cap is expected to have a limited impact. Japan relies more heavily on domestic students due to undersupply 	Average

Industrial

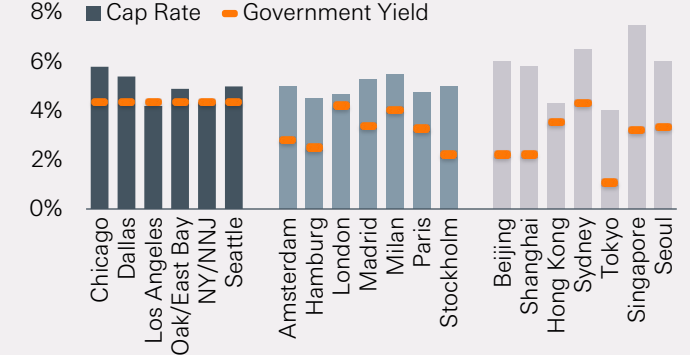
Vacancy rates¹



YoY rental rate growth²



Grade-A cap rates & 10yr govt yields³



Key market trends

Overall fundamentals are softening in most markets but medium and long-term outlook is strong

- **US:** Cyclic slowing of rents, which are down in supply-heavy markets such as Inland Empire, expected to return to moderate pre-COVID rent growth as supply is absorbed. Sizable NOI growth continues as below market leases roll up after ~40% rent growth 2021/22. Few large transactions >\$150M; smaller sales remain competitive. Buyers prefer short lease term with below market rents and high-quality infill assets. Cost of debt and replacement costs driving pricing
- **Europe:** Low supply supports rental growth in prime regions, although weaker demand offsets its momentum. Investor sentiment is improving, with transaction volume up, specifically in Q2 2024, focusing on smaller assets and portfolios <€300m. Continued interest in assets with strong sustainability credentials
- **Asia-Pacific:** Uneven distribution of supply creates opportunities in prime locations and undersupplied submarkets. Japan remains attractive due to the positive yield spreads, despite supply pushing up vacancy in some submarkets. Low vacancy persists across Australia, but rental growth has flattened. Vacancy high in greater Seoul due to oversupply. Weak sentiment in mainland China amid economic uncertainty

Sector house views

	North America	Europe	Asia-Pacific
Winners	<ul style="list-style-type: none"> - Absence of core buyers creates access to quality product - Submarkets proximate to large semiconductor, EV, and battery manufacturing - Border-cities benefitting from Mexico's near-shoring growth - Assets with power capacity 	<ul style="list-style-type: none"> - Urban warehouses/infill logistics - Well-located assets with high sustainability credentials (energy efficiency, lower carbon footprint) 	<ul style="list-style-type: none"> - Well-located assets in under-supplied submarkets in Japan - Infill locations in Australia
Losers	<ul style="list-style-type: none"> - Submarkets with pockets of over-supply in 2024 and 1H25 - Assets >500k SF; uncertainty delays large corporate decisions - Markets with labor disputes and supply chain disruptions 	<ul style="list-style-type: none"> - Dated, underinvested assets with sub-standard ESG specifications - Assets with no reversionary potential or poor-quality tenants - Big-box units and speculative developments 	<ul style="list-style-type: none"> - Mainland China and Hong Kong - Oversupplied submarkets in South Korea
Distress Potential	- Average	- Low	- Low

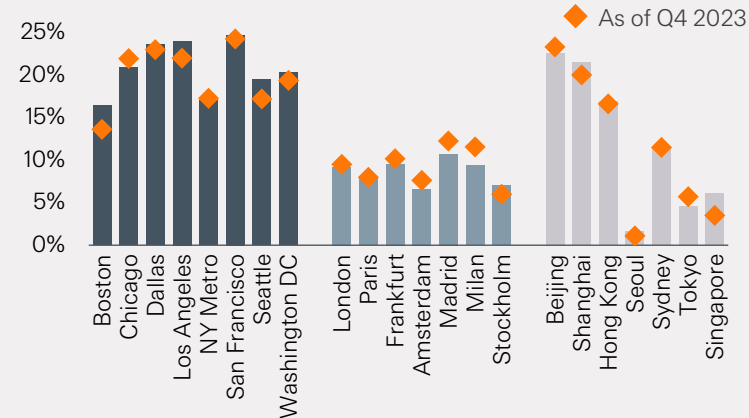
1. Sourced from Green Street, CBRE as of Q2 2024.

