4Q23

The National Industrial Market: Conditions & Trends

NEWMARK

Market Observations

Economic Conditions and Demand Drivers

– Despite a panorama of recession signals, the U.S. economy expanded by 3.1% from a year earlier due in large part to stronger than expected consumers. Expansion may continue albeit at a slower pace in 1Q24.

– A persistently constricted credit environment, elevated interest rates, and shifting consumer demand is causing a significant uptick in bankruptcies, which has contributed to some sublease space and vacancies in the industrial market.

– Starting in late 2023 and continuing into early 2024, geopolitical issues are supplanting economic efficiency as the primary driver for movement of goods in global supply chains, with implications for the U.S. industrial market.

Leasing Market Fundamentals

– Nationally, absorption measured 56.3 msf in the final quarter of 2023, a stronger close to the year. Preleased construction deliveries contributed substantially to quarterly net absorption.

– Annual deliveries measured 564 msf, an all-time high. The construction pipeline has depleted substantially amid sharply decelerating new starts although at 455 msf, it is still 37% above 2019 measures.

– Asking rent growth has decelerated, measuring 8.2% annually from double-digit growth realized earlier in the year. Contract rent growth has slowed further.

Capital Markets

– 4Q23 marked the sixth consecutive quarter of significant annualized declines in industrial capital markets volume, with users – a small slice of the pie - the only investor group to increase acquisitions in 2023 versus 2022.

– Private-market industrial cap rates have increased 100 basis points in total since the end of 2022. Cap rate and BBB bond yield measures were 5.4% at the close of 2023.

– Record industrial loan maturities are coming due. However, among all property types, the industrial sector has the lowest share of potentially troubled loans maturing over this timeframe. The larger challenge will come from debt service covenants where 47% of upcoming maturities have a DSCR of 1.25x or less.

Outlook

– Economic uncertainty continues to exert pressure on consumers, developers, occupiers and investors. Demand for industrial space will likely remain resilient but muted going into 2024.

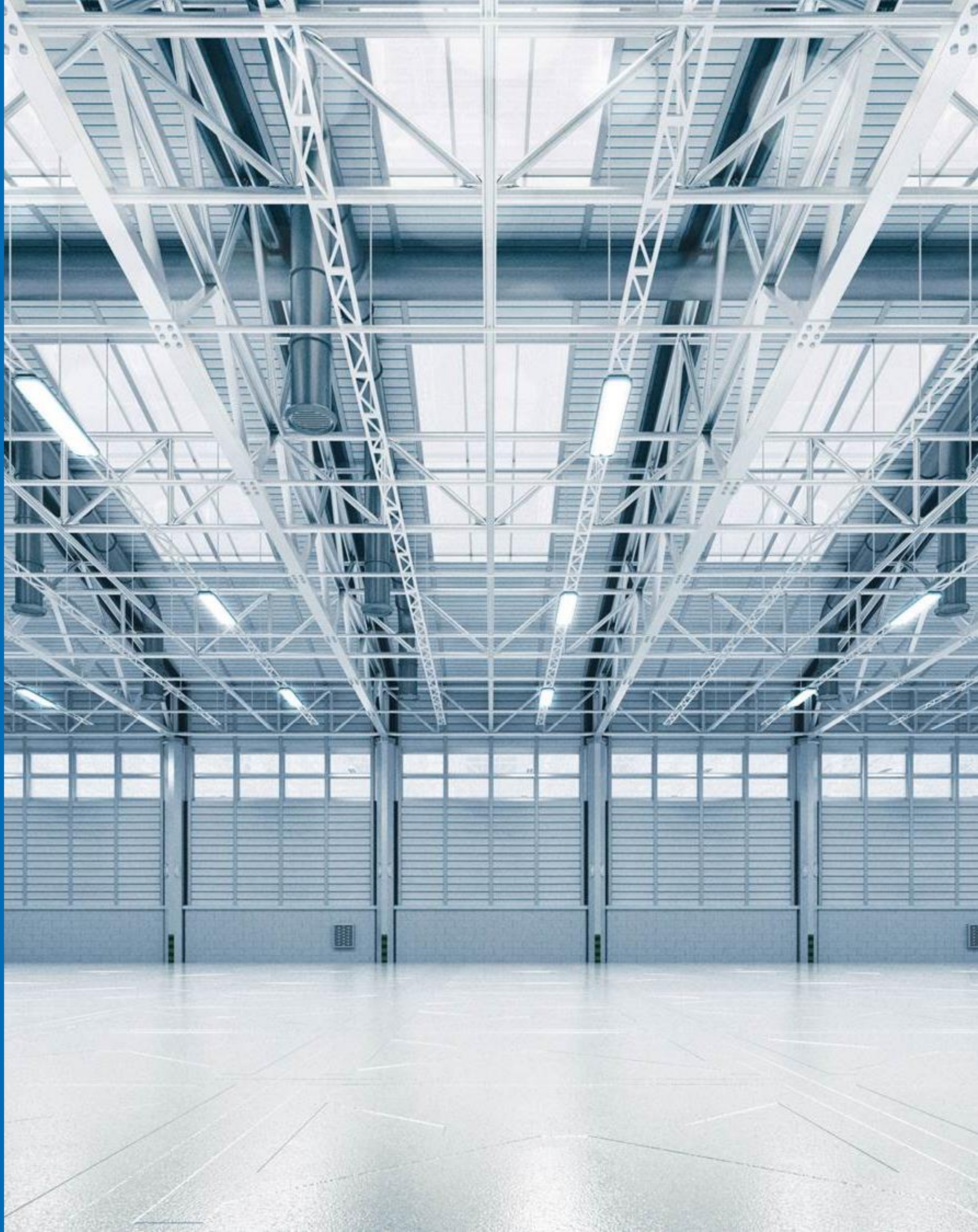
– Vacancy will increase further as historically elevated volumes of new construction deliver over the first half of 2024. Supply – both in deliveries, and in development – will fall back to pre-pandemic levels by 2025, and possibly sooner, depending on how few projects kick off during the next few months.

– Unpredictability in the global supply chain will drive long-term demand for U.S. industrial space due to the need for diversified sourcing and ports of entry to control for cost and speed. The immediate impact of acute global supply chain developments on leased industrial space is likely to be a mild but net positive in 2024.

TABLE OF CONTENTS

4Q23

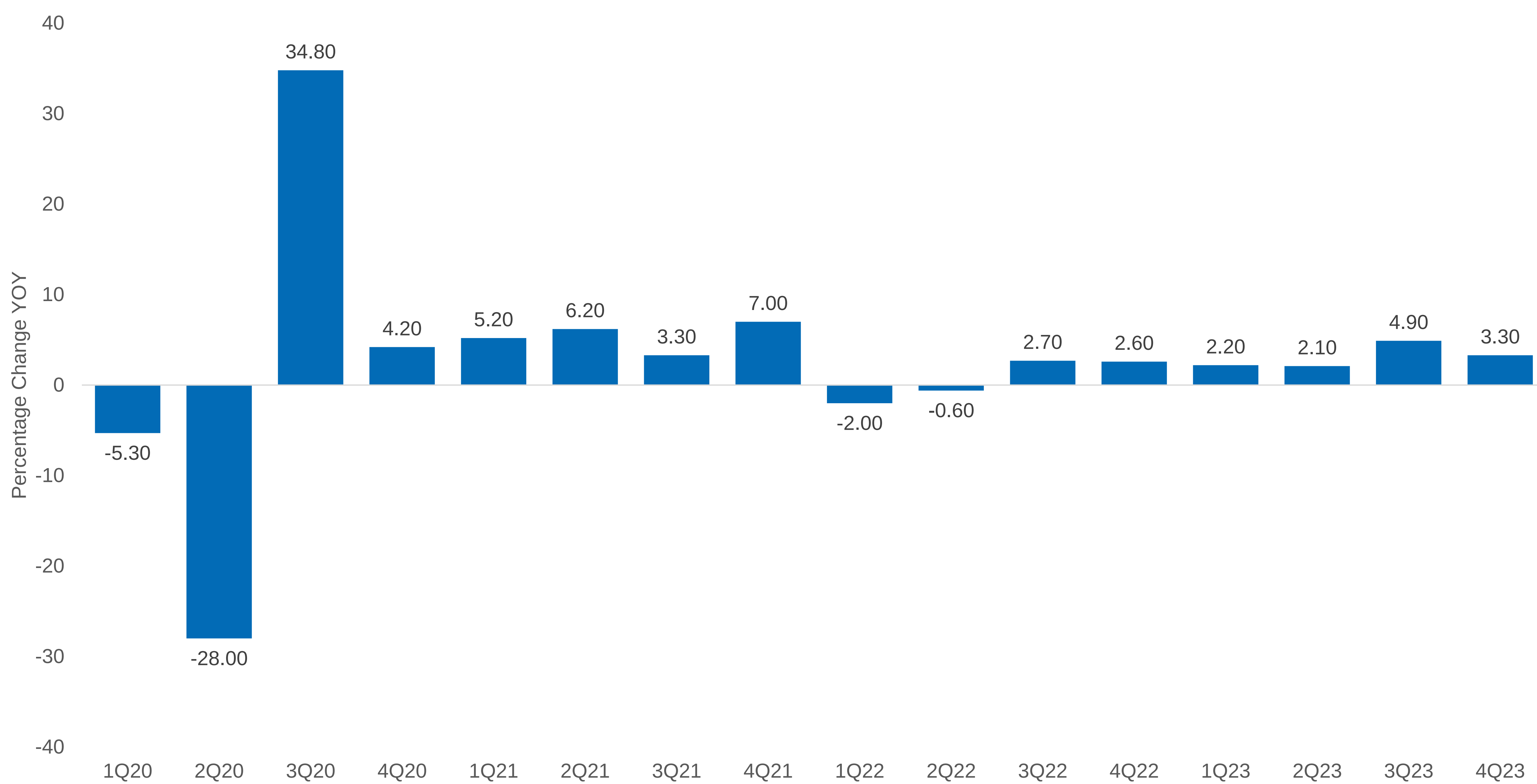
Economy and Demand Drivers



No Recession (Yet?)

Gross domestic product grew at a seasonally- and inflation-adjusted 3.3% annualized rate in 4Q23 – not quite the recession that had been predicted.

Real GDP, Annualized Percent Change

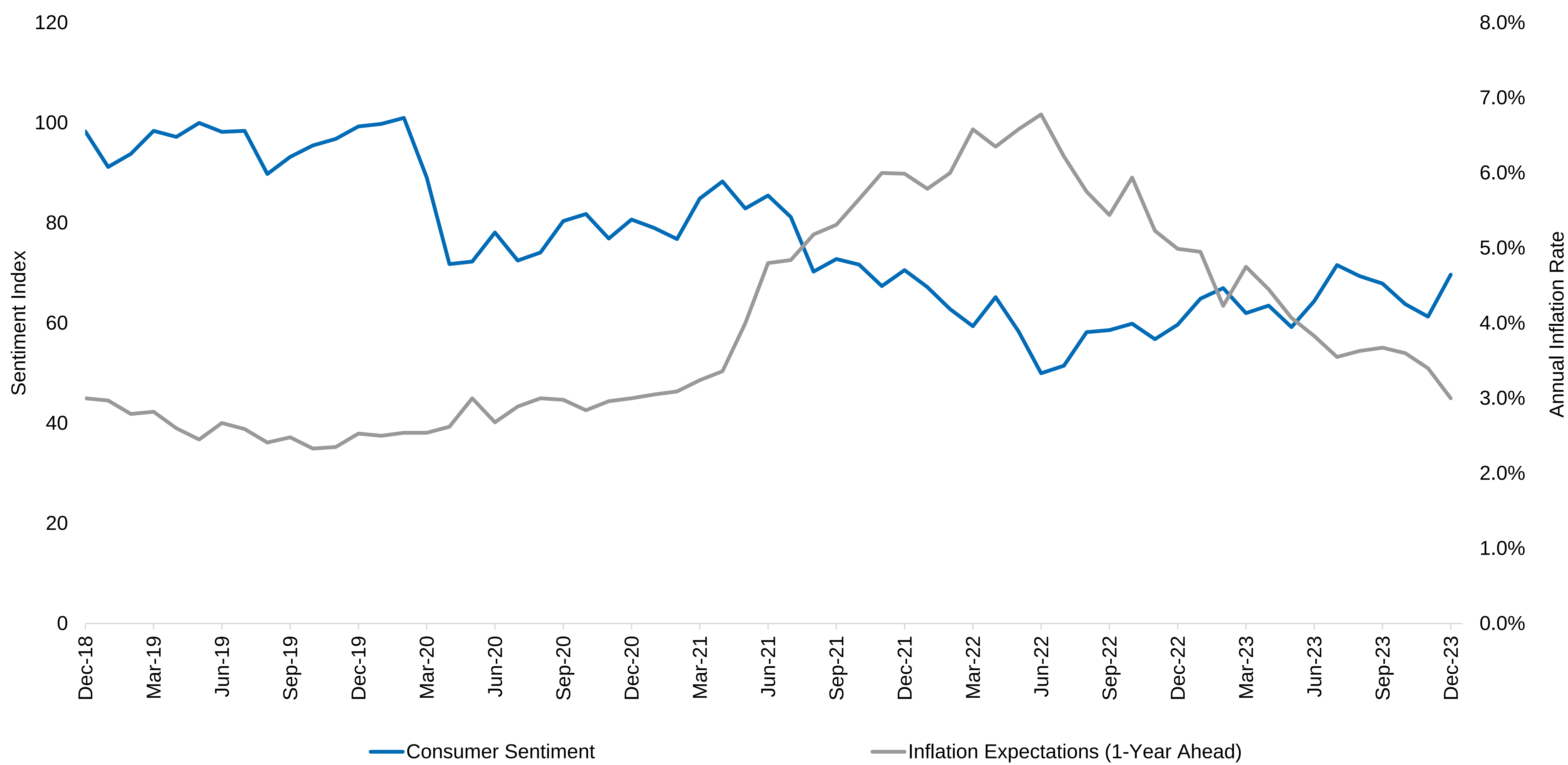


Source: Newmark Research, St. Louis Federal Bank

Instead, a 'Vibe-cession': Consumer Sentiment Out of Step with Economic Data

Persistent economic uncertainty has left consumers feeling less confident even as inflation expectations continue to moderate – however, the positive uptick in sentiment seen in December 2023 may indicate a shift in the right direction.

