3Q23

United States Capital Markets House View

NEWMARK

Market Observations

- **Economy**. The U.S. economy continues to prove surprisingly resilient to rising rates. Real gross domestic product grew at a 4.9% annual rate in the third quarter of 2023, a strong showing. Employment continues to grow robustly, with some possible slowing on the margin. Labor markets are extremely tight, with 1.5 jobs still available for every unemployed person. Wage growth has moderated but remains at the highest levels since the late 1990s. A broad range of metrics show inflation remains above target but continues to moderate apace. This, combined with the continued strength of the economy, provides the Federal Reserve with justification to maintain rates at their current level. The Federal Reserve has been clear that it does not anticipate any rapid reduction in rates. Belatedly, the market began pricing this in over the last several months, spurred on by Treasury issuance as well, resulting in a bear steepening of the Treasury curve. The steepening seems to have overshot and the 10-year Treasury yield has retreated from its recent peak, while remaining solidly above levels seen earlier this year.
- **Debt Markets.** CRE debt origination activity has remained constrained year-to-date, down 48% year-over-year and down 32% compared with pre-pandemic. It's not just dollar volumes – there are 26% fewer active lenders in the market today compared with the peak. Originations are down sharply across property types and lending sectors, though office, debt funds and CMBS/CRE CLO are negative outliers. The bigger issue is that the small and regional bank lending engine that has driven the CRE market is rapidly slowing with no clear replacement. All this is occurring while the market is set to absorb $1.9 trillion in debt maturities in the 2023 to 2025 period. This is debt that will mature with significantly higher debt costs than when loans were originated. Additionally, many loans are underwater or nearly so, especially recent loan vintages of most property sectors and broad swaths of office debt. <u>We estimate that $792 billion in debt maturing between 2023 and 2025 is potentially troubled.</u>
- **Equity Markets.** <u>Investment sales declined 56% year-over-year in the first three quarters of 2023 and 30% compared with the 2017-to-2019 average</u>. Sales declined year-over-year across property sectors in the third quarter of 2023 and year-to-date. Sales declined quarter-over-quarter, except for retail. Investment allocations continue to evolve. Multifamily has returned to its pre-pandemic share, while office and industrial allocations have risen year-to-date. The office share continued to contract in the first three quarters of 2023. Investment has declined across capital groups year-to-date, but institutional investors have declined most dramatically – likely due to higher sensitivity to the cost of capital.
- **Supply of Capital.** Dry powder at closed-end funds currently sits at $257 billion, down 9% since December 2022. The capital remains concentrated in opportunistic and value-add vehicles, while debt strategies have pulled back. We estimate that 79% of this capital is targeting residential and industrial assets. Much of this dry powder was raised from prior vintages. More recently, new fundraising increased sharply in the second quarter of 2023 but does not seem to have been maintained into the third. Meanwhile, contributions to ODCE funds declined to a new post-GFC low in the third quarter of 2023, with many funds facing redemption queues. Similarly, new fundraising in the REIT sector is anemic. Nontraded REITs have been forced to limit redemptions, even as they've had success in bringing in new institutional partners and post surprisingly high returns.
- **Pricing and Returns.** Transaction markets now show clear increases in transaction cap rates, belatedly following the public markets. Even so, <u>both in the private and public markets, cap rates appear distinctly unattractive relative to the cost of debt capital, possibly excepting office REITs</u>. This is not surprising in the private markets where transaction volumes are muted and reflect selection bias and appraisal-based valuations lag market conditions. Extremely narrow cap rate spreads in the REIT markets are harder to justify and seem to require a rapid decline in debt costs, historically abnormal NOI growth or a combination of the two. Notwithstanding the structural deficiencies in NCRIEF valuations during periods of rapid change like today, NCREIF NPI total returns were broadly negative in the third quarter of 2023. Hotel and retail continued to outperform on the margin. Returns were negative in 60% of metro markets, including 83% of multifamily markets.

Strategy Recommendations

- **Be a Boxer, Not a Punching Bag.** One of the greatest sins an investor can commit is to be overly reactive. One sees this all the time in public market investing. In contrast, private markets enforce a certain degree of patience, even resilience. There are times, however, when this proves an even greater fault. The last 22 months have been such a time. While investors should not immediately try to dump their entire portfolios, now is the time to take risk off the table, because the balance of risks is and has been distinctly unfavorable. Preparation now will better prepare investors to take advantage of new, generationally attractive entry points as they arise.
- **Mind the Gap.** Cap rate spreads are distinctly unattractive, even in the public markets, where REIT-implied cap rates have moved more aggressively. Spreads are generally narrower than long-term averages in an environment where both risk and uncertainty are elevated. The only way this makes sense is if the market is pricing in a sharp fall in interest rates, which, for a variety of reasons, is unlikely to materialize—at least to the extent that would be necessary to make valuations sensible on a risk-adjusted basis. As a result, much commercial real estate investing looks like a highly directional interest rate play, but in an extremely capital inefficient manner. CRE investors should not play this game and instead exercise pricing discipline in requiring greater risk compensation or, alternatively, should commit to low-leverage, long-term basis plays in cashflow assets.
- **Public vs. Private Arbitrage.** While public markets may still be overvalued (broadly speaking; this is not individual security advice), private markets are overvalued to an even greater degree. Investors can maintain sector exposure through a mix of REIT holdings and cash while private markets adjust. Investors should also be on the lookout for REITs that become oversold. If REIT share repurchase announcements are any indication, there are management teams that believe this is already the case. These can be targets for asset acquisitions or privatizations.
- **Capital Imbalances.** Banks are pulling back on lending, and other lending sectors will struggle to fill in the gaps. Equity funding is heavily slanted towards multifamily and industrial assets, while distress is brewing for a wide range of office loans and older vintages of retail. There will be significant funding gaps for both debt and equity resulting from this milieu, presenting an opportunity for investors with cash and an appetite for measured risk.
- **Distress Will Be a Journey.** Even at current pricing, a wide swath of the office market is likely to find itself in a challenged financing position. For lower-quality buildings, the outlook is bleak, with over 50% write-downs likely necessary to make them economically viable either as ongoing office or redevelopment plays. The media loves to talk about residential conversions, but these rarely pencil. The only way out is through…devaluation. None of this will happen overnight. While there will be distress investing opportunities, investors should be prepared for extended workouts. If this is not attractive, then loan and asset sales (even at what seem like high discounts today) may seem like a blessing tomorrow. And it's not just office – there are significant near-term maturities of value-add multifamily debt that will face similar challenges.
- **Movin' on Up (the Capital Stack).** Seller financing will continue to be attractive to prospective buyers. This can be attractive to sellers as well, in cases where they like the asset but need some near-term liquidity or otherwise wish to de-risk a given portfolio. As mentioned, equity spreads are not attractive on a risk-adjusted basis compared with debt spreads.
- **Package Deals for Private Capital.** Private capital has long provided ballast to the transaction market. Private investors tend to use less leverage, focus on smaller assets and hold longer time periods with a focus on basis plays and tax efficiency. Institutional investors have tremendous capital at the ready, but the second half of 2023 will likely continue to be more of a "sharpshooter" market. This means that private capital will be the most reliable bidder pool for non-trophy asset dispositions. Play to them. These are the natural owners of commodity product with an uncertain future.

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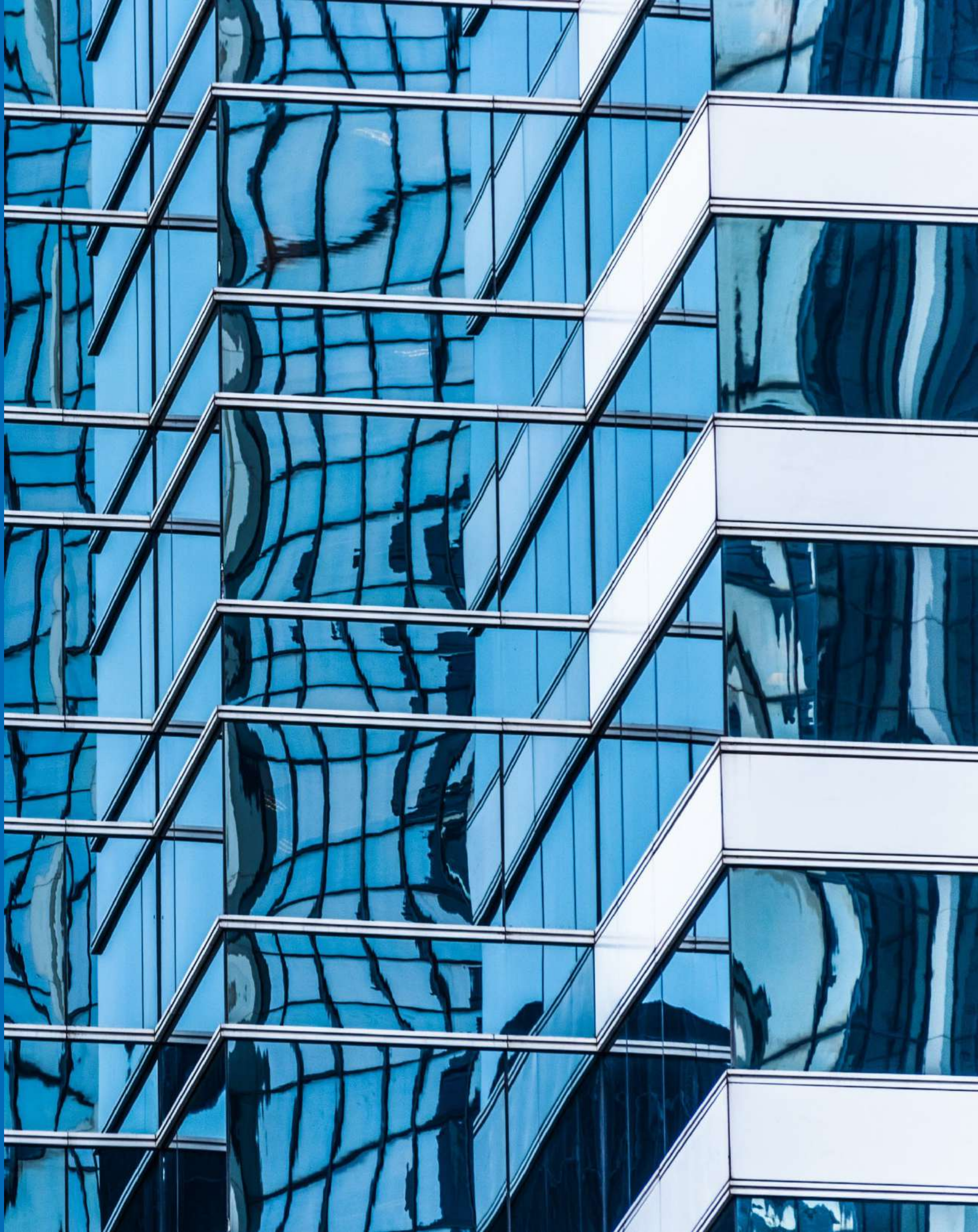
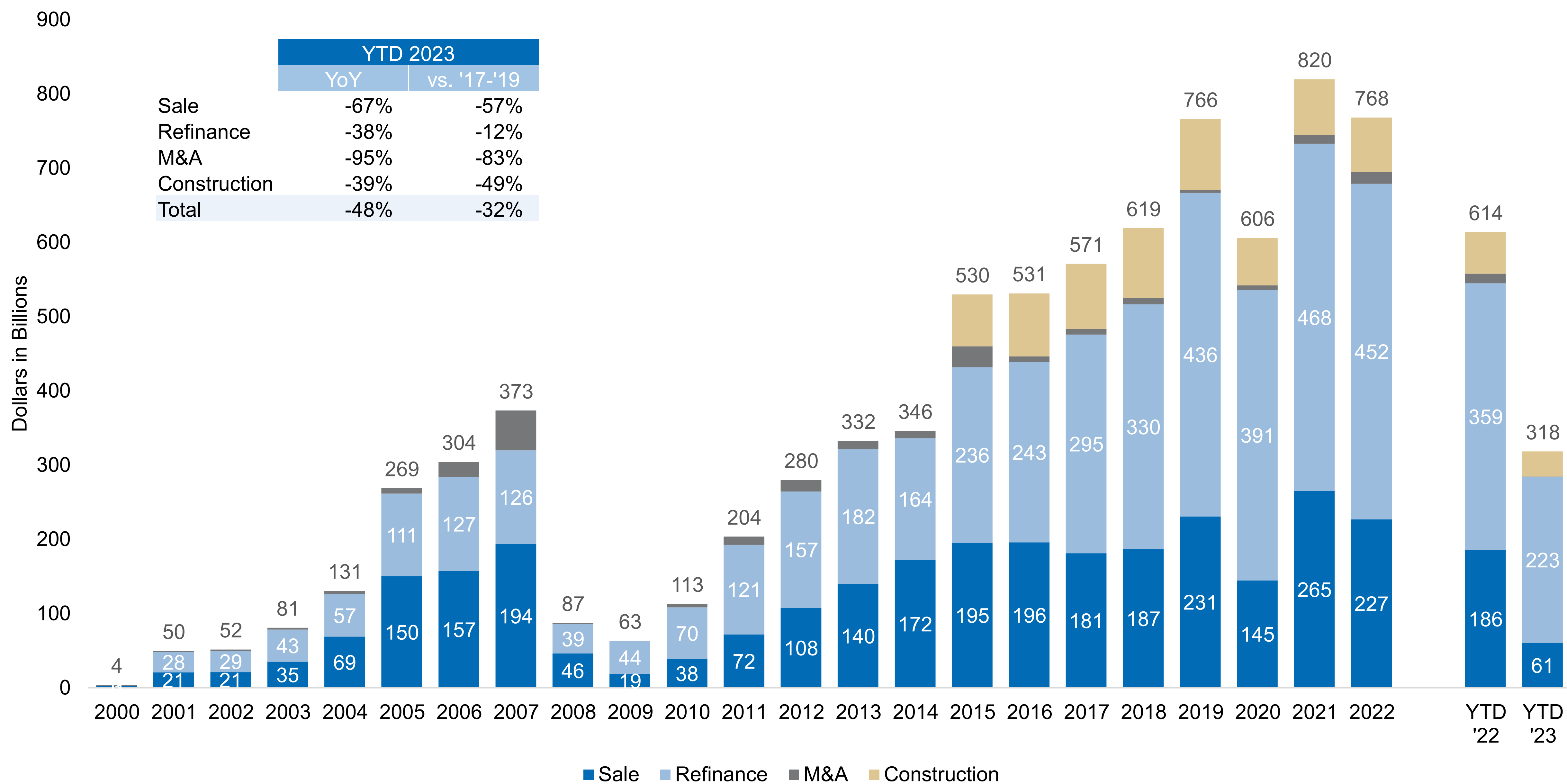
Debt Capital Markets



Debt Origination Down 48% Year-over-Year through 3Q23

Not surprisingly, acquisition financing has declined the most both on a year-over-year basis and as compared with the pre-pandemic period. This remains an important reference point due to the highly inflated levels of transaction activity in 2021 and the first half of 2022. Refinancing volumes declined somewhat less year-over-year and were only slightly down from pre-pandemic. This was not opportunistic and is most likely a result of record loan maturities in 2023.

Commercial Real Estate Debt Origination Volume



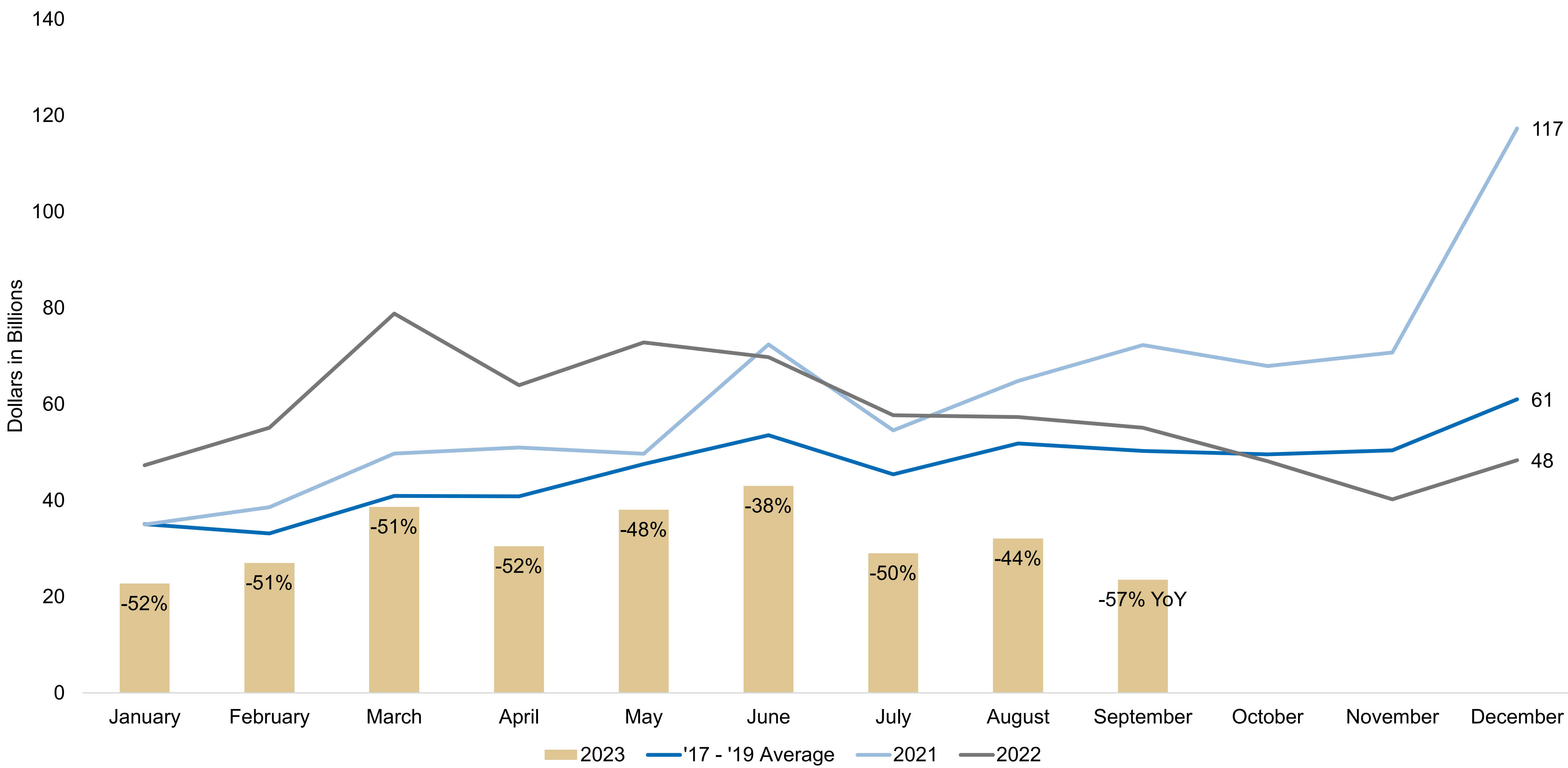
	YTD 2023	
	YoY	vs. '17-'19
Sale	-67%	-57%
Refinance	-38%	-12%
M&A	-95%	-83%
Construction	-39%	-49%
Total	-48%	-32%

Source: RCA, Newmark Research as of 10/24/2023
Note: Data is based on preliminary loan sums, which are subject to future revision – potentially significant.

Monthly Origination Activity Has Deteriorated since June amid Surging Rates

With the proviso that figures in the third quarter of 2023 remain immature, activity appears to have slowed as long-term interest rates rose significantly. September volume is understated but is unlikely to see a large enough upward revision to change the story. The continued bear steepening in the curve will continue to place pressure on loan origination volumes, only partially offset by large quantities in loan maturing in the fourth quarter of 2023.

Monthly Commercial Real Estate Debt Origination Volume

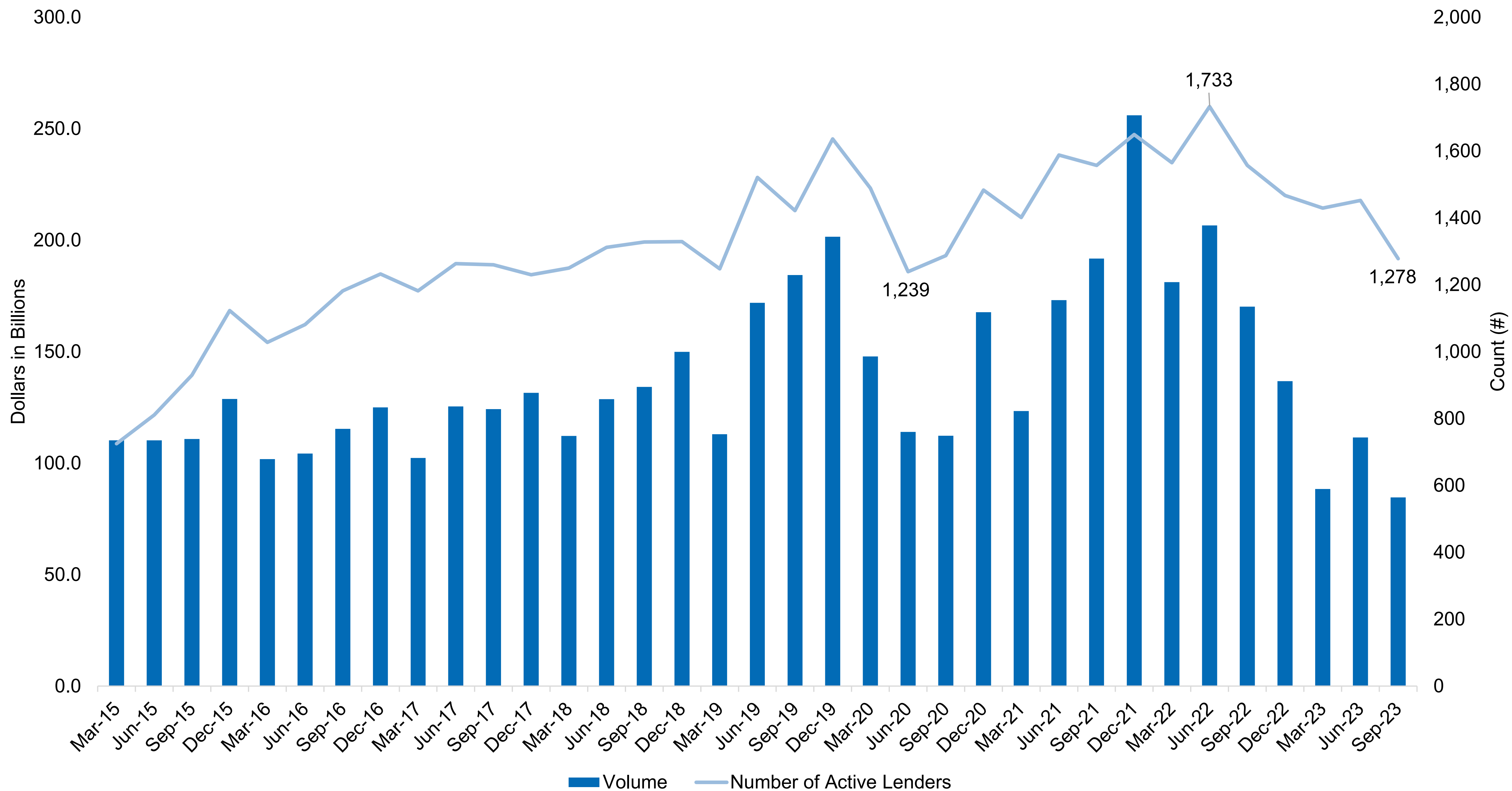


Source: RCA, Newmark Research as of 10/24/2023
Note: Data is based on preliminary loan sums, which are subject to future revision – potentially significant.

The Number of Active Lenders Has Declined 26% Since Peaking in 2Q22

The peak to trough (hopefully) is stark, but the number of active lenders is not too far off levels seen pre-2019, when the debt funds were just starting to become more numerous. The irony today is that with banks widely expected to reduce their CRE exposure, conditions point towards a greater role for private capital in the coming years.

Commercial Real Estate Debt Origination Volume

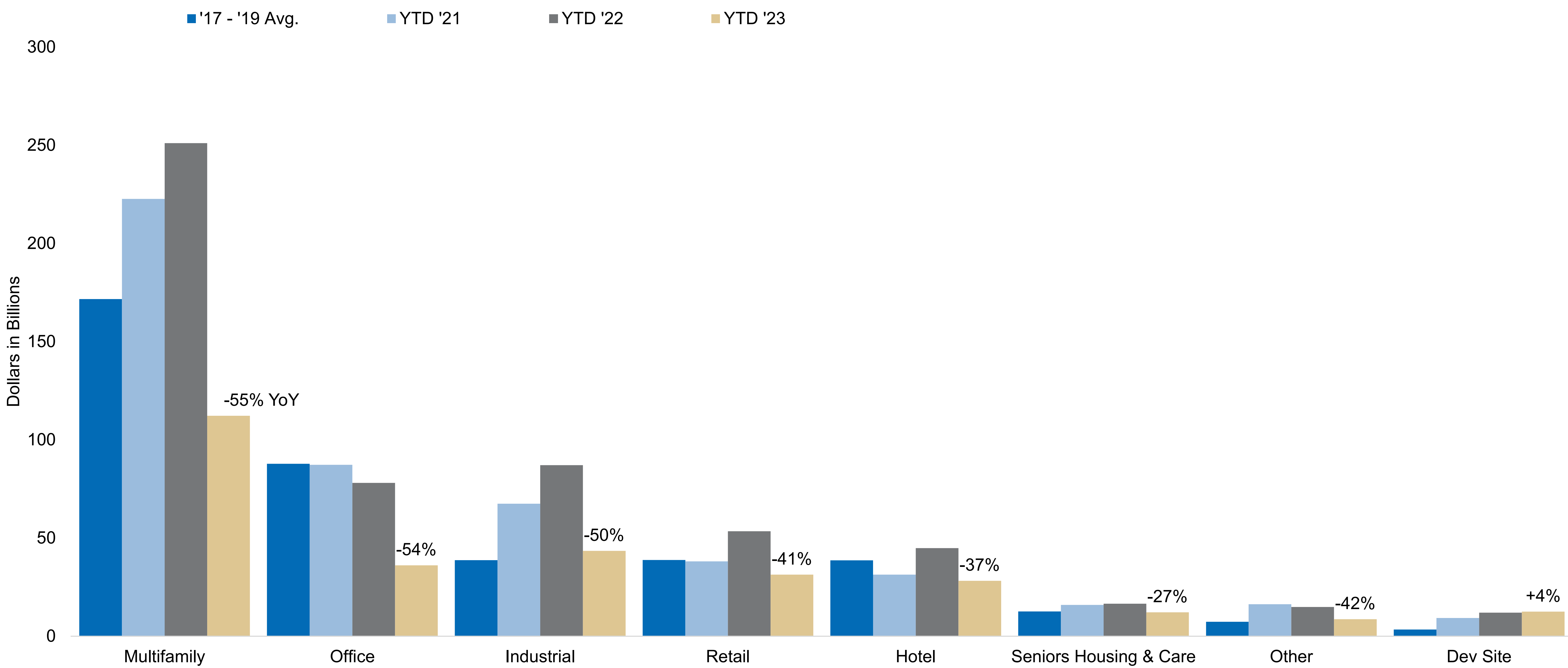


Source: RCA, Newmark Research as of 10/24/2023
Note: Data is based on preliminary loan sums, which are subject to future revision – potentially significant.

Originations Down across Property Types, but Most Dramatically for Multifamily

The 58% year-over-year multifamily decline is not just an artifact of inflated activity last year; lending is still down 35% compared with pre-pandemic. Office compares poorly to either period. In contrast, industrial originations are up 12% vs. pre-pandemic.

Commercial Real Estate Debt Origination Volume

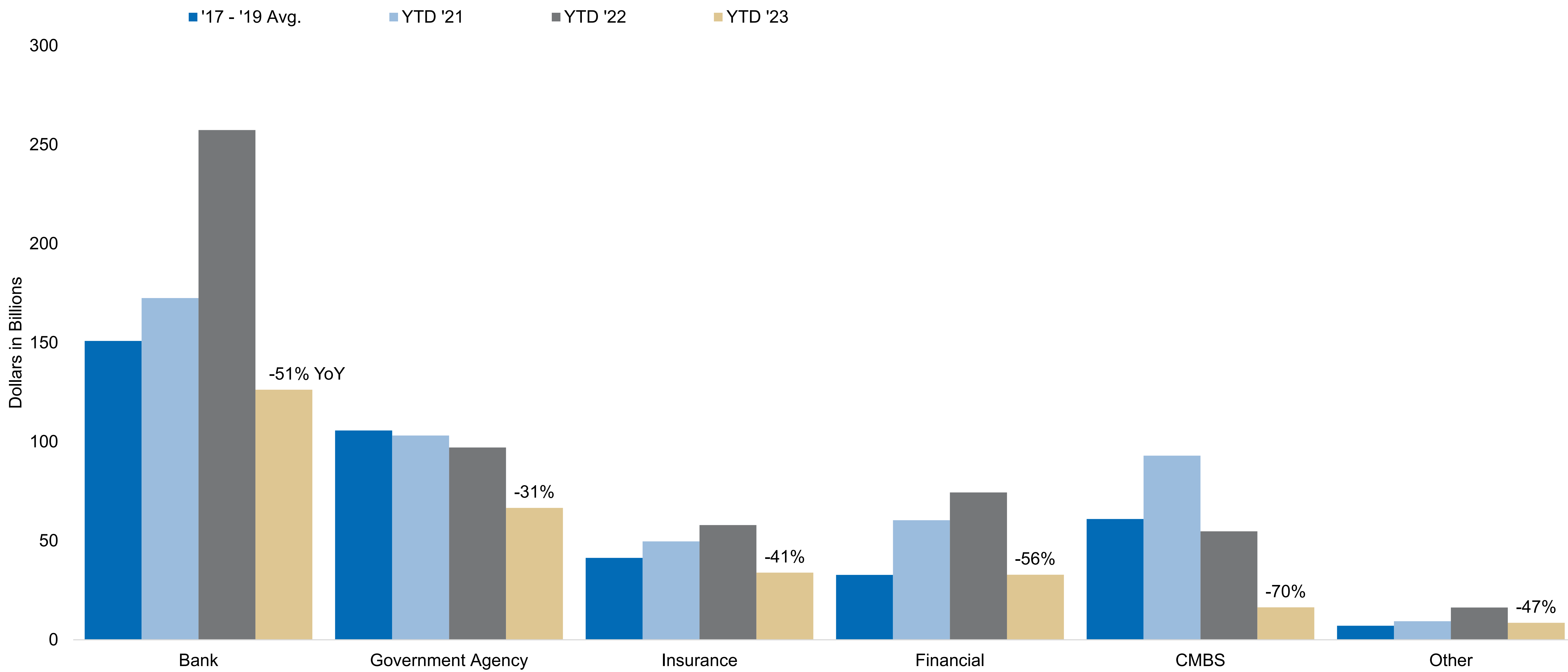


Source: RCA, Newmark Research as of 10/24/2023
Note: Data is based on preliminary loan sums, which are subject to future revision – potentially significant.

Explosive Rise in Bank, CMBS and Debt Fund Lending Now Crashing to Earth

Loan originations by financial lenders (i.e., debt funds) collapsed 56% year-over-year. CMBS and CRE CLO-related loan origination feel even more sharply. From a sheer volume standpoint, the greatest change has come in the bank sector, where volumes were down 51% year-over-year. Insurance lending, while down, has shown positive momentum. CRE debt yield has become more competitive with corporate credit. Agencies have remained comparatively active but not unscathed.

Commercial Real Estate Debt Origination Volume

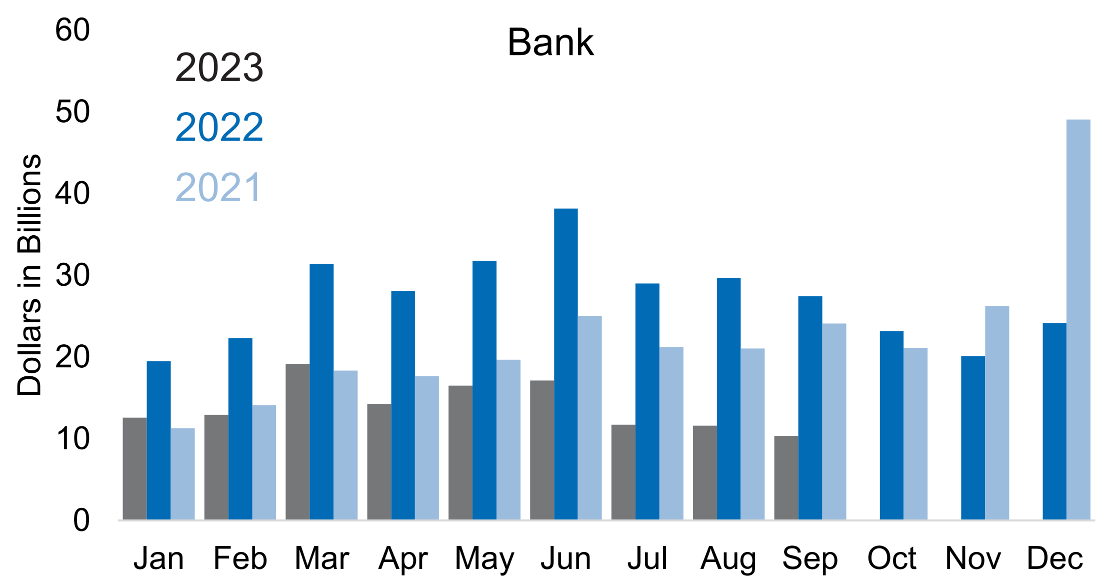


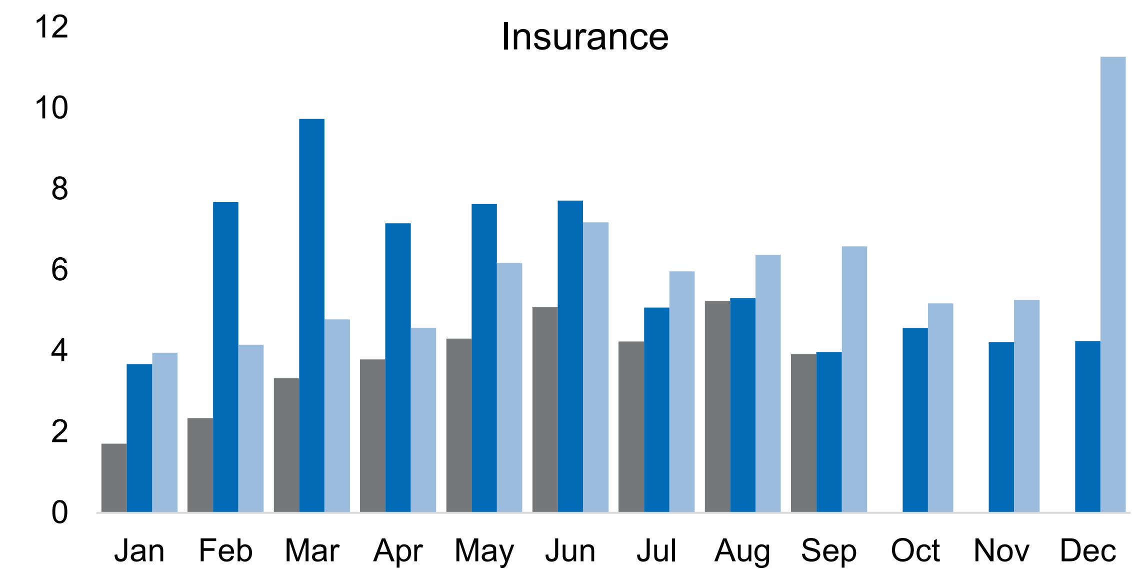
Source: RCA, Newmark Research as of 10/24/2023
Note: Data is based on preliminary loan sums, which are subject to future revision – potentially significant.