2. Sourced from CoStar, Cushman & Wakefield, and CBRE as of Q2 2024.

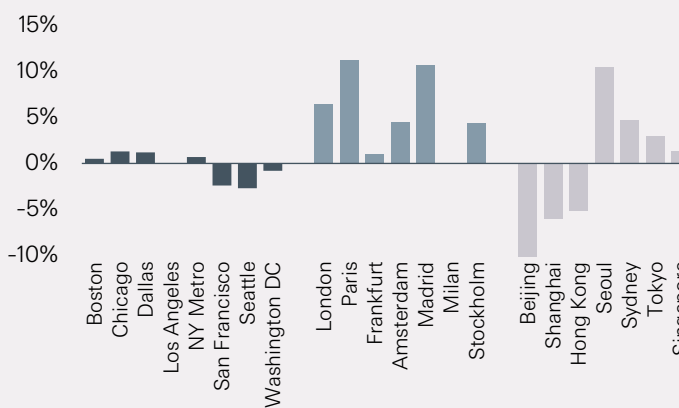
3. Sourced from Green Street, Cushman and Wakefield and CapIQ as of Q2 2024. Asia cap rate is sourced from CBRE as of Q1 2024. Note that EU cap rate source is switched from Green Street to Cushman and Wakefield to capture prime yields instead.

Office

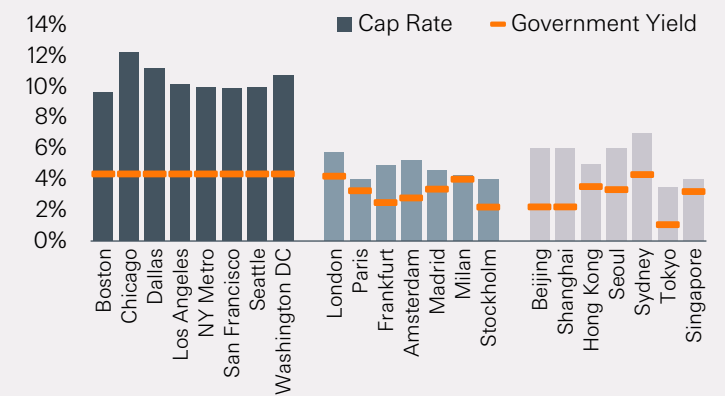
Vacancy rates¹



YoY rental rate growth²



Grade-A cap rates & 10yr govt yields³



Key market trends

Challenged sector with widening gap between winners and losers

- **US:** Relative operational outperformance continues in trophy buildings while others struggle. Capital markets challenged for all office assets; some refinancing for strong assets. Muted transaction volume from largely non-institutional capital seeking low prices (capex a risk)
- **Europe:** Rental growth in prime locations; softer in secondary areas. Elevated operating and build-out costs make relocation decisions difficult for tenants, who are still uncertain of space requirements. Low liquidity, high bid-ask gap, with some transactions starting to occur but it is slow. Occupier focus on ESG credentials due to net zero targets and on well-being (flexible space, outside areas, better air quality and light) create upgrade potential
- **Asia-Pacific:** In Japan, increasing corporate asset sales create value-add opportunities in under-managed assets. Australia office struggling due to hybrid working. Mainland China and Hong Kong continue to perform poorly, facing high vacancy and negative rent growth. In South Korea, low vacancy and strong rental growth continue in the core Seoul office markets