Consumer Sentiment and Inflation Expectations

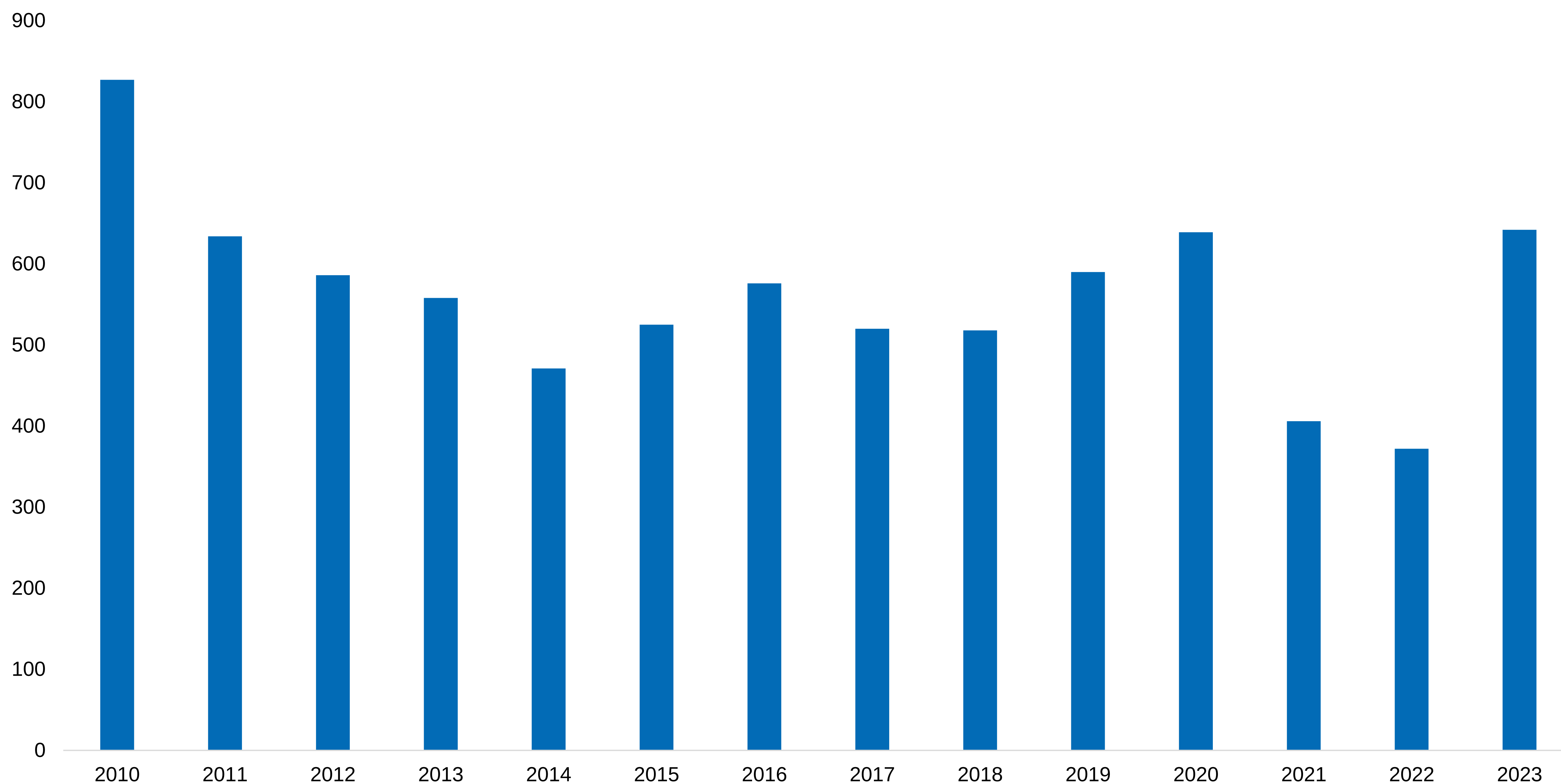


Source: Newmark Research, Federal Reserve of NY, University of Michigan, January 2024.

U.S. Bankruptcy Filings Elevated

Corporate bankruptcies increased during 2023, surpassing 2020 levels. The attendant industrial footprint has been seen as an opportunity in some cases (Yellow’s truck terminals) or in other cases, has contributed to overall rising availabilities amid softer demand for second-generation space.

U.S. Bankruptcy Filings by Year

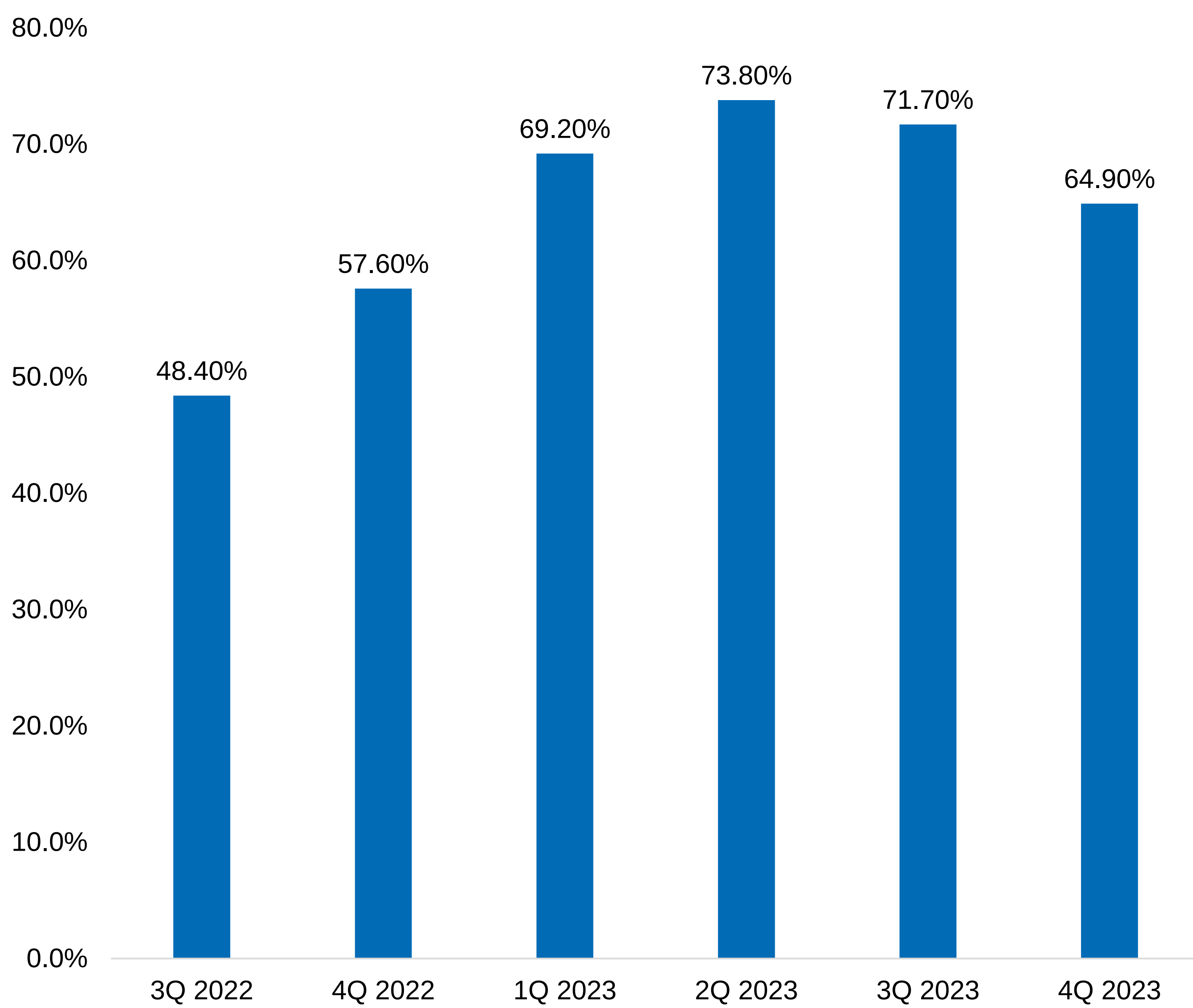


Source: Newmark Research, S&P Global. January 2024.

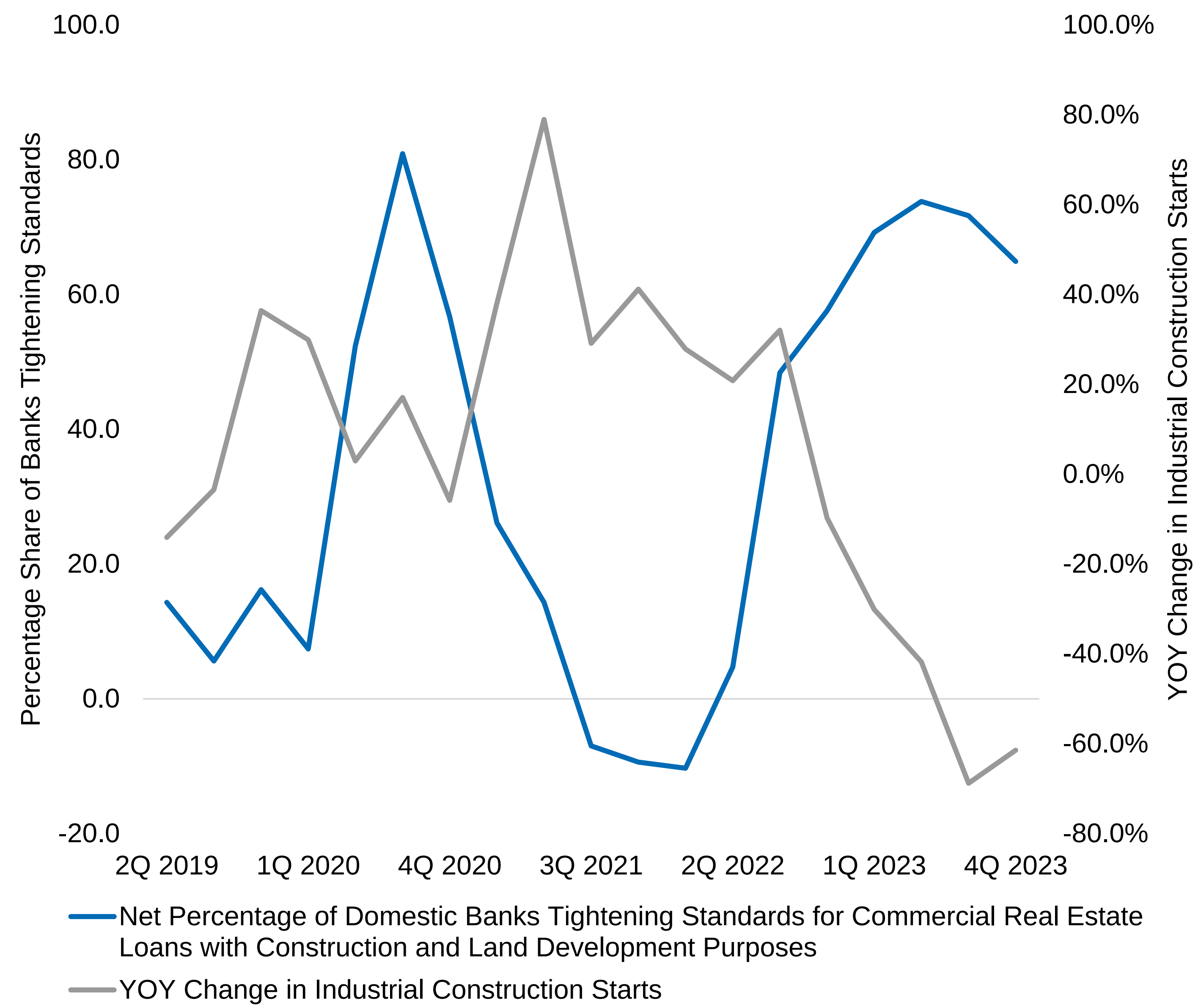
Banks Remain Cautious about Lending, but Have Loosened the Grip Somewhat

Although lending standards are loosening modestly from peak tightening in midyear 2023, a more constrictive credit environment persists, contributing to the slowdown in the industrial pipeline.

Net Share of Banks Tightening Standards for CRE Construction Loans



Tightening Lending Standards Vs New Industrial Construction Starts

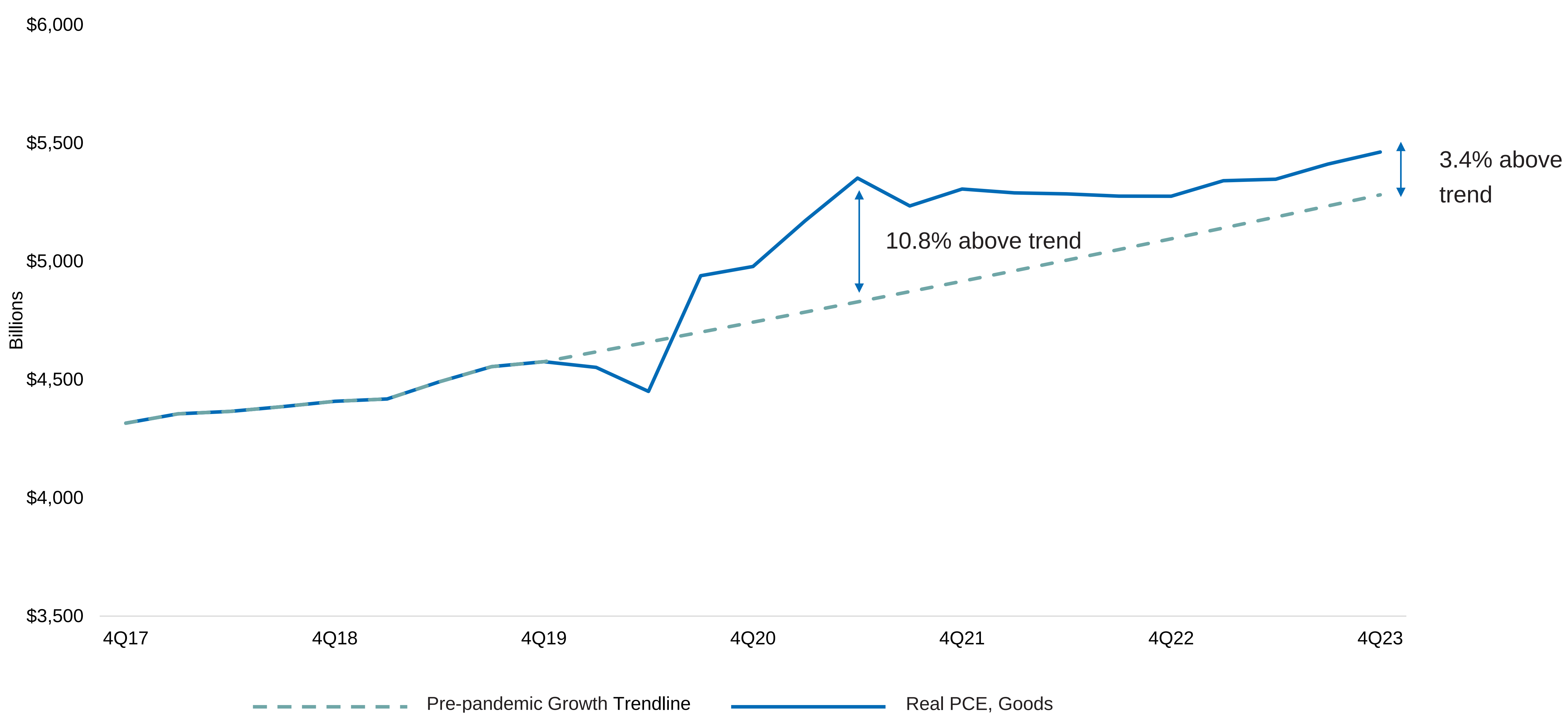


Source: Newmark Research, Board of Governors of the Federal Reserve

Spending on Goods More Resilient than Expected

Inflation-adjusted spending on goods, while on a decelerating trend since midyear 2021, remains above the pre-pandemic trendline, and increased by ~1% from the third to the fourth quarter of 2023, helping to propel stronger-than-expected GDP growth.