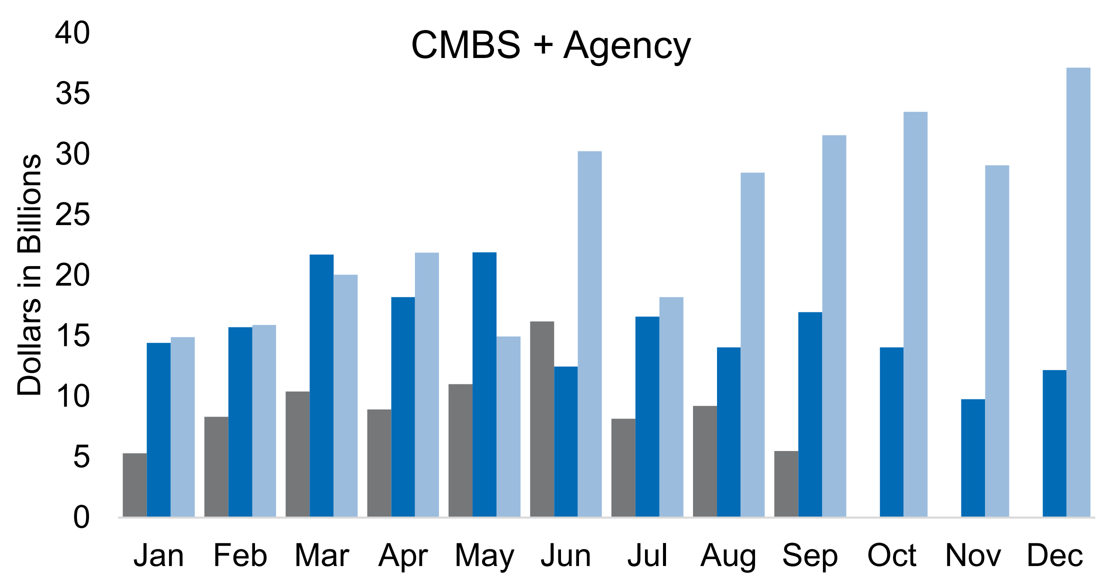
Loan Originations Have Declined across Lender Groups

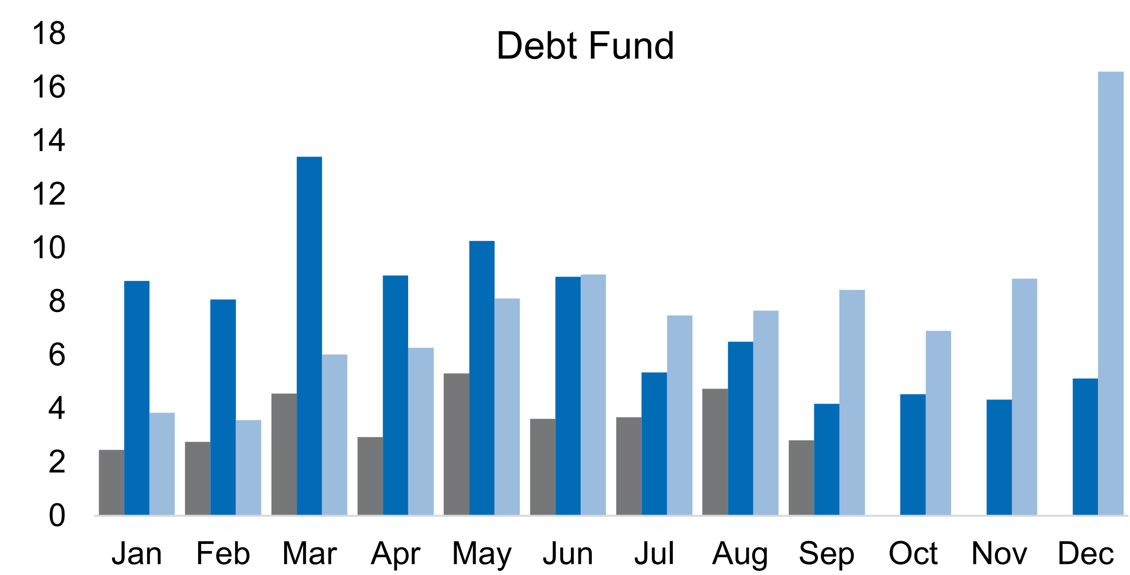
Declines have been particularly sharp among banks, debt funds and lending for securitization. Insurance lending is still down year-over-year, but even with preliminary data, volumes have been increasing steadily.

Commercial Real Estate Debt Origination Volume







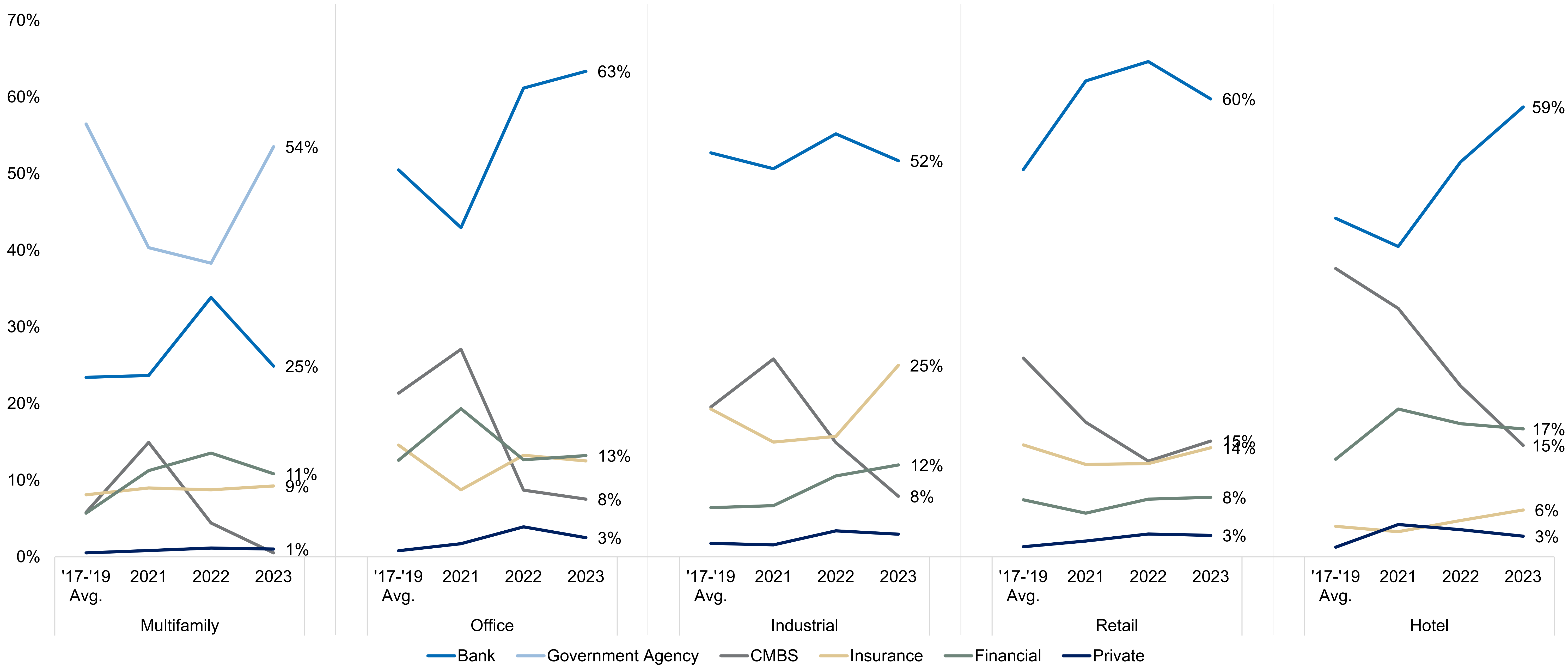


Source: RCA, Newmark Research as of 10/24/2023
Note: Data is based on preliminary loan sums, which are subject to future revision – potentially significant.

Despite Turmoil, Bank Share Remains at or above Pre-Pandemic Levels

CMBS/CRE CLO lending share has collapsed across all property types. Surprisingly, debt fund lending shares have been stable for most property types, reversing the apparent trend at midyear. Insurance lending share has risen sharply in the industrial sector and is stable elsewhere.

Composition of Commercial Mortgage Debt Originations

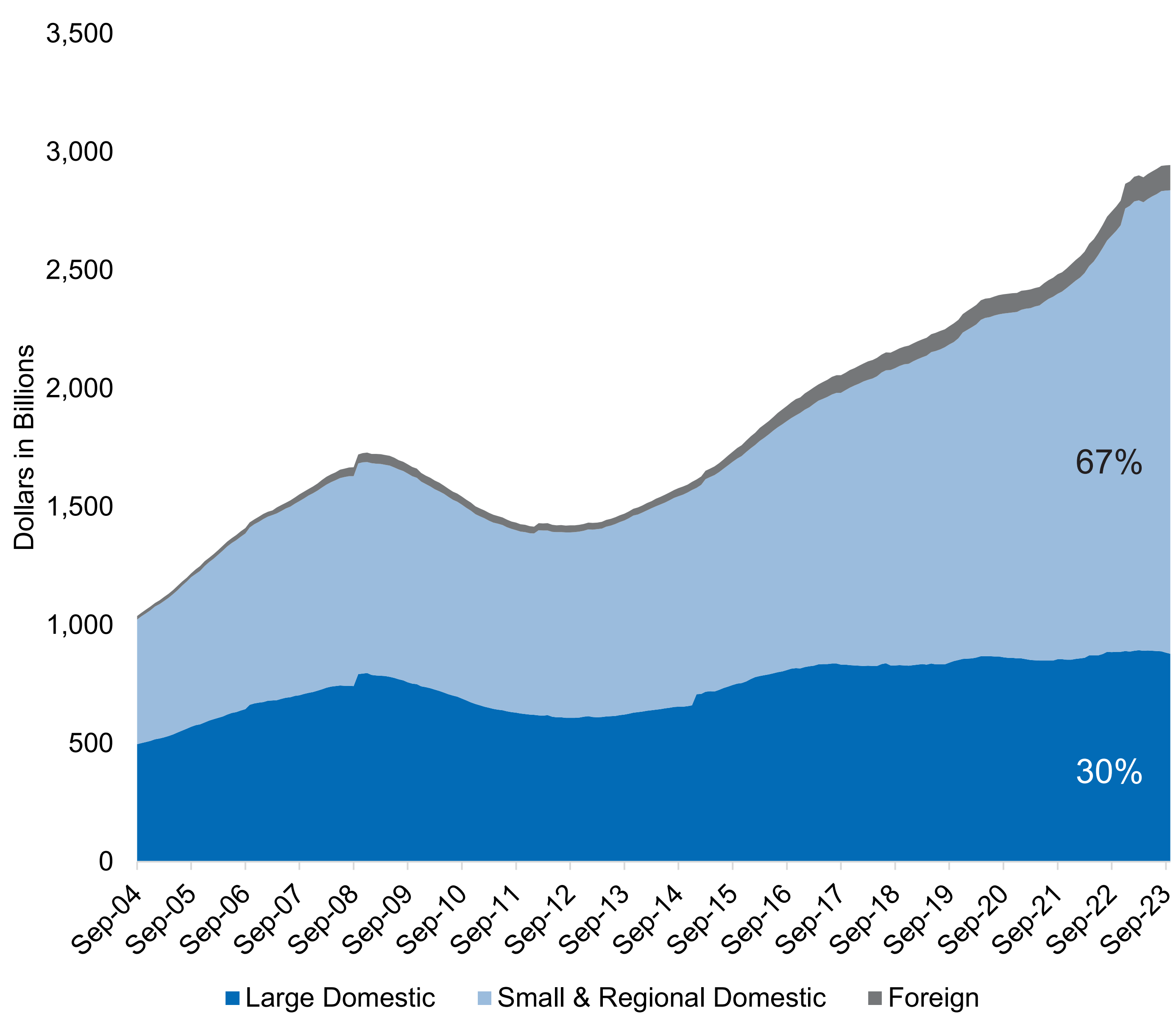


Source: RCA, Newmark Research as of 10/24/2023
Note: Data is based on preliminary loan sums, which are subject to future revision – potentially significant.

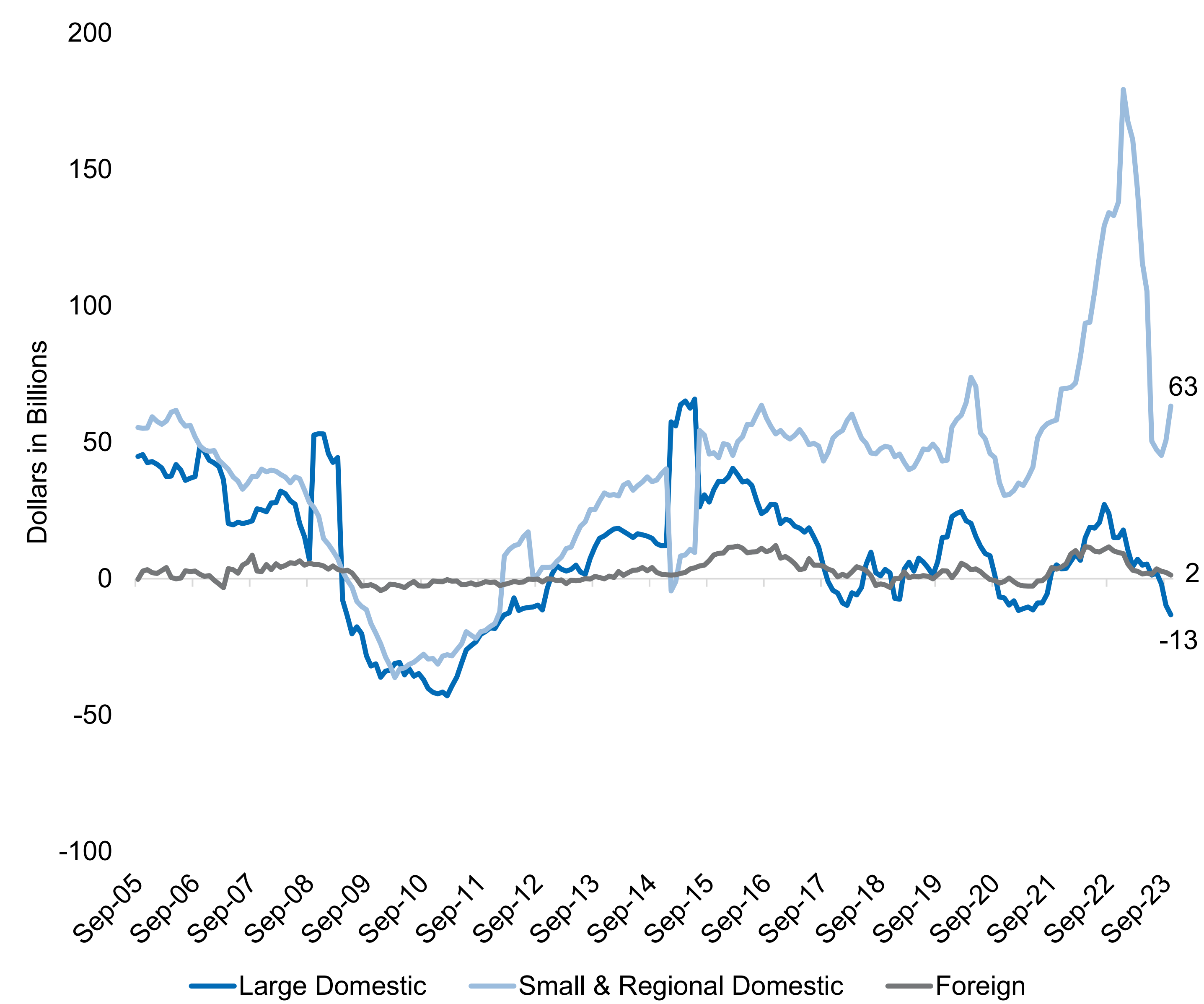
Small and Regional Banks Aggressively Grew Their CRE Loan Books

New origination activity is slowing rapidly. Even without the mini-crisis in regional banks and without the threat of a wave of CRE distress, an extended period of slower bank CRE loan growth was likely, given the clearly excessive growth of the last number of years. Now it is a dead certainty.

Bank CRE Loan Exposure



Rolling 6-Month Change in Bank CRE Loan Exposure

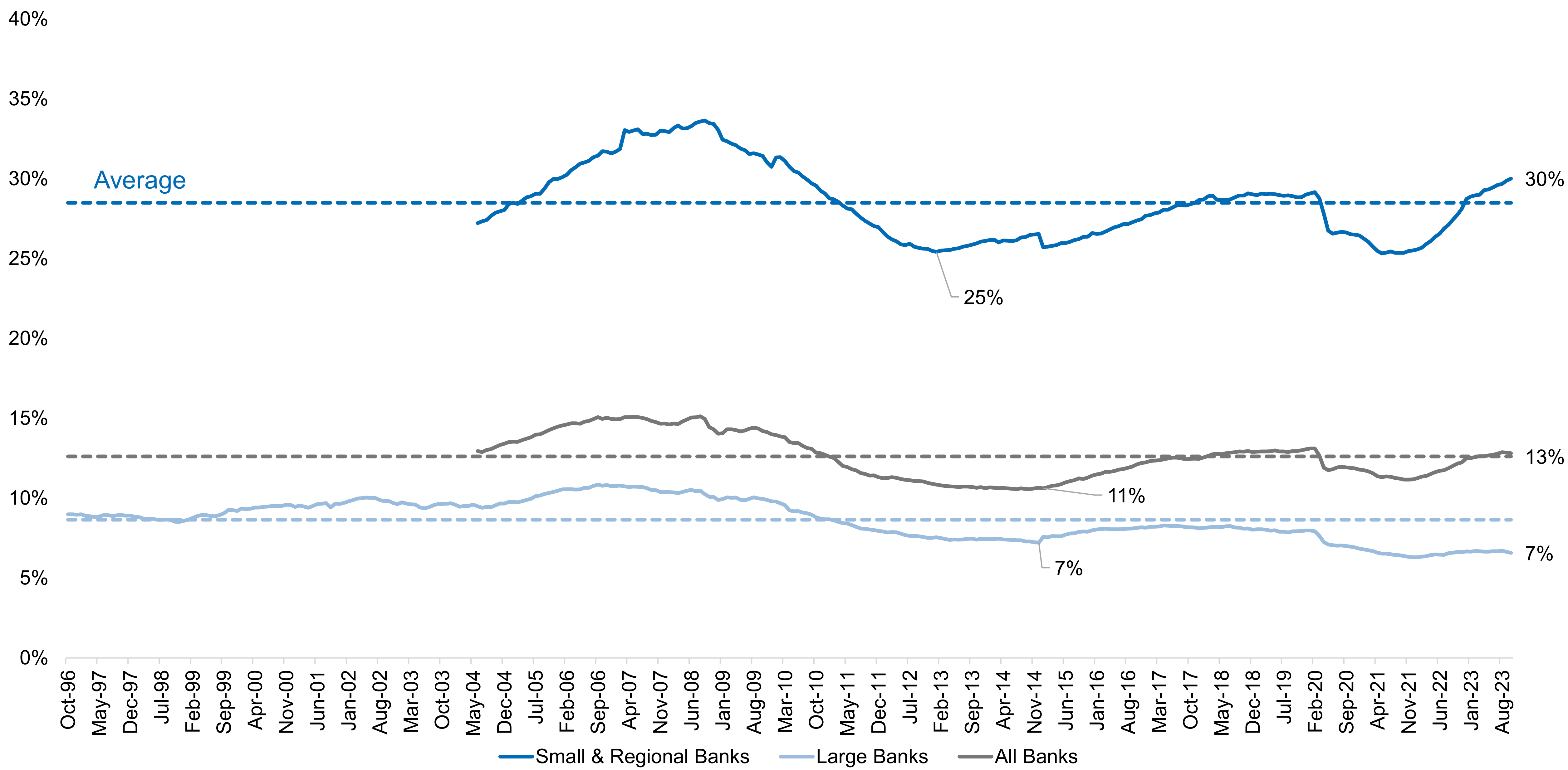


Source: Federal Reserve, Newmark Research as of 11/7/2023

CRE Loans are at Cyclical Highs as a Share of Total Bank Assets

Specifically, CRE loan shares are elevated at small and regional banks while the largest banks' loan share is already tied with multidecade lows. Small and regional banks are currently under pressure to reduce their CRE exposure. This will play out over the next several years during which the CRE loan share is likely to retest cyclical bottoms of 25%, implying a net reduction of $328 billion ceteris paribus. Large banks' exposures have been trending downwards since 2007. This is likely to continue, absent a significant increase in relative yields.

CRE Loans as a Share of Total Bank Assets

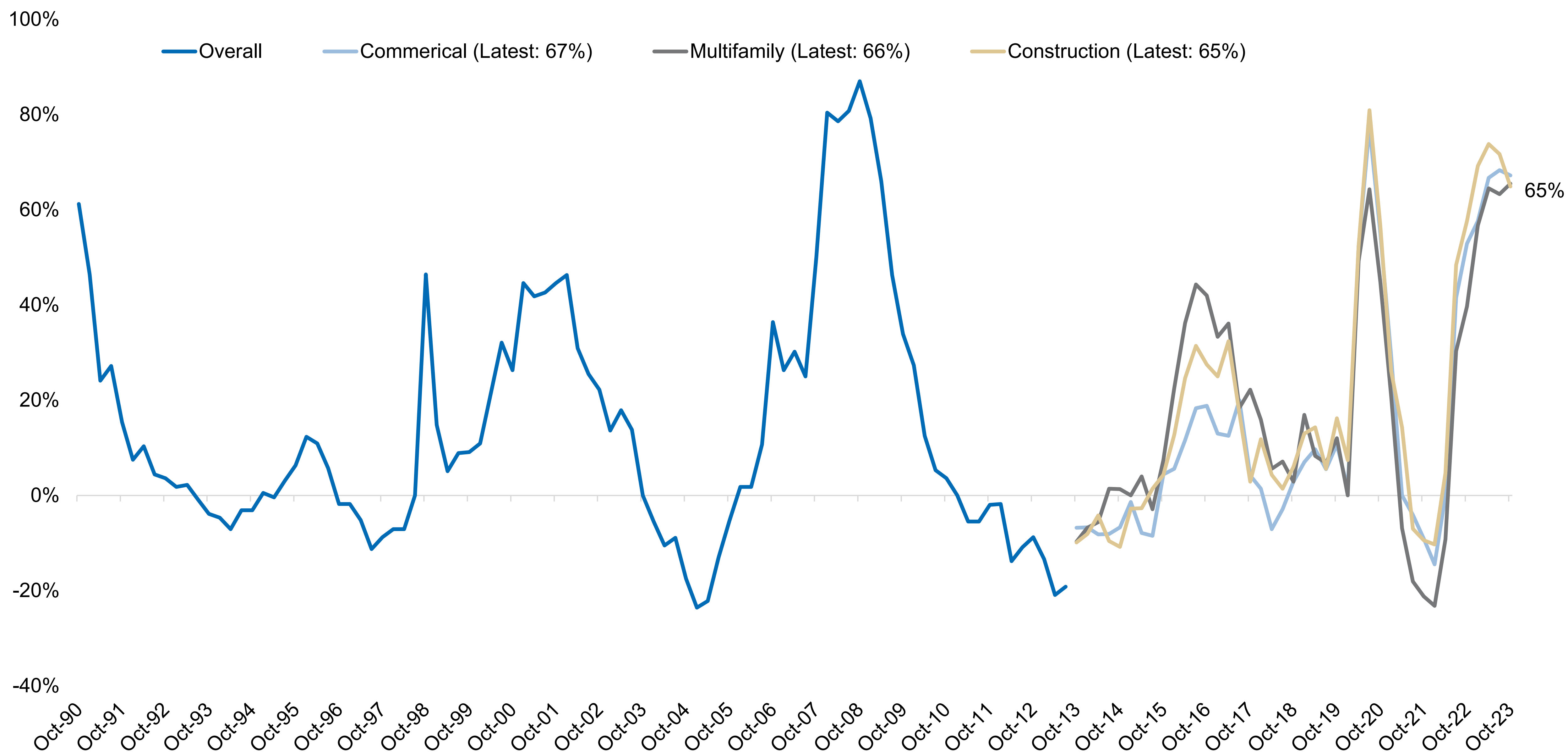


Source: Federal Reserve, Newmark Research as of 11/14/2023

Bank Lending Standards Continue to Tighten Rapidly

Banks are tightening standards at a pace comparable with prior crises (COVID, GFC, S&L). Credit is likely to remain tight for an extended period as in the latter two crises – both because the excesses were extreme in the 1H20 to 1H22 period and because the Fed is unlikely to ride to the rescue. The longer it takes to writedown bad loans, the longer it will take for lending standards on new business to loosen. This is the cost of unproductive debt.

Net Percentage of Banks Tightening Lending Standards

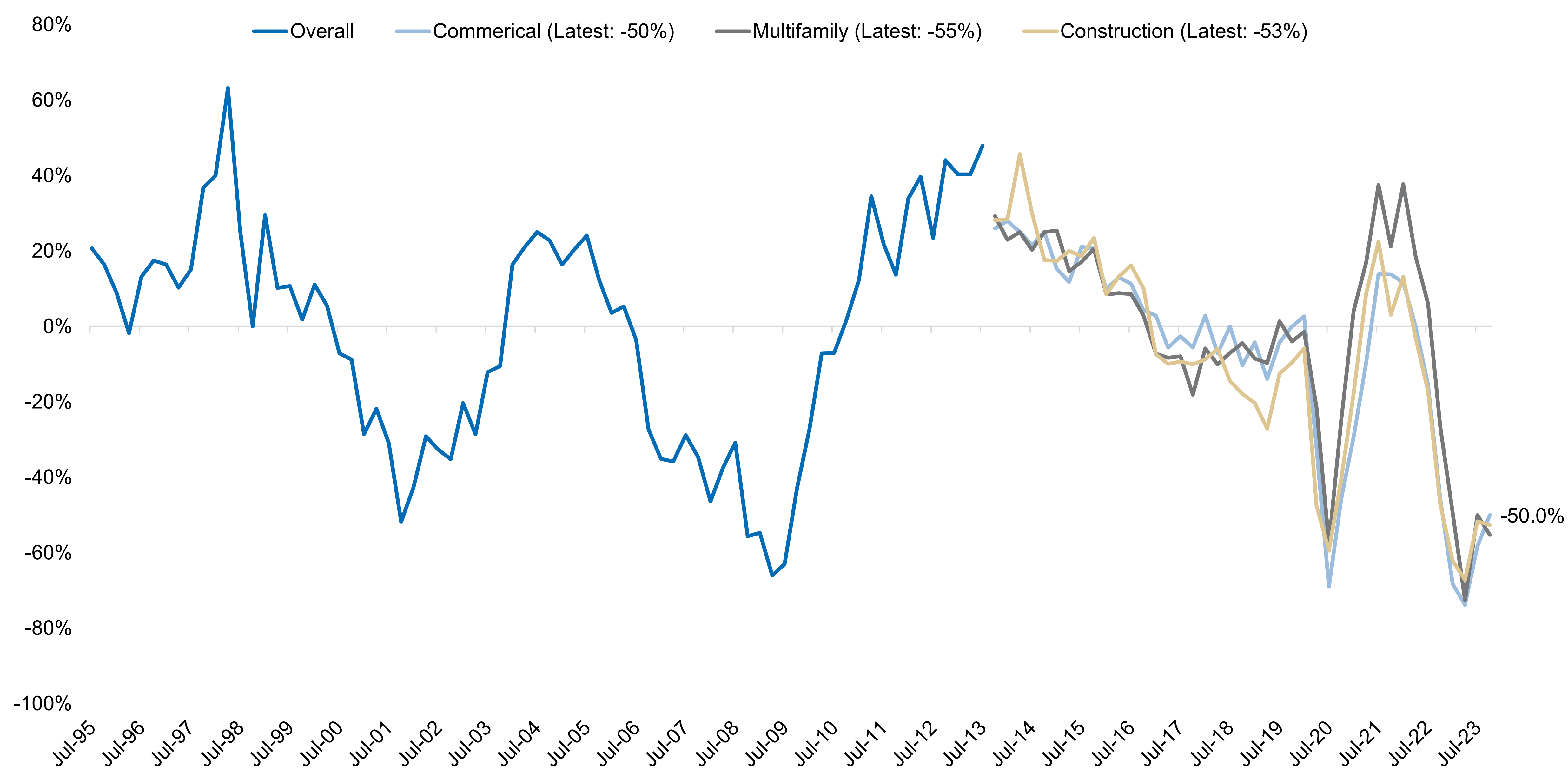


Source: Federal Reserve, Newmark Research as of 11/7/2023

Demand for *New* Bank CRE Credit Collapsing

Both borrowers and lenders are heavily preoccupied with legacy loan maturities and the sustainability thereof.

Net Percent of Banks Reporting Stronger CRE Loan Demand



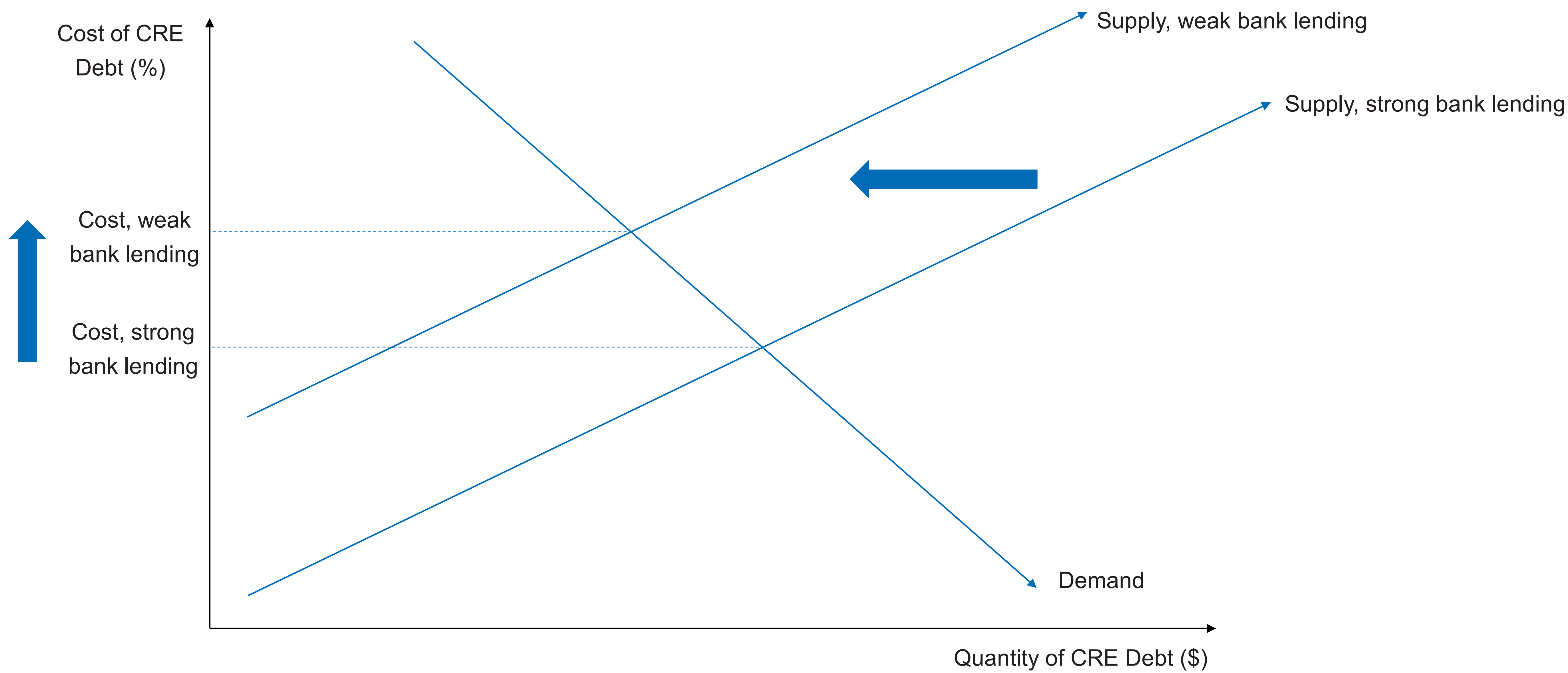
Source: Federal Reserve, Newmark as of 11/7/2023

Banks are likely to spend the next several years reducing their CRE exposures. This would be a significant negative supply shock to the CRE finance ecosystem.

If Banks Continue to Pull Back, Debt Costs Increase

Econ 101 shows us why this is the case. Higher yields are needed to induce banks to sustain lending and attract other sources of capital to lend to the sector. This is not always a smooth process, resulting in lags during which interest rates could easily overshoot their eventual equilibrium. It's important to keep in mind that this supply shock is *in addition to* the supply shock resulting from the increases in Treasury yields. As such, not only does bank retrenchment signal higher rates, but also higher *relative* rates.

Supply and Demand of CRE Credit

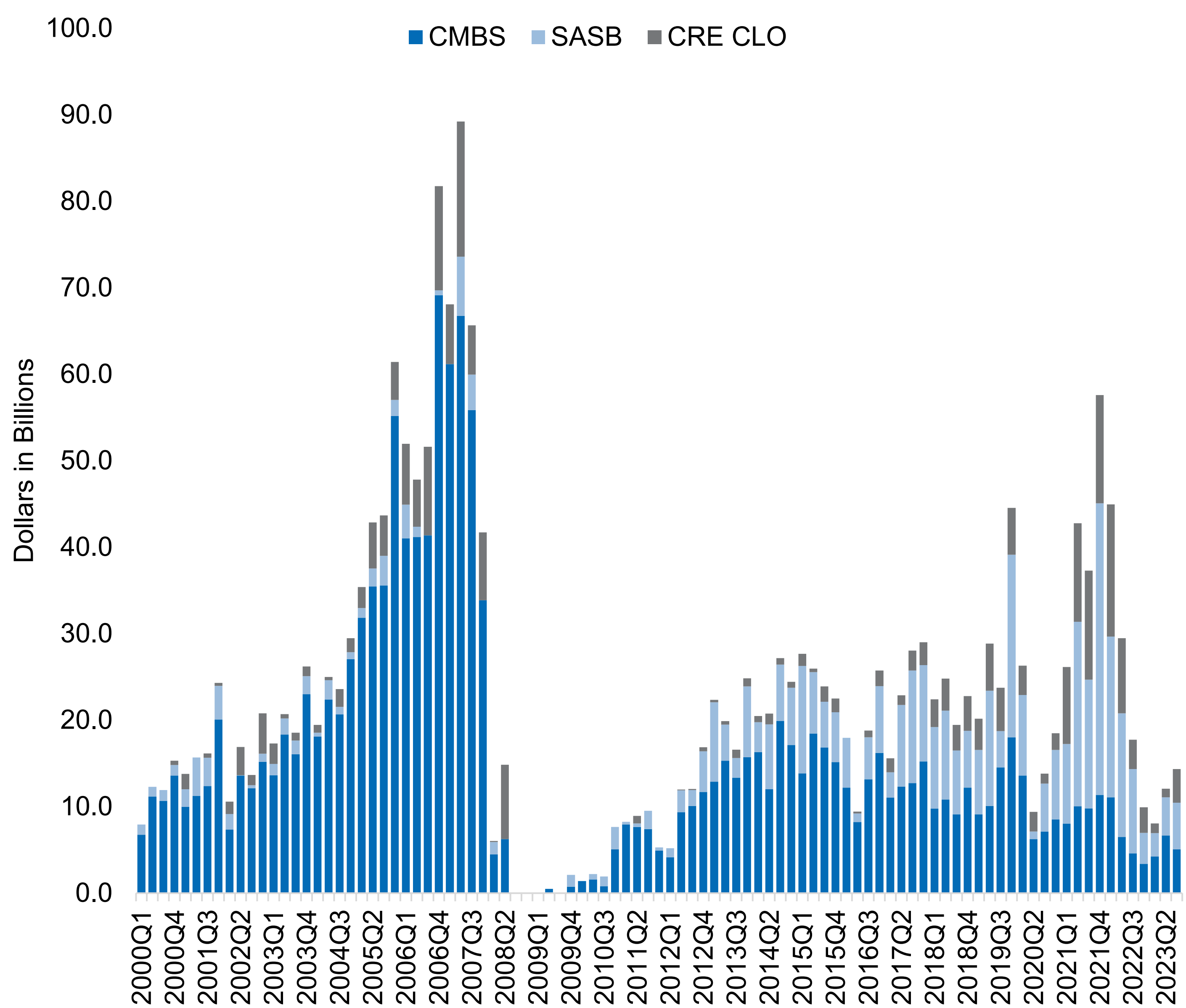


Source: Newmark Research

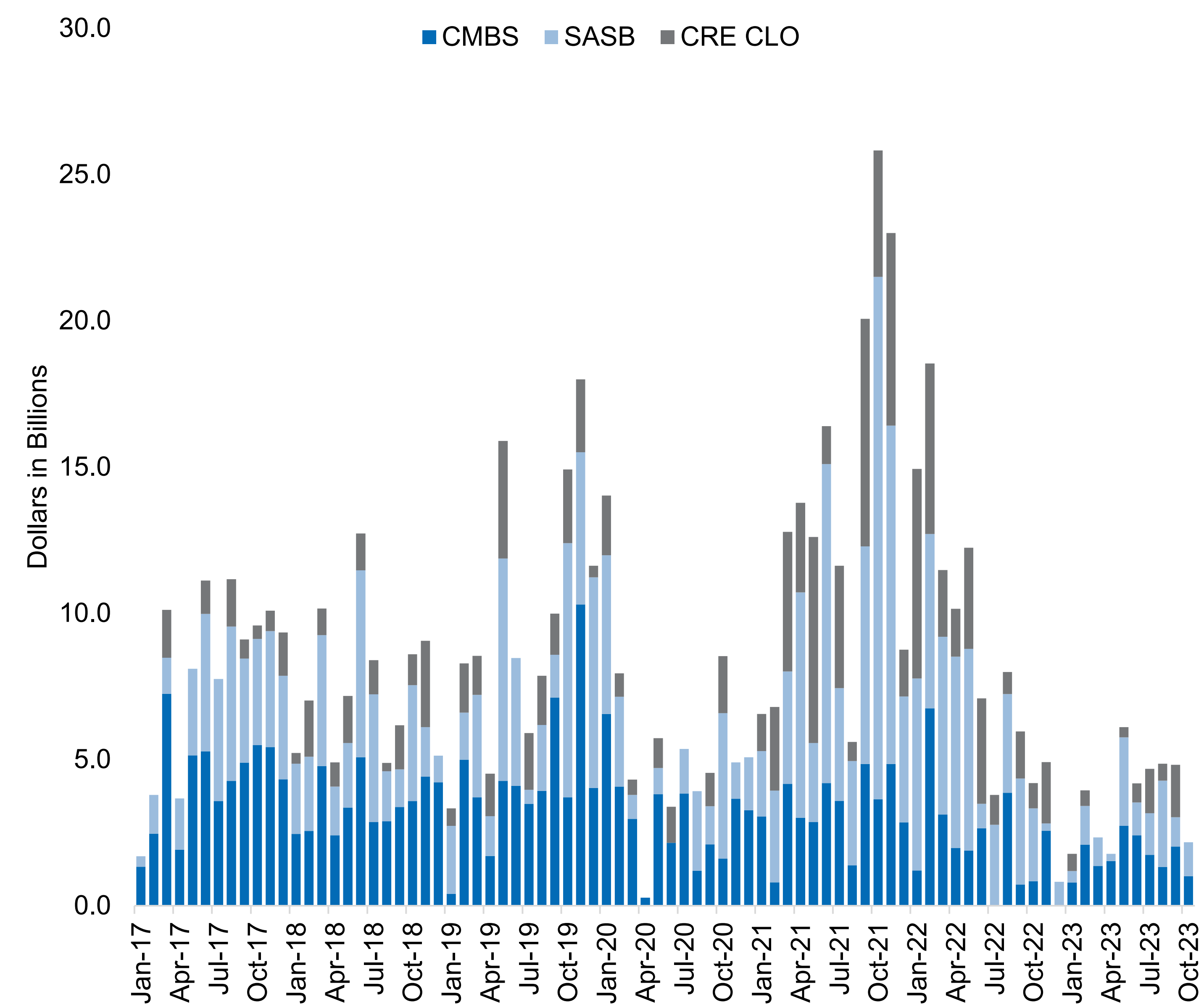
Securitized Markets Have Slowed Markedly; Unlikely to Backfill Bank Credit

Securitized markets could potentially be much larger than they are today. Indeed, they were pre-GFC. However, thus far, securitized markets have been the most impacted by the increases in interest rates. Spreads have moved correspondingly, but elevated rate volatility has made it riskier to originate for securitization. This impacts both debt funds and banks, which are increasingly loath to extend repo financing to debt funds. Finally, while the process has been improved, workouts remain far more complicated for securitized loans.