1. Sourced from CoStar, Green Street, CBRE as of Q2 2024. The Pacific markets data is as of Q2 2023.

2. Sourced from CoStar, Cushman & Wakefield, and CBRE as of Q2 2024.

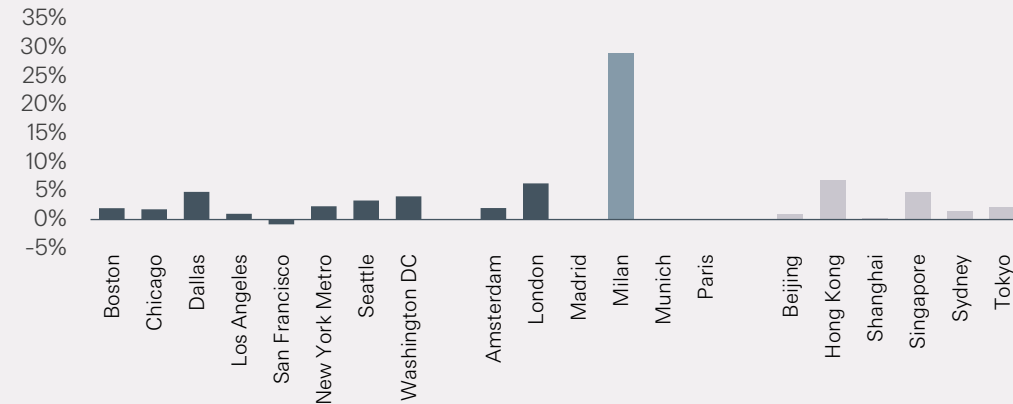
3. Sourced from Green Street and Cushman & Wakefield as of Q2 2024. European data sourced is changed to Cushman & Wakefield to reflect prime yields only. Asia cap rate is sourced from CBRE as of Q1 2024.

Sector house views

	North America	Europe	Asia-Pacific
Winners	<ul style="list-style-type: none"> - New, trophy space, which is outperforming operationally - Medical office (could serve to fill office exposure requirements for investors) - Single-tenant, HQ or mission critical space 	<ul style="list-style-type: none"> - Repriced high-quality offices in prime locations and with strong ESG credentials 	<ul style="list-style-type: none"> - Prime locations in Seoul - Under-managed or grade B assets in Tokyo and Osaka
Losers	<ul style="list-style-type: none"> - Older, non-trophy office - Borrowers facing upcoming maturities and/or needing significant capital infusions 	<ul style="list-style-type: none"> - Borrowers with upcoming maturities - Secondary /tertiary offices in suburban locations - Assets in Paris affected by new PUI legislation 	<ul style="list-style-type: none"> - Non-prime office in Australia - Mainland China and Hong Kong
Distress Potential	<ul style="list-style-type: none"> - High, pricing still not yet appealing 	<ul style="list-style-type: none"> - High, less appealing 	<ul style="list-style-type: none"> - High, mostly not appealing

Retail

YoY rental rate growth¹



Key market trends

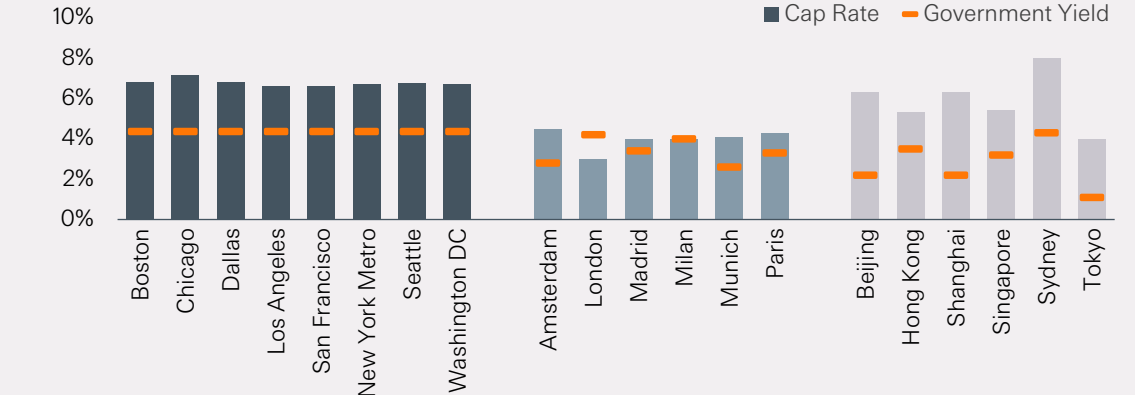
Attractive where repriced. Economic cycle impacts subtypes differently