Real Personal Consumption Expenditures, Goods

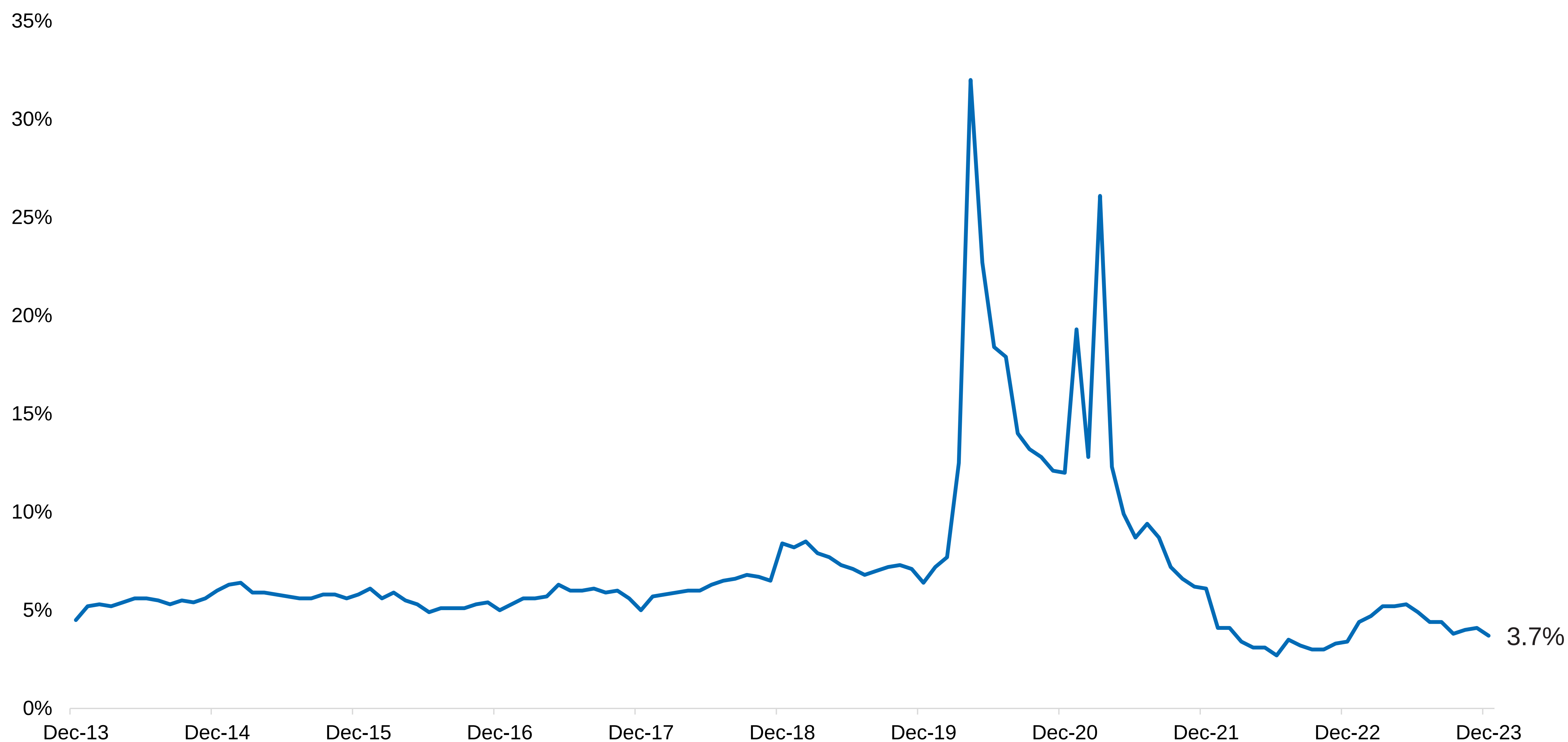


Source: St. Louis Federal Bank, Newmark Research, January 2024.

While Spending Was Up, Savings Remain Lower than Average

Household incomes continue to grow, but are rising slower than consumer spending, resulting in dwindling savings. While consumers are saving more now than the 2.7% rate observed in June 2022, measures are well below the pre-pandemic 10-year average of 6.1%.

Personal Savings Rate

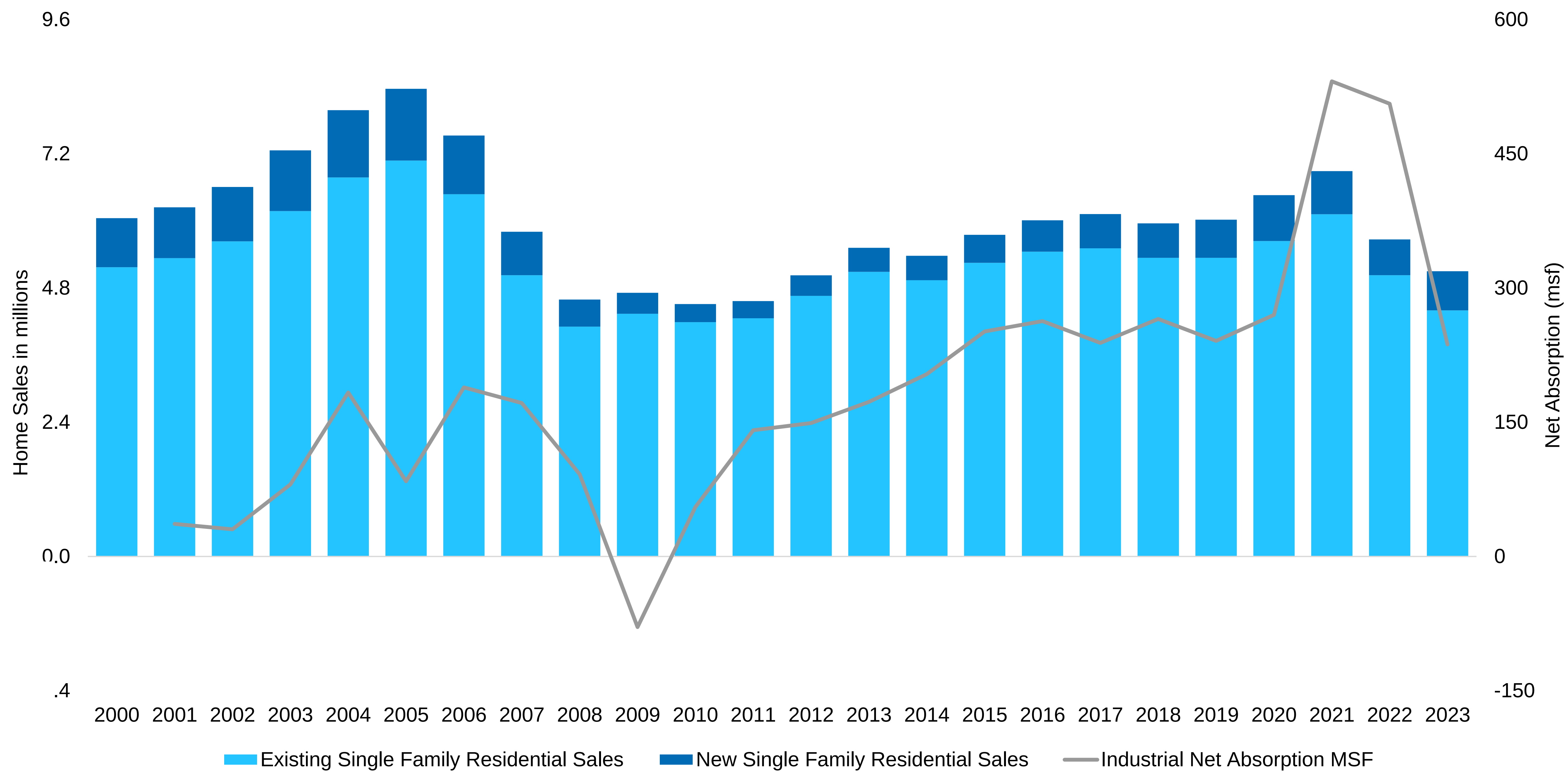


Source: St. Louis Federal Bank, Newmark Research, January 2024.

Home Sales Slowest in over a Decade, Impacting Demand for Industrial Space

Home sales drive a significant amount of goods consumption and thus, industrial demand. Sales have been slowing since a cyclical peak in 2021 because of high mortgage rates, elevated home prices and a limited inventory of homes for sale and are likely to remain depressed until these conditions improve.

Single Family Residential Sales and Industrial Net Absorption[1]

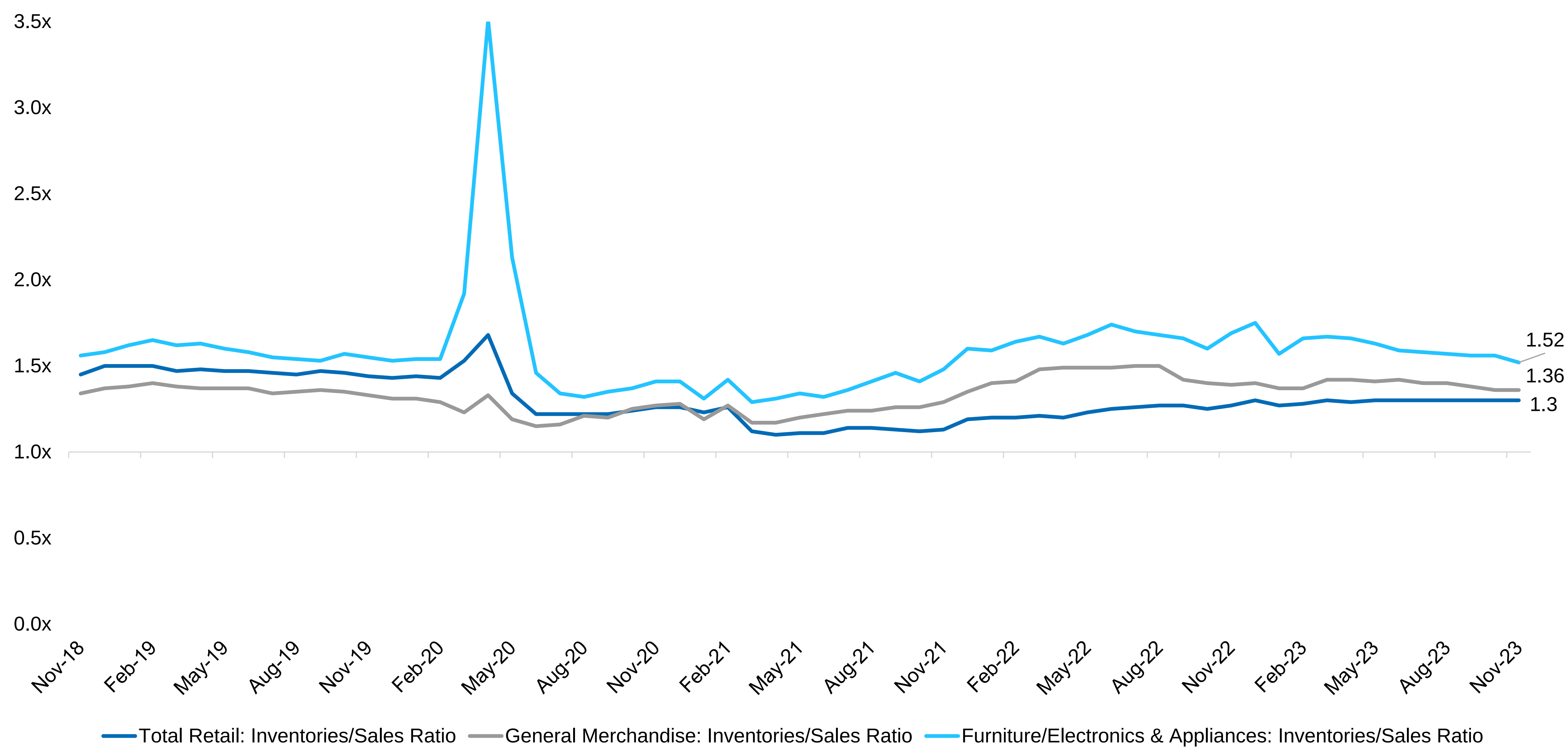


[1]Single Family Residential Sales not seasonally adjusted.
Source: Newmark Research, CoStar, St. Louis Federal Bank, National Association of Realtors, U.S. Census Bureau, January 2024.

Retailers End 2023 with Tight Inventories

The total retail inventories/sales ratio remained essentially flat through 2023 as modest increases in sales and inventories offset each other. With the overall retail inventories-to-sales ratio persisting below pre-pandemic averages for most of the year, retailers in some segments may start to resume restocking in 2024, reinvigorating industrial space requirements.