Quarterly CMBS Issuance



Monthly CMBS Issuance

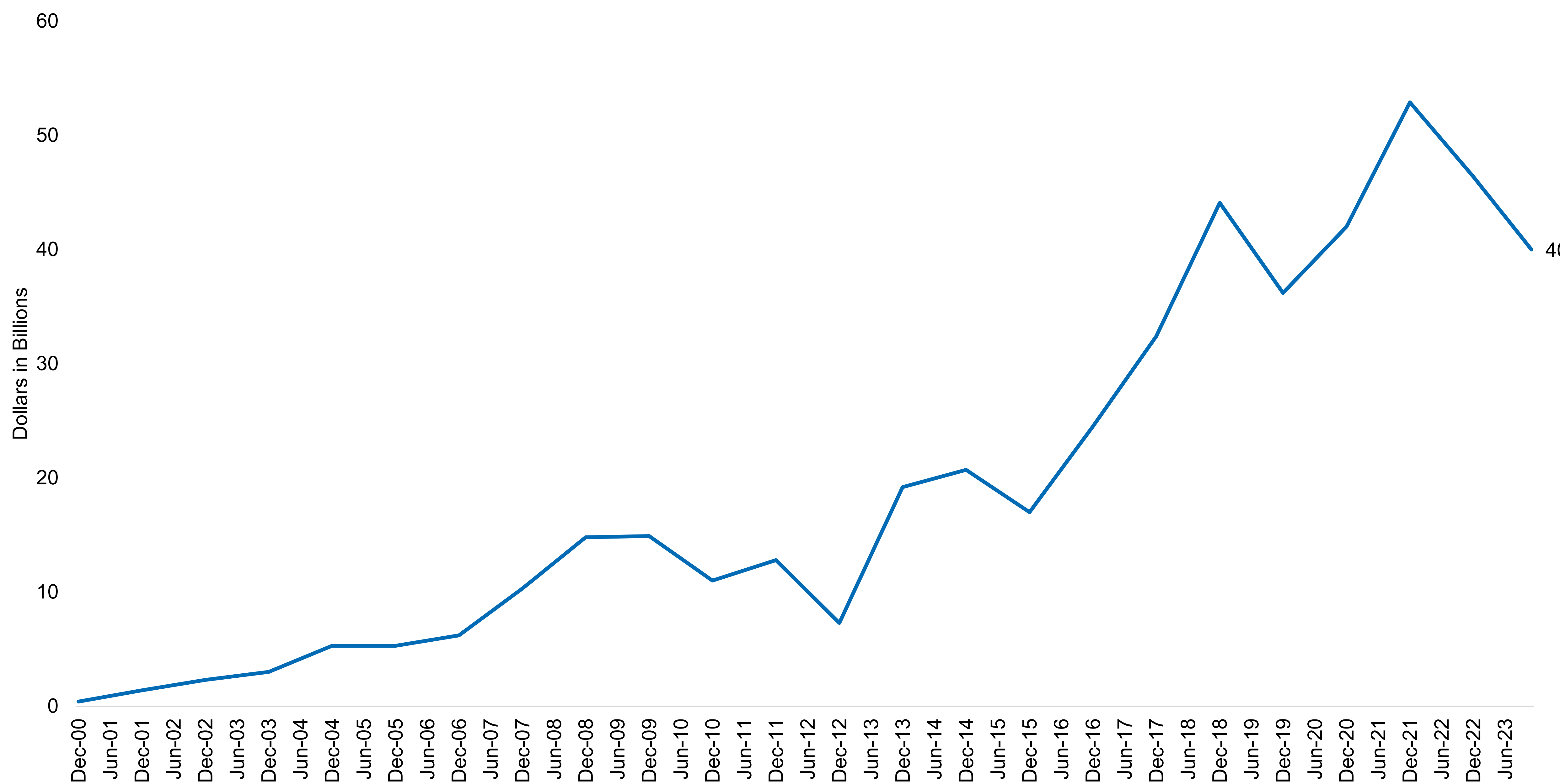


Source: Green Street, Ishares, Newmark Research as of 10/25/2023

Debt Funds Have Dry Powder, but Not Enough to Fill the Hole (for Now)

The rehypothecation channel is impaired by bank hesitancy and securitization market illiquidity. Additionally, debt funds expanded dramatically in the liquidity bubble and focused on transitional and high leverage finance – loan profiles likely to be under the greatest stress. Legacy portfolio issues are likely to further constrain activity, though on average, it seems likely that debt funds are better prepared to take back assets. Longer term, a smaller bank role offers opportunities for private capital.

Debt Fund Dry Powder

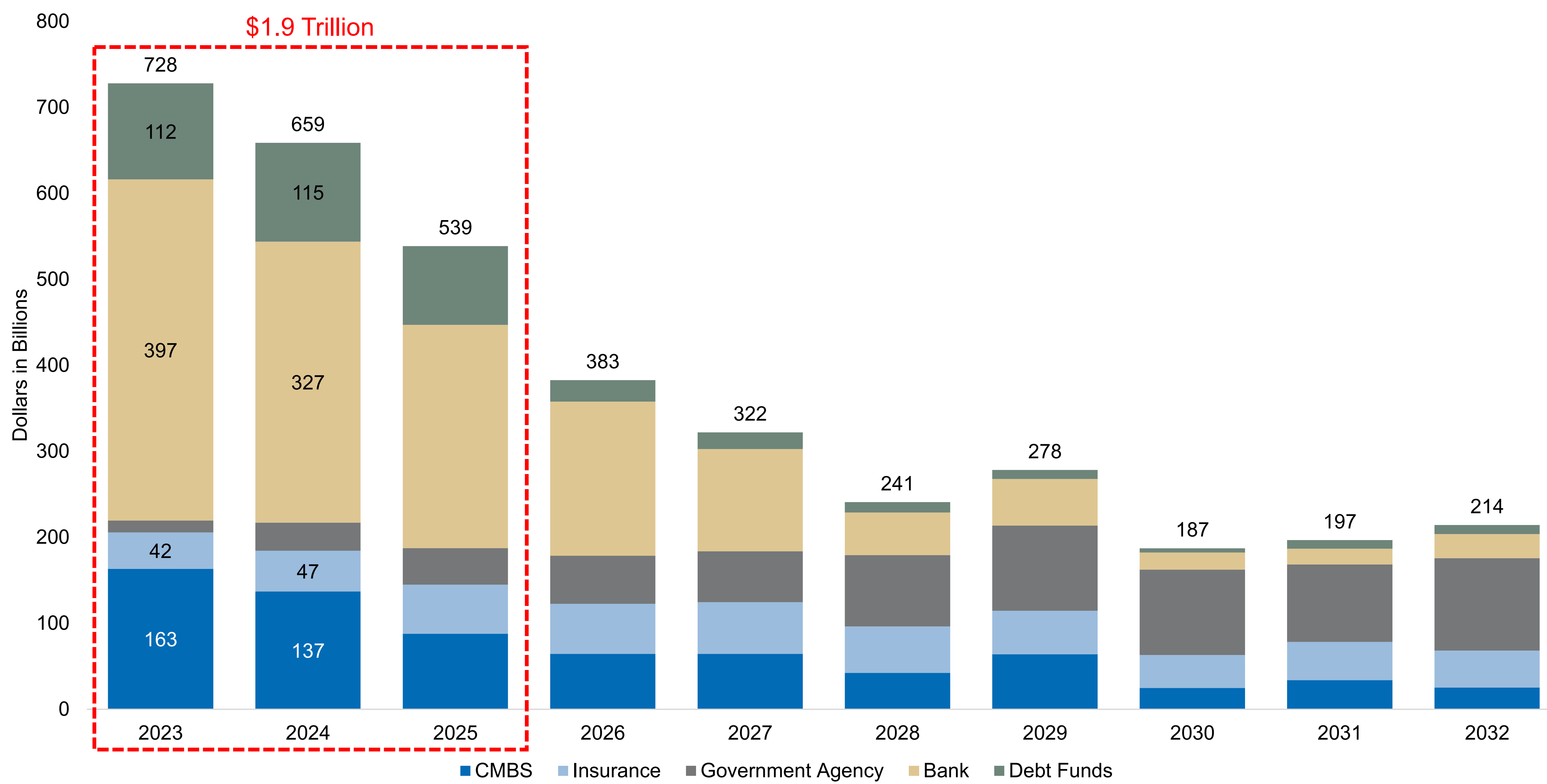


Source: Newmark Research, Preqin as of 11/7/2023

The Market Faces Record Maturities

Bank, CMBS/CRE CLO and debt fund maturities are particularly heavily front-loaded over the next 18 months.

Commercial Mortgage Maturities

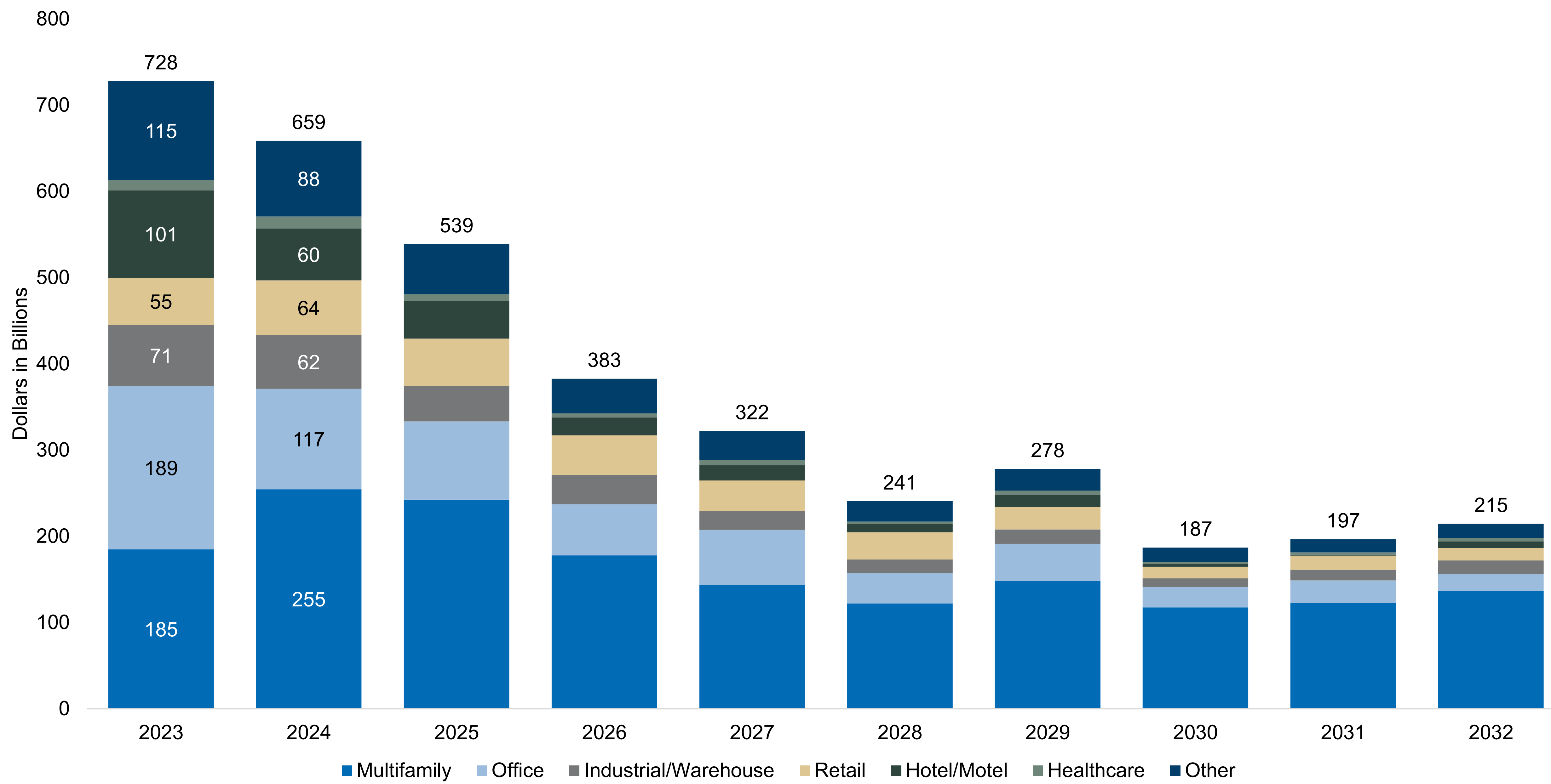


Source: MBA, Newmark Research

Office and Multifamily Maturities Particularly Elevated in 2023 to 2024

Office and multifamily near-term maturities are heavily concentrated in bank and debt fund loans, which have a higher propensity to be transitional or otherwise higher risk in nature.

Commercial Mortgage Maturities

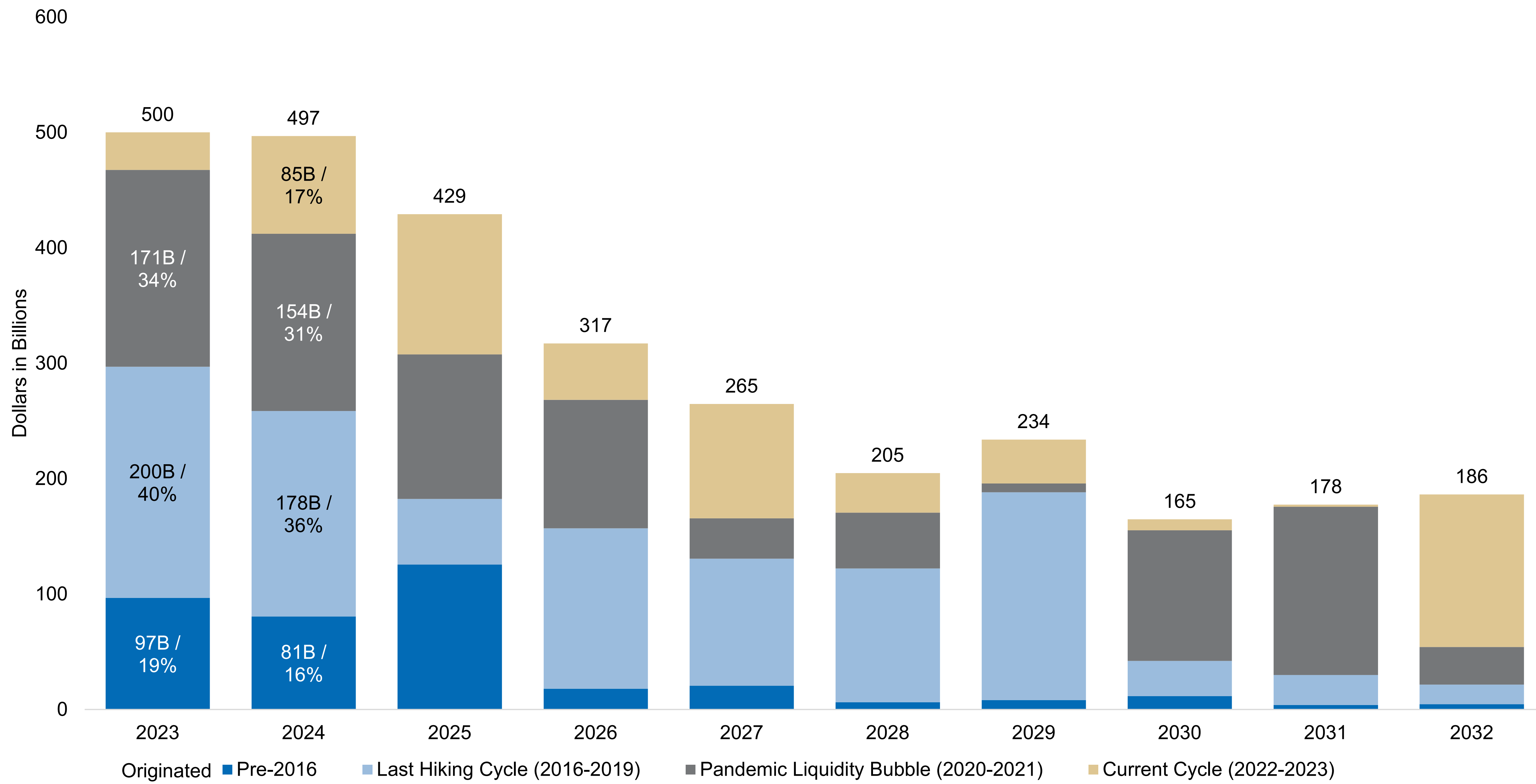


Source: MBA, Newmark Research

A Third of Loans Maturing Were Originated at Record Low Rates, High Valuations

While substantially all loans are maturing into an environment with higher prevailing cost of capital than when they were originated, this is particularly the case for loans originated from 2020 through the first half of 2022. Over the next several years, the share of these loans remains elevated until 2027.

Commercial Mortgage Maturities: Office, Multifamily, Retail and Industrial

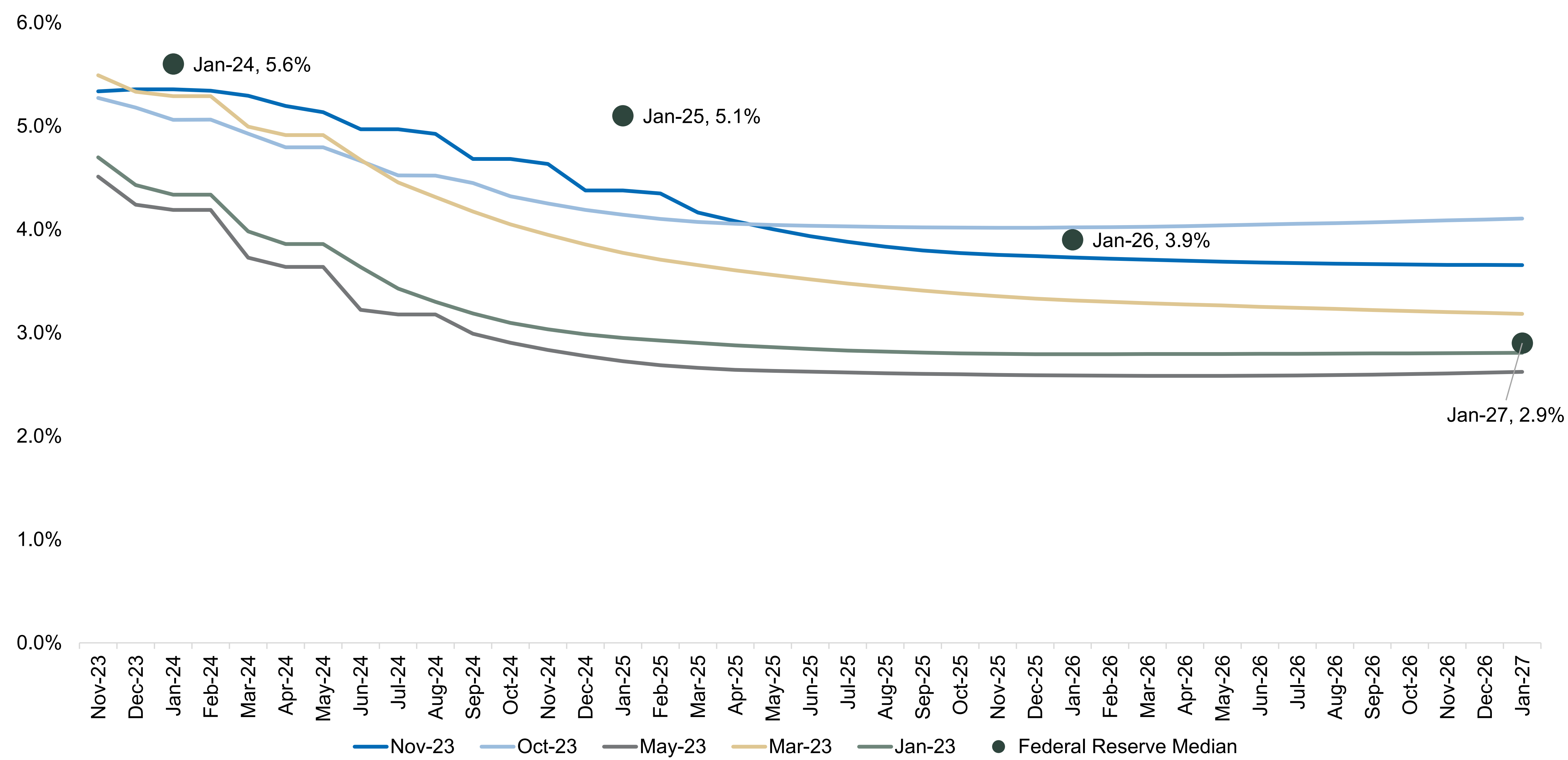


Source: MBA, Newmark Research as of 11/7/2023

New *New* Normal—Higher Cost of Capital

Forward rate projections have varied widely over the last 11 months, but at no time have they anticipated a rapid return to post-GFC short rates. Without this prospect, long-term rates too are likely to remain locked in higher ranges. In addition, quantitative tightening and large government deficits will continue to place upward pressure on the term premium.

U.S. Rates Forward Curve: 1-Month SOFR

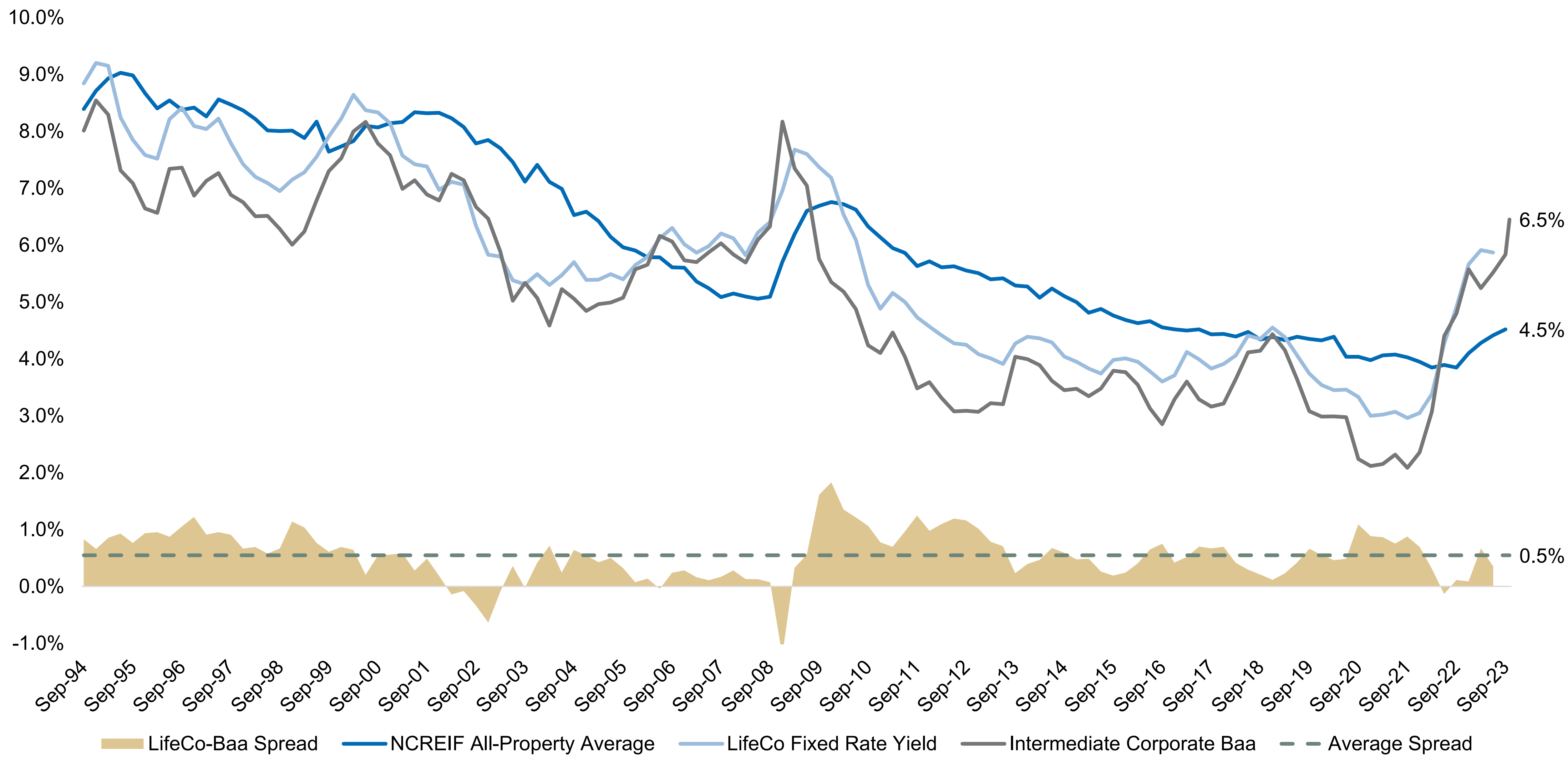


Source: Chatham Financial, Newmark Research as of 11/17/2023

Corporate Bond Yields, CRE Debt Costs and Cap Rates Are Intimately Connected

All three of these are additionally shaped by Treasury yields, but we focus on corporate bonds because of the close relationship between the credit risk on corporate debt and that on CRE lending. The analysis shows that credit spreads average 50 basis points wider than on Baa intermediate credit. This would imply a LifeCo fixed rate yield of 7.0%, given recent Baa yields, and higher yields still for riskier forms of CRE lending. Looking forward, due to the pullback of banks, spreads will likely run above the average, perhaps substantially.

Comparison of Cost of Capital Benchmarks

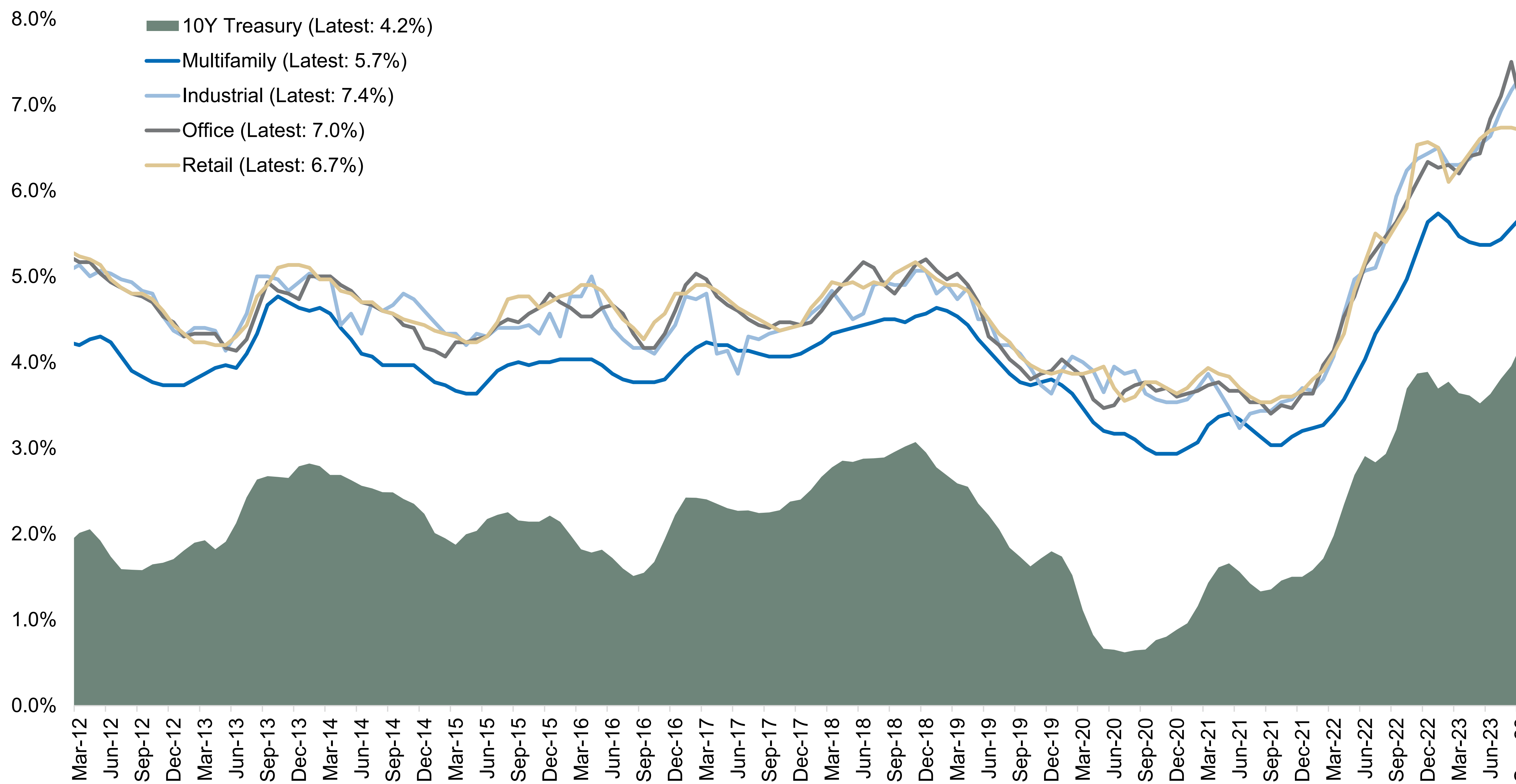


Source: NCREIF, Moody's Analytics, American Council of Life Insurers, Newmark Research as of 11/13/2023

Fixed-Rate Debt Costs Rising in Private Transaction Market

The Fed's hiking cycle and the concomitant increase in yields across the Treasury curve drove the initial increase in the cost of CRE debt. In recent months, long-term Treasury yields have surged, breaking out from their 3.5 to 4.0% trading range to a 4.5% to 5.0% range. This development is only now starting to price into CRE debt markets and is liable to drive cost of capital higher still. Multifamily yields are typically lower than those of other property types, but the current disconnect is extreme and reflects subsidized funding from agency lenders.

Average Interest Rate on Fixed Rate CRE Originations

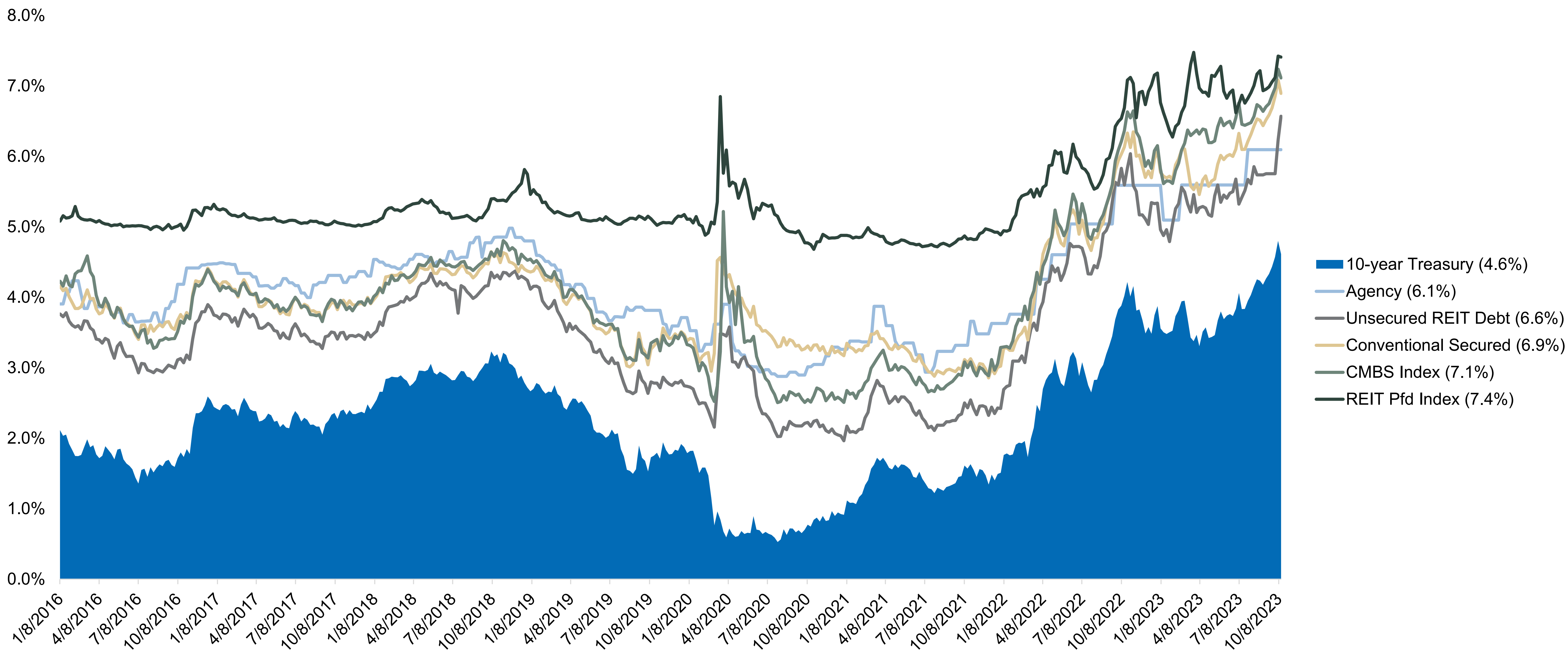


Source: Real Capital Analytics, Newmark Research as of 10/24/2023

Public Market CRE Benchmarks Rising along with Treasuries

Public market benchmarks were faster to rise as compared with private transaction-based measures. Both through direct lending and by purchasing publicly-traded instruments, fixed income investors are now able to pick up additional yield by investing in CRE relative to corporate credit. This should attract some capital inflows from lenders with optionality, namely life insurance companies. This is in accord with the recent upward trend in life insurance originations – though overall volumes remain inhibited.

Public CRE Cost of Debt Benchmarks vs. Treasuries

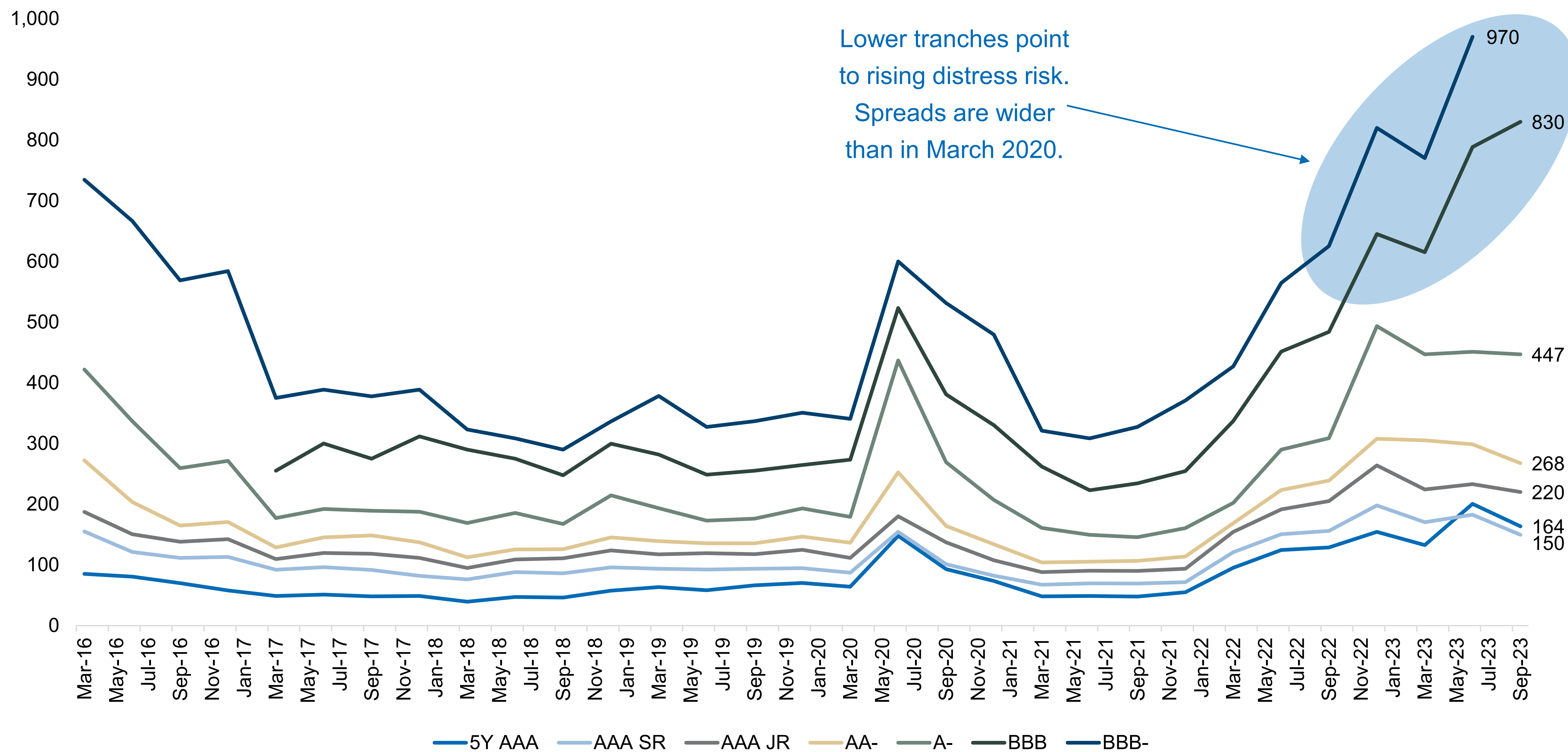


Sources: Newmark Research, Green Street as of 10/25/2023

Spreads Have Widened Rapidly across CMBS Risk Tranches

The CMBS market was the first part of the CRE market to begin pricing in the new risk-and-rate environment. Recently, spreads have been relatively stable for the A- tranches and above, while riskier tranches have turned asymptotic. All-in yields have increased across tranches due to continued rate hikes. The further declines in prices for the lower tranches represents a problem for issuers, who are required to keep "skin in the game." This alone may influence banks' willingness to securitize.