- **US:** Positive operating fundamentals with historically low supply pipeline in the suburban grocery anchored and strip retail subsectors. Institutional investors now favor these for attractive current yield and mid-term growth prospects, post major repricing and elimination of weak sites and tenants. Tenant health and limited vacancy lifting rents
- **Europe:** Investors have started considering the asset class again, with YoY changes in investment volumes turning positive since April 2022. Footfall, sales and leasing activity are experiencing positive momentum. There are operationally sound shopping centers if grocery-led and/or proximate to transportation and tourist centers
- **Asia-Pacific:** Japan tourism boom benefits retail, specifically in luxury retail locations. Sentiment remains weak in mainland China and Hong Kong given China's poor economic outlook

1. Sourced from CoStar, Cushman & Wakefield, CBRE as of Q2 2024. London, Munich and Paris rental growth is flat.

2. Sourced from Green Street, MSCI RCA, CapIQ and Oxford Economics as of Q2 2024. Asia cap rate is sourced from CBRE as of Q1 2024. European market data reflects High Street retail.

Grade-A cap rates & 10yr govt yields²






Sector house views

Distress entry changes appeal

	North America	Europe	Asia-Pacific
Winners	<ul style="list-style-type: none"> - Well located grocery-anchored, strip and necessity-based retail with service-oriented tenancy in markets with limited availability - Flight to quality across all retail sub-types 	<ul style="list-style-type: none"> - Necessity based retail - Outlets / discount retail - Prime retail in strong demographic centers/tourist destinations with best-in class sales productivity 	<ul style="list-style-type: none"> - Luxury retail locations in Japan - Select necessity-based retail
Losers	<ul style="list-style-type: none"> - Large format centers (big box power centers) and enclosed shopping malls - Urban retail in commuter locations (less demand due to work from home) 	<ul style="list-style-type: none"> - Regional shopping centers - Fashion led department stores 	<ul style="list-style-type: none"> - Mainland China and Hong Kong
Distress Potential	<ul style="list-style-type: none"> - Low probability of appealing assets in distress 	<ul style="list-style-type: none"> - Low probability of appealing assets in distress 	<ul style="list-style-type: none"> - Low probability of appealing assets in distress

Alternative sectors

Sector	Commentary	Distress potential
Data centers 	<ul style="list-style-type: none"> - Integration of AI & Cloud technologies by businesses is driving exponential increase in data usage and tenant demand - Strong demand is driving increased build-to-suit lease yields and generating attractive development opportunities - \$250B+ of stabilized assets in core locations to be recapped in next 2-3 years as operators seek to recycle capital into new developments - Create strategic & structured solutions for high growth platforms with funding gaps for their development pipeline given capital intensity 	Low
Life sciences 	<ul style="list-style-type: none"> - Drop from peak venture and governmental research funding depressing tenant demand - Tenant demand focused on pre-built and small block space. Large block and "headquarters" space more challenged - Higher availability rates and development pipelines driving supply concerns in some markets. Geographic clusters driven by large pharmaceutical companies and major academic/healthcare institutions outperform - Capital markets demand has materially deteriorated for life sciences, particularly assets with meaningful leasing risk 	High, limited appeal
Medical office 	<ul style="list-style-type: none"> - Solid fundamentals with largely creditworthy tenants. Healthcare-driven, non-discretionary demand and lack of new speculative supply - Repricing modestly; Class A assets today are still liquid with senior financing available - Cyclically resilient; focus on quality tenants and locations to avoid deteriorating creditworthiness and corresponding increases in cap rates 	Low
Self storage 	<ul style="list-style-type: none"> - US fundamentals now stabilizing after significant new supply drove occupancies and rent growth downward - European institutionalization of the sector now underway, with a growing interest in smaller aggregation strategies if platform acquisitions not available. Pricing mismatch between prospective sellers and potential buyers in H1 2024 	Average
Hotel 	<ul style="list-style-type: none"> - Softening economic outlook and less robust, more price-sensitive consumers reflected in lower RevPAR forecasts. Leisure demand (including mixed business-leisure travel), the driver of the post-COVID recovery, is deteriorating in many markets - European hospitality has recovered faster than North America post-COVID because of strong US dollar driving leisure travel abroad - Strong rebound in Japanese tourism while Chinese tourism still below pre-pandemic levels - Year-over-year RevPAR growth continues but has slowed into the low single-digits with wide variability across markets - Relief from recent expense inflation (particularly in labor costs) may be an offsetting factor to projected softening in RevPAR growth, but operating margins are still expected to decline 	Above average