Inventories to Sales Ratio, Total Retail and Sector-Specific

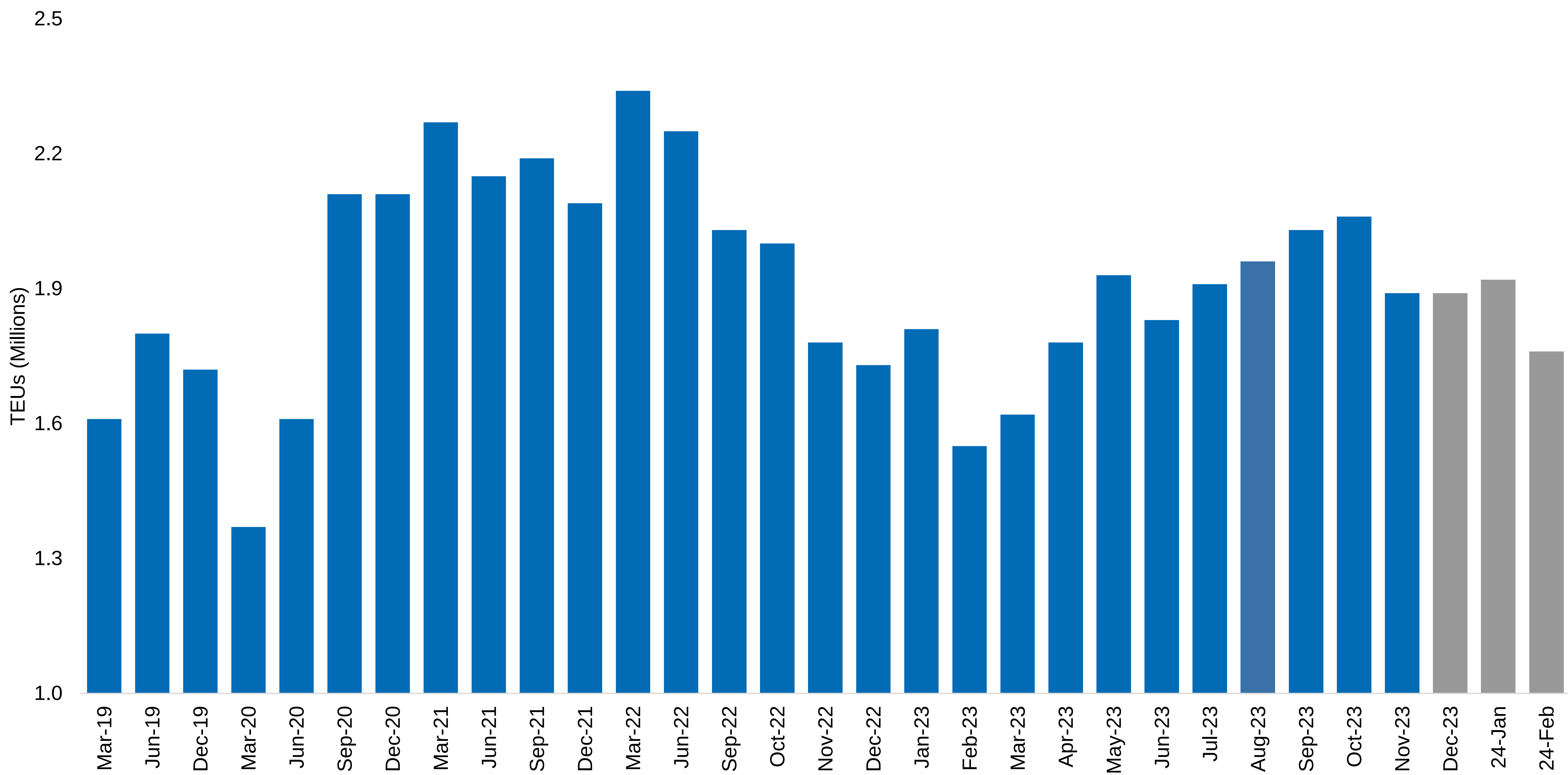


Source: St. Louis Federal Bank, Newmark Research, ISM

Retail Imports Are Normalizing, but New Challenges Are Emerging

Retail imports are normalizing but disruptions caused by attacks on cargo ships in the Red Sea are injecting volatility in global supply chains, which will cause longer transit times and increased costs. Some retailers may increase safety stock as a result.

Global Port Tracker: U.S. Retail Imports

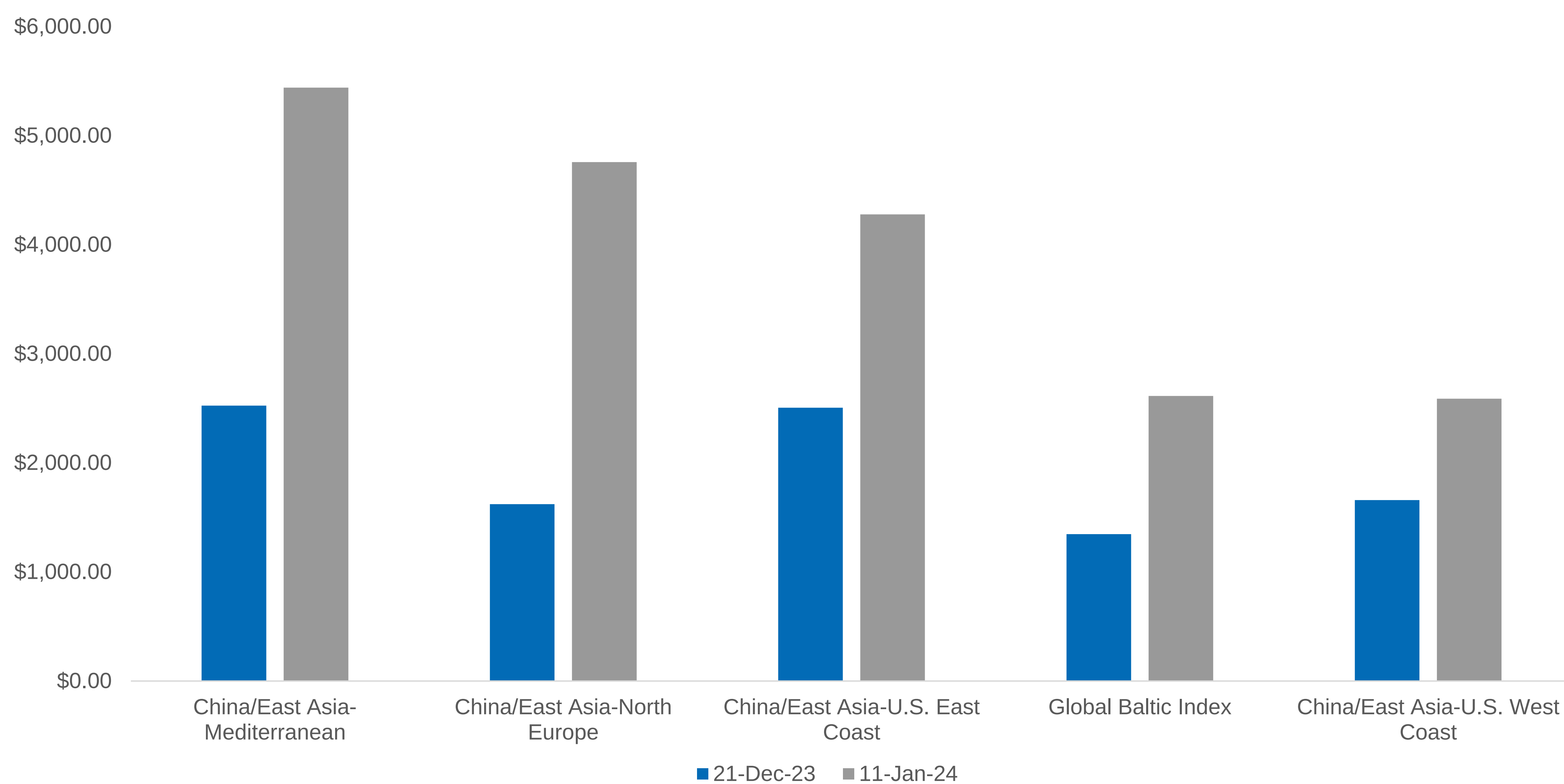


Source: National Retail Federation, Newmark Research. January 2024.

Maritime Shipping Rates Are Spiking

Disruptions at critical arteries of trade – the Panama and Suez Canals - have driven an increase in maritime transit times and cost. There is excess capacity to redeploy in the freight market as consumption has normalized but rates have still been impacted, with some more than doubling in the past few weeks. The Freightos Baltic Index (a measure for overall global shipping costs) is up 94% since mid-December 2023. Companies price in some amount of volatility, but if the conflicts persist, it will eventually affect consumer prices.

Key Shipping Rate Indices

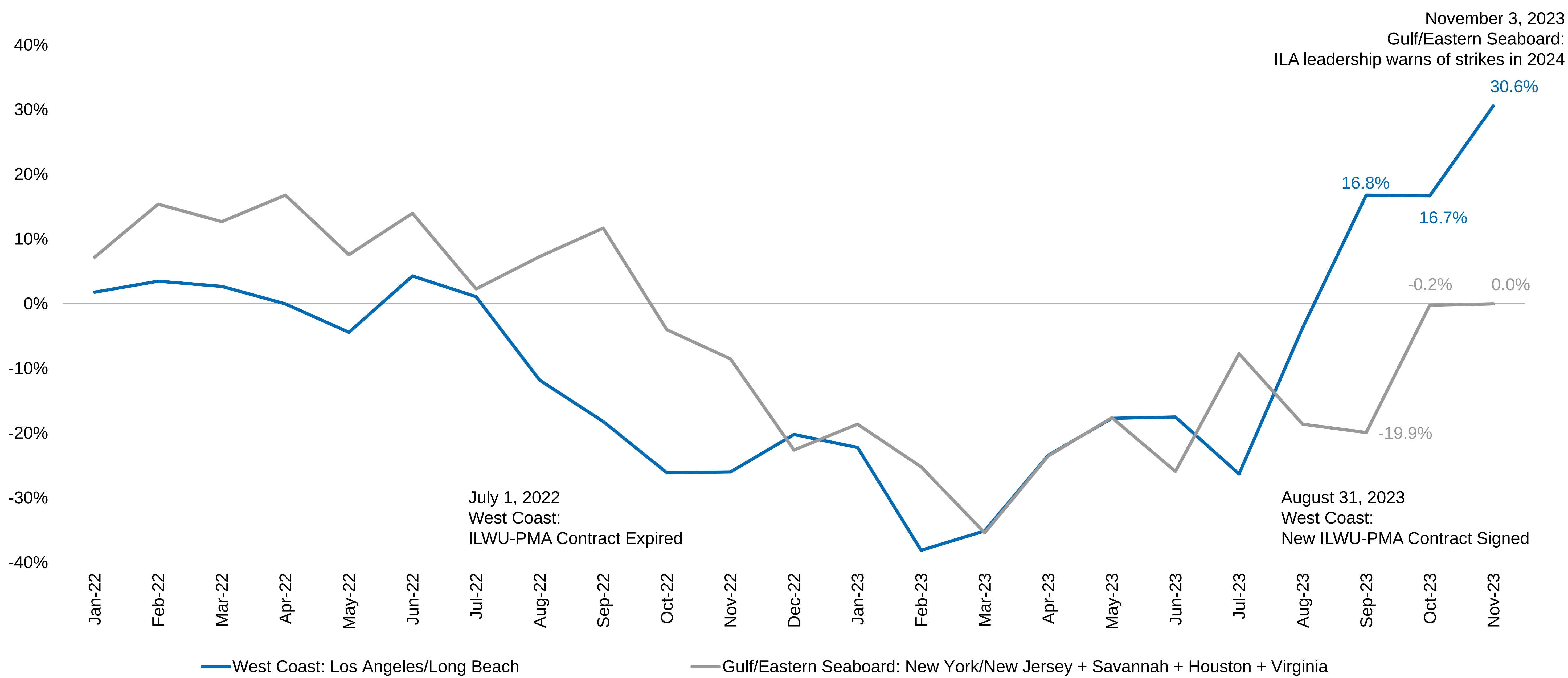


Source: Freightos, January 2024.

Containerized Imports Will Follow Path of Least Resistance

SoCal ports recorded substantial year-over-year increases in imports according to the most recent ports data available, as some importers re-route cargo to Western points of entry due to labor concerns or issues with the Panama Canal drought conditions restricting access. It is too early to tell how Suez Canal disruptions will impact import volume and market share.

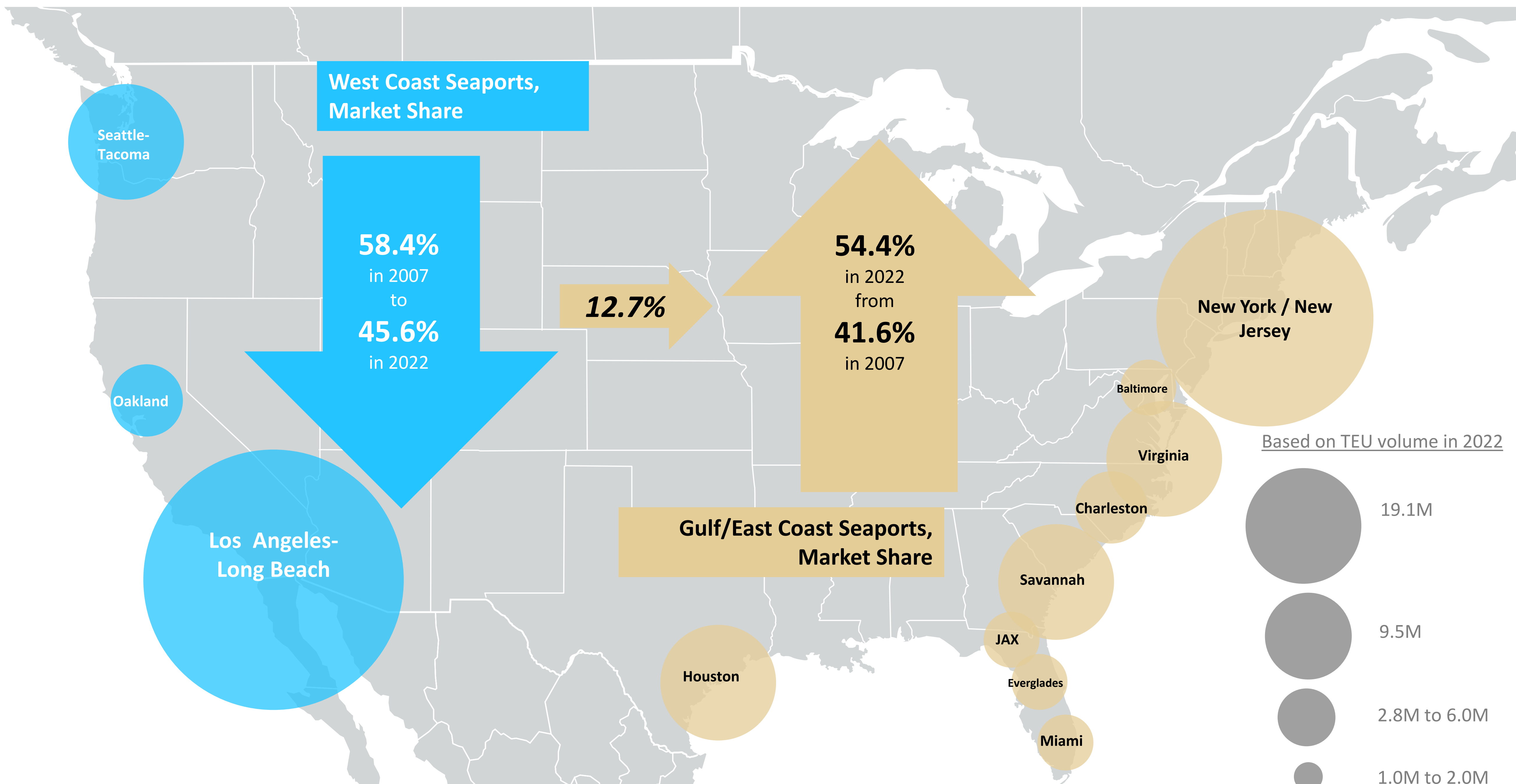
Major U.S. Seaports: Annual Change in Loaded Imported TEUs | By Month



Source: Newmark SoCal Research, Individual Seaport, January 2024.