Average CMBS Conduit New Issuance Spreads to SOFR

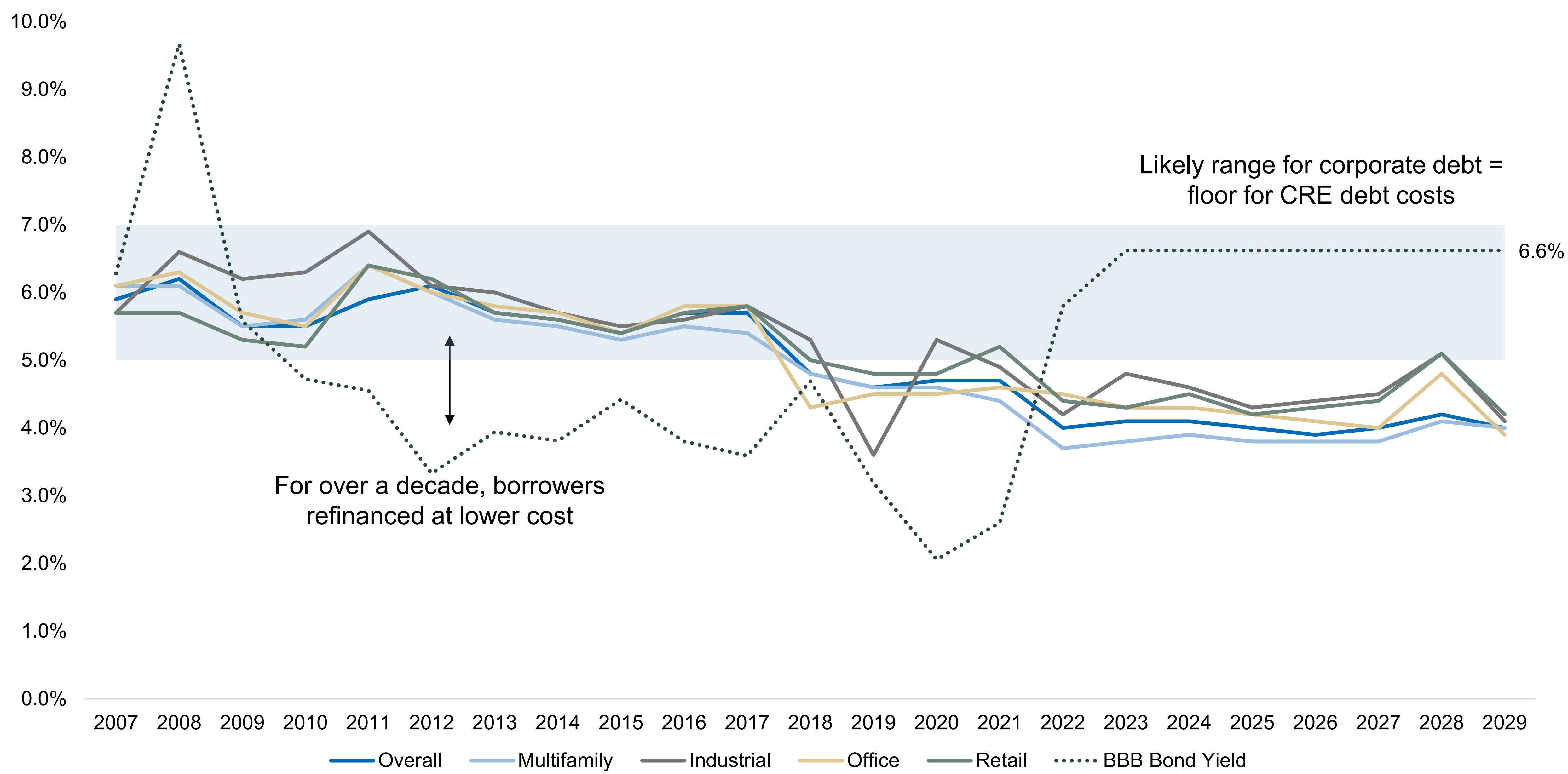


Source: Trepp, Newmark Research as of 10/24/2023

Maturing Loans Face Significantly Higher Costs, Driving Payment Stress

Following the recent surge in long-term rates, corporate bonds yields are now at the top of our estimated range while spreads are still close to long-term averages. CRE debt costs will be driven higher still. Maturing fixed-rate CRE debt faces a much higher burden on refinance. In some cases, organic deleveraging will have made it possible for higher interest expenses to be absorbed; but where values have been stable or declining, sponsors will need to inject equity or else face the prospect of defaulting.

Weighted Average Interest Rate on Maturing Debt vs. Prevailing Bond Yields

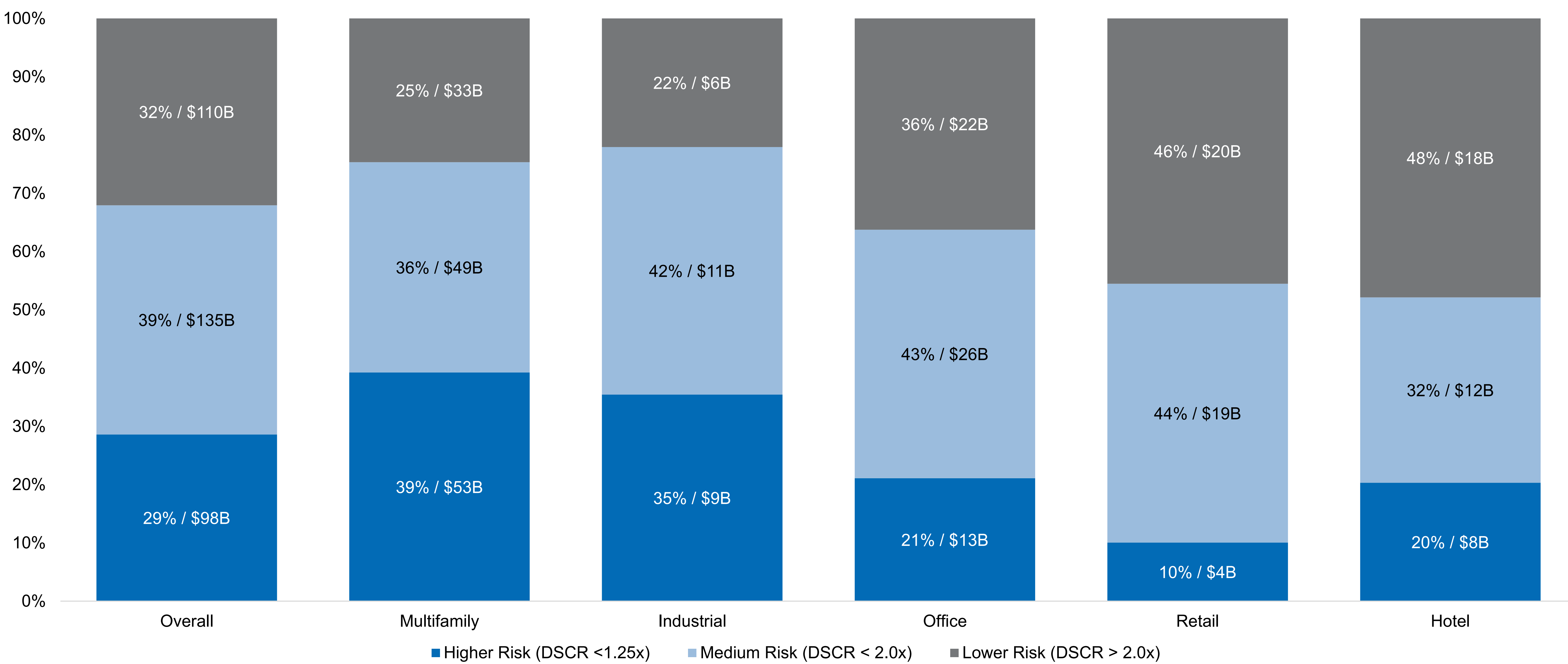


Source: RCA, ICE Data Indices, Newmark Research as of 10/24/2023

Some Loans Will Be Able to Absorb Higher Interest Costs – But Many Will Not

Even property types with strong operating fundamentals could face challenges covering new, higher interest costs. Floating rate loans on transitional product – a significant portion originated by debt funds and securitized in CRE CLO – are particularly fraught. This is largely responsible for the high portion of at-risk loans in the multifamily and industrial sectors. The securitized markets are not an isolated problem: banks engaged in a great deal of this newly risky lending. New bank regs give them a "pass" on underwater loans but not DSCRs.

DSCR Profile of Securitized CRE Debt Maturing between 2023 and 2025

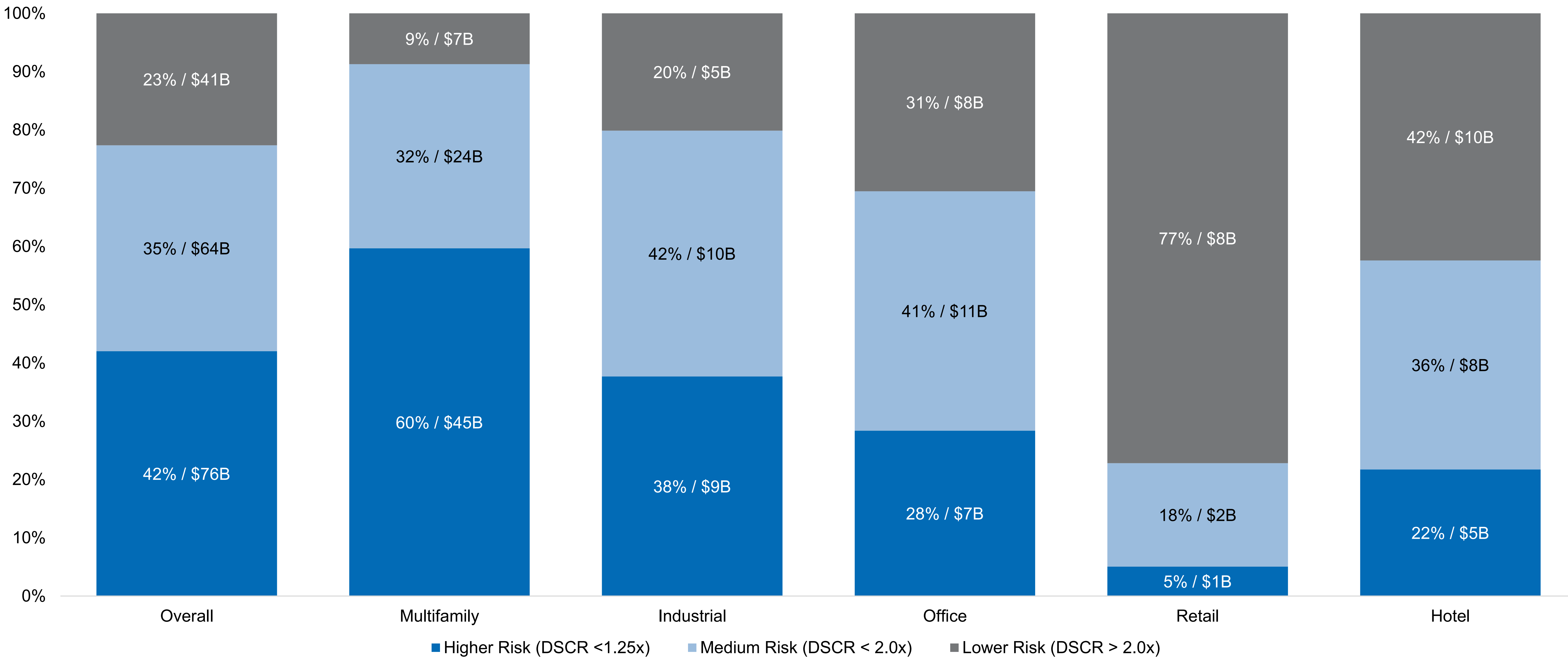


Source: Trepp, Newmark Research as of 10/26/2023

Floating Rate Loans Are An Even Better Indicator of Potential Distress

Floating rate loans are more prevalent in CRE CLO and SASB product, helping to explain their outsized role in driving DSCR risk in upcoming maturities.

DSCR Profile of Securitized CRE Debt Maturing between 2023 and 2025: Floating Rate Loans Only

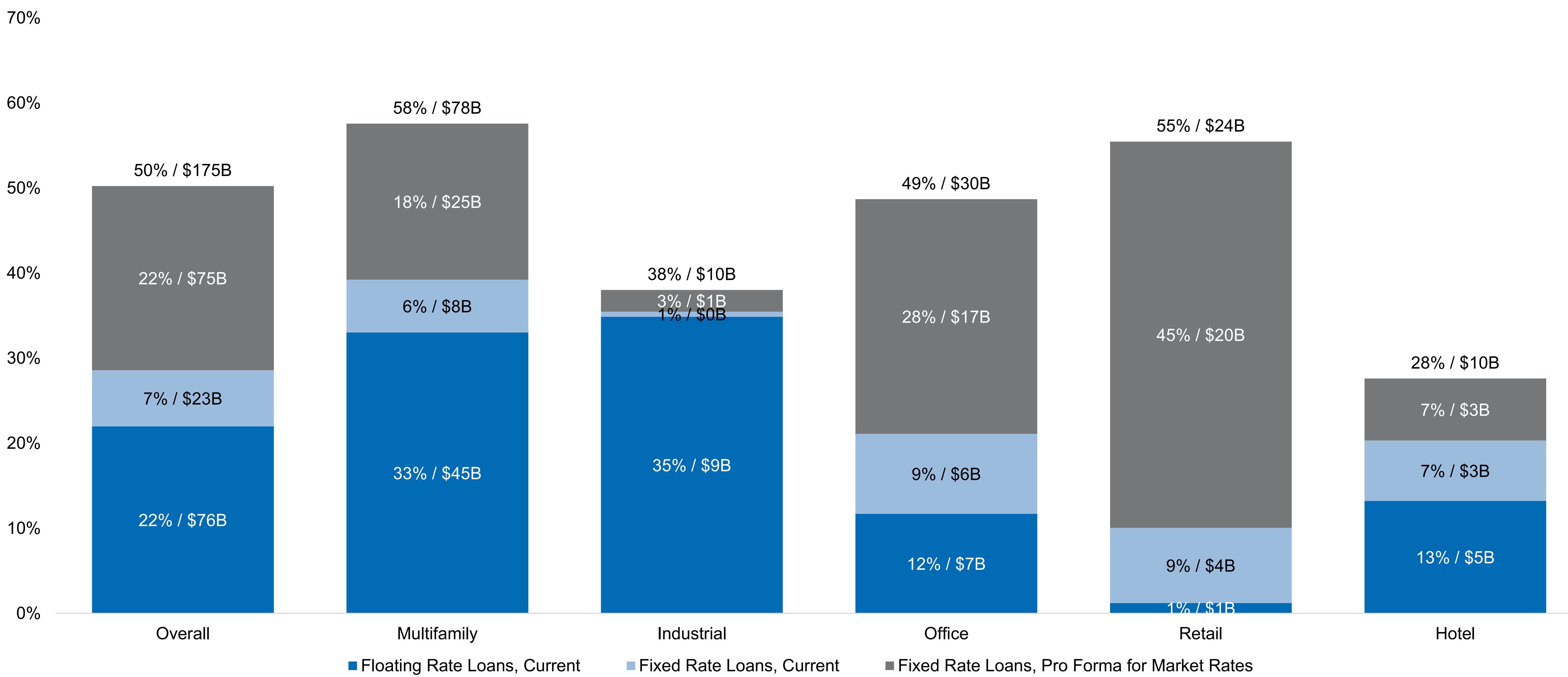


Source: Trepp, Newmark Research as of 10/26/2023

Debt Service Risk Will Rise Dramatically as Fixed-Rate Loans Face Market Rates

At in-place rates, fixed-rate loans are comparatively unexposed to immediate payment risk. As these loans mature, they will face market rates which have risen dramatically. This will be a major impediment to refinancing these loans, particularly as banks have been given much less flexibility in dealing with loans that are unable to pay market rates as opposed to loans that exceed LTV covenants (or are even underwater). While this analysis focuses on securitized debt, it has serious implications for the broader landscape.

Share of Securitized Loans Maturing between 2023 and 2025 with a DSCR under 1.25x ("High Risk")

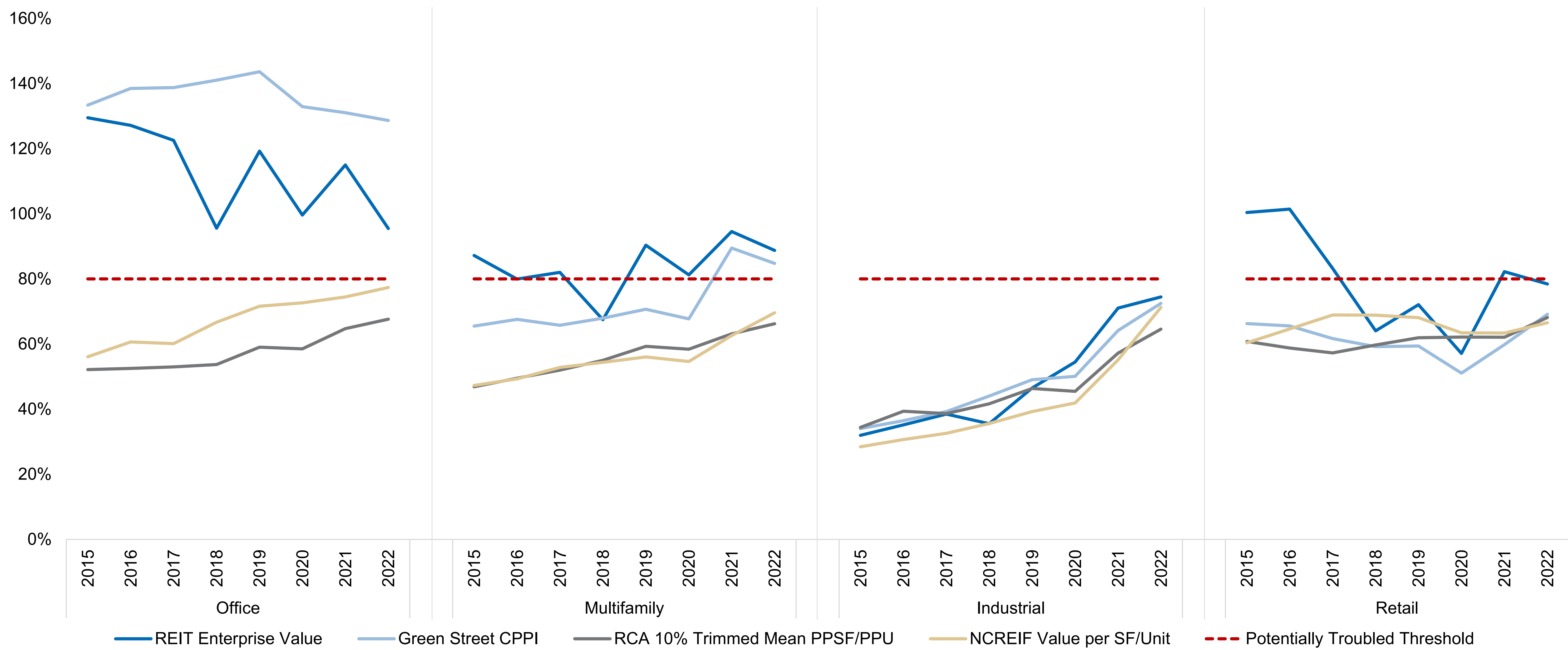


Source: Trepp, Green Street, Newmark Research as of 10/26/2023
Note: to estimate the impact of market rates. We analyzed representative samples of 2023 to 20-25 maturities for each property type. We calculated a pro forma DSCR by comparing the current loan rate with the current market rate. For the current market rate, we used Greeen Street's Agency benchmark rate for multifamily and their conventional secured benchmark for all other property types. These rates were 6.1% and 6.9%, respectively.

Falling Asset Values Mean That Some Loans Are Already Underwater

Public market benchmarks and those adjacent (Green Street CPPI) in general show greater recent declines in value and higher resulting mark-to-market LTVs; however, the discrepancy is narrow except for office and multifamily. We believe the public market benchmarks are more credible in this instance. It is worth noting that, with the exception of the RCA transaction-based series, all of these measures are biased towards higher-quality, institutional properties. As such, this likely represents a best-case scenario.

Average Mark-to-Market* Loan-to-Value Ratio by Year Debt Originated

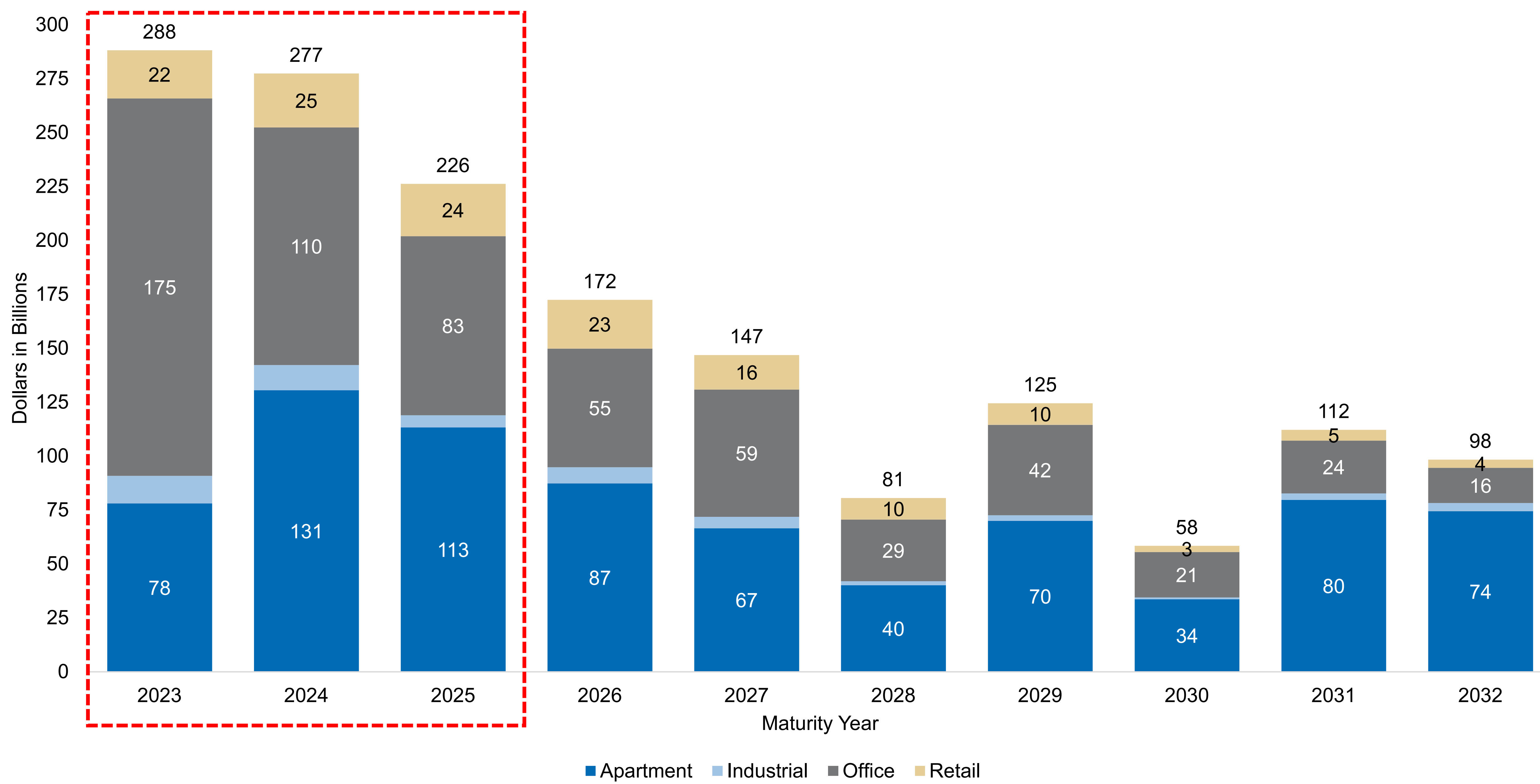


Source: RCA, Green Street, NCREIF Newmark Research as of 11/7/2023
*We take the average loan-to-value ratio of loans originated in each respective year based on an analysis of RCA data, then we mark the value of the assets to market using the various proposed benchmarks.

$1.6T of Outstanding CRE Debt is Potentially Troubled, $792B Maturing in '23-'25

Combining our analysis of mark-to-market LTVs with the structure of debt maturities, we estimate the volume of debt that currently is potentially troubled.* Office and multifamily loans constitute most potentially troubled loans, particularly in the 2023-to-2025 period. The high office volume results from most loans being underwater. The distribution of LTV ratios for multifamily are more favorable overall, but the greater size of the multifamily market and the concentration of lending during the recent liquidity bubble drive high nominal exposure.

Potentially Troubled Loans by Maturity Year*

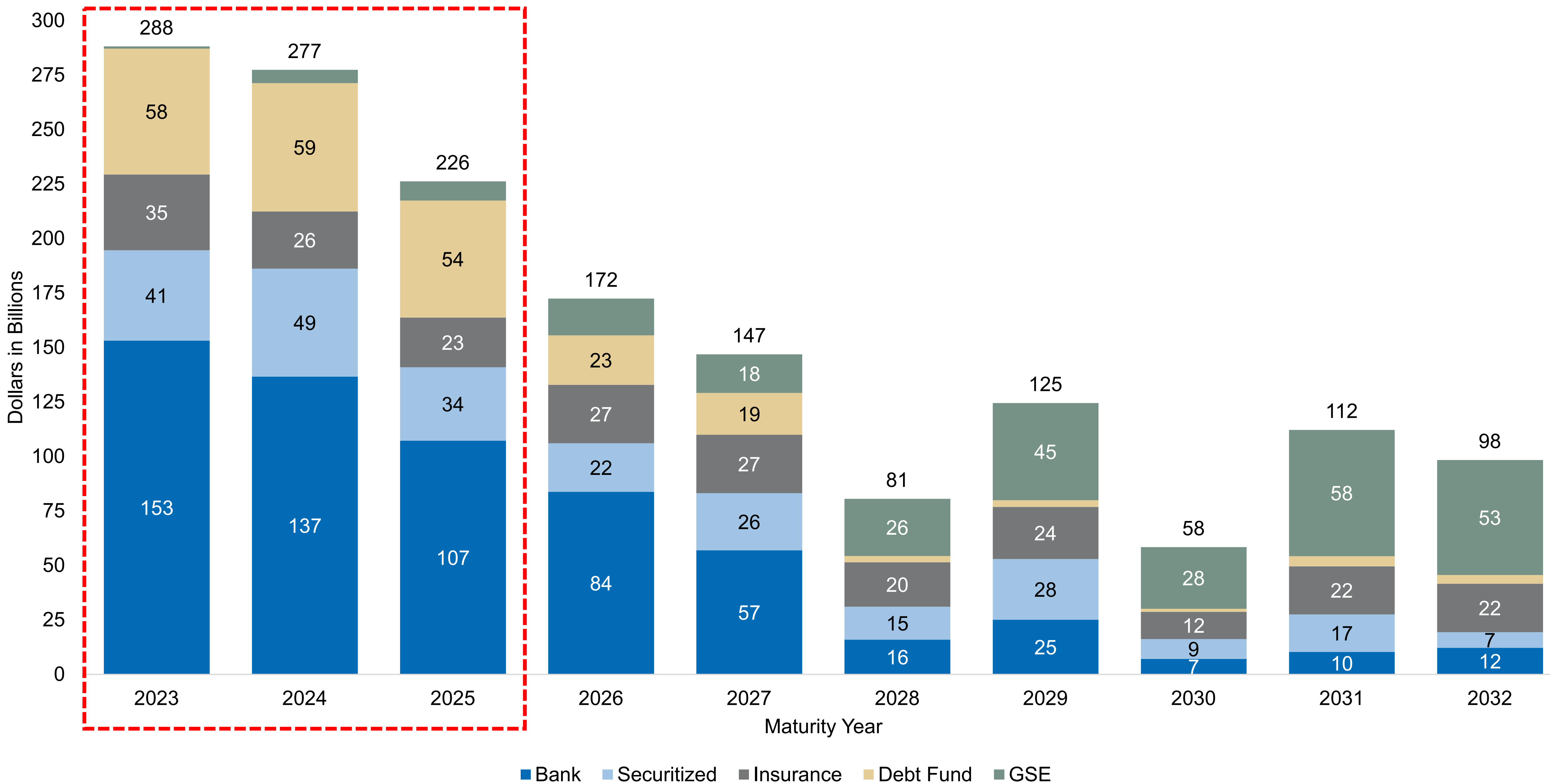


Source: Green Street, NCREIF, RCA, Trepp, MBA, Newmark Research as of 11/7/2023
*Loans with an estimated senior debt LTV of 80% or greater are potentially troubled. The loans are marked-to-market using an average of cumulative changes in the Dow Jones REIT sector price indices, REIT sector enterprise value indices and Green Street sector CPPI.

Banks, Debt Funds and CMBS/CRE CLO Face the Greatest Challenges

Banks carry the most potentially troubled debt by a significant margin, with 2/3 of it maturing in 2023 to 2025. Mostly, this reflects banks' dominant role in CRE lending – banks account for 51% of maturing loans and 48% of potentially troubled loans in the 2023-to-2025 period. Debt funds are a different story, with maturities even more heavily concentrated in near-term maturities and making up an outsized share of troubled loans. Insurance lending is in line with its lending share, while GSEs boast longer maturities and a low distress level.

Potentially Troubled Loans by Maturity Year*

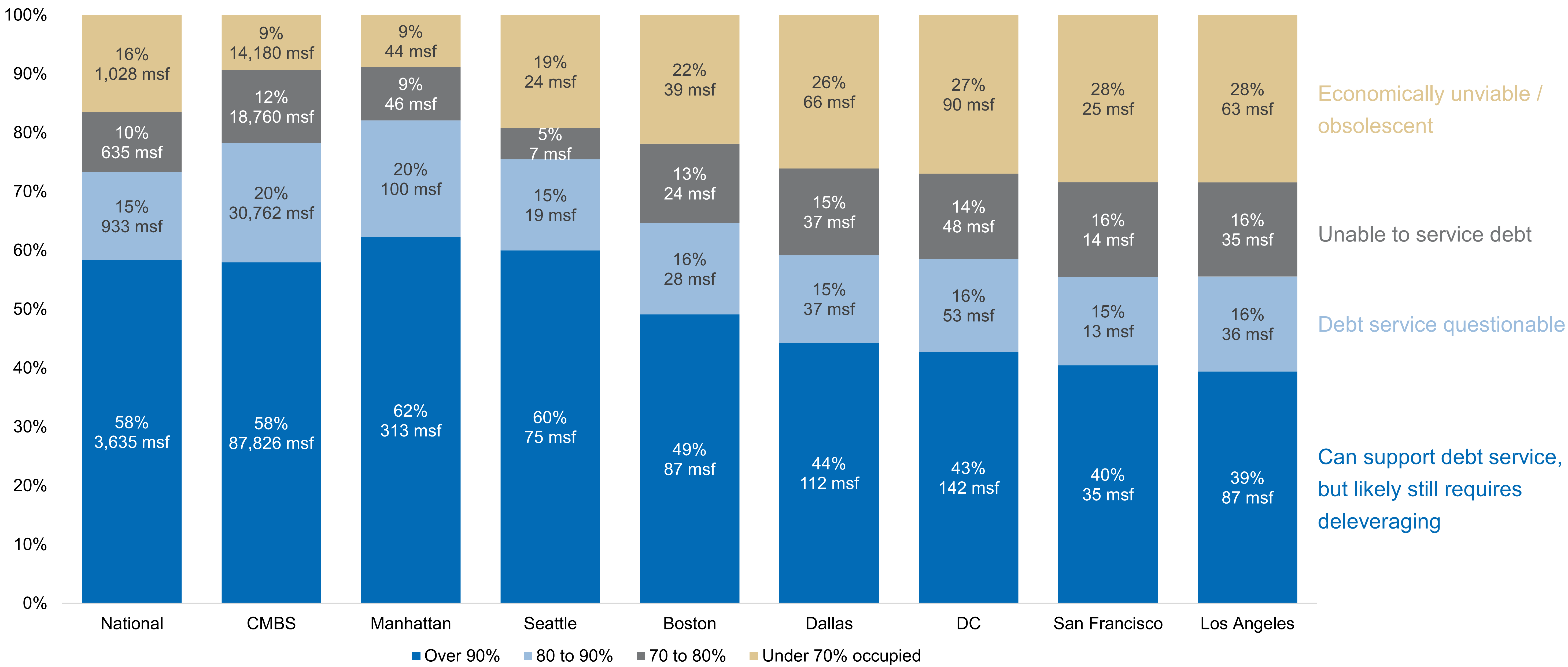


Source: Green Street, NCREIF, RCA, Trepp, MBA, Newmark Research as of 11/7/2023
*Loans with an estimated senior debt LTV of 80% or greater are potentially troubled. The loans are marked-to-market using an average of cumulative changes in the Dow Jones REIT sector price indices, REIT sector enterprise value indices and Green Street sector CPPI.

Structural Health and Impairment in the Office Sector

Significant portions of the office market are structurally impaired purely from an occupancy perspective. Debt issues will accelerate their demise. On the other hand, a great deal of offices have healthy occupancy profiles. While they may still be over-levered, there is a clear fundamental path to solvency.

Distribution of Office Vacancy

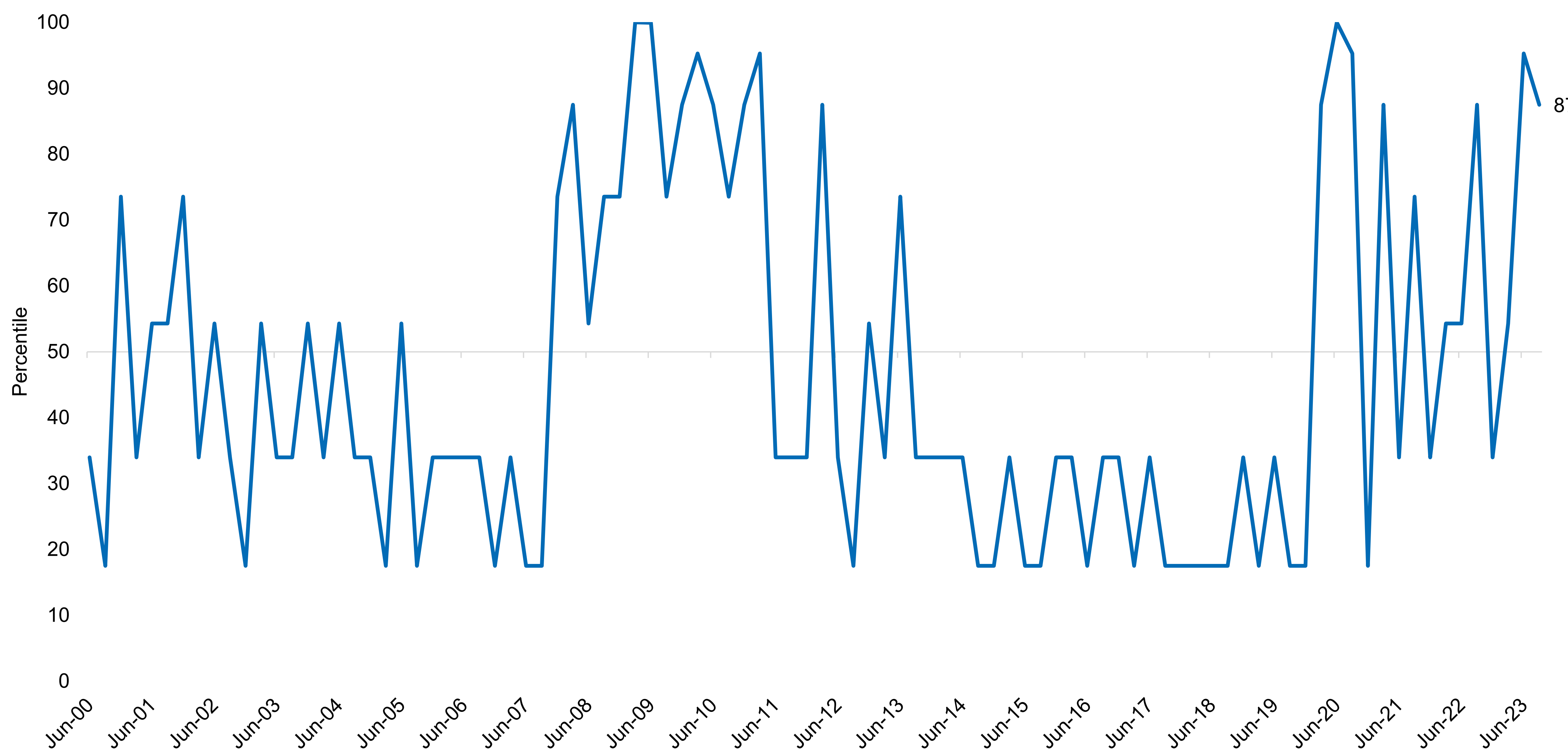


Source: Costar, Newmark Research as of 11/17/2023

Interest in Loan Sales Near Record Highs

While it is difficult to estimate the volume of loan dispositions given their opacity, interest in the topic has clearly increased, matching the levels seen in mid-2020 and during the GFC.