Appendix

NCREIF-ODCE revisions expand niche exposure

25% in other and now 25% in alternative subtypes allows 50% to niches. Unchanged: max 60% per property type, min 5% to 3 of 4 major property types, max 65% per geographic region, max 35% tier 1 leverage, min 75% stabilized (min 75% occupancy)

		Previous criteria			New criteria + Adds related alternative subtypes, up to 25% max
Min 75% in major property types	Apartment	<ul style="list-style-type: none"> Apartment Garden Apartment High-Rise Apartment Low-Rise 	➔	Residential	<ul style="list-style-type: none"> Apartment Garden Apartment High-Rise Apartment Low-Rise <ul style="list-style-type: none"> + Single-family Rental + Manufactured Housing + Student Housing
	Industrial	<ul style="list-style-type: none"> Manufacturing Flex Warehouse Specialized 		Industrial	<ul style="list-style-type: none"> Manufacturing Flex Warehouse Specialized <ul style="list-style-type: none"> + Industrial Life Science
	Office	<ul style="list-style-type: none"> CBD SBD Urban Suburban 		Office	<ul style="list-style-type: none"> CBD SBD Urban Suburban <ul style="list-style-type: none"> + Office Life Science + Medical Office
	Retail	<ul style="list-style-type: none"> Street Strip Mall 		Retail	<ul style="list-style-type: none"> Street Strip Mall
Max 25% in other	Other	<ul style="list-style-type: none"> Self Storage Senior Housing Hotel Land Data Center Entertainment Parking Other <ul style="list-style-type: none"> - Single-family Rental - Manufactured Housing - Student Housing - Industrial Life Science - Office Life Science - Medical Office 	➔	Max 25% in other (including related alt. subtypes)	<ul style="list-style-type: none"> Self Storage Senior Housing Hotel Land Data Center Entertainment Parking Other

RISKS AND OTHER CONSIDERATIONS

Risks Associated with Investments. Identifying attractive investment opportunities and the right underlying fund managers is difficult and involves a high degree of uncertainty. There is no assurance that the investments will be profitable and there is a substantial risk that losses and expenses will exceed income and gains.

Restrictions on Transfer and Withdrawal; Illiquidity of Interests; Interests Not Registered. The investment is highly illiquid and subject to transfer restrictions and should only be acquired by an investor able to commit its funds for a significant period of time and to bear the risk inherent in such investment, with no certainty of return. Interests in the investment have not been and will not be registered under the laws of any jurisdiction. Investment has not been recommended by any securities commission or regulatory authority. Furthermore, the aforementioned authorities have not confirmed the accuracy or determined the adequacy of this document.

Limited Diversification of Investments. The investment opportunity does not have fixed guidelines for diversification and may make a limited number of investments.

Reliance on Third Parties. StepStone will require, and rely upon, the services of a variety of third parties, including but not limited to attorneys, accountants, brokers, custodians, consultants and other agents and failure by any of these third parties to perform their duties could have a material adverse effect on the investment.