Temporary Fluctuations Aside, Import Market Share Has Been Shifting Eastward

U.S. Gulf and Eastern seaports have steadily gained market share from the West Coast seaports thanks to the investment in accommodating larger container vessels and other supportive infrastructure. Additionally, some global supply chains are moving from China toward friendlier South Asian countries, which align with East Coast sea routes for cost and speed to delivery considerations. As firms set sights on de-risking operations, some TEU share may be gained back by the West due to upcoming contract negotiations with the East and Gulf Coasts' International Longshoremen's Association.

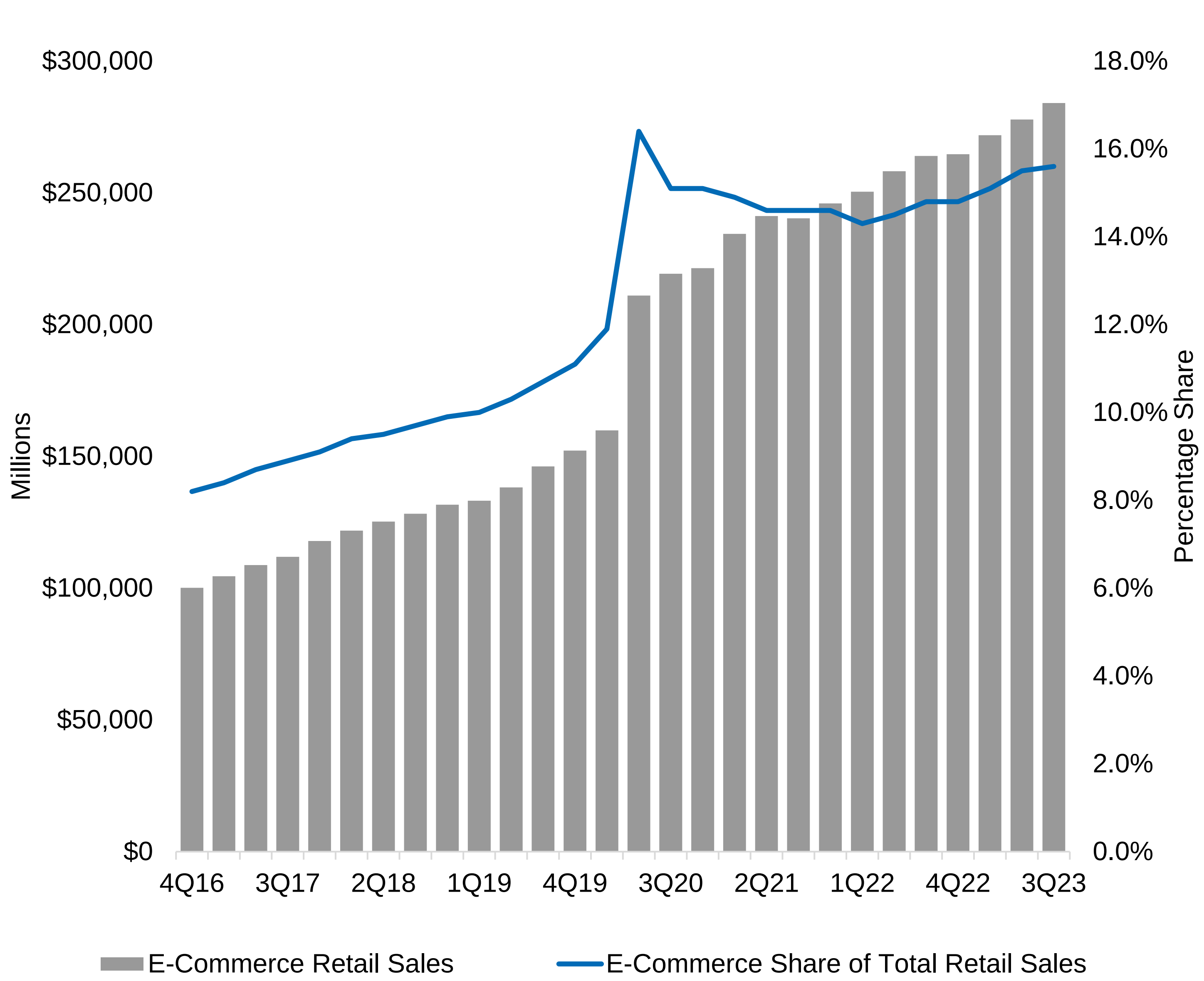


Source: Newmark SoCal Research, port websites

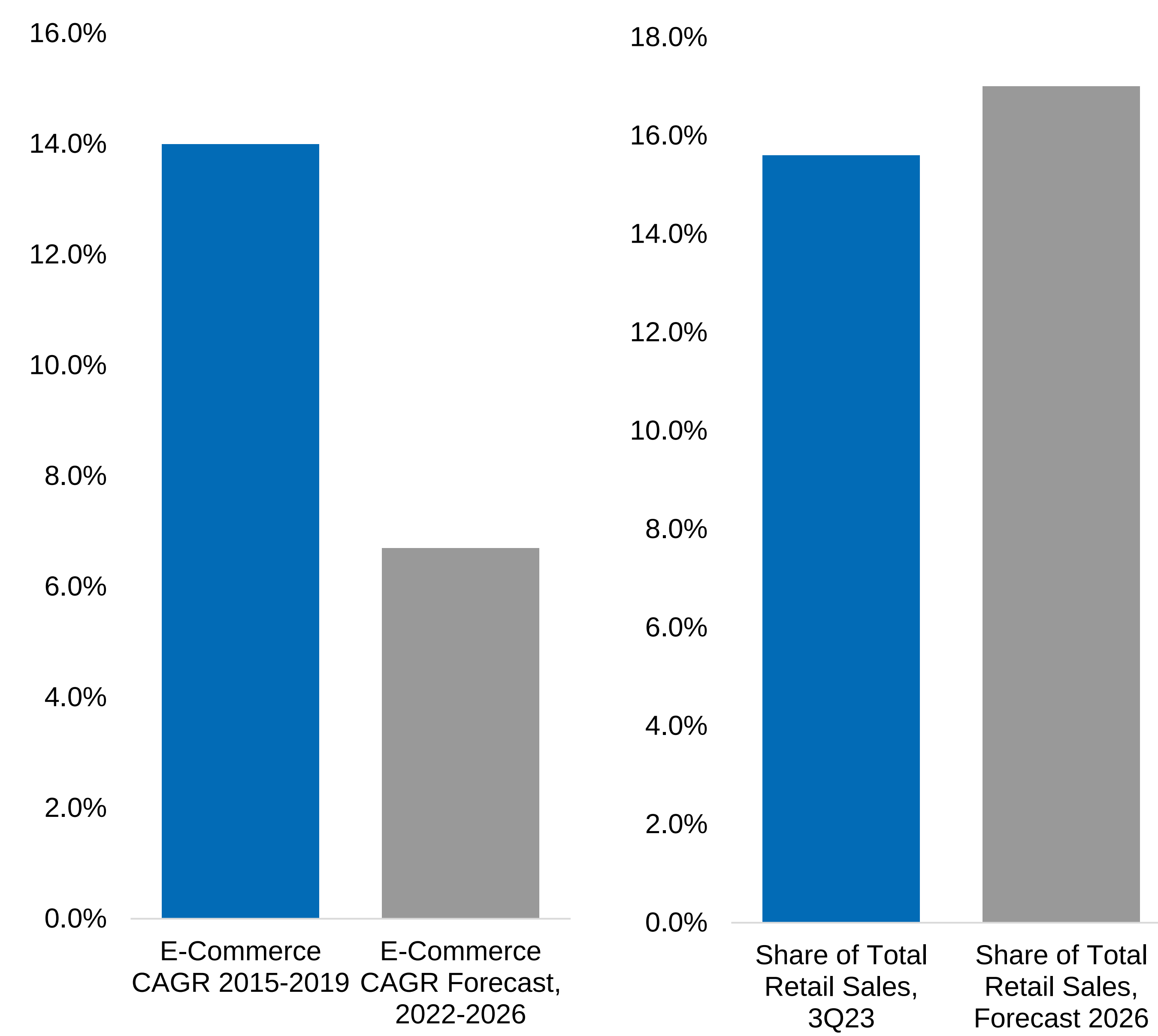
E-commerce Will Continue to Be a Secular Growth Engine (At Moderating Rates)

During the pandemic, e-commerce sales soared, growing in two years what pre-pandemic trends signaled would take four. Uncertainty around the “stickiness” of consumer behavior has cleared; as spending normalizes back to mixing in-store, online and omnichannel patterns, expectations for e-commerce sales and share of total retail expenditures have adjusted in turn. Even at lower annual rates than previously expected, e-commerce growth will drive industrial demand. An estimated 1.2 msf of logistics space is needed to support every additional $1.0 billion in e-commerce sales gains.

E-commerce Sales and Share of Total Retail Sales



Historical and Forecasted E-commerce Growth and Penetration Rate

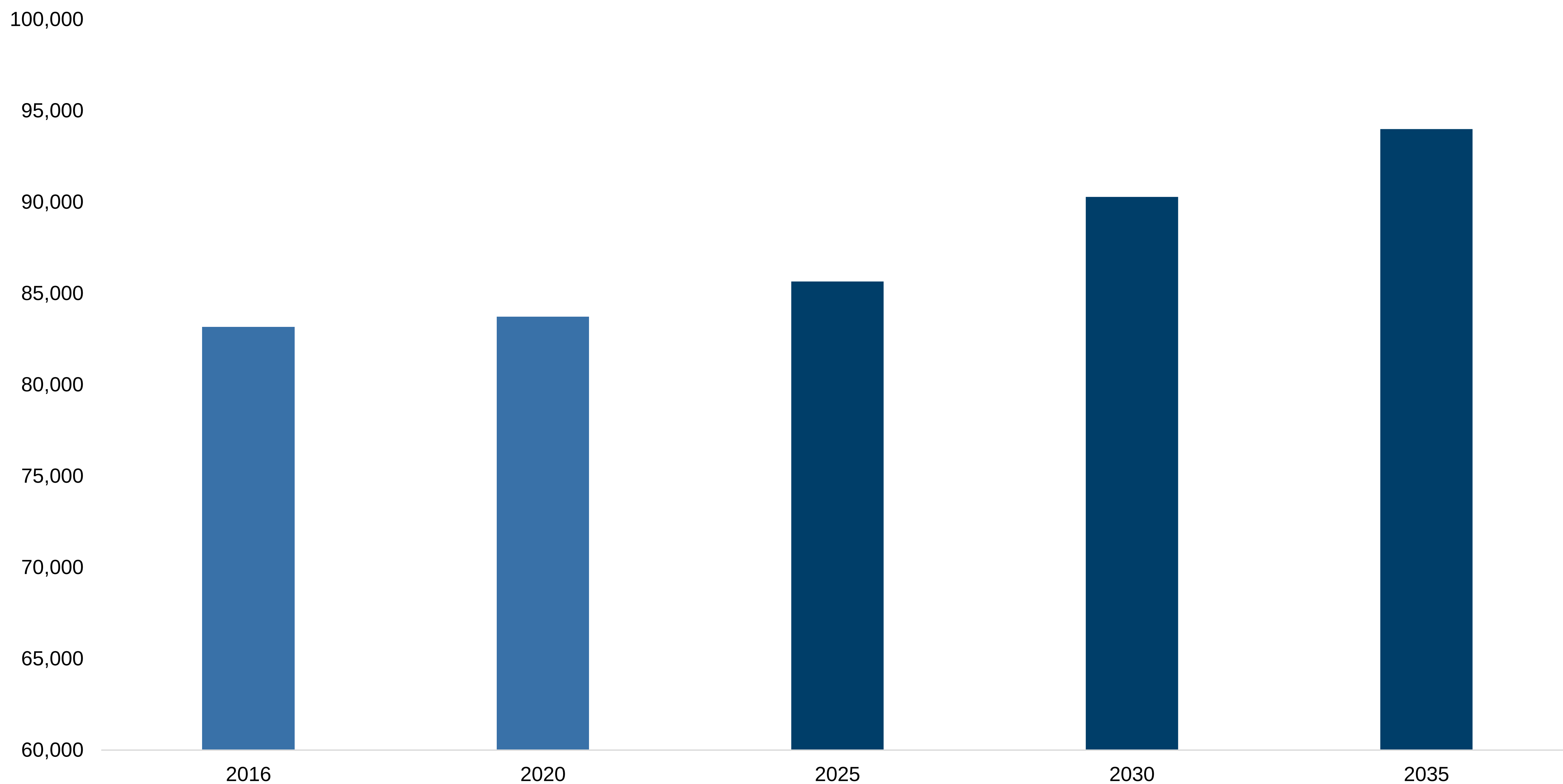


Source: U.S. Census Bureau, St. Louis Federal Bank, Green Street, Prologis.

Millennials, the Leading E-commerce-Using Cohort, Are Entering Top Spending Years

For consumers, spending power is at its highest between ages 35 and 54. Millennials, the largest generation in the U.S. workforce, will be fully aging into this cohort between now and 2035. Millennials are the leading generation of online shoppers, thus e-commerce spending (and the industrial real estate needed to support) will continue to be fueled by this group reaching their prime spending years.