CRE Loan Sales Story Frequency*

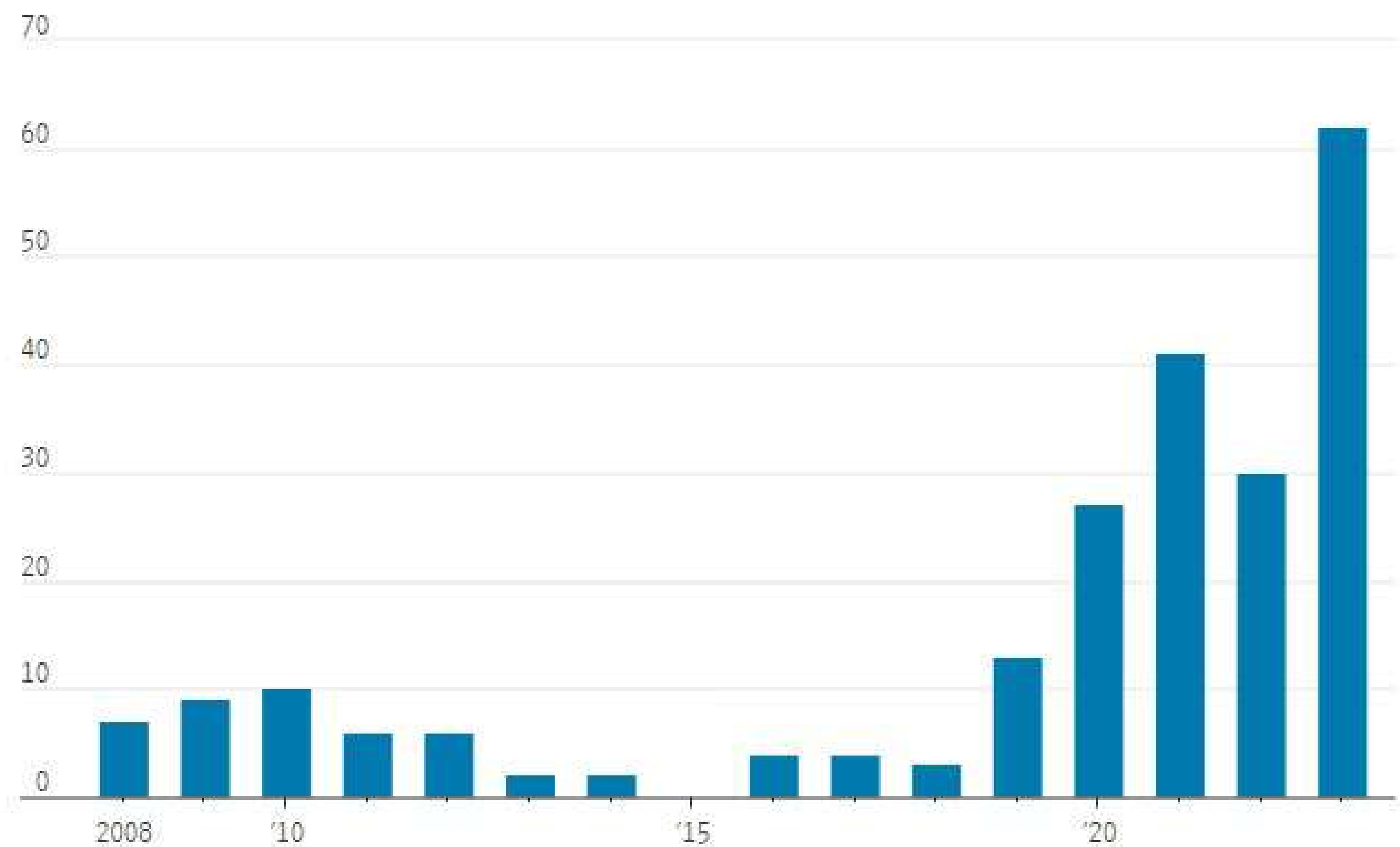


Source: Green Street, Newmark Research as of 11/8/2023
*Based on Commercial Mortgage Alert and Real Estate Alert stories that mention loan sales. Percentile calculated using on normal sampling distribution.

Notices of Foreclosures on Mezzanine Property Loans Already Exceeds GFC

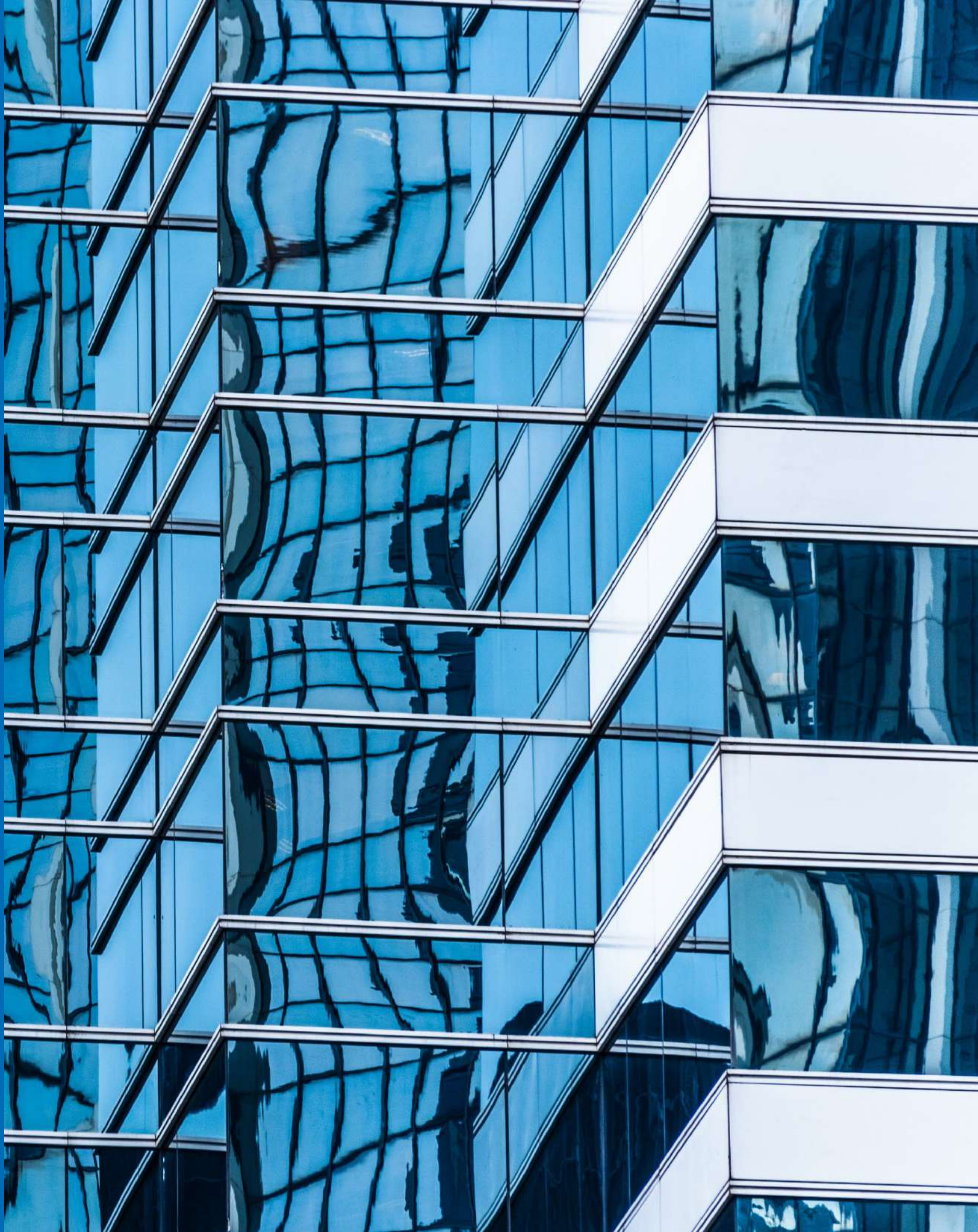
The WSJ conducted an analysis of UCC foreclosure notices on mezzanine property loans. While the number of notices they've identified remains small in absolute terms, it stands in for much more significant underlying distress. Our prior analysis suggests that most mezzanine financing, particularly for the office and multifamily sectors, is likely to experience widespread and often total losses.

Number of UCC Foreclosure Sale Notices for Commercial Property Loans



Source: "The Clearest Sign Yet That Commercial Real Estate Is in Trouble", published on 11/13/2023 by the Wall Street Journal
Note: As originally appeared in the article, "The Journal counted uniform commercial-code foreclosure-sale notices for commercial property loans published in national and regional newspapers between Jan. 1 2008, and Oct. 31, 2023. When a loan had multiple notices, we counted only the first."

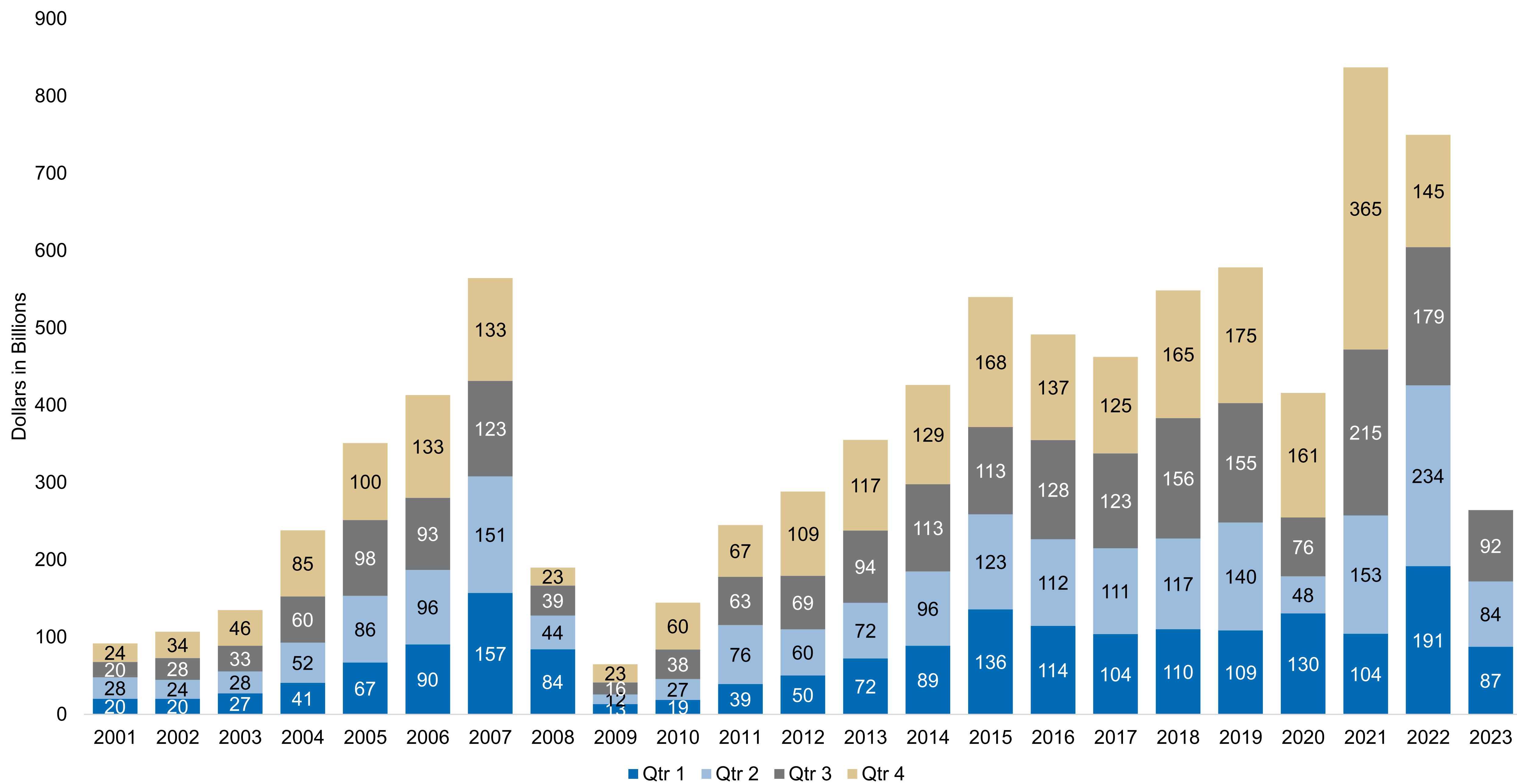
Investment Activity



Sales Activity Remained Anemic in Third Quarter of 2023

Sales declined 56% year-over-year in the first three quarters of 2023 and negative 30% compared with the 2017-to-2019 average. Debt costs continued to rise in the third quarter of 2023 and, for some segments of the market, is essentially unavailable. Assets values are falling, and rates are volatile. Buyers are wary but confident that attractive entry points will emerge in time. Sellers have been reticent to capitulate, but debt is increasingly becoming a trigger. Many assets will require lender cooperation and loan restructuring to admit a sale.

Investment Sales Volume

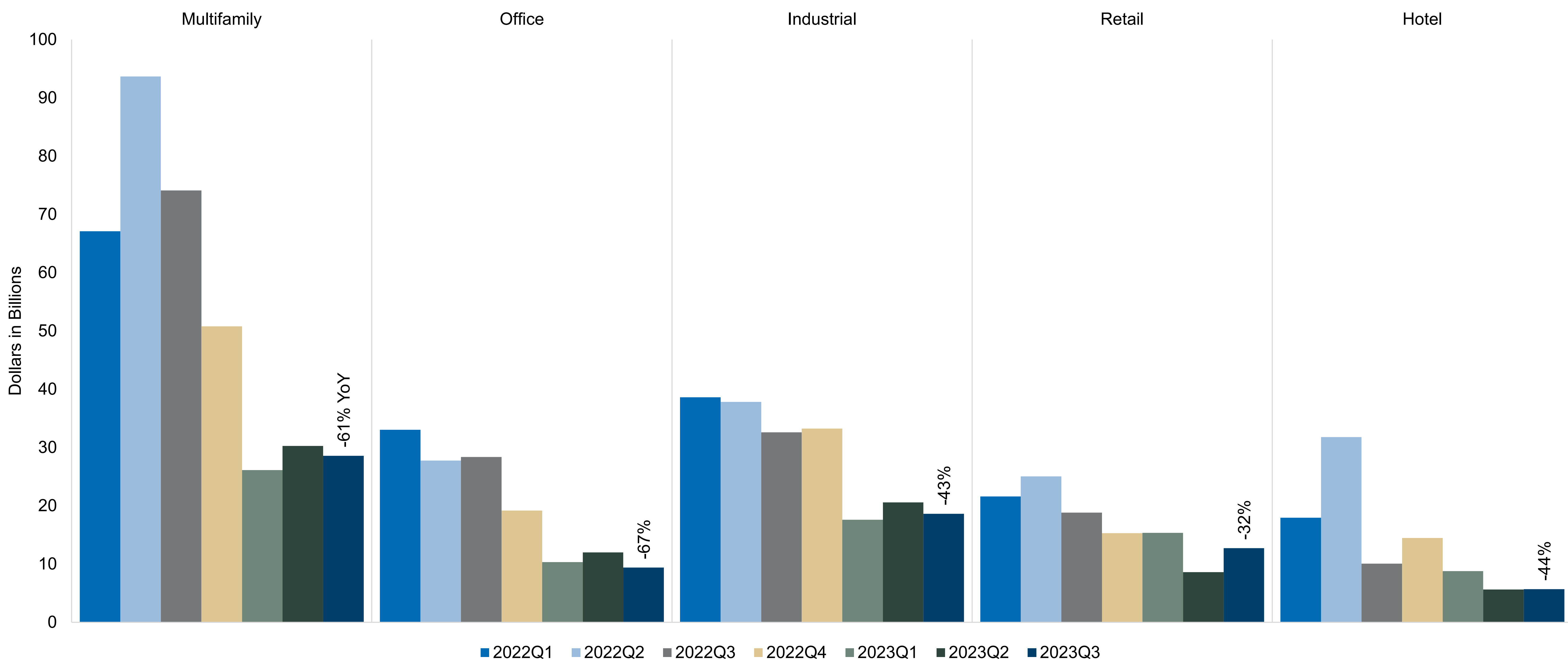


Source: RCA, Newmark Research as of 10/24/2023

Transaction Activity Fell 48% Year-over-Year in 3Q23, Impacting All Property Sectors

Office and multifamily sales fell the most on a year-over-year basis while industrial and, especially, retail sales have been comparatively resilient.

Investment Sales Volume

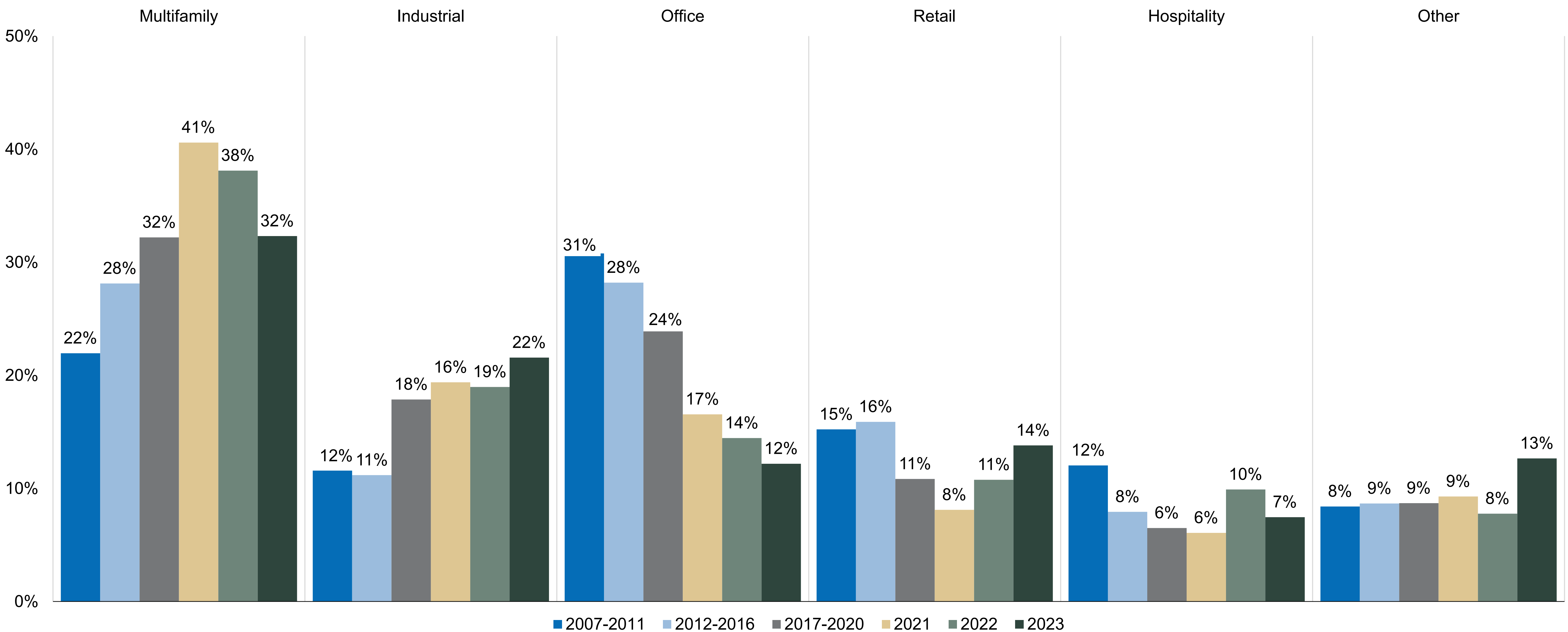


Source: RCA, Newmark Research as of 10/24/2023

Investor Allocations in Flux in 2023

Multifamily allocation dropped sharply year-to-date following two years of highly elevated share. Office allocation continued to fall. The star performers are industrial, retail and "other" – all of which are above their share in the 2017-to-2020 period. Industrial assets were inflated during the pandemic liquidity bubble, but they have been better supported by NOI growth compared with other bubble sectors. This helps account for diminished sales, but growing share. Retail is now reclaiming a higher share after years of disfavor.

Investor Allocation over Time

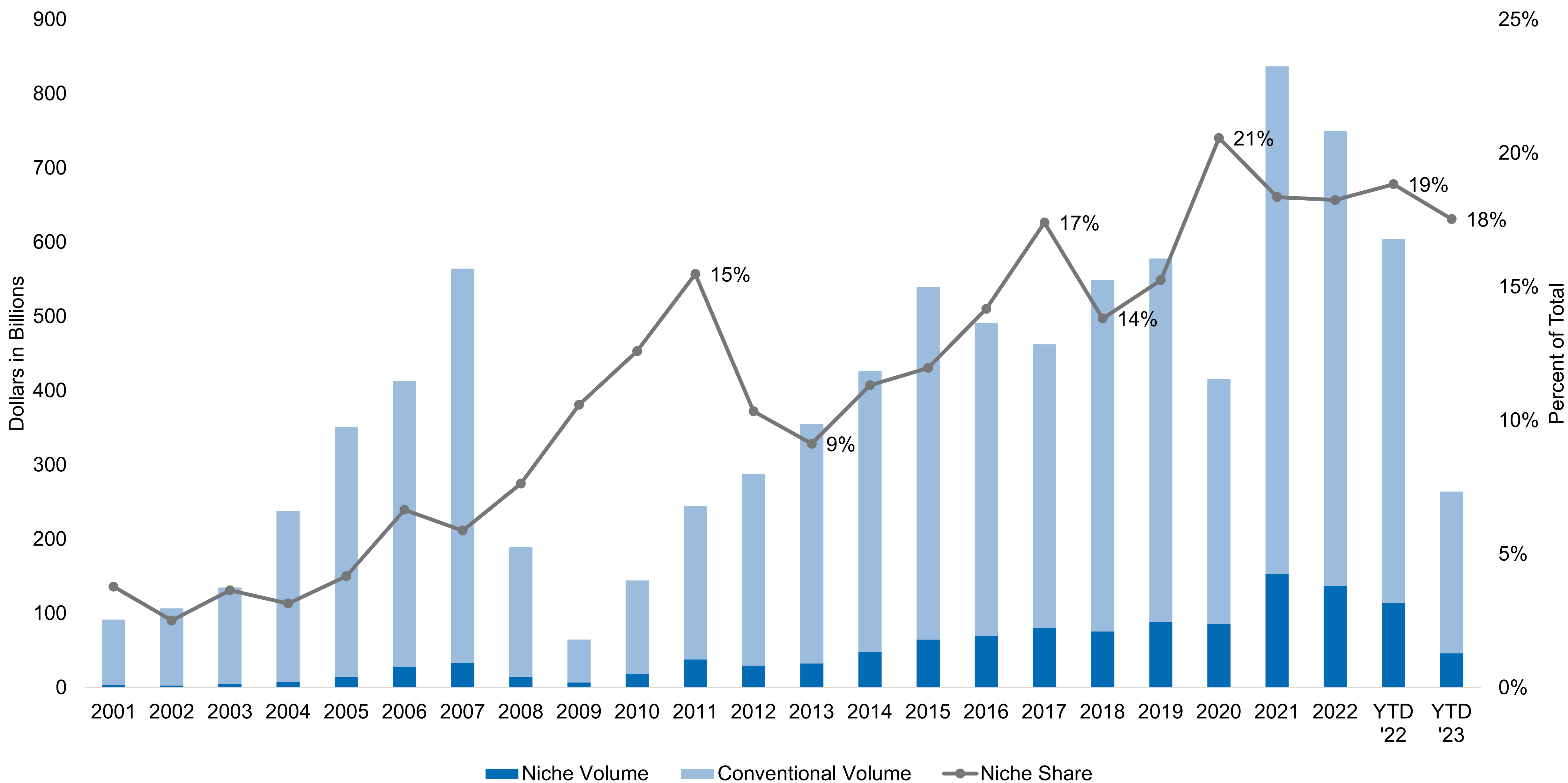


Source: Real Capital Analytics, Newmark Research as of 10/24/2023
Note: "other" includes development sites, senior housing and nursing care, self storage, parking and manufactured housing.

Niche Sector Volumes Contracted 59% Year-over-Year through 3Q23

Niche investment categories, such as life science, student housing, cold storage etc., saw investor interest increase significantly in 2020 to 2022, driving sales volume to $153 billion in 2021, or 18% of total transaction volume. 2022 was also a strong year for niche investment, both in dollar and share terms. Niche asset sales weakened sharply in the first half of 2023 – down 65% year-over-year driving the niche share to just 14%. Activity was bolstered by several self-storage M&A closings in Q3, which drove volume up 68% quarter-over-quarter.

Investment Sales Volume

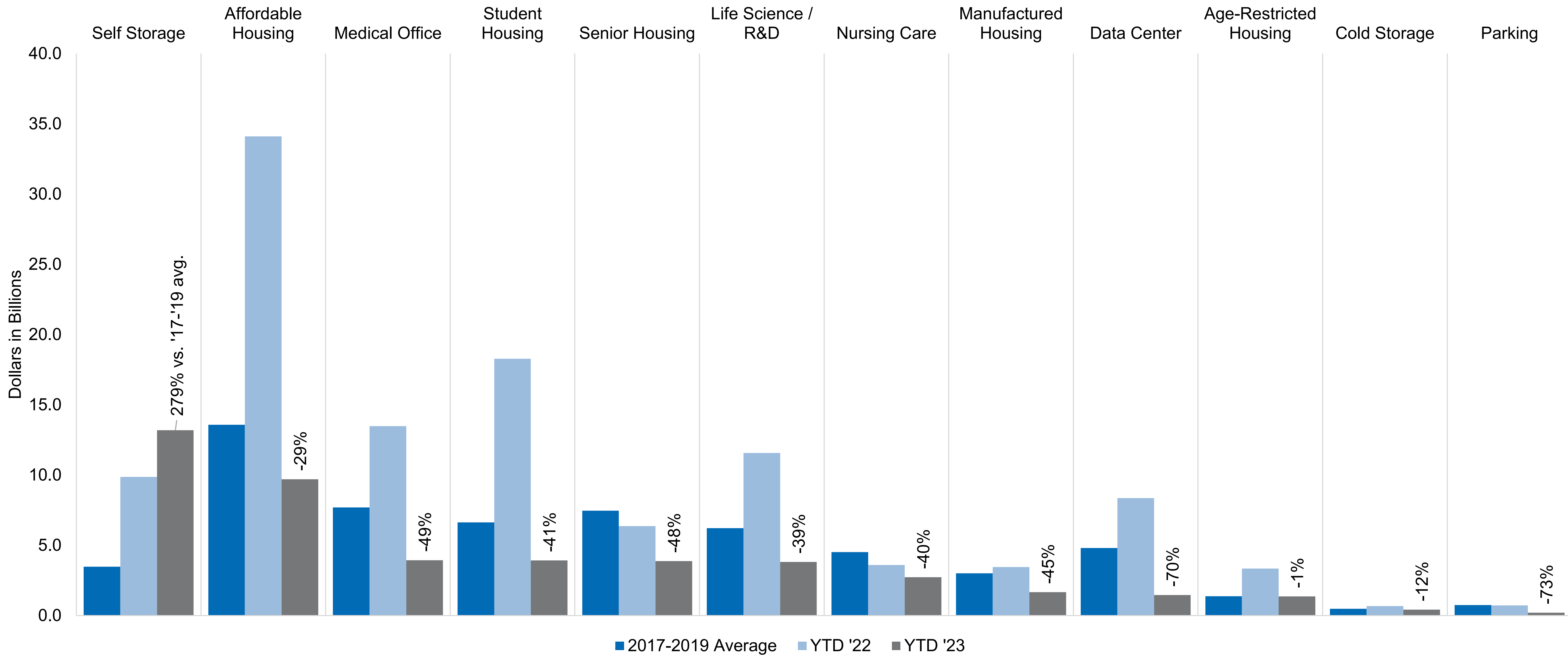


Source: RCA, Newmark Research as of 10/24/2023

Niche Asset Sales Broadly below Pre-Pandemic Levels through 3Q23

Sales contracted year-over-year across niche asset sectors through the 3Q23. More significantly, sales also contracted compared to the pre-pandemic baseline, with the sole exception of self-storage. Age-restricted housing, cold storage and affordable housing outperformed on the margin, while data center, medical office, and senior housing underperformed in the first three quarters of 2023 compared with the pre-pandemic baseline.

Investment Sales Volume

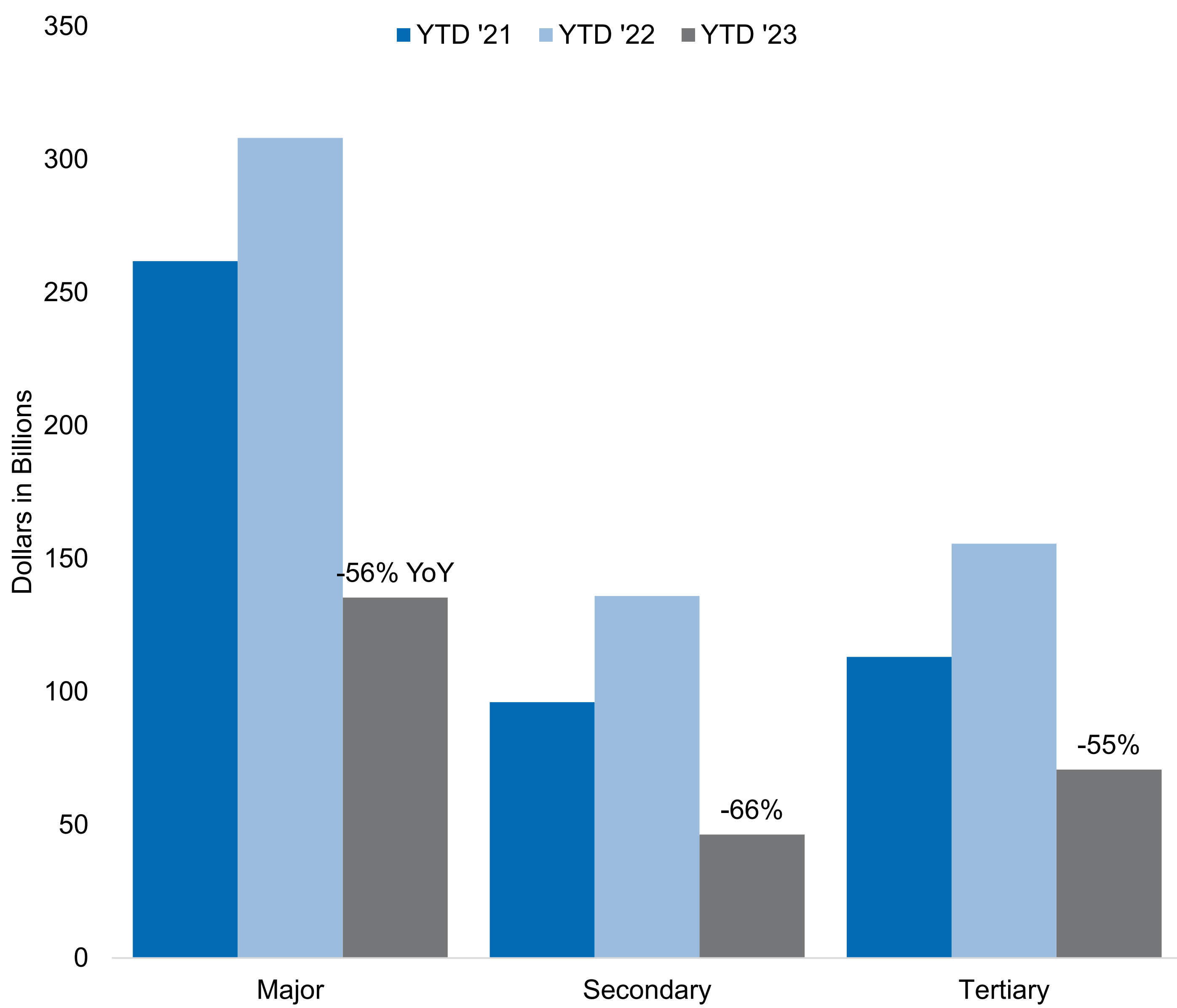


Source: RCA, Newmark Research as of 10/24/2023

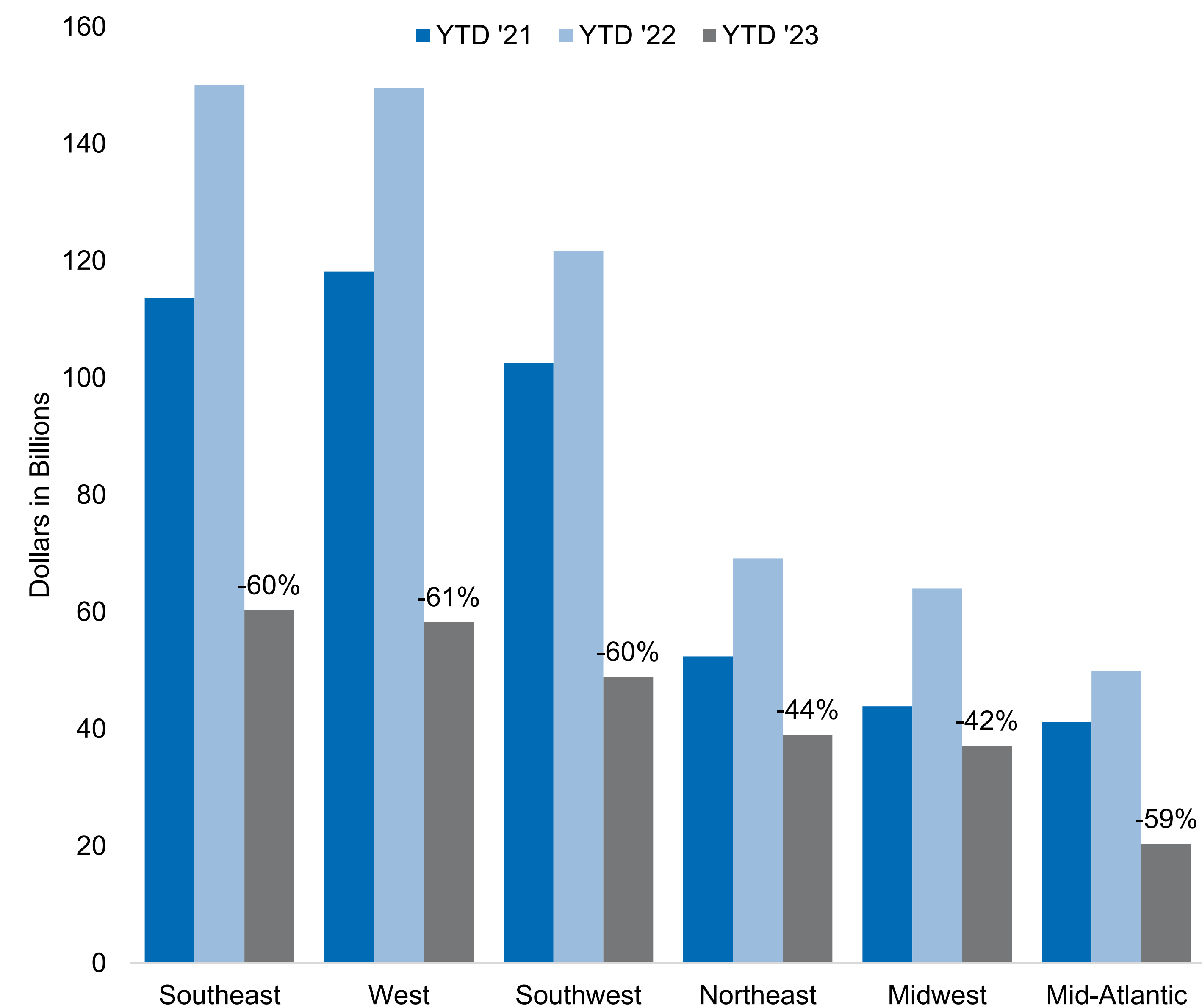
Sales Volume Continues to Fall Sharply across Market Tiers and Regions

Against this negative backdrop, major and tertiary markets have been moderately less impacted. Indeed, tertiary market sales volume has exceeded that of secondary markets year-to-date. The West and Southeast regions were the most liquid overall, while the Midwest and Northeast contracted least year-over-year.