Reliance on Managers. The investment will be highly dependent on the capabilities of the managers.

Risk Associated with Portfolio Companies. The environment in which the investors directly or indirectly invests will sometimes involve a high degree of business and financial risk. StepStone generally will not seek control over the management of the portfolio companies in which investments are made, and the success of each investment generally will depend on the ability and success of the management of the portfolio company.

Uncertainty Due to Public Health Crisis. A public health crisis, such as the recent outbreak of the COVID-19 global pandemic, can have unpredictable and adverse impacts on global, national and local economies, which can, in turn, negatively impact StepStone and its investment performance. Disruptions to commercial activity (such as the imposition of quarantines or travel restrictions) or, more generally, a failure to contain or effectively manage a public health crisis, have the ability to adversely impact the businesses of StepStone's investments. In addition, such disruptions can negatively impact the ability of StepStone's personnel to effectively identify, monitor, operate and dispose of investments. Finally, the outbreak of COVID-19 has contributed to, and could continue to contribute to, extreme volatility in financial markets. Such volatility could adversely affect StepStone's ability to raise funds, find financing or identify potential purchasers of its investments, all of which could have material and adverse impact on StepStone's performance. The impact of a public health crisis such as COVID-19 (or any future pandemic, epidemic or outbreak of a contagious disease) is difficult to predict and presents material uncertainty and risk with respect to StepStone's performance.

Taxation. An investment involves numerous tax risks. Please consult with your independent tax advisor.

Conflicts of Interest. Conflicts of interest may arise between StepStone and investors. Certain potential conflicts of interest are described below; however, they are by no means exhaustive. There can be no assurance that any particular conflict of interest will be resolved in favor of an investor.

Allocation of Investment Opportunities. StepStone currently makes investments, and in the future will make investments, for separate accounts having overlapping investment objectives. In making investments for separate accounts, these accounts may be in competition for investment opportunities.

Existing Relationships. StepStone and its principals have long-term relationships with many private equity managers. StepStone clients may seek to invest in the pooled investment vehicles and/or the portfolio companies managed by those managers.

Carried Interest. In those instances where StepStone and/or the underlying portfolio fund managers receive carried interest over and above their basic management fees, receipt of carried interest could create an incentive for StepStone and the portfolio fund managers to make investments that are riskier or more speculative than would otherwise be the case. StepStone does not receive any carried interest with respect to advice provided to, or investments made on behalf, of its advisory clients.

Other Activities. Employees of StepStone are not required to devote all of their time to the investment and may spend a substantial portion of their time on matters other than the investment.

Material, Non-Public Information. From time to time, StepStone may come into possession of material, non-public information that would limit their ability to buy and sell investments.

ESG Integration. While StepStone seeks to integrate certain ESG factors into its investment process and firm operations, there is no guarantee that StepStone's ESG strategy will be successfully implemented or that any investments or operations will have a positive ESG impact. Applying ESG factors to investment decisions involves qualitative and subjective decisions and there is no guarantee the criteria used by StepStone to formulate decisions regarding ESG, or StepStone's judgment regarding the same, will be reflected in the beliefs or values of any particular client or investor. There are significant differences in interpretation of what constitutes positive ESG impact and those interpretations are rapidly changing. The description of ESG integration herein is provided to illustrate StepStone's intended approach to investing and firm operations; however, there is no guarantee that the processes will be followed in every circumstance or at all.

Performance Information. No investment decisions may be made in reliance on this document. In considering performance information herein, readers should bear in mind that past performance is not necessarily indicative of future results and that actual results may vary. There can be no assurance that any StepStone fund will be able to successfully implement its investment strategy or avoid losses. Performance shown herein may include investments across different StepStone funds. The aggregate returns are not indicative of the returns an individual investor would receive from these investments. No individual investor received such aggregate returns as the investments were made across multiple funds and accounts over multiple years.



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