U.S. Population and Projections, Age Cohort 35-54 (Thousands)

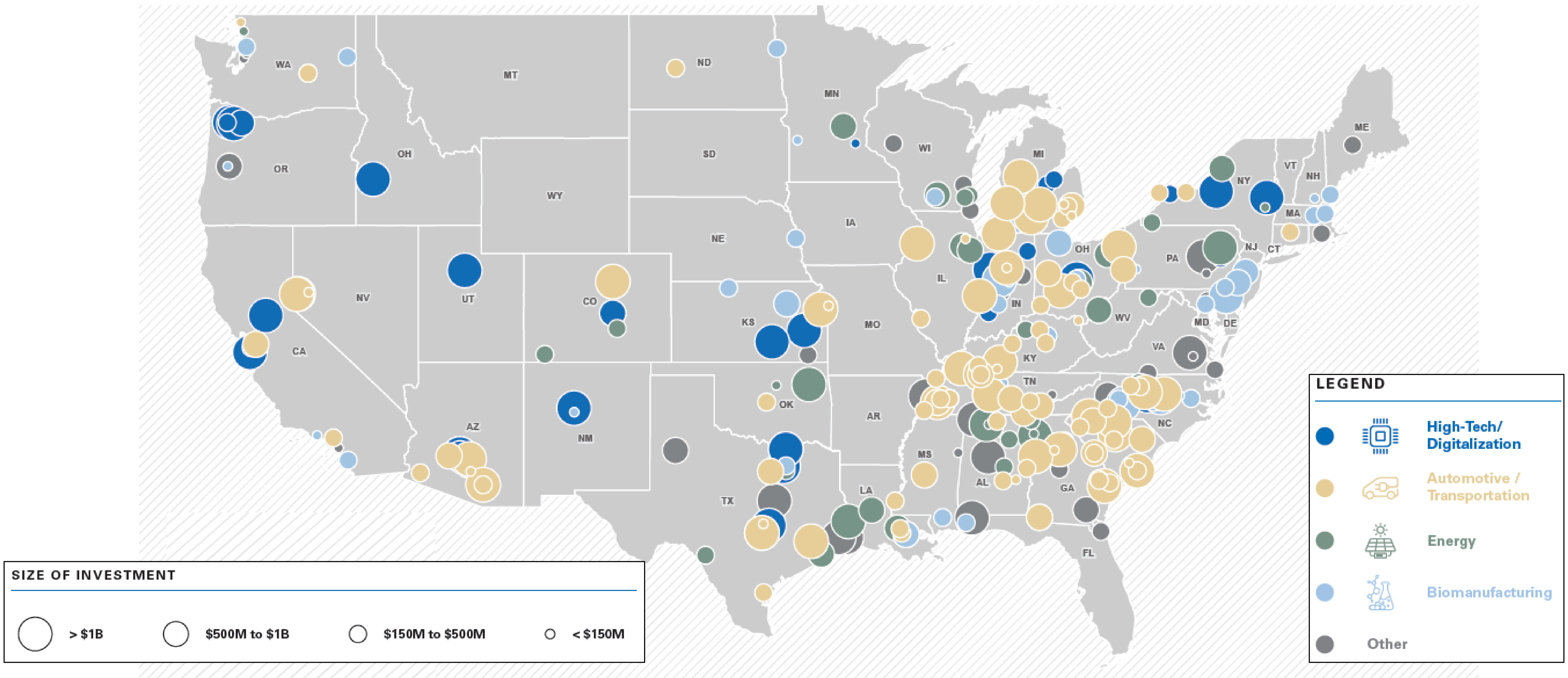


Source: Newmark Research, U.S. Census, Moody's Analytics, Statista

Monumental Growth in Domestic Manufacturing is Underway

A snapshot of initial manufacturing investments totaling a minimum of $100 million since 2020 reveals approximately $400 billion in investments pledged, 210,000+ new jobs and a minimum of 250 MSF of new industrial projects to come between now and 2030. Four key advanced manufacturing sectors are driving the greatest volumes of investment and development, capturing over 90% of the major investments pledged: High-tech/digitalization, Automotive/transportation; Energy; and Biomanufacturing.

U.S. Major Manufacturing Announcements, 2020-2023

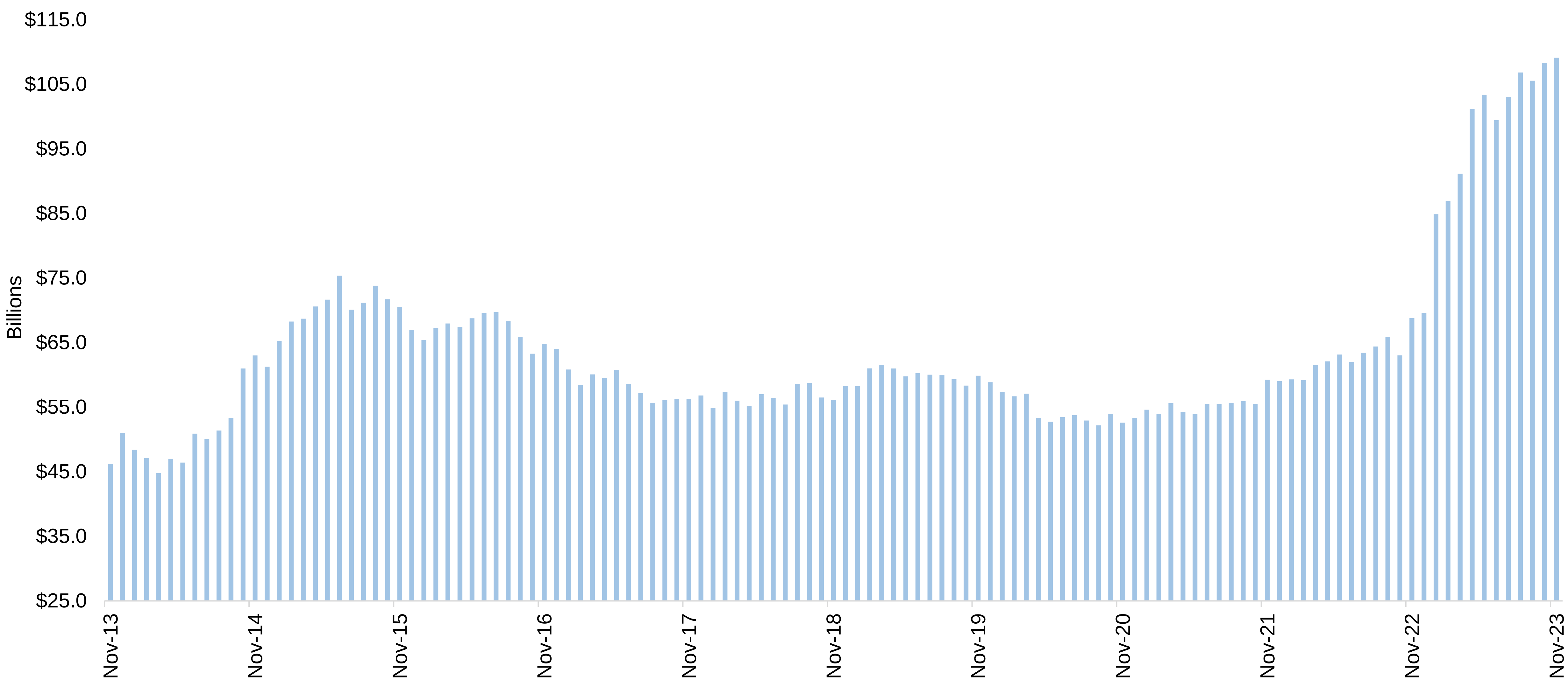


Note: Investments of at least $100 million. Investment dollars may include allocations to real estate and equipment, infrastructure, intellectual property, and other outlays.
Sources: Newmark Research, Newmark Global Strategy & Consulting, various press releases and articles

U.S. Manufacturing Construction Spending Has Accelerated to New Heights

While many companies are pausing or slowing capital investments as the economy decelerates, EV, batteries, chips, pharmaceutical and solar advanced manufacturers are investing heavily in new construction. Growth in these advanced manufacturing sectors is driven by recently passed legislation (Infrastructure and Investment Jobs Act, Inflation Reduction Act and CHIPS and Science Act), prompted by geopolitical and supply chain risk to these critical sectors.

Total Real Private Manufacturing Construction Spending

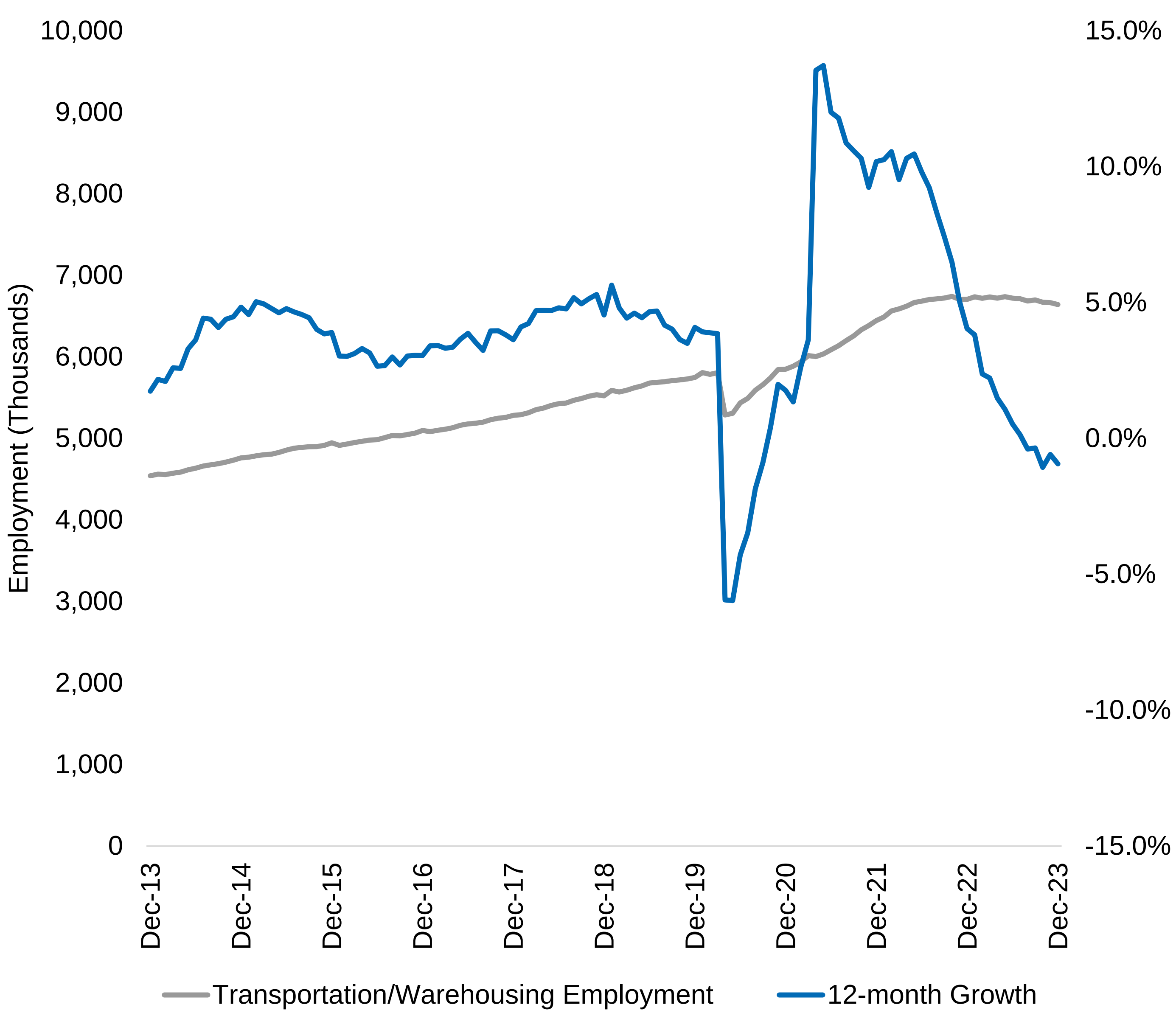


Source: Newmark Research, U.S. Census Bureau, FRED, January 2024.
Note: Seasonally adjusted annual rate deflated by New Industrial Construction PPI, chained to 06/2007.

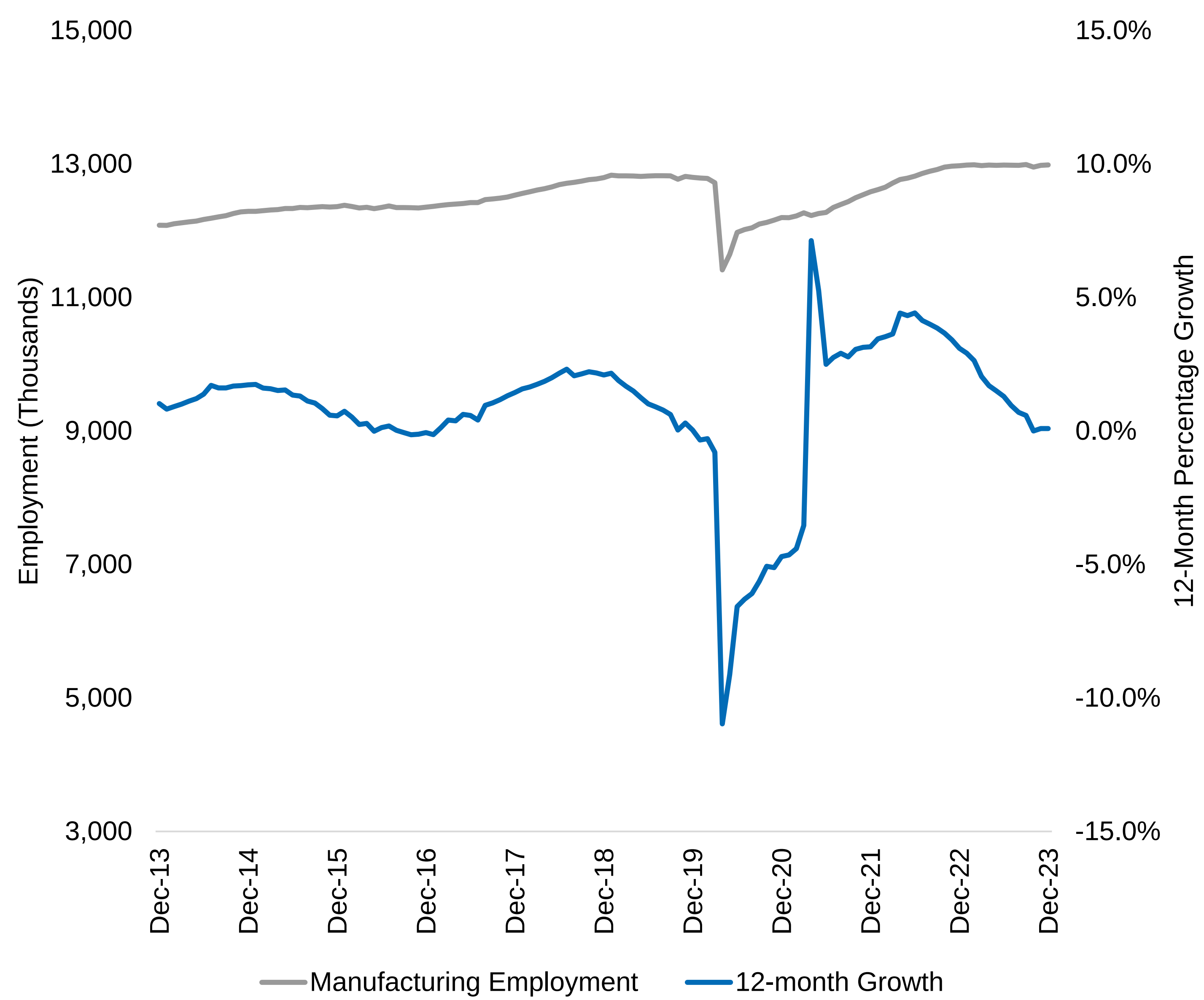
Industrial Staffing Remains High, If Flat

The transportation/warehousing and manufacturing sectors are responding to slowing goods spending by assessing occupancy and employment needs, visible in stagnating hiring trends. Logistics firms took a cautious approach to seasonal hiring with only a few exceptions, including a significant hiring push by Amazon.

Total Employment and 12-Month Growth Rate, Transportation/Warehousing



Total Employment and 12-Month Growth Rate, Manufacturing



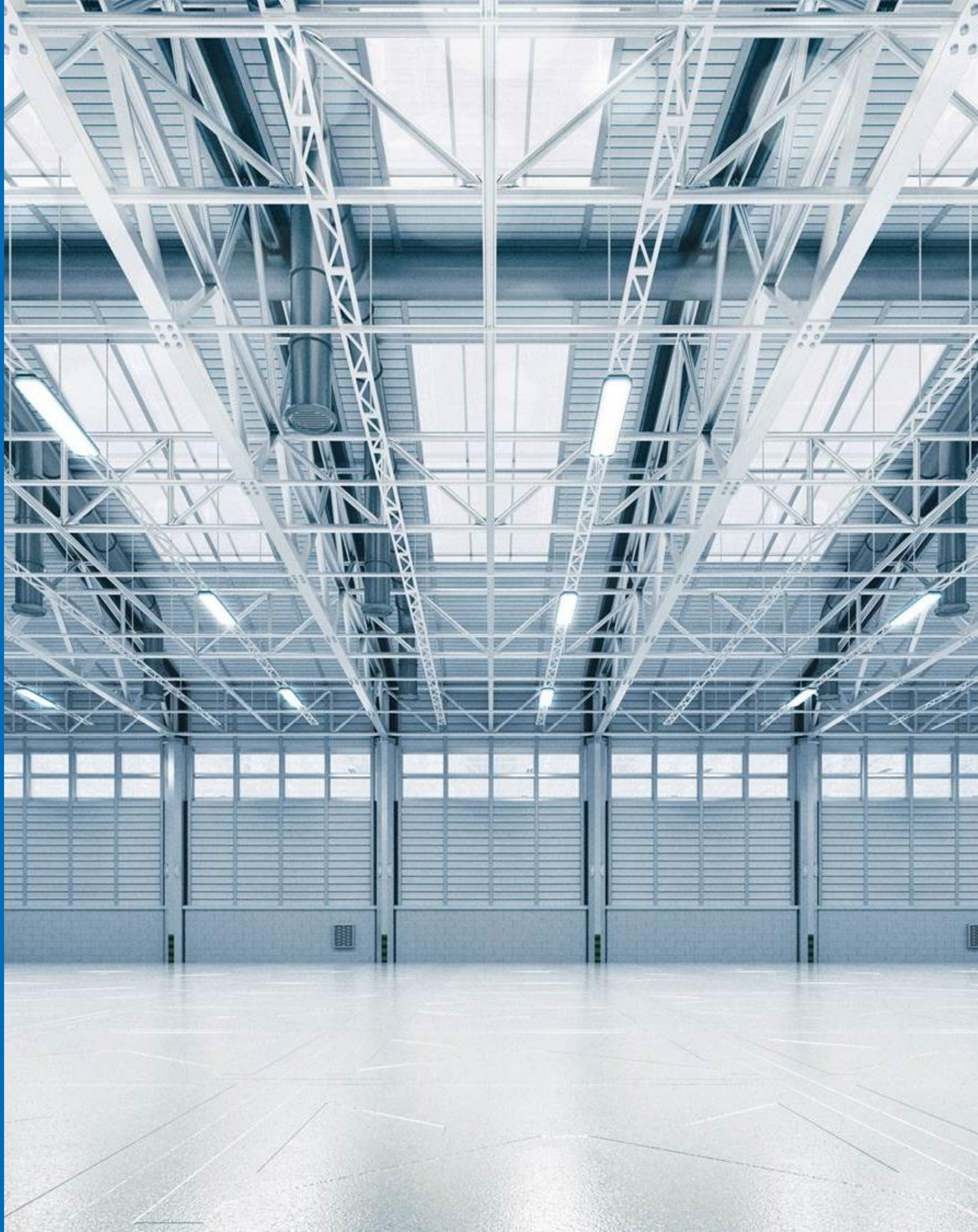
Source: Newmark Research, U.S. BLS

Key Trends Impacting the U.S. Industrial Market in 2024 and Beyond

- Subsidized Demand → Subsidized Supply
- Utility Infrastructure
- Digital / Industrial Convergence
- Global Instability & Macro Risks
- Supply/Demand Imbalance
- Rate Cut Watch

4Q23

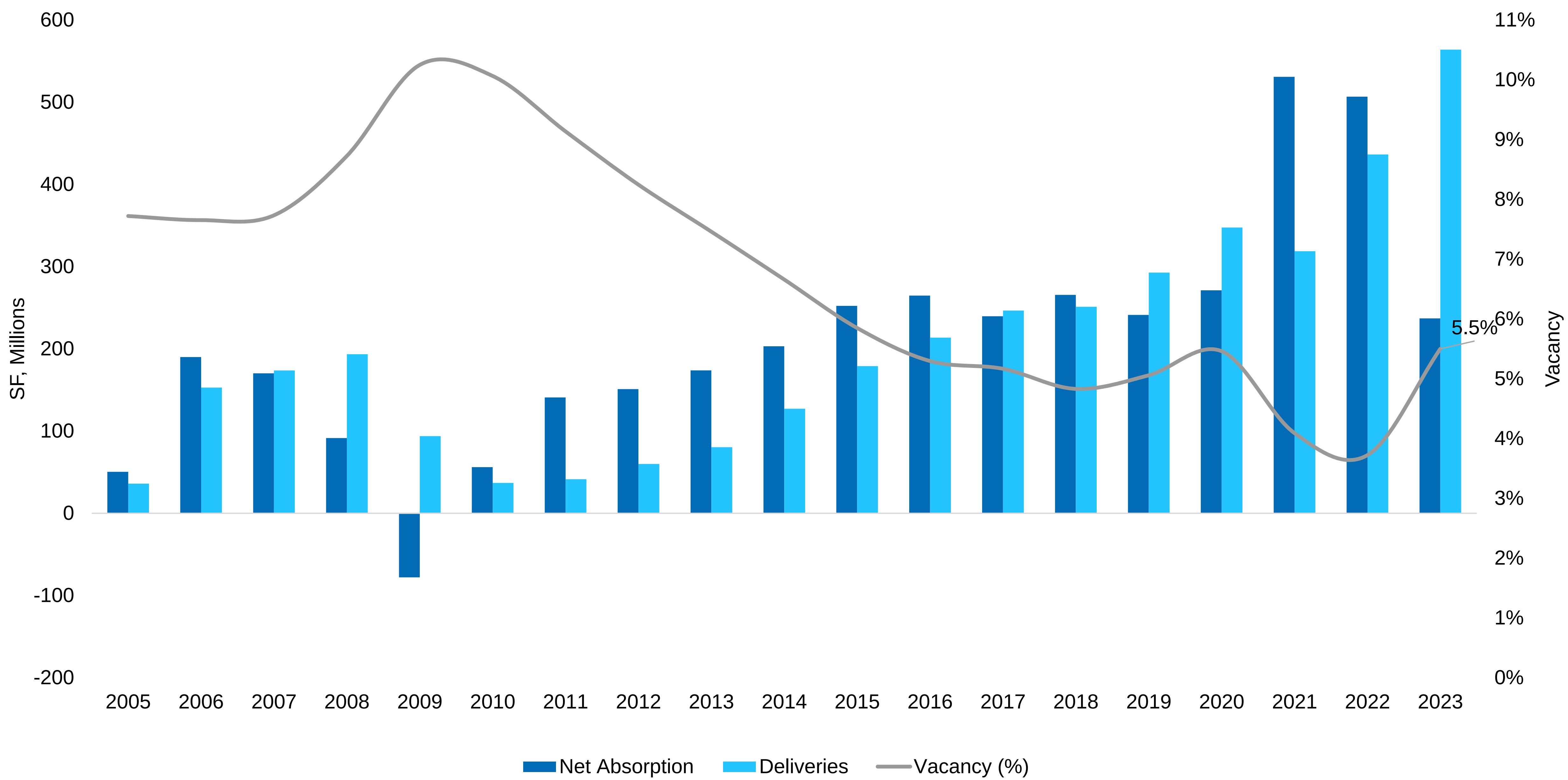
Leasing Market Fundamentals



Record Deliveries Push Vacancy Up to a Three-Year High

Net absorption of 56.3 MSF brought annual absorption totals to approximately 237 MSF, substantially lower than the past three years but on par with pre-pandemic annual volumes. Elevated completions in the first half of 2024 coupled with softer leasing demand will put further pressure on the national vacancy rate, but it is not expected to come anywhere close to double-digit levels charted during the GFC.

U.S. Industrial Deliveries, Net Absorption, and Vacancy

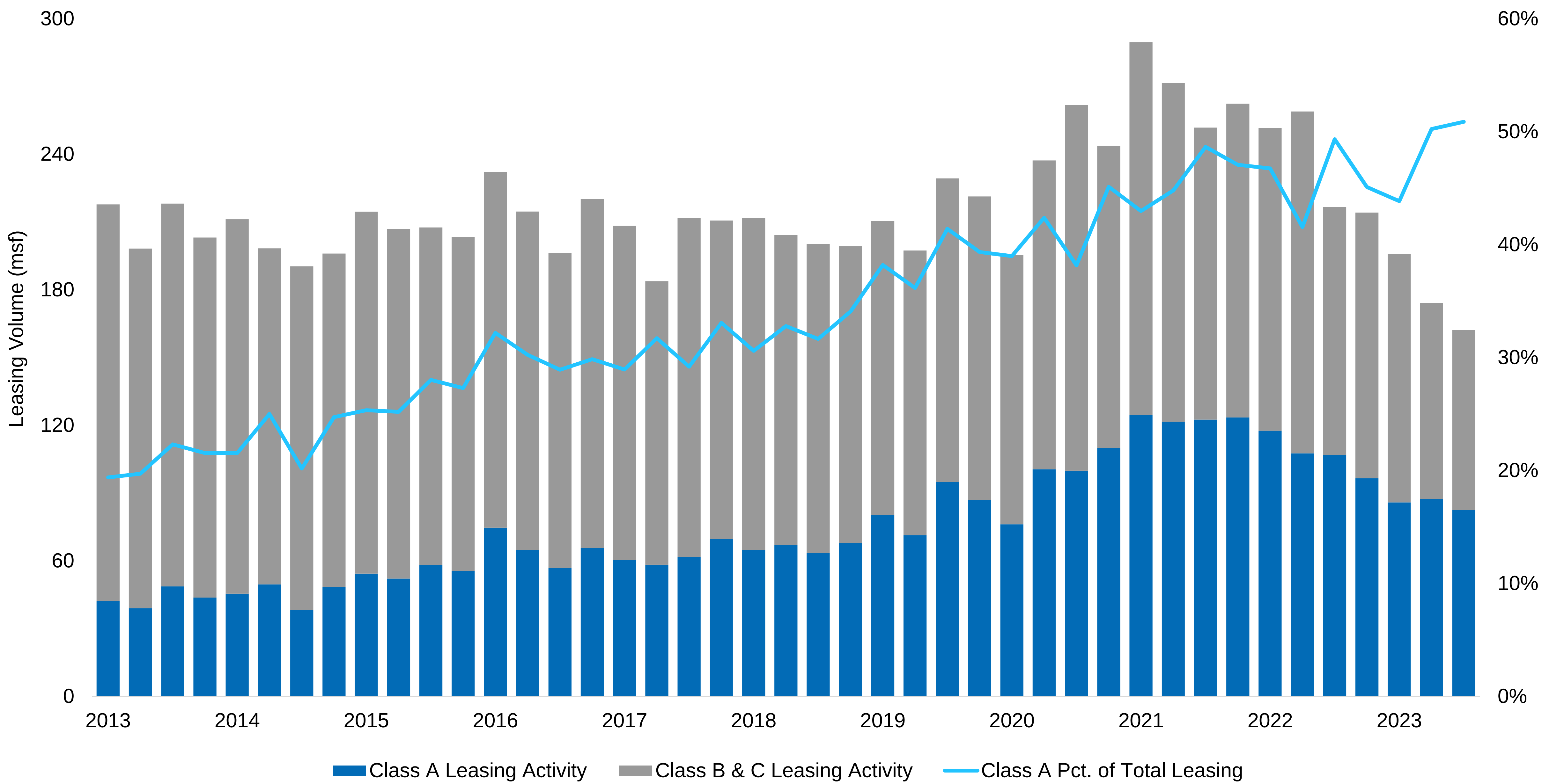


Source: Newmark Research, January 2024.

Class A Leasing Maintains Elevated Share of All Activity

Industrial leasing has successively decelerated every quarter since mid-2022, although the pace of deceleration slowed in the fourth quarter of 2023. With greater volumes of modern, efficient space now becoming available to tenants, flight-to-quality is demonstrated in the share of Class A leasing reaching a new height of 51%.

U.S. Industrial Leasing Activity by Class

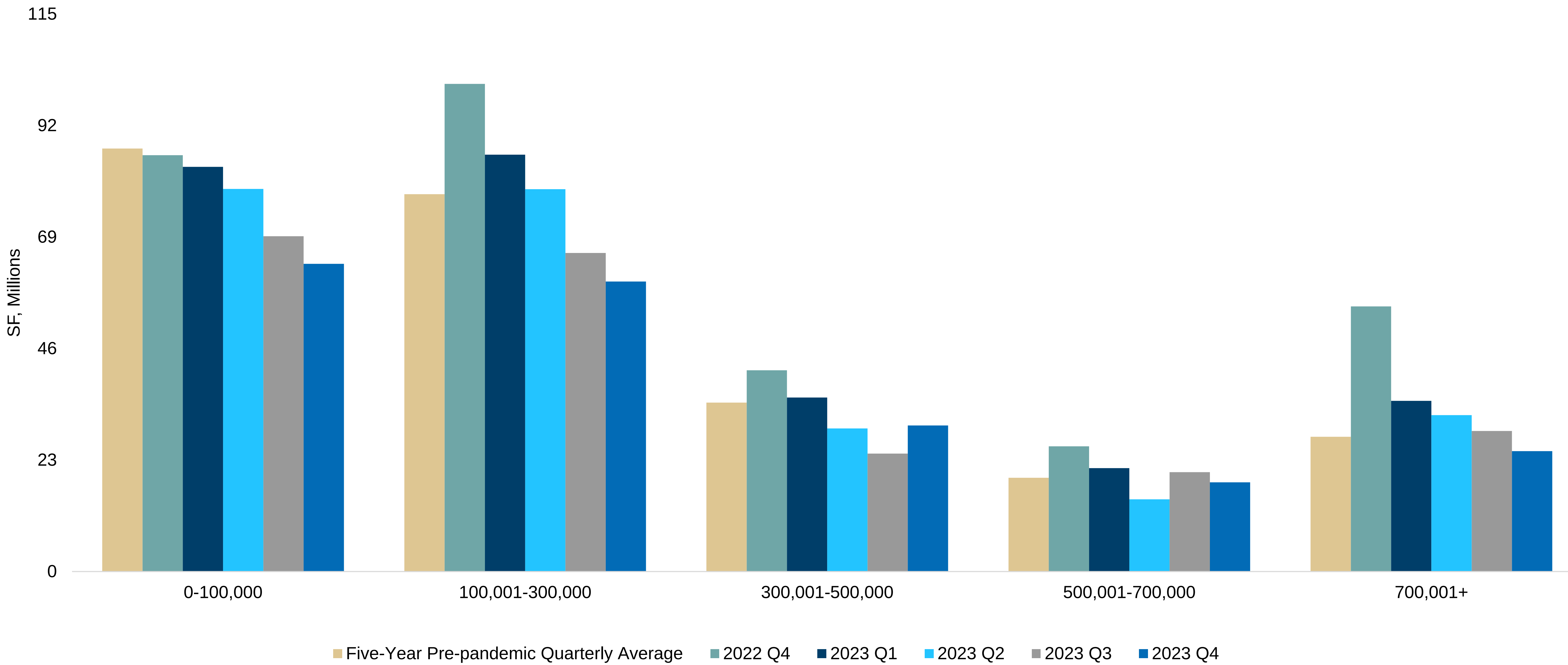


Source: CoStar, Newmark Research. Quarterly leasing volume data compiled January 2024. Class A is defined as 21st century build, 100,000+ square feet with clear heights that accommodate today's modern occupiers.