Investment Sales Volume by Market Tier



Investment Sales Volume by Region

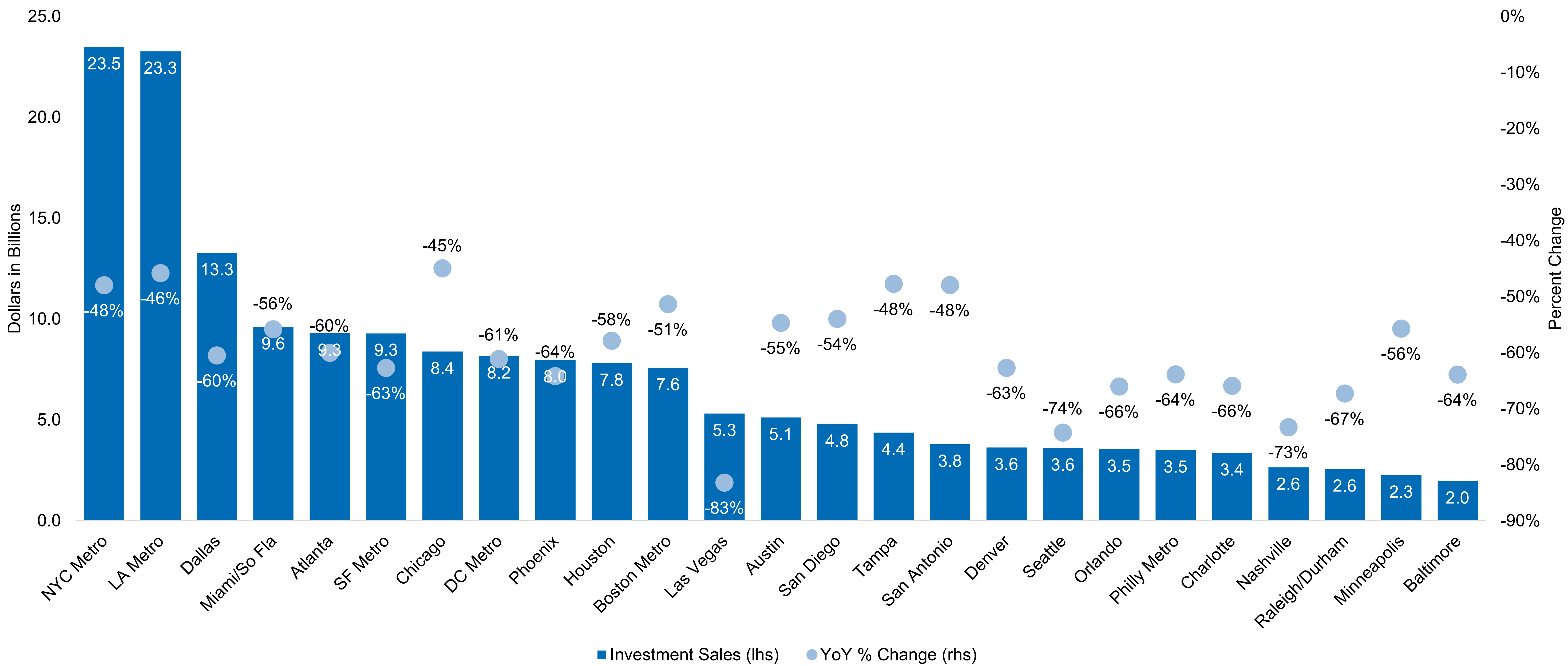


Source: RCA, Newmark Research as of 10/24/2023

Top United States Markets by Investment Sales Volume

NYC Metro and LA Metro were the top markets by investment volume in the US in the first three quarters of 2023. While volumes were down year-over-year in all the top 25 markets, Chicago, LA Metro, NYC Metro, Tampa and San Antonio experienced lesser but still severe reductions in activity. In contrast, Las Vegas, Seattle and Nashville volumes fell even more sharply than in other markets.

Top 25 Metro Markets by 3Q23 Year-to-Date Sales Volume

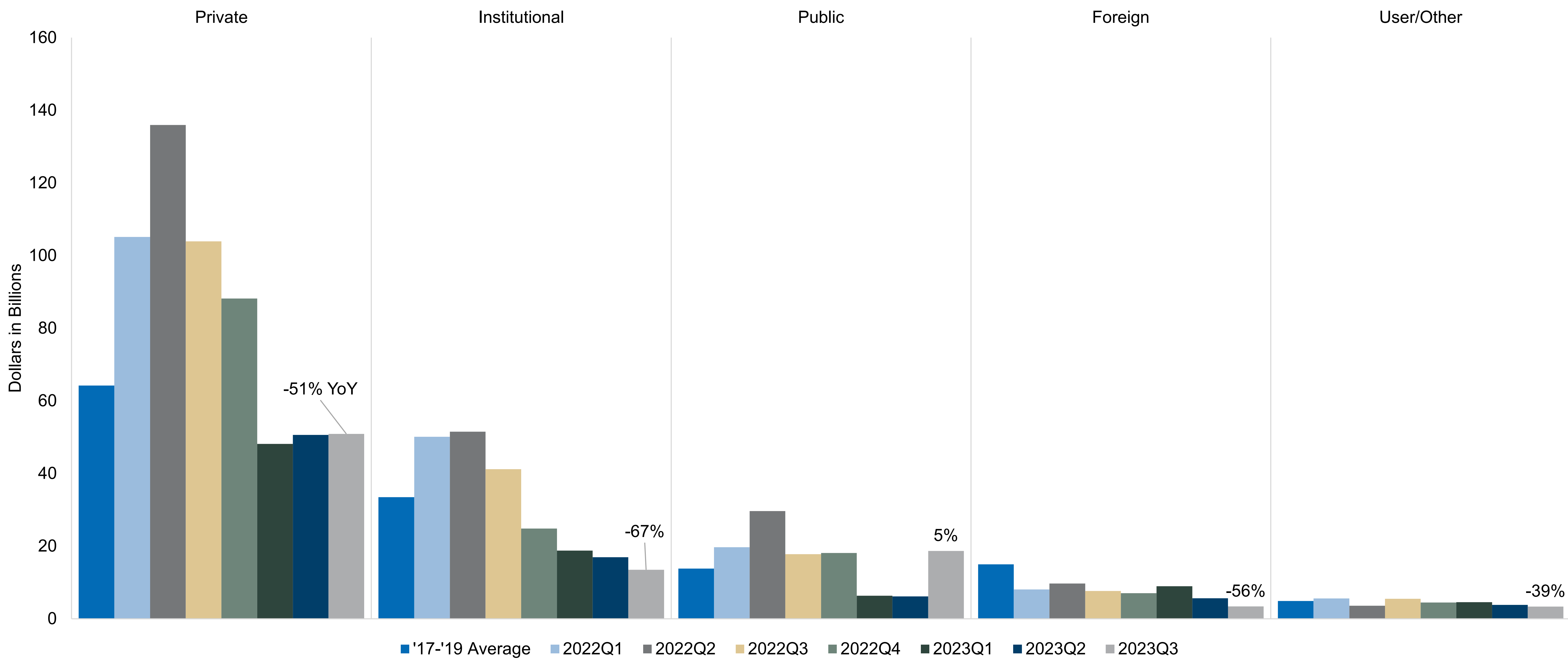


Source: RCA, Newmark Research as of 10/24/2023
Note: excludes tertiary markets from ranking.

Acquisitions Down Sharply across Most Investor Groups

REIT acquisitions increased sharply in the third quarter of 2023; however, this is unlikely to be repeated. The overall trend both for REITs and other investor groups points towards continued weak activity. Institutions have experienced the greatest slowdown in activity, reflecting their greater sensitivity to cost of capital considerations.

Acquisitions Volume by Capital Group

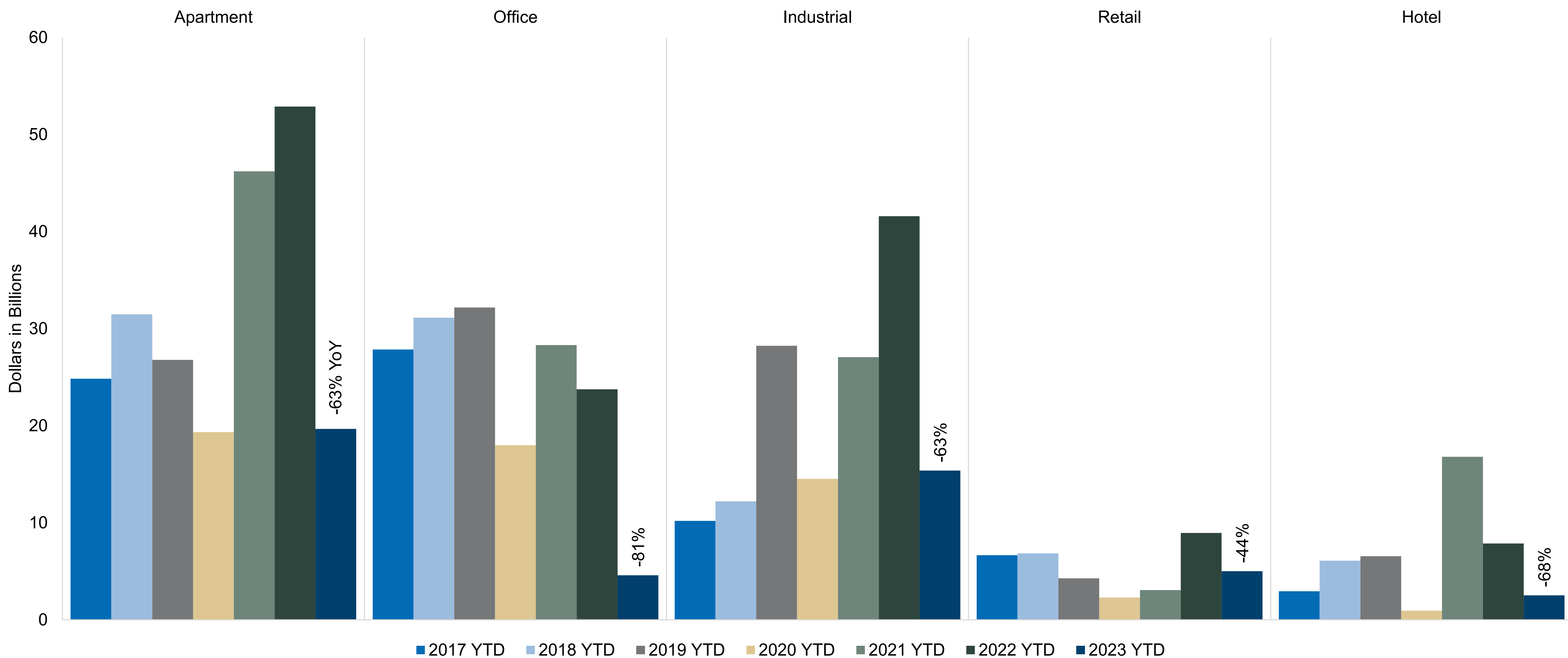


Source: RCA, Newmark Research as of 10/24/2023

Institutions Have Pulled Back on Investment across Property Sectors

Institutional acquisitions of office properties have collapsed, down 81% year-over-year and 85% compared with pre-pandemic. Apartment investment is down sharply year-over-year and also down substantially (-29%) versus pre-pandemic. Industrial volume is down the same as apartment year-over-year, but industrial is still up 9% compared with pre-pandemic.

Institutional Acquisitions Volume

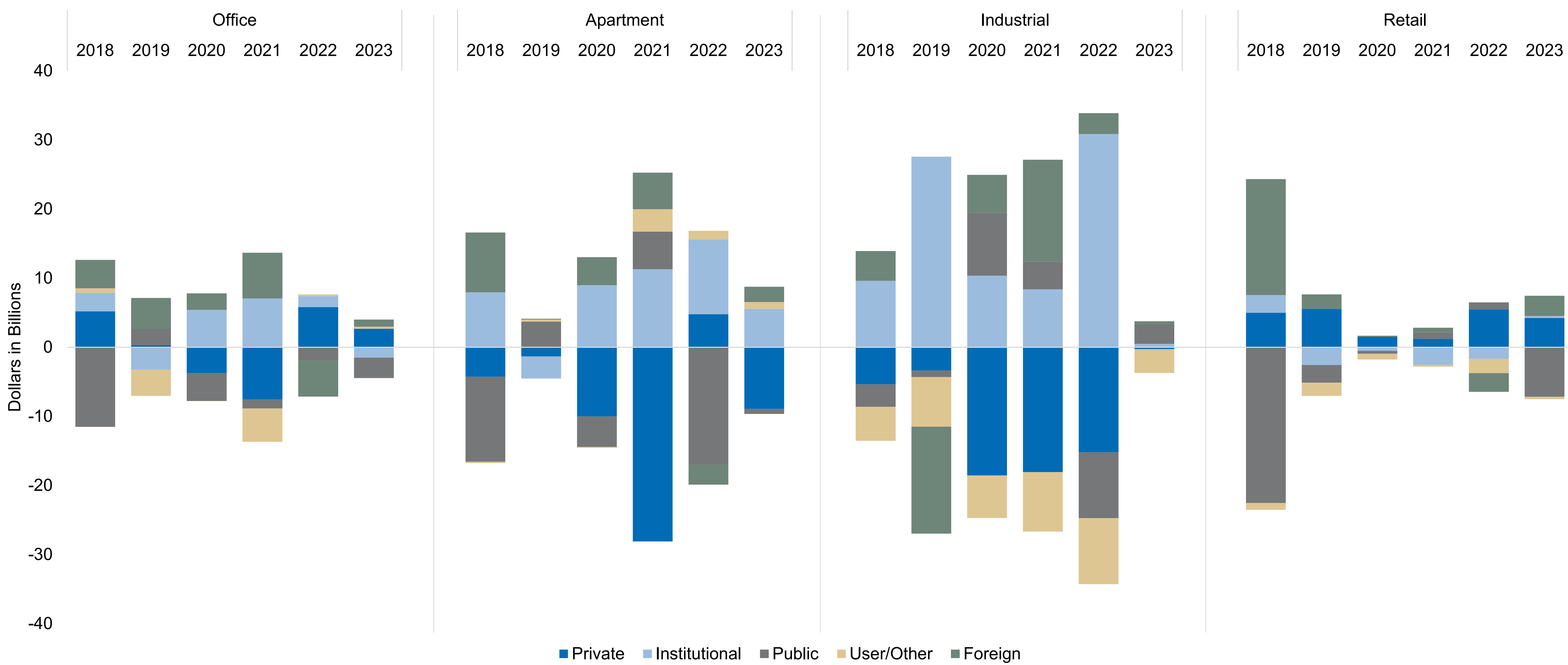


Source: RCA, Newmark Research as of 10/24/2023

Institutions and Foreign Investors were Net Acquirors through 3Q23

Year-to-date, private capital (-$7.3B), REITs (-$3.0B) and users (-$1.9B) have been net sellers in contrast to institutional (+$4.2B) and foreign investors (+$6.6B). Institutions were net buyers of office from 2020 to 2022, but this reversed in 2023. Private capital is increasing its office exposure. Institutions continued buying up multifamily assets from private capital. Most industrial trading seems to be intra-capital group, though REITs are net buyers and users are net sellers. Finally, REITs are selling down retail assets to all other sectors.

Net Acquisitions Volume

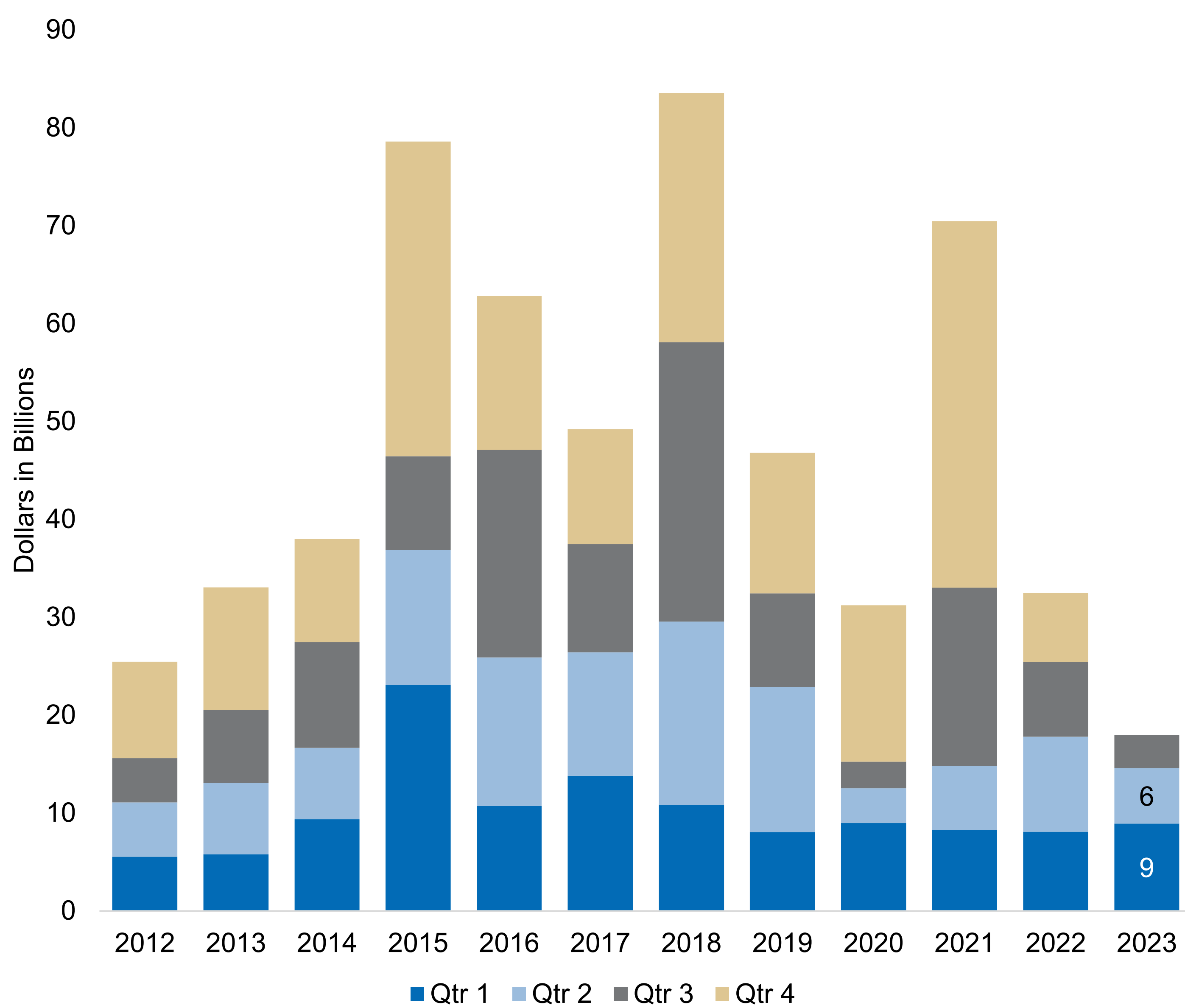


Source: RCA, Newmark Research as of 10/24/2023

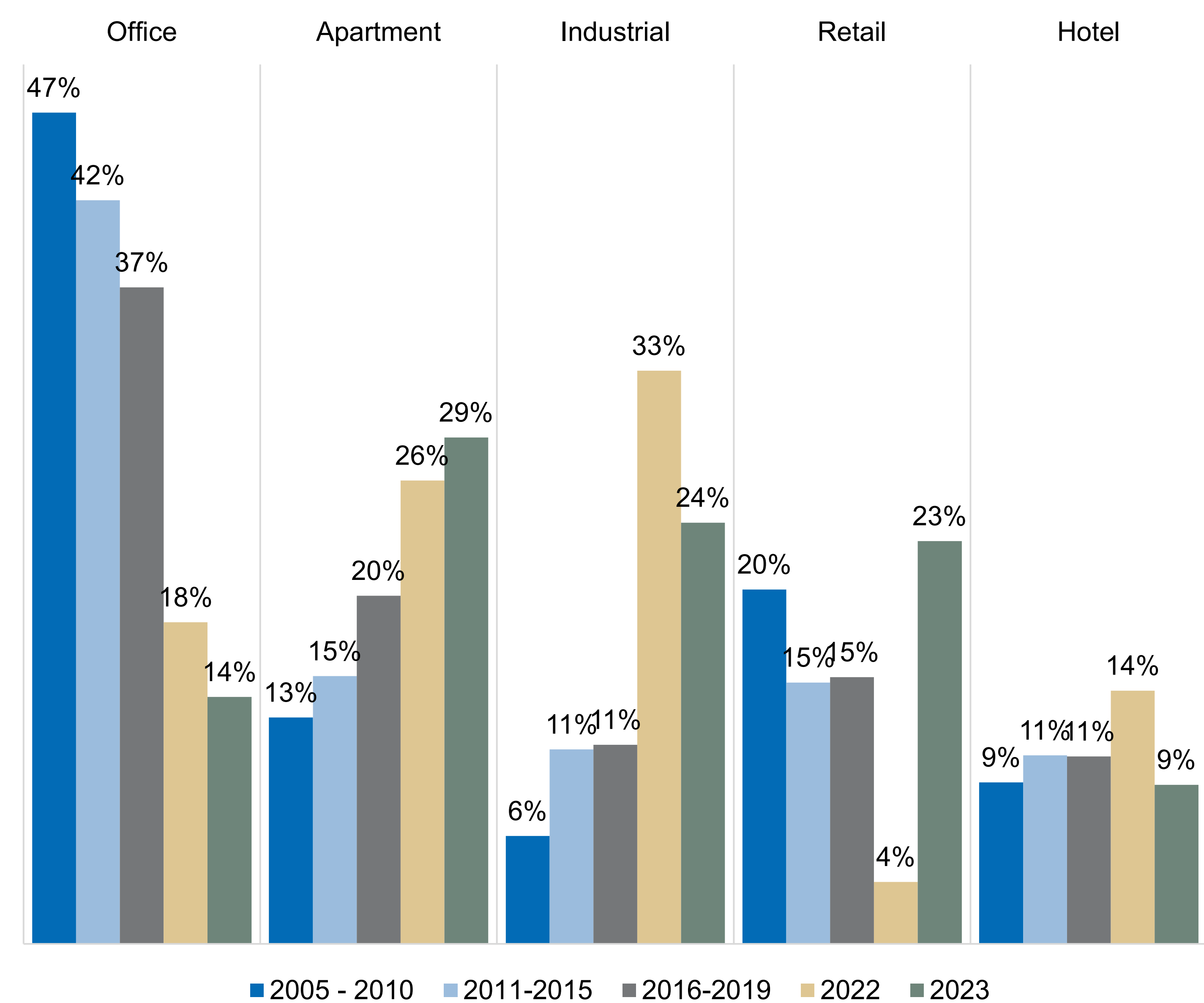
Foreign Investment Declined 29% Year-over-Year through 3Q23

Foreign investment decelerated sharply in the third quarter to just $3.4 billion. Year-to-date, volume is running slightly above the 2020 pace but otherwise at the slackest pace since 2012. Nonetheless, the foreign share of acquisitions has risen from 4.3% in 2022 to 6.9% year-to-date. The office share of investment has continued to decline, while the apartment share continued to rise. The industrial share pulled back but remains well above pre-pandemic levels. Finally, the retail share exploded upwards due to Singaporean investment.

Cross-Border Acquisitions Volume



Allocation of Cross-Border Acquisitions

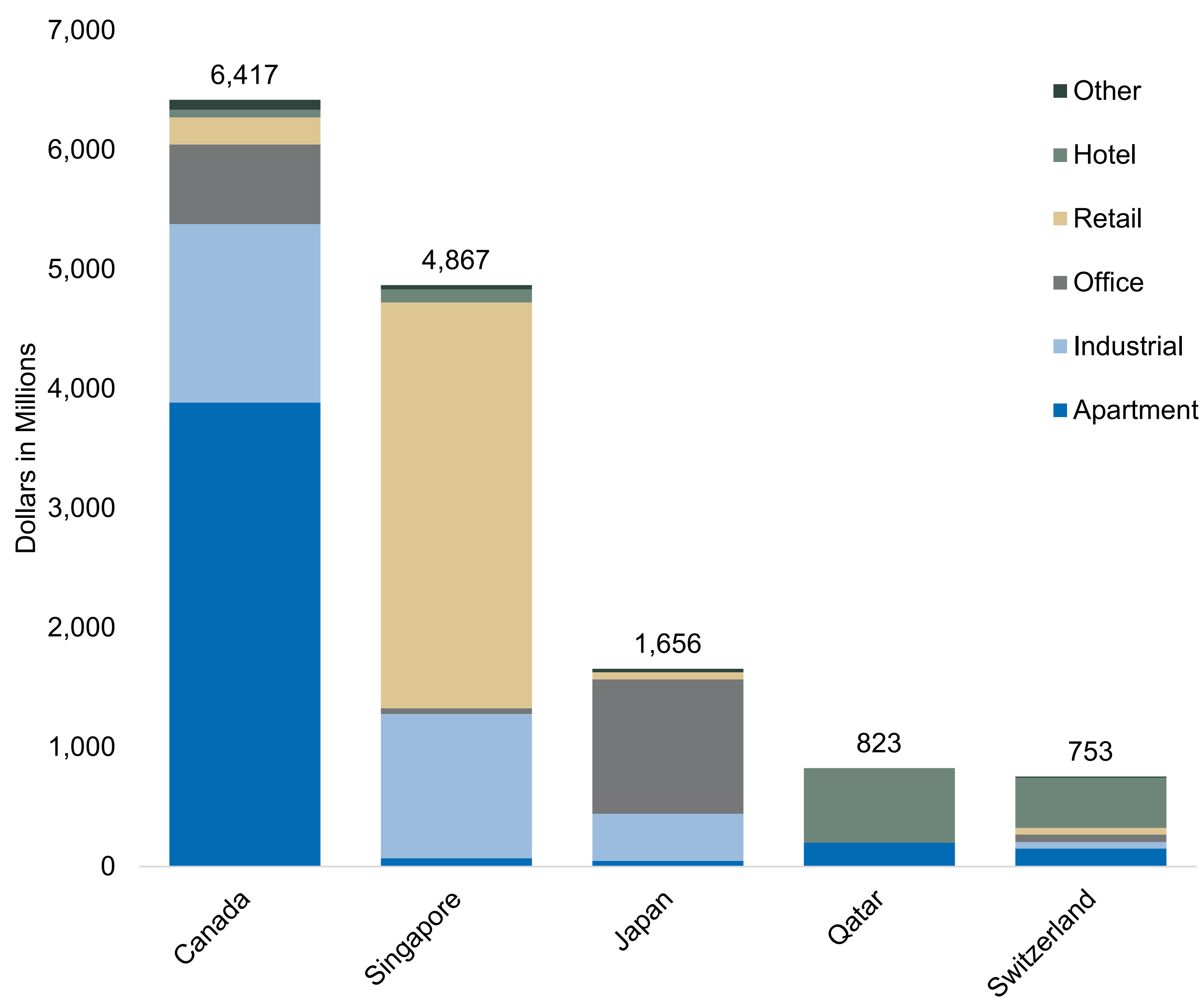


Source: Newmark Research, Real Capital Analytics as of 10/24/2023

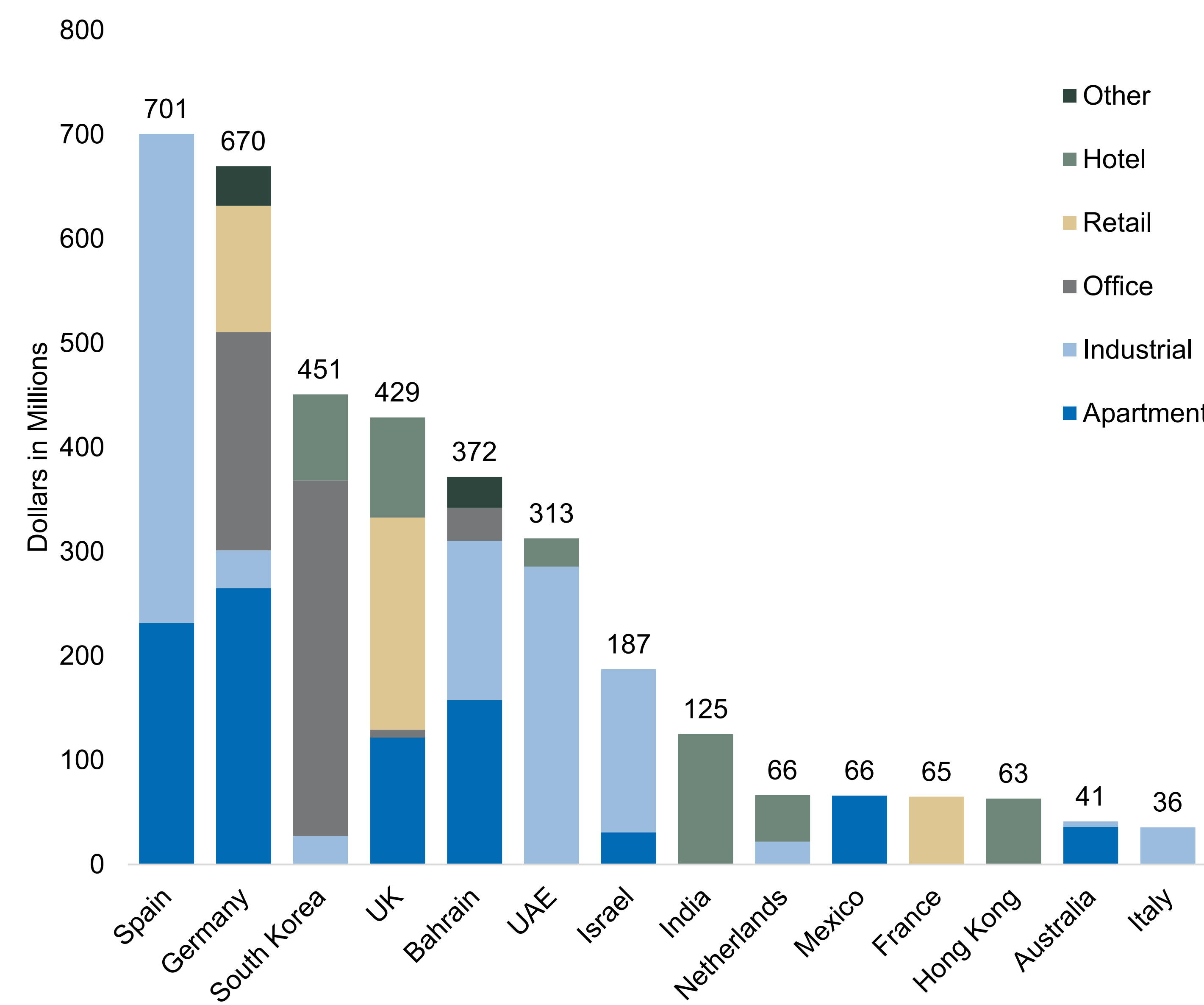
Sources of Inbound Capital

Canada, per usual, led inbound investment in the year to date with a pronounced focus on industrial and multifamily investment. Singapore followed, accounting for essentially all of the spike in retail acquisitions. After Singapore came Japan, Qatar, Switzerland and Spain.

Top Five Sources of Inbound Capital: 2023 YTD

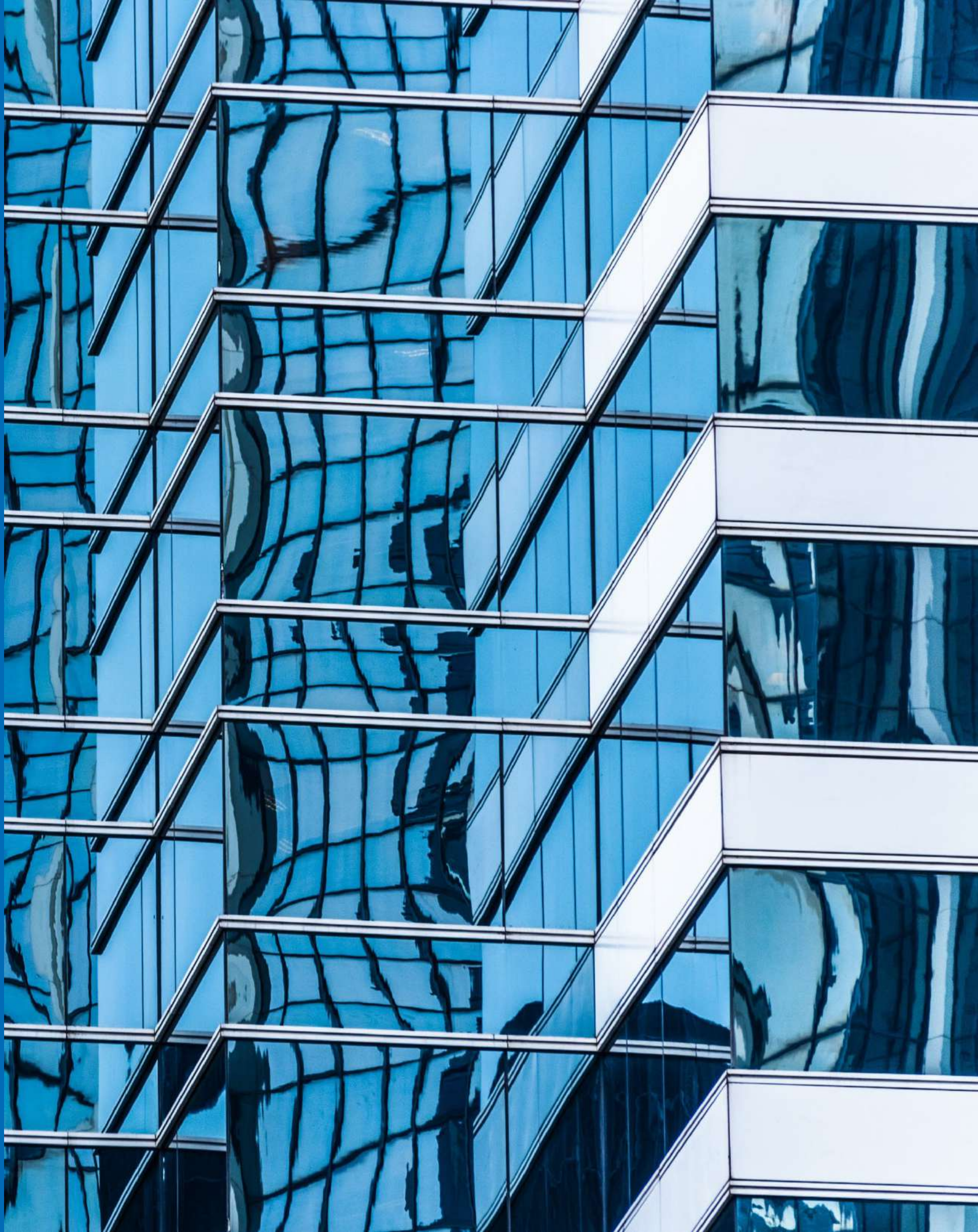


Remaining Sources of Inbound Capital: 2023 YTD



Source: RCA, Newmark Research as of 10/24/2024

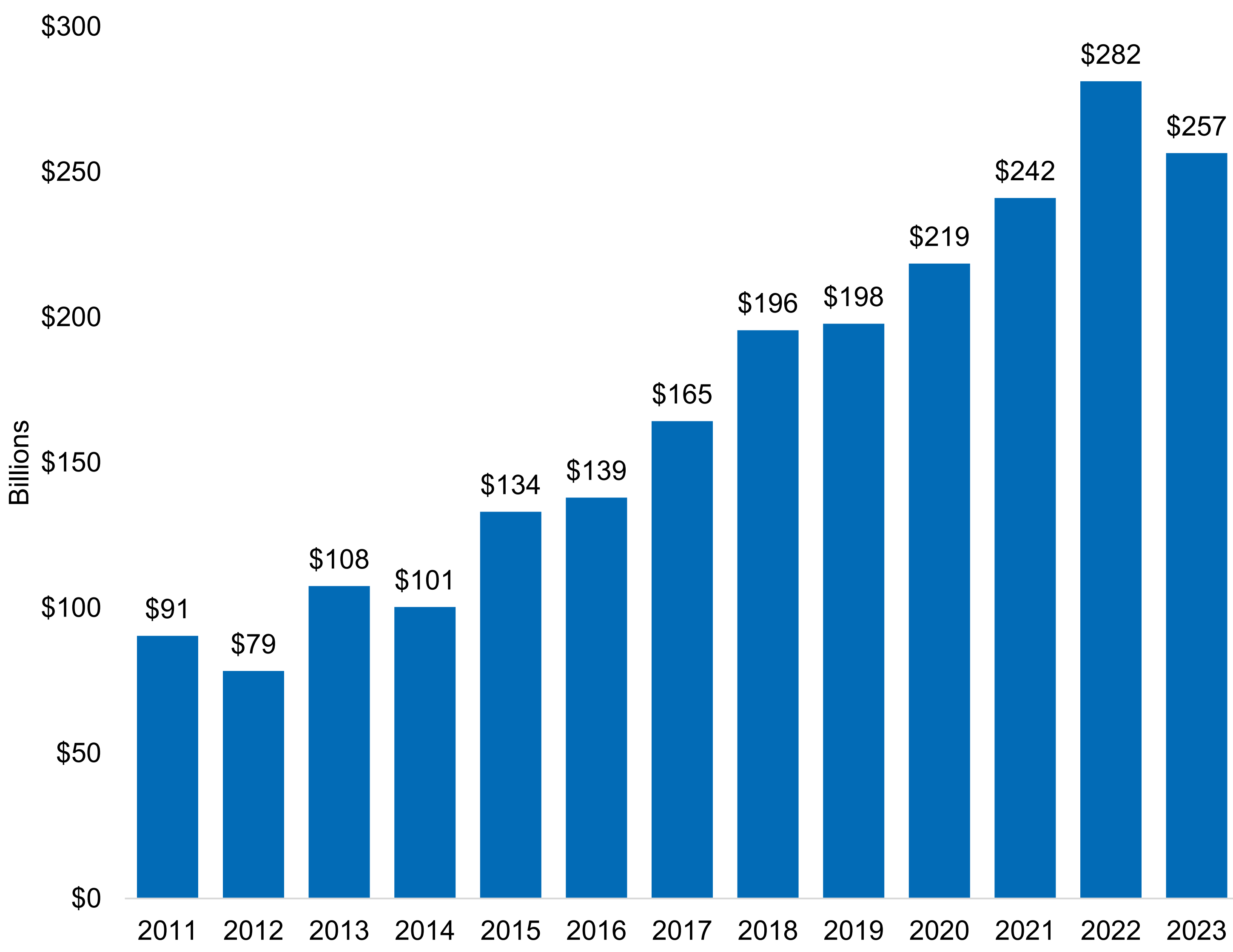
Supply of Capital



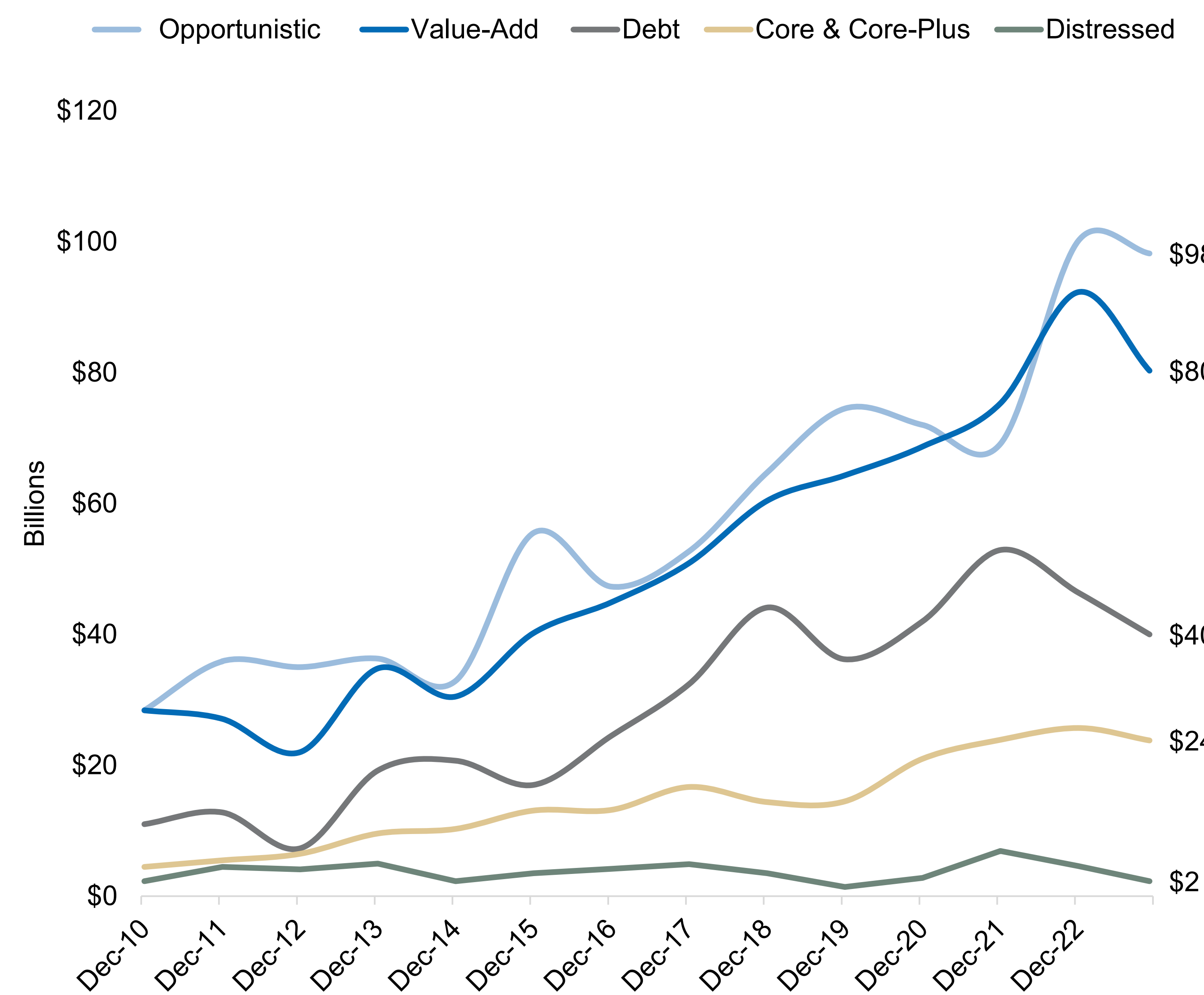
Private Equity Dry Powder Has Declined, But Still Elevated Overall

Dry powder at closed-end funds has declined 9% since the start of the year; however, this is mostly due to revisions to previous estimates rather than negative developments in 3Q23. The revised picture shows that debt fund dry powder continues to moderate while both value-add and opportunistic funds continue to have above-trend levels of dry powder, despite a sharp decline for the former since year-end 2022.

Dry Powder – Closed-End Funds



Dry Powder by Strategy*

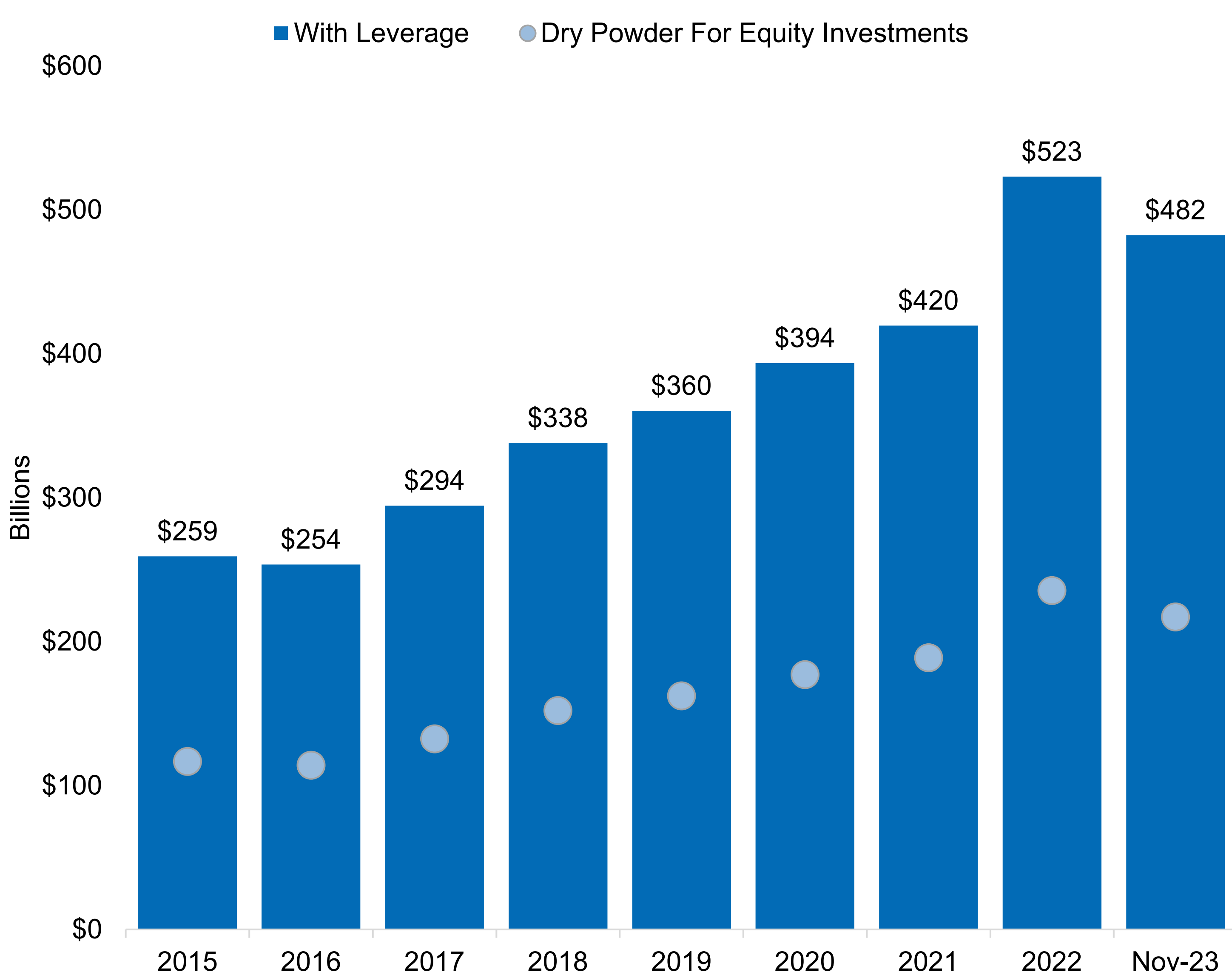


Source: Newmark Research, Preqin as of 11/8/2023
*Not shown: Fund of funds, co-investments, and secondaries strategies

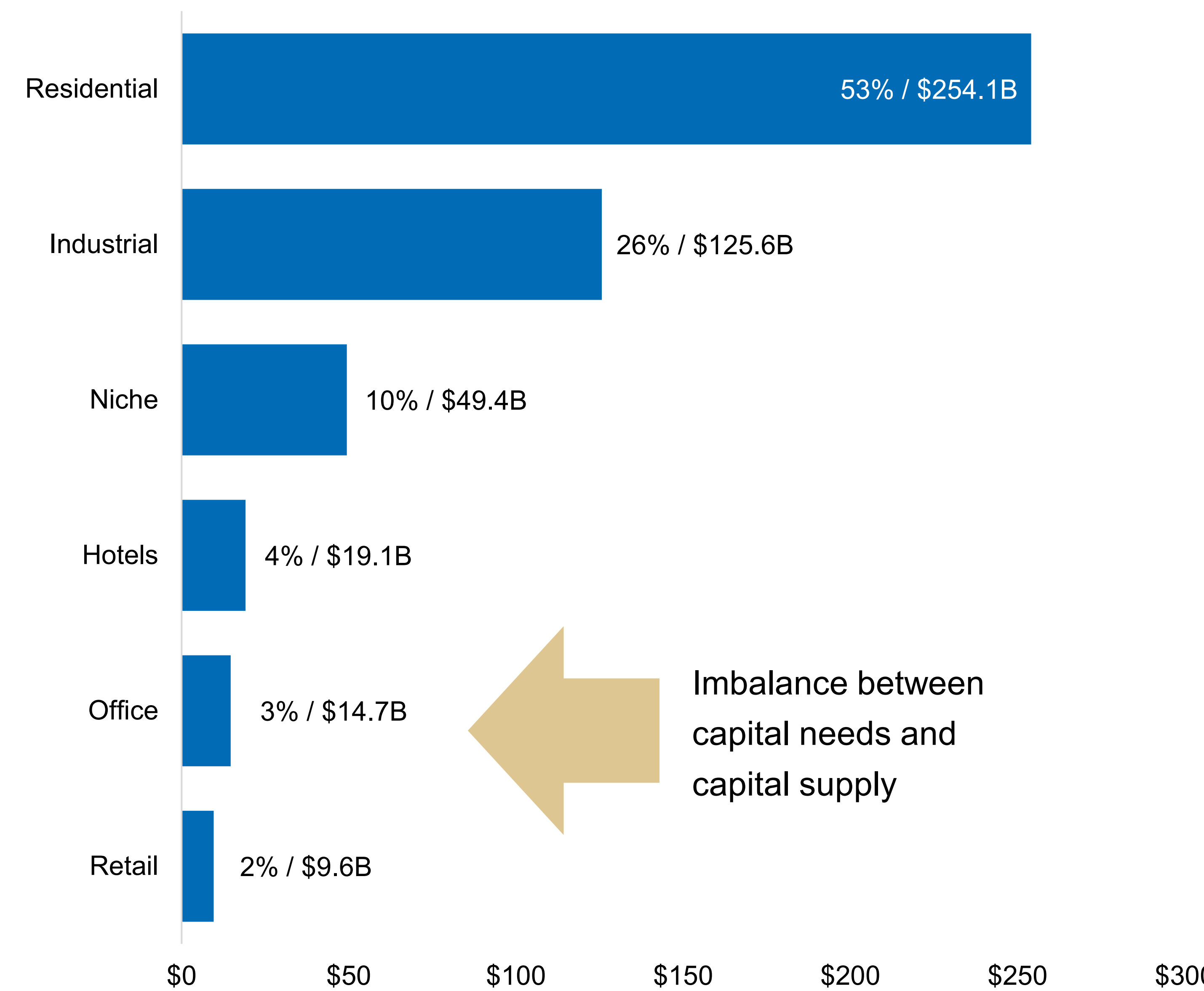
Dry Powder Heavily Biased towards Residential, Industrial Investment

The $217 billion in dry powder raised for equity investments, not including dry powder raised for debt strategies, equates to a leveraged purchasing power of $482 billion, using a 55% loan-to-value ratio. We estimate that over half of this capital is targeted at multifamily assets, with most of the remainder focused on industrial assets. The capital targeting office and retail assets is quite small by comparison, which could ultimately represent a contrarian opportunity.

Dry Powder at 55% Leverage



Leveraged Dry Powder By Property Type*

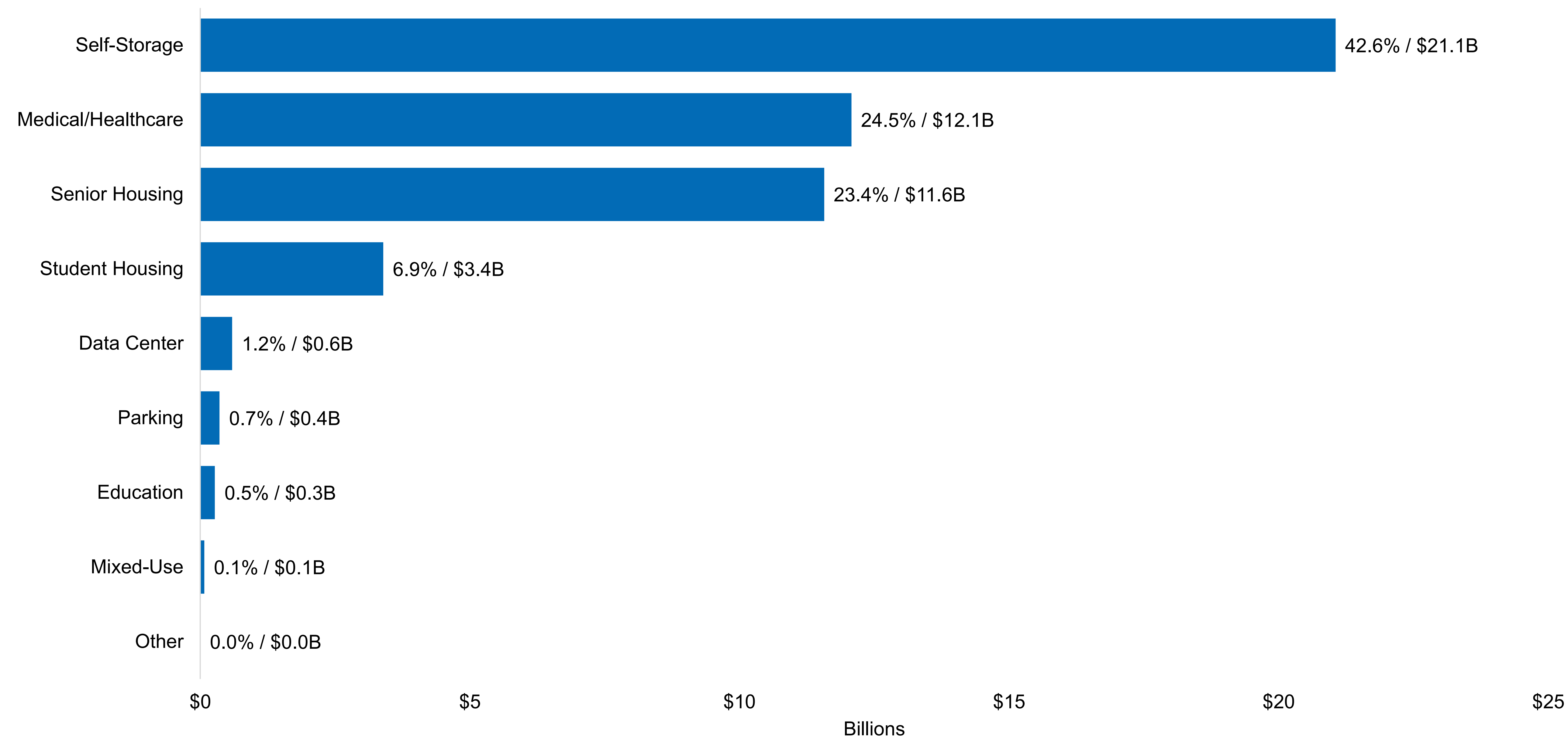


Source: Newmark Research, Preqin as of 11/8/2023
*We looked at the percent called by vintage year and applied this to the total amount fundraised in each year to calculate the amount of uncalled capital (i.e. dry powder), broken out by main property type. Roughly half the dry powder was at diversified funds. This was allocated to the various property types in proportion to their share of total dry powder, excluding diversified funds. Finally, we grossed up the dry powder assuming 55% leverage would be used.

Niche Dry Powder Concentrated in Self-Storage, Senior Housing and Healthcare

Of the estimated $49.4 billion in dry powder targeting niche asset types, 91% is allocated to self-storage, senior housing, healthcare and student housing.

Leveraged Dry Powder at Closed-End Funds*

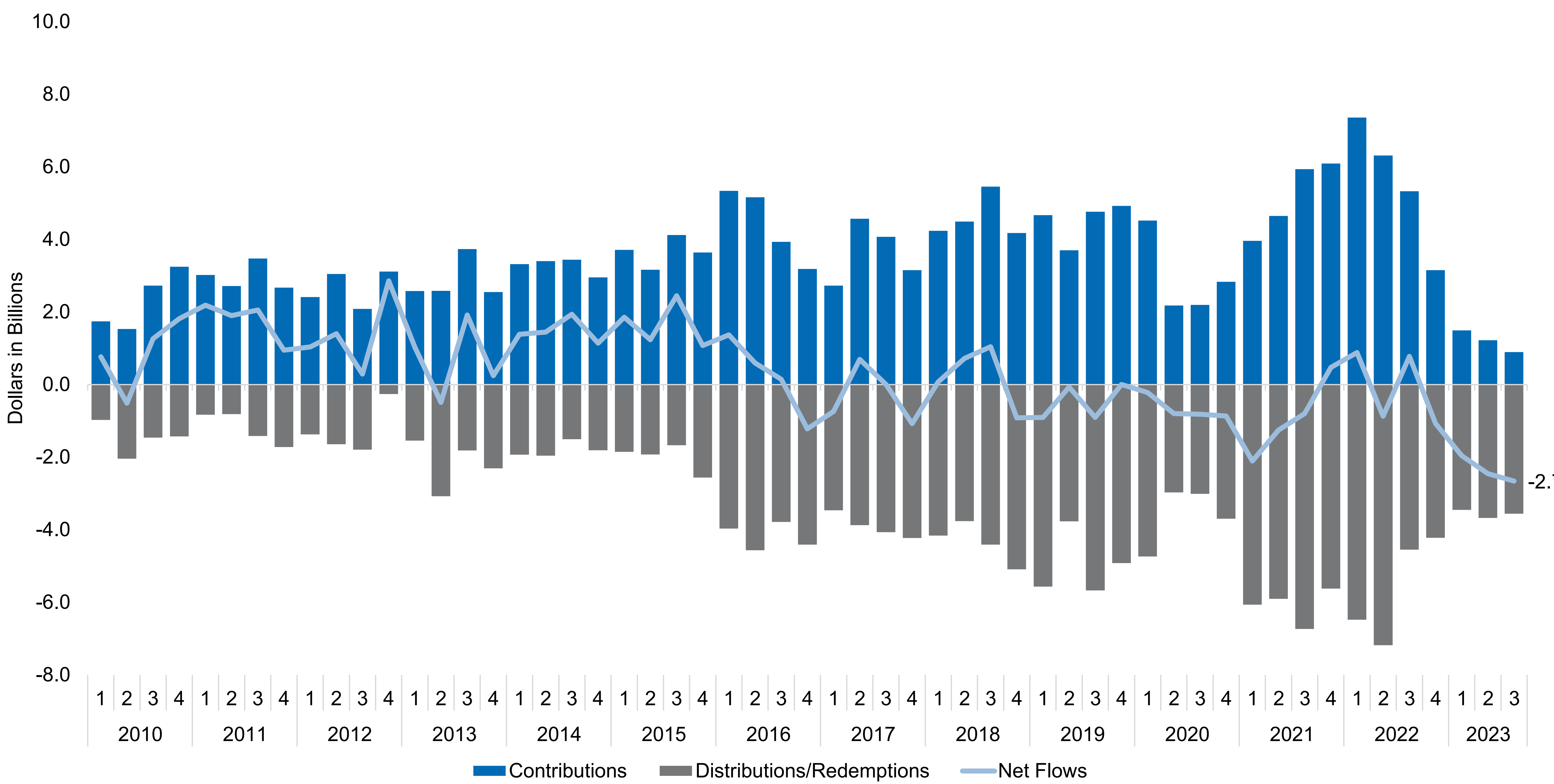


Source: Newmark Research, Preqin as of 11/14/2023
*We looked at the percent called by vintage year and applied this to the total amount fundraised in each year to calculate the amount of uncalled capital (i.e. dry powder), broken out by main property type. Roughly half the dry powder was at diversified funds. This was allocated to the various property types in proportion to their share of total dry powder, excluding diversified funds. Finally, we grossed up the dry powder assuming 55% leverage would be used.

ODCE Fund Flows Continue to Deteriorate

Contributions to ODCE funds have collapsed to the lowest levels since the immediate aftermath of the GFC. Distributions have also slowed due to fewer asset sales and despite anecdotal reports of growing redemption queues. The result is that cash flows were negative to the tune of $2.7 billion in 3Q23 – the worst outflow in the history of the index in nominal terms. While ODCE funds have been taking capital charges in each of the last several quarters, assets remain at a premium to fair market value, ensuring continued outflows.

ODCE Fund Flows

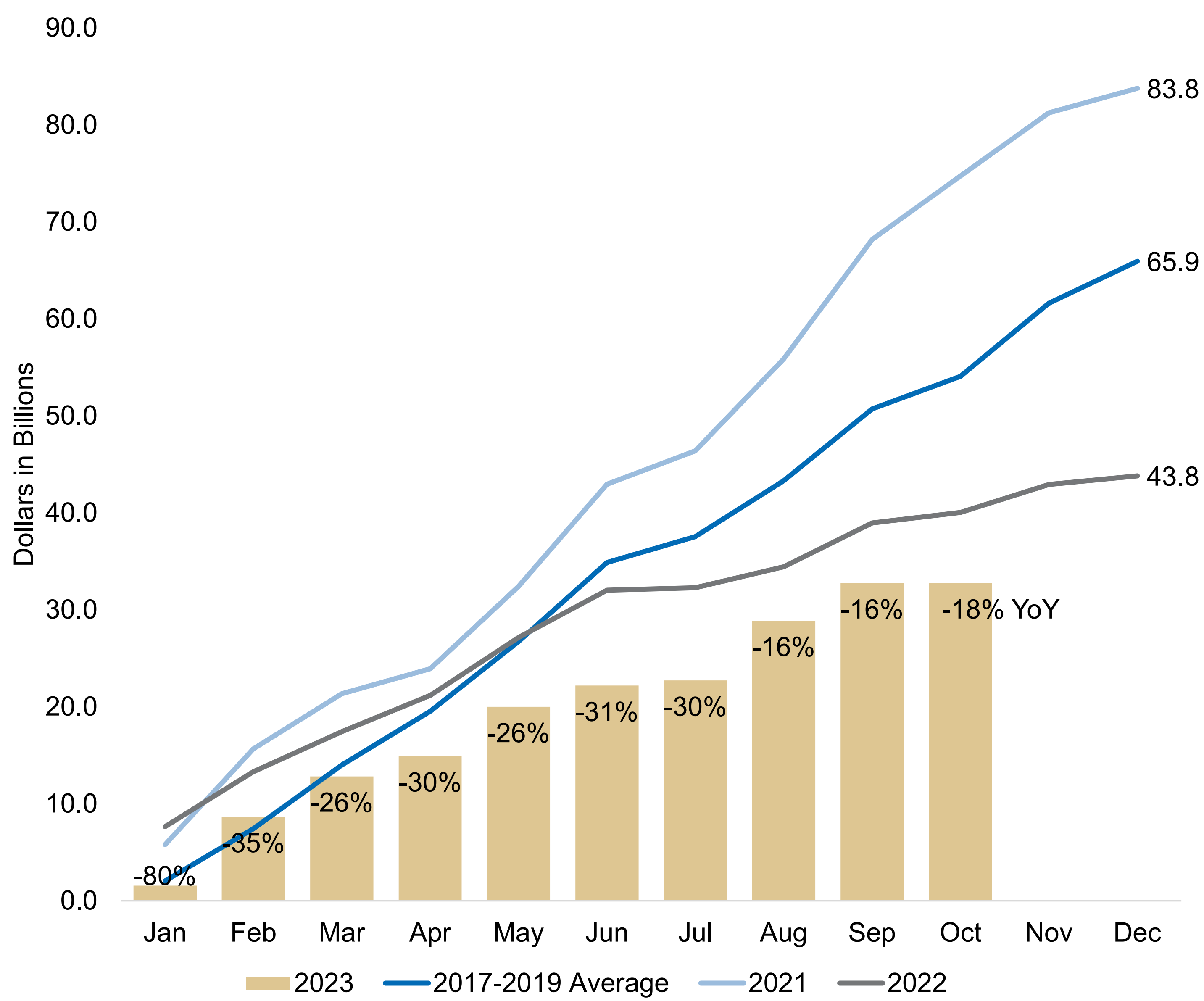


Source: Newmark Research, NCREIF as of 11/13/2023

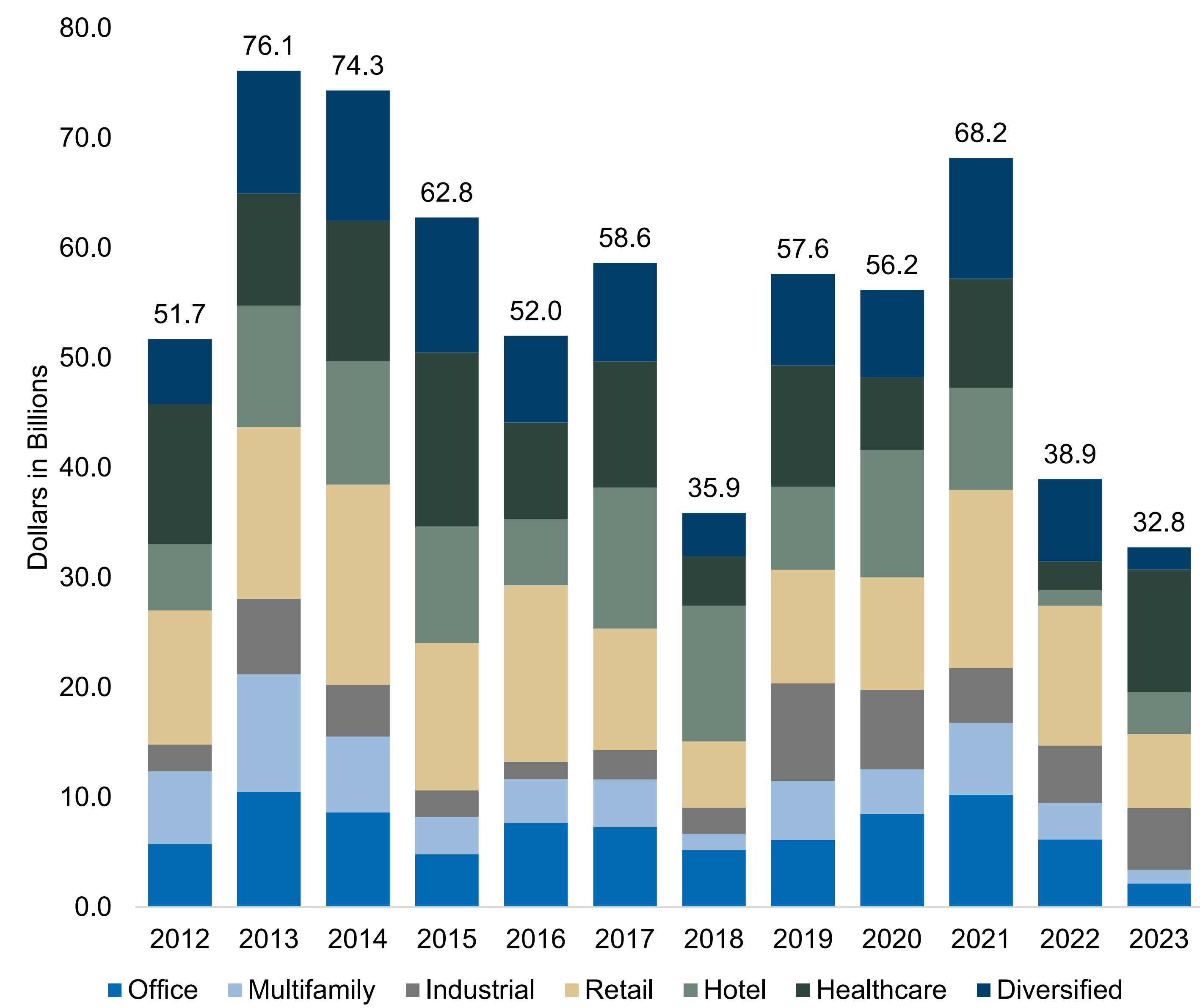
Public Capital Raising Down 18% Year-over-Year in Year through October

Capital raising was already down 34% in 2022 compared with the 2017-to-2019 average. 2023 is now running at 39% below the pre-pandemic average. In year through 3Q23, new fundraising has declined most notably in the diversified (-73% YoY), office (-65%) and multifamily (-63%) sectors, in contrast to healthcare (+323%), hotel (+172%) and industrial (+7%).

Real Estate Security Offerings: Cumulative Year-to-Date



Real Estate Security Offerings: First Three Quarters

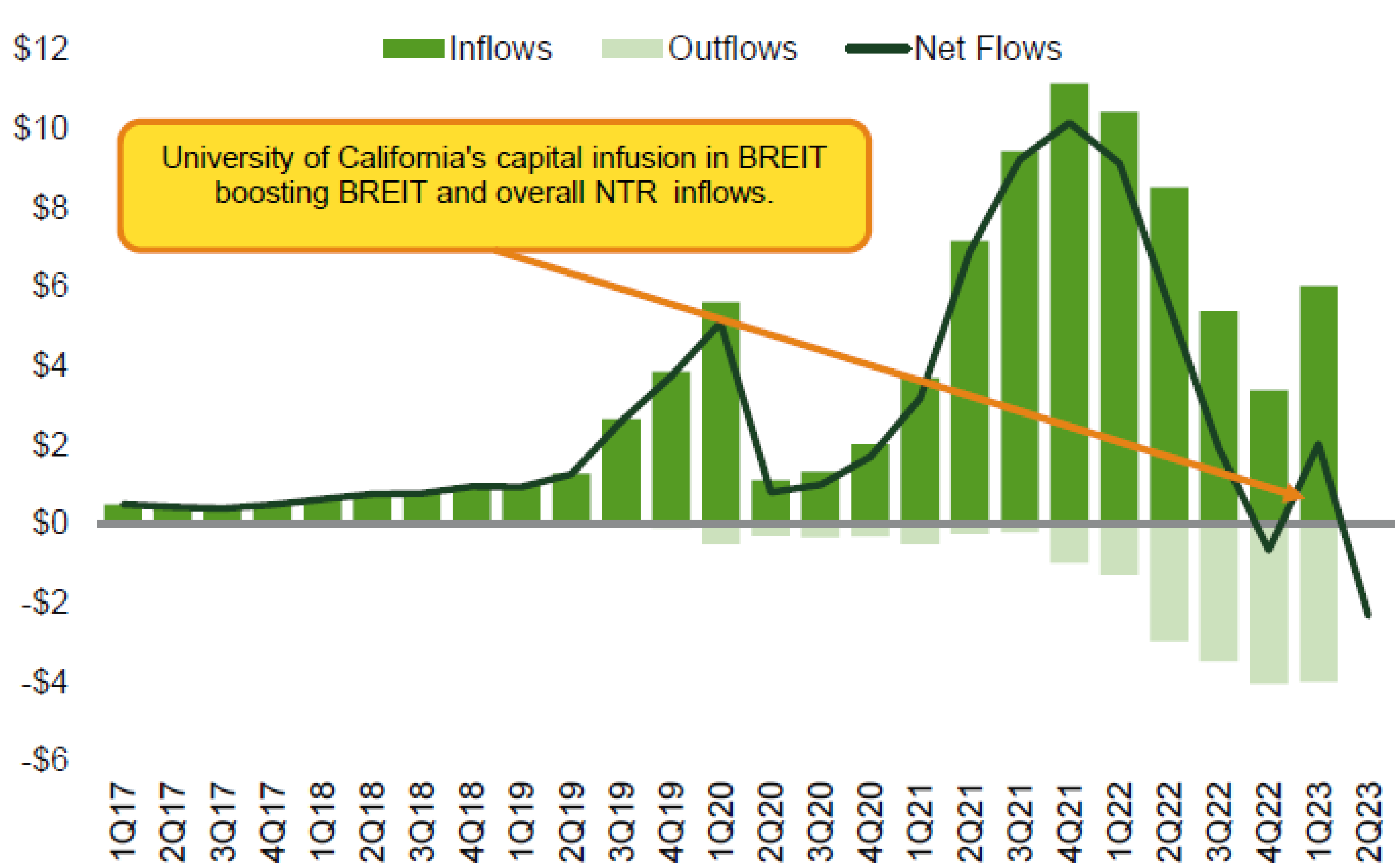


Source: S&P Capital IQ, Newmark Research as of 11/13/2023
Excludes offerings with no listed property type target. Excludes manufactured housing, casino and specialty product types.

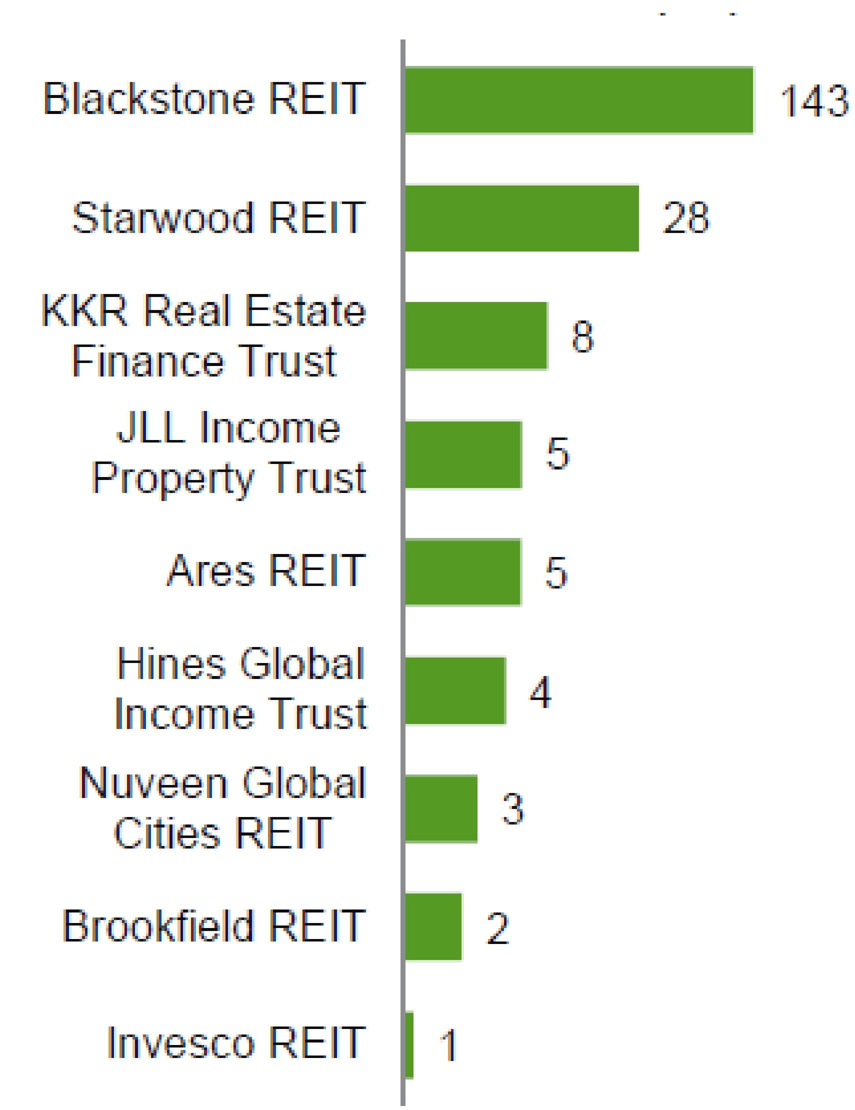
Net Capital Flows into Non-Traded REITs Slowing Sharply

New commitments have declined as redemptions have gained momentum, creating negative pressure on net flows. Cash flows will remain negative for as long as appraised values remain at a premium to market values. The current situation essentially offers redeeming shareholders an arbitrage.