Buildings under 300,000 SF Account for the Largest Share of Leasing Volume

Leasing activity in buildings sub-300,000 SF accounted for 63% of total activity for the quarter, an unsurprising conclusion since the average industrial tenant is well below 100,000 SF. Leasing volume in practically every size segment continues to soften quarter over quarter, except for the mid-size bulk range of 300- to 500,000 SF, which increased quarter over quarter and has essentially normalized to prepandemic norms (as have other big-box segments).

Leasing Activity by Building Size

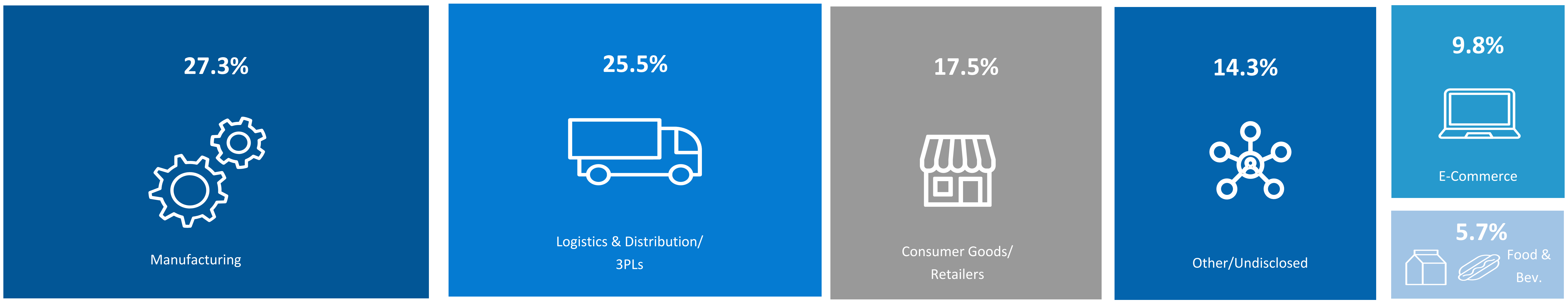


Source: CoStar, Newmark Research, January 2024.

Industrial Leasing Trends by Sector

Manufacturing was the top leasing driver of 4Q 2023, supplanting 3PLs and logistics providers, which held the number one spot throughout the year. Some notably large lease transactions in the manufacturing sector propelled the sector forward, including two mega leases by DrinkPAK in the Dallas metro, which represented the largest new industrial occupier leasing commitment completed in a single U.S. market this year.

Top Industrial Leasing Activity by Sector, 4Q23



Notable 4Q23 Lease Transactions

Tenant	Address	Market	Type	Square Feet	Industry
DrinkPAK	25001 Eagle Pkwy. & 7500-7601 Oak Grove Rd.	Dallas	Direct New	2,900,000	Manufacturing
Broadrange Logistics	29 Ludwig Ct.	Penn. I-81/78 Corridor	Direct New	1,240,000	Logistics & Distribution/3PLs
Maersk, Inc.	8140 Caliente Rd	Inland Empire	Direct New	1,227,600	Logistics & Distribution/3PLs
Amazon	560 Merrimac Ave.	Philadelphia	Renewal	1,015,740	E-Commerce
Duke Energy	Obrien Rd.	Orlando	Direct New	977,441	Energy

Source: Newmark Research, January 2024
*Note: Based on top leasing activity in markets tracked by Newmark

United States Industrial Demand Rankings

Quarterly net absorption measured 56.3 msf, just slightly less than 2019's quarterly average. Over the coming quarters, preleased construction deliveries will continue to contribute positively to quarterly net absorption, although pressures from tenants facing credit loss and right-sizing occupiers subletting or giving space to landlords will detract. Net absorption for 2024 will be healthy and robust, if slightly less than 2023 annual volumes.

Net Absorption: Top 10 Markets

Market	2023 Annual Net Absorption (msf)
Dallas	30.5
Chicago	21.4
Phoenix	19.3
Houston	18.4
Penn. I-81/78 Corridor	15.3
Savannah, GA	11.1
Indianapolis	8.0
Philadelphia	7.1
Charlotte	7.0
Columbus	7.0
United States	**237.1**

Demand Growth: Top 10 Markets

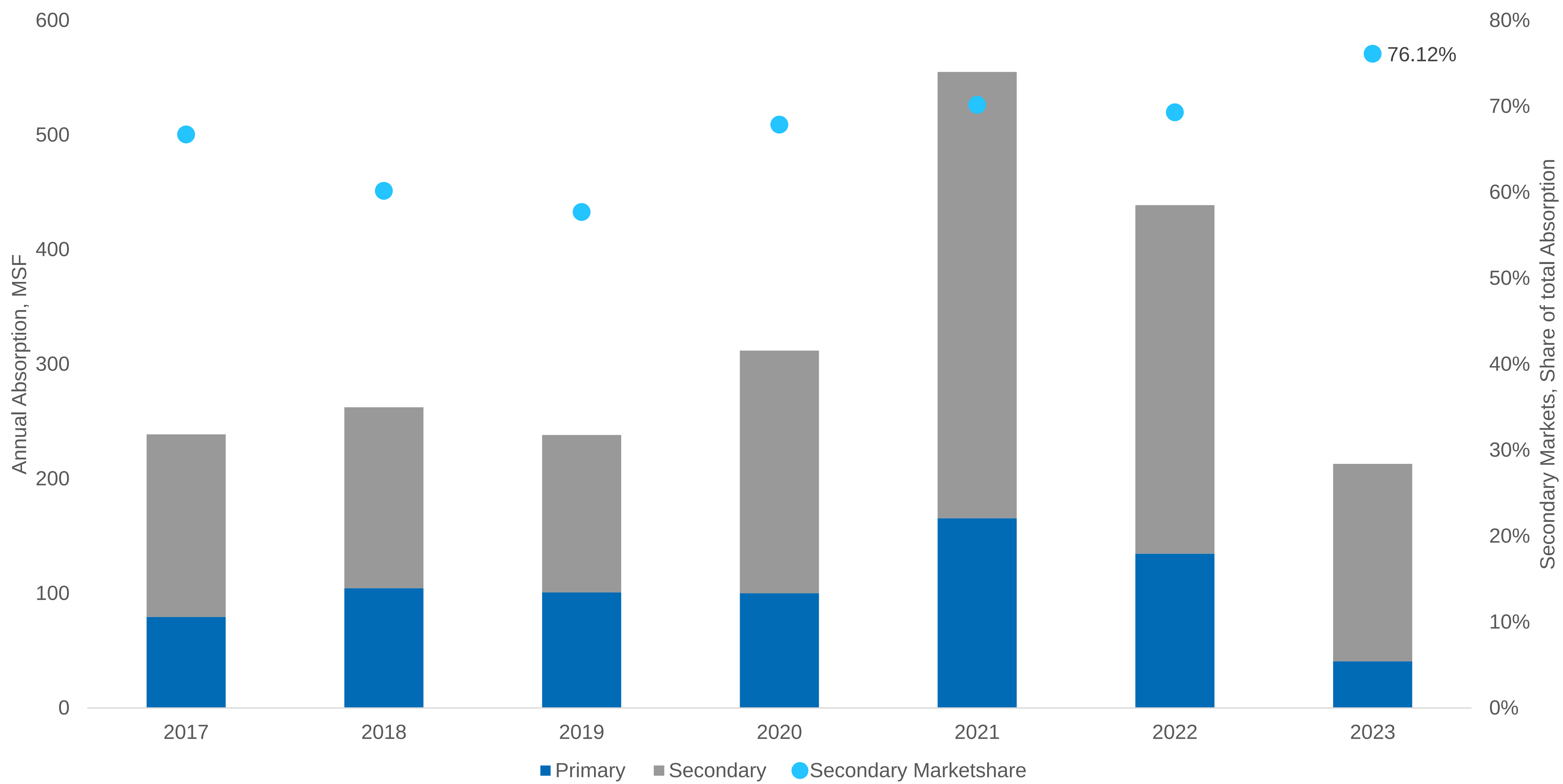
Market	2023 Net Absorption (% of Inventory)
Savannah, GA	8.9%
Phoenix	4.9%
Las Vegas	3.9%
Charleston, SC	3.5%
Austin	3.4%
Penn. I-81/78 Corridor	3.3%
Dallas	2.8%
Jacksonville	2.6%
Greenville, SC	2.5%
Houston	2.5%
United States	**1.4%**

Source: Newmark Research, January 2024.

Secondary and Less Expensive Markets Absorb Larger Share of Demand

The Big Five – Atlanta, Chicago, DFW, SoCal and North Jersey – make up about a third of total U.S. industrial inventory and typically account for 35% to 40% of total U.S. annual net absorption. In 2023, that share dropped below 25% as secondary markets took the greatest share of total U.S. net absorption, climbing to over 75%. Looking at markets on a cost basis, the difference is even more striking; approximately 80% of net absorption was in markets posting average asking rents less than the national average, up from 74% in 2022.

Annual U.S. Net Absorption by Market Tier

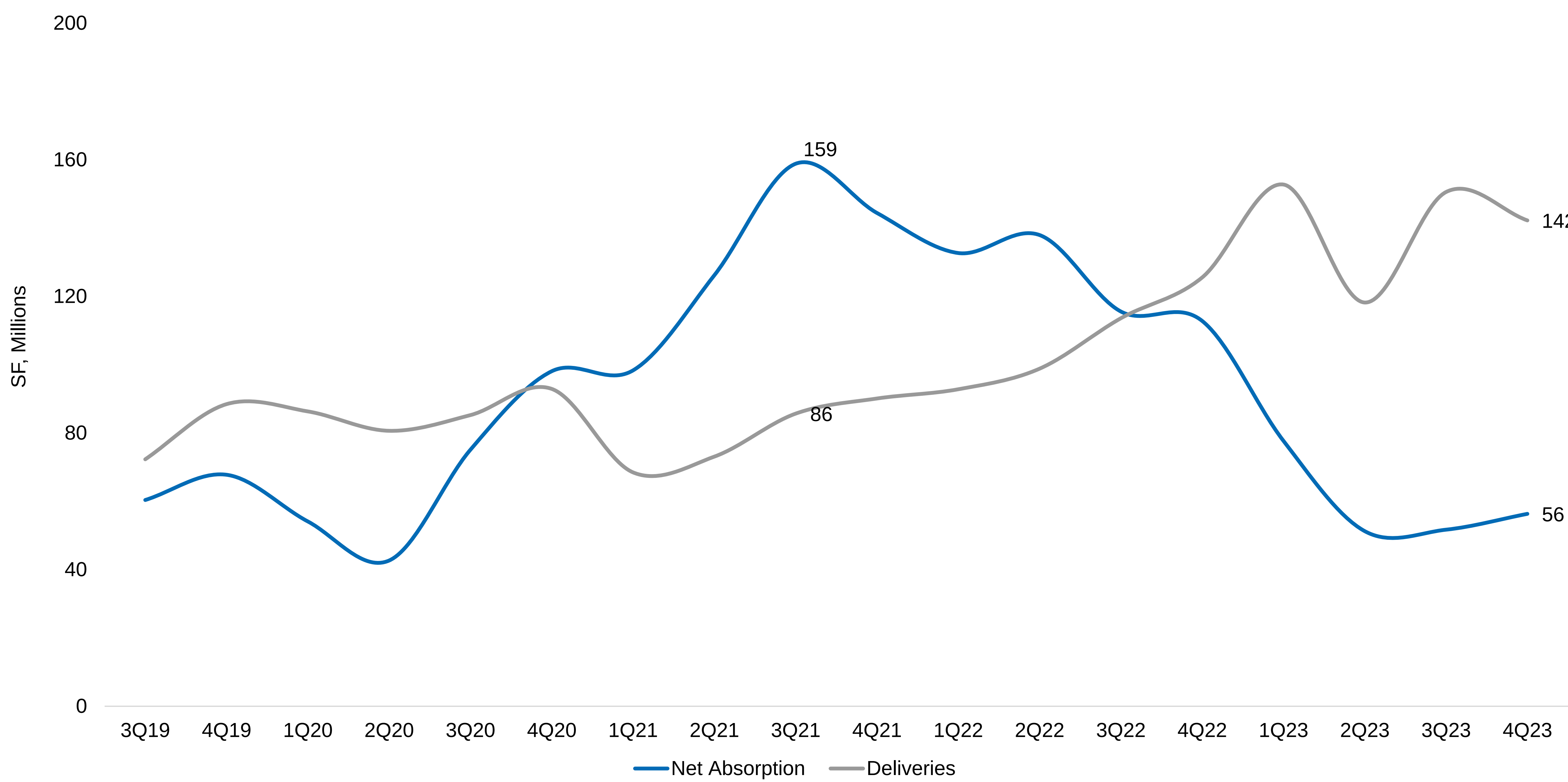


Source: Newmark Research, January 2024.

Supply and Demand Gap Will Remain Wide through the Next 12 Months

Deliveries outstripped net absorption by approximately 86 msf in the final quarter of 2023, and the gap between the two metrics is expected to remain large over the coming quarters as a historically high pipeline delivers. As fewer projects break ground, these two metrics will come back into balance in 2025.

National Industrial Supply vs. Demand