Non-Traded REIT Net Flows ($B)



Non-Traded REIT Asset Value ($B)

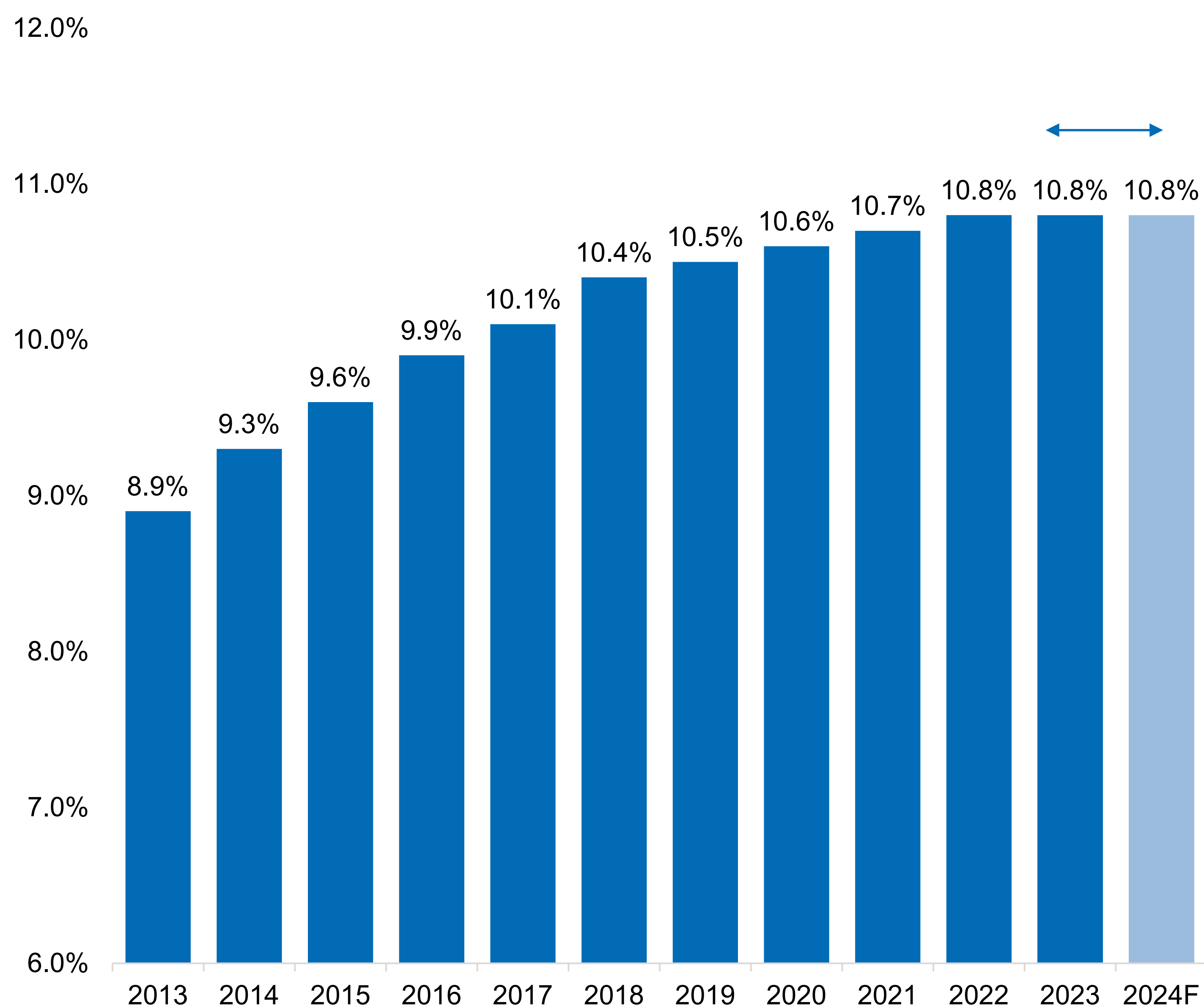


Sources: Newmark Research, Green Street FlowTracker Report as of 8/7/2023

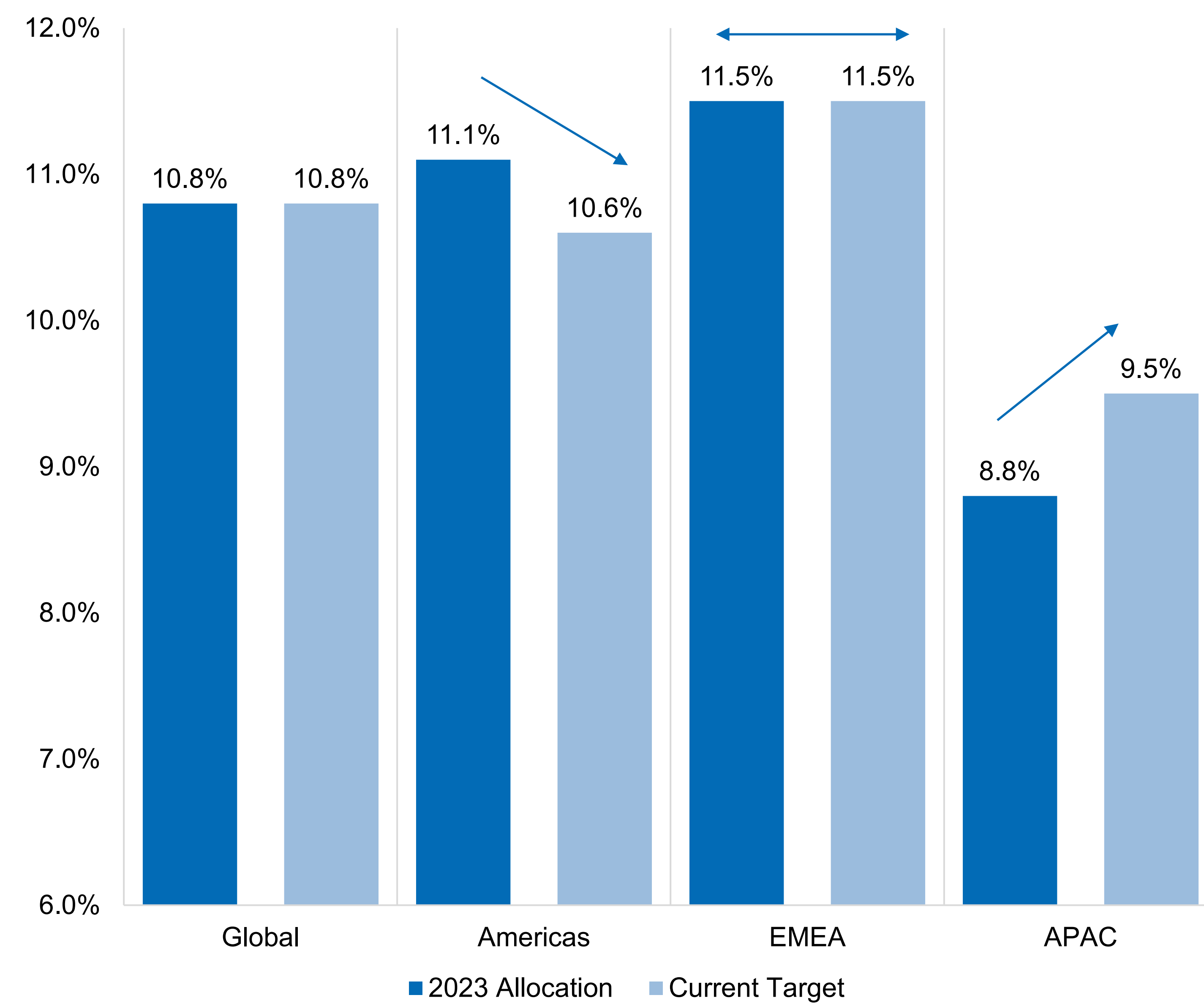
Institutional Allocations Approaching Stabilization after a Decade of Increase

When Hodes-Weill, a consultancy, surveyed 175 global institutions with $10.2 trillion in AUM, they found that: 1) globally institutions aim to hold their real estate allocations steady and that they have closed a heretofore persistent gap between actual and target allocations; 2) there is regional nuance with institutions in the Americas now above their targets and APAC institutions still below. Overall, this represents a deterioration in the outlook and curtails the prospect for a significant rotation of capital into the sector.

Target Allocation to Real Estate, All Institutions



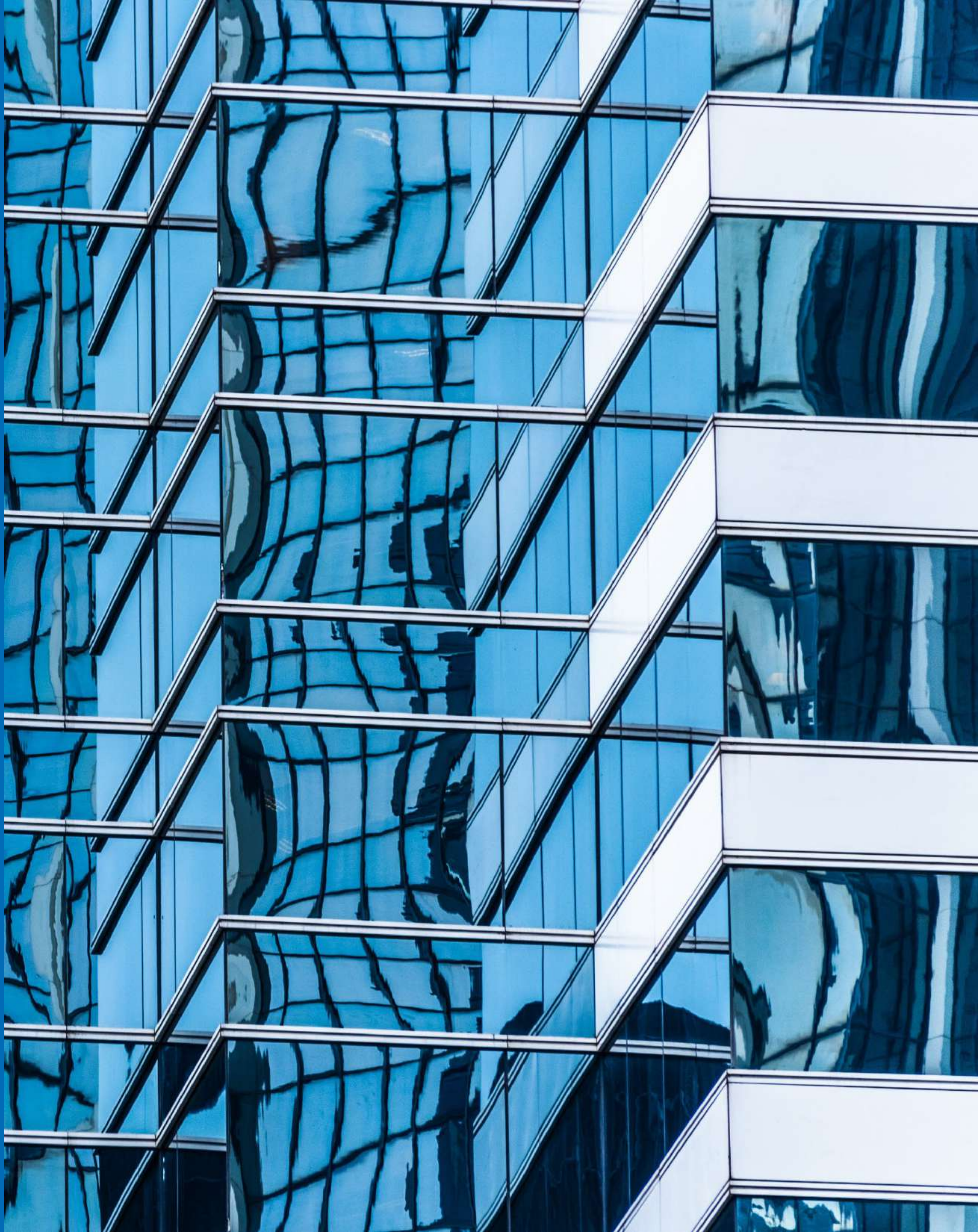
2022 Actual vs. Target Allocation by Region of Institution



Source: Hodes-Weill Institutional Real Estate Allocations Monitor November 2023, Newmark Research

3Q23 CAPITAL MARKETS REPORT

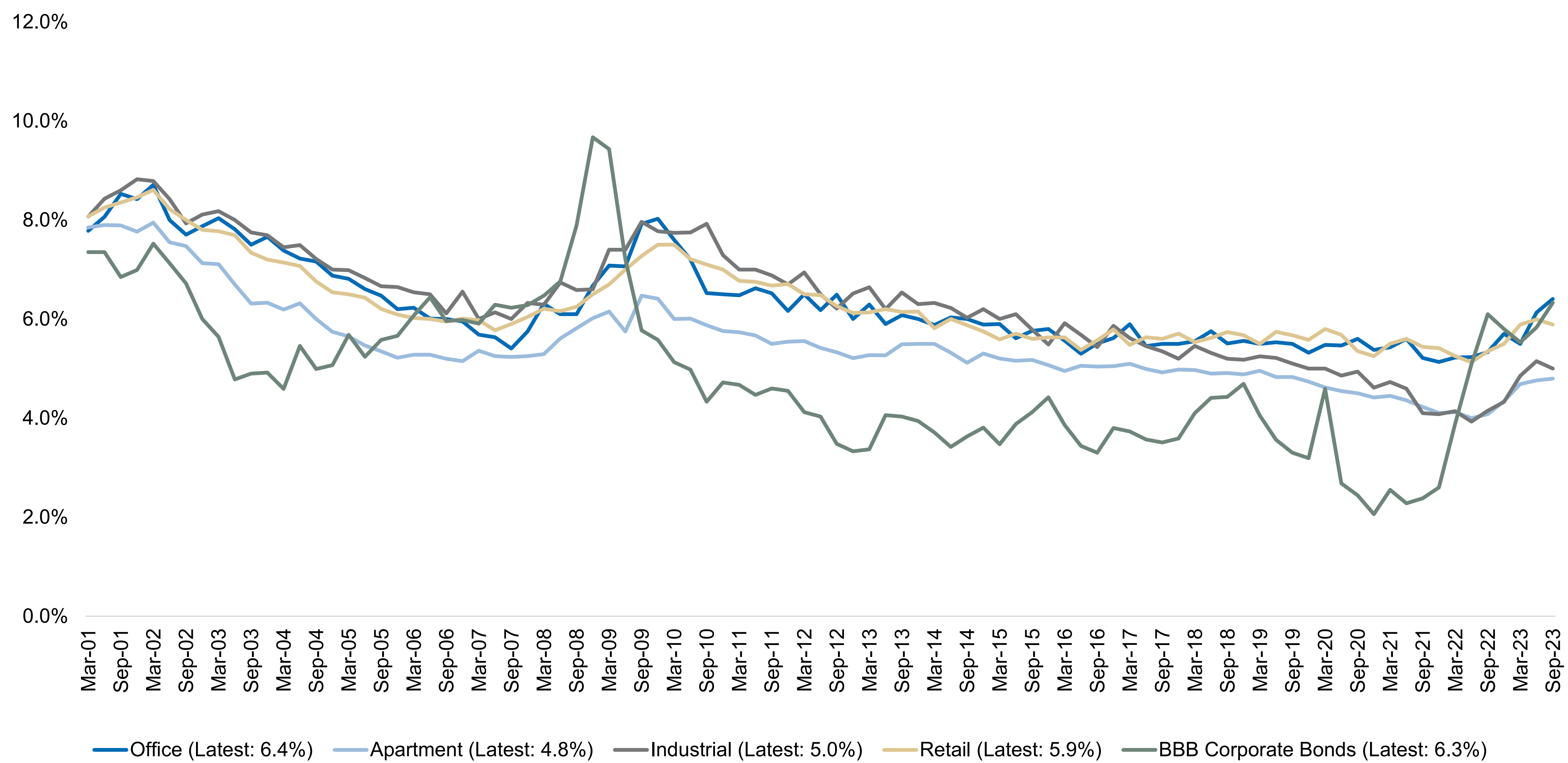
Pricing and Returns



Transaction Cap Rates Flat amid Low Liquidity in 3Q23

Spreads to BBB corporate bonds – historically, a good proxy for low-leverage, fixed-rate CRE financing – remain extremely tight relative to history or outright negative. This is an unsustainable dynamic and strongly implies further cap rate expansion.

Top Quartile Transaction Cap Rate*

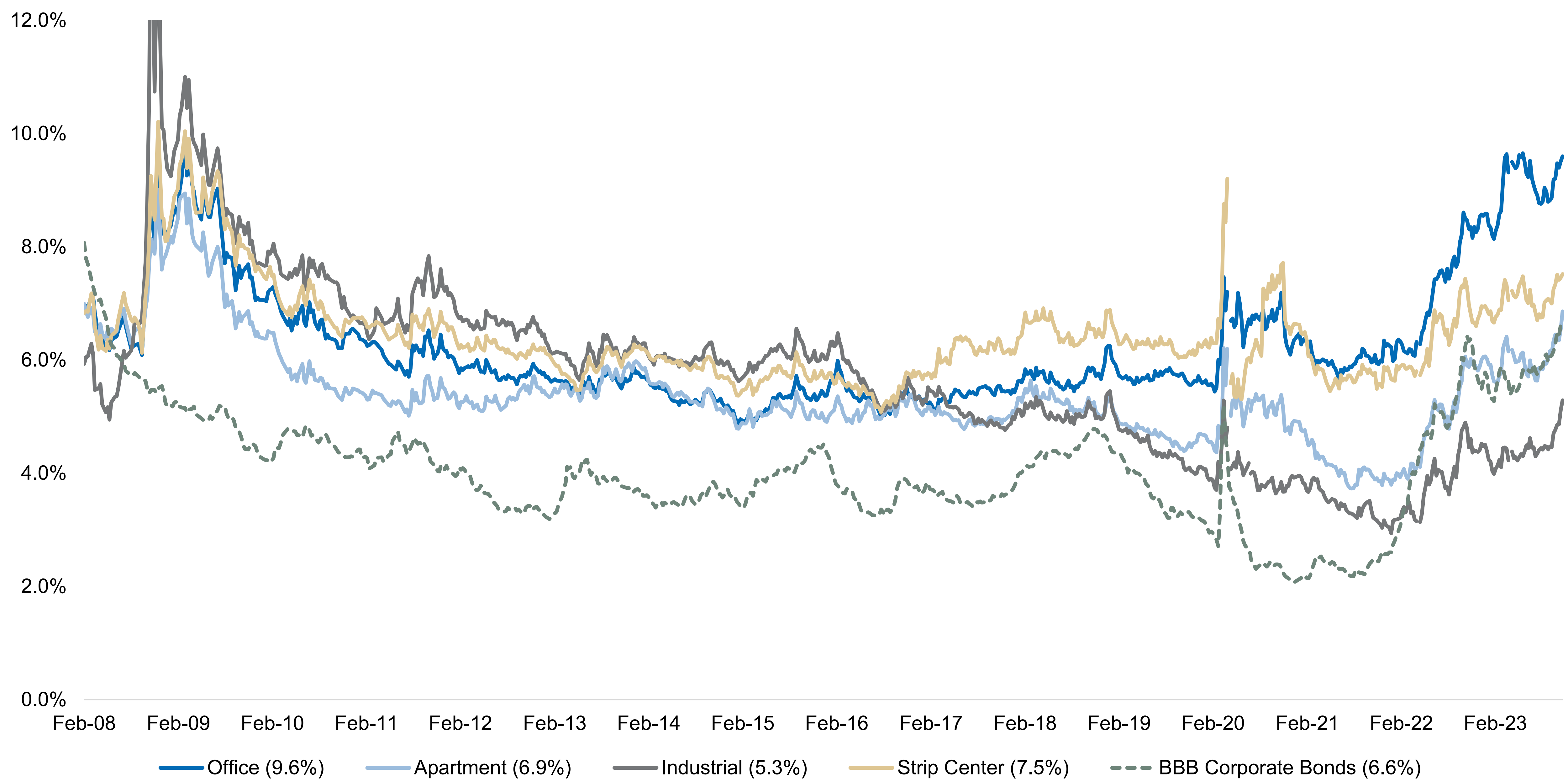


Source: Real Capital Analytics, Federal Reserve Bank of St. Louis, Moody's as of 10/24/2023
*Quarterly

Public Markets More Responsive, but Spreads Remain Narrow Relative to History

Office spread is 80th percentile relative to history*, apartment 8th, industrial 3rd and strip center 6th. Excepting office, these are not spreads that have been associated with strong forward returns.

REIT Implied Nominal Cap Rate

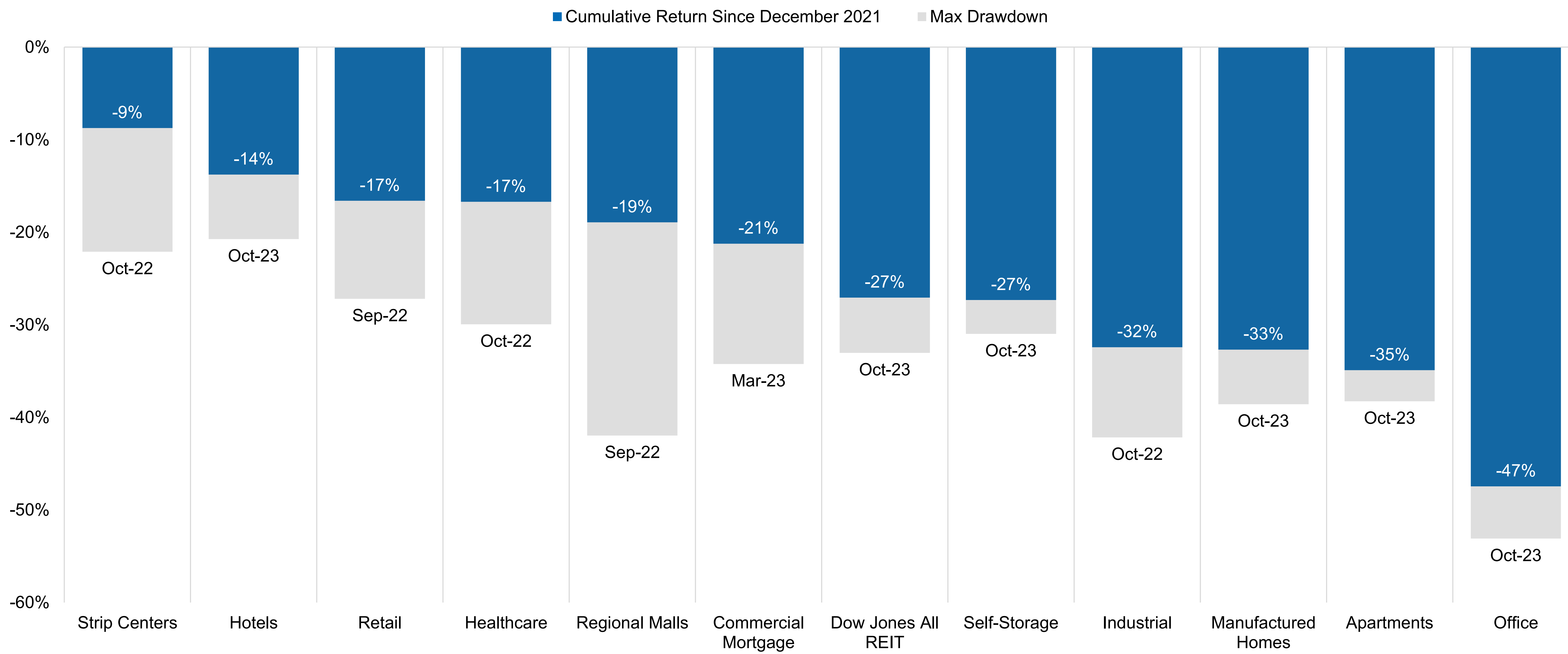


Source: Green Street, FRED, Moody's, Newmark Research as of 10/30/2023
*Using normal distribution

REITs Have Fallen across Sectors since the Start of the Hiking Cycle

REITs rebounded in the first half of 2023 but stumbled again in 3Q23 as most sectors set or retested post-2021 lows. On net, REITs have returned -2.7% year-to-date led by healthcare (+6.6%), commercial mortgage REITs (+4.7%) and hotels (+1.9%). Office and apartment REITs are not only the worst-performing sectors cumulatively but also set new record lows in October.

Dow Jones REIT Index Total Returns

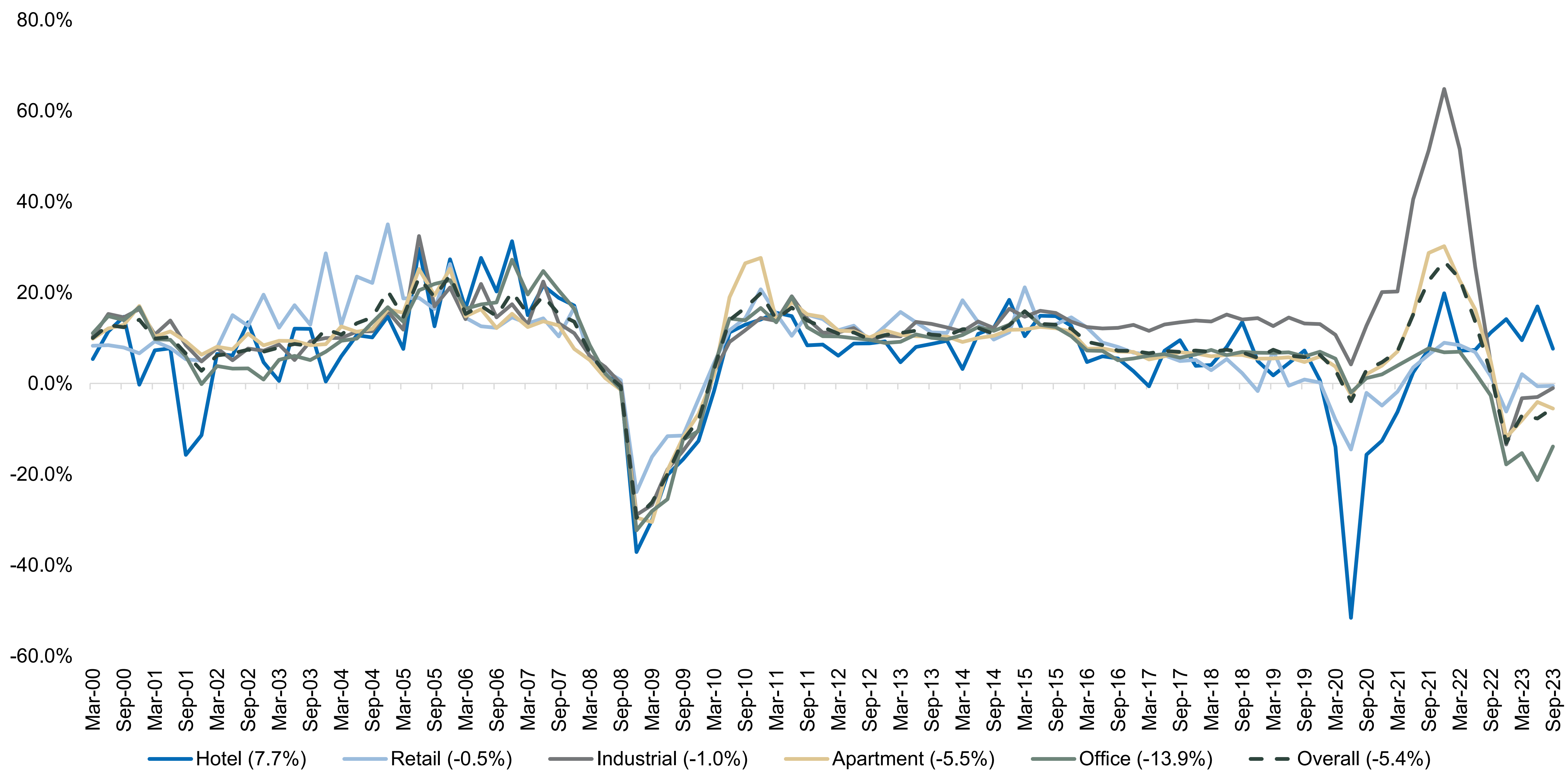


Source: Dow Jones, Moody's, Newmark Research as of 11/8/2023

Private Market Core Properties Returned -5.4% Annualized in 3Q23

All major property types (with the notable exception of hotels) generated negative returns in 3Q23. Office continues to be a clear outlier to the downside as returns continued to decelerate and seem to be on a path to match the depths of the GFC. Apartment and industrial returns were negative though far more modestly. Retail decelerated into negative territory but continues to outperform. Keep in mind that appraisal-based returns are especially unreliable in illiquid periods like the current one.

NCREIF National Property Index Quarterly Annualized Total Return

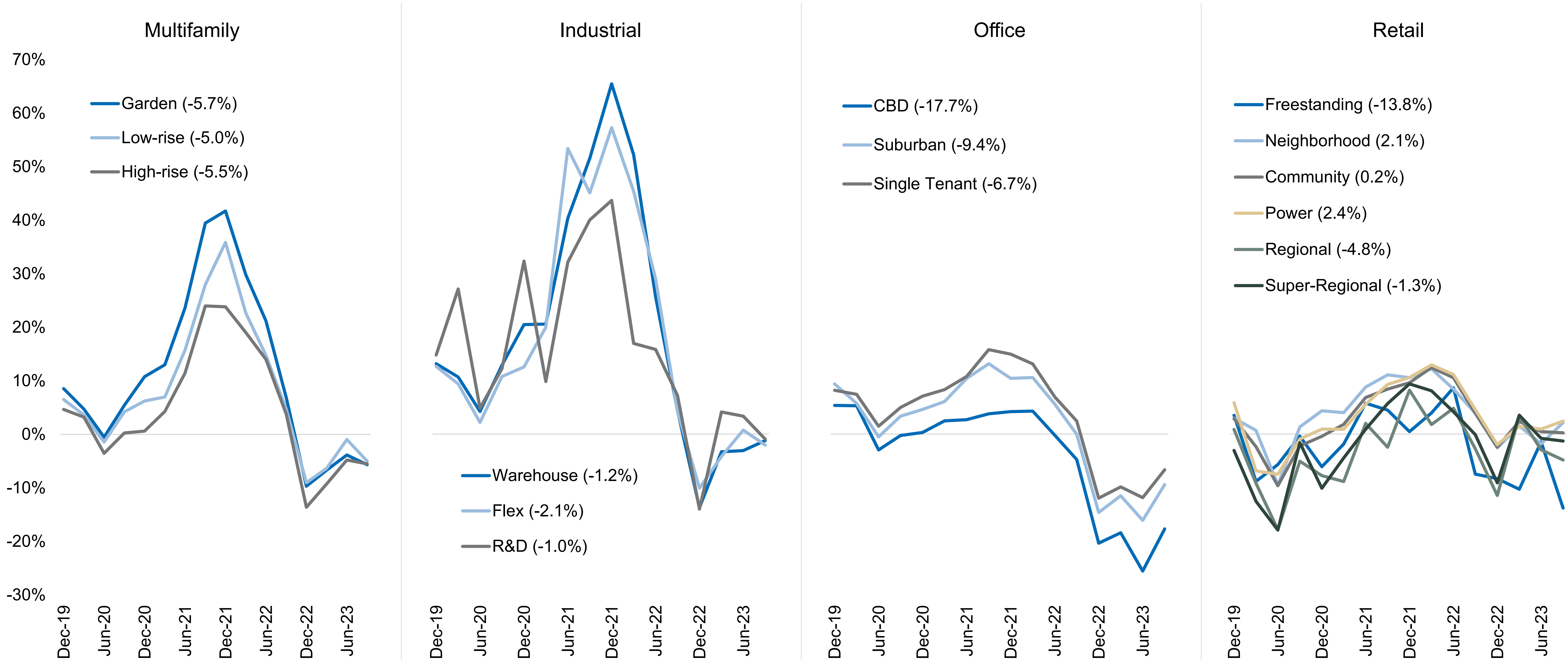


Source: NCREIF, Newmark Research as of 11/8/2023

Returns Remain Broadly Negative across Property Subtypes

Neighborhood, community and power centers were the only segments to record positive total returns in 3Q23. Returns decelerating across multifamily subtypes with garden apartments now underperforming marginally. R&D industrial decelerated notably after several quarters of outperformance. Office, particularly CBD, continued to underperform in 3Q23, though total returns accelerated quarter-over-quarter, somewhat unaccountably.

NCREIF National Property Index Quarterly Total Return (Percent Annualized)

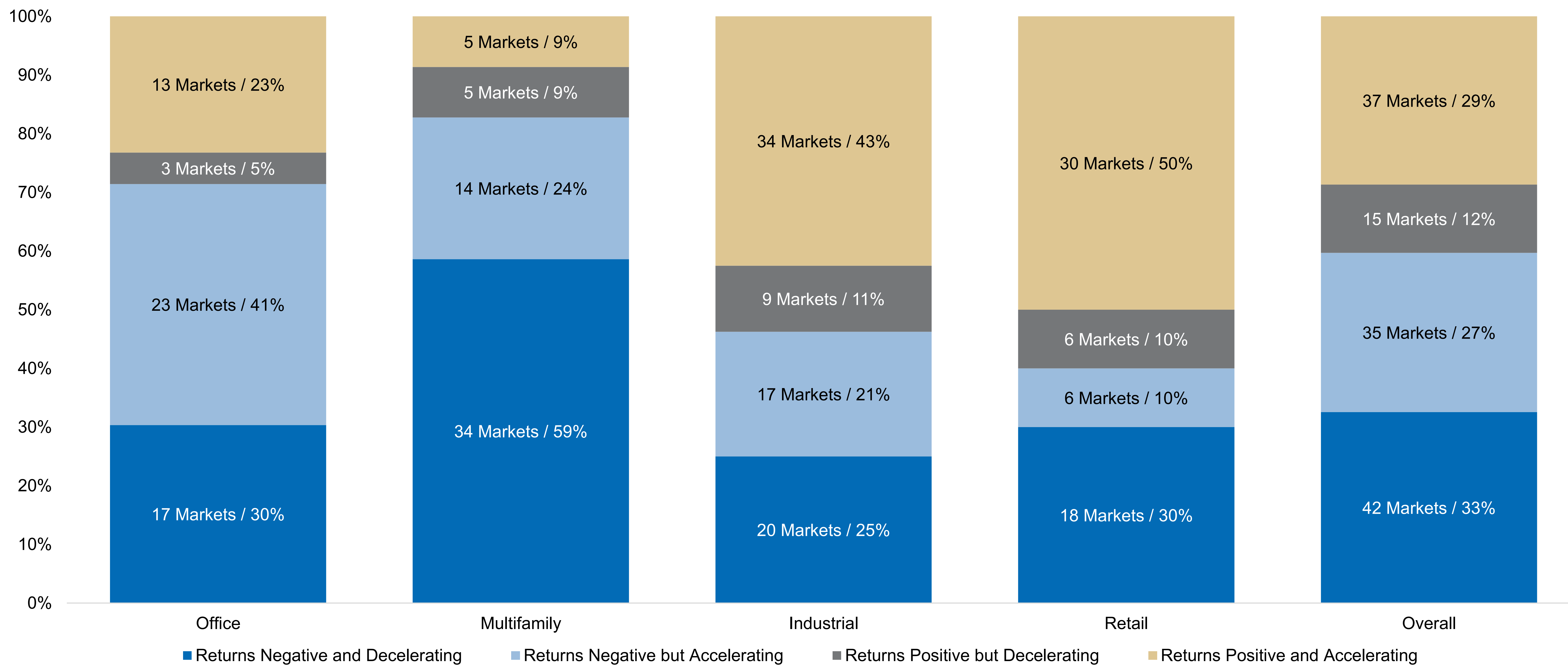


Source: NCREIF, Newmark Research as of 11/8/2023

NCREIF Returns Negative in 60% of Markets, but Variation by Property Type

Returns were negative across large majorities of office and multifamily markets, continuing the pattern from last quarter. In 2Q23, most negative return office markets were decelerating while the converse was true for negative return multifamily markets. In 3Q23, this is reversed. Industrial and retail property returns were positive in most markets in the third quarter, and among these, mostly accelerating. The share of positive/accelerating increased for both sectors but most pronouncedly for retail, going from 26% in 2Q23 to 50% in 3Q23.

Breakdown of NCREIF CBSA Total Returns: 3Q 2023

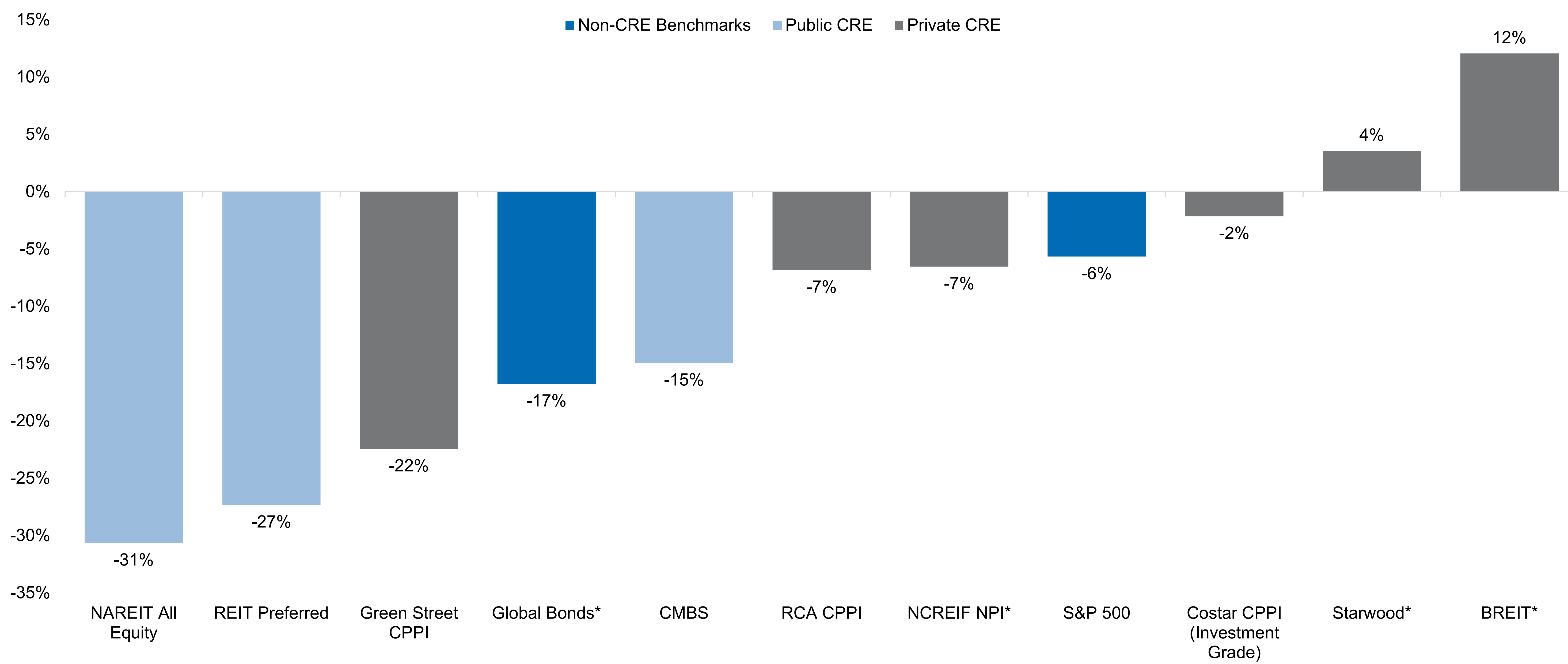


Source: NCREIF, Newmark Research as of 11/8/2023

Private Markets Continue to Lag Public Markets in Adjusting Valuations

The non-traded REIT sector seems to be particularly disjointed from other benchmarks.

Cumulative Return Since December 2021



Source: Standard & Poor's, NAREIT, Bloomberg, iShares, RCA, Green Street, Costar as of 11/142023
*Total return; all else price return

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Newmark has implemented a proprietary database and our tracking methodology has been revised. With this expansion and refinement in our data, there may be adjustments in historical statistics including availability, asking rents, absorption and effective rents. Newmark Research Reports are available at nmrk.com/insights.

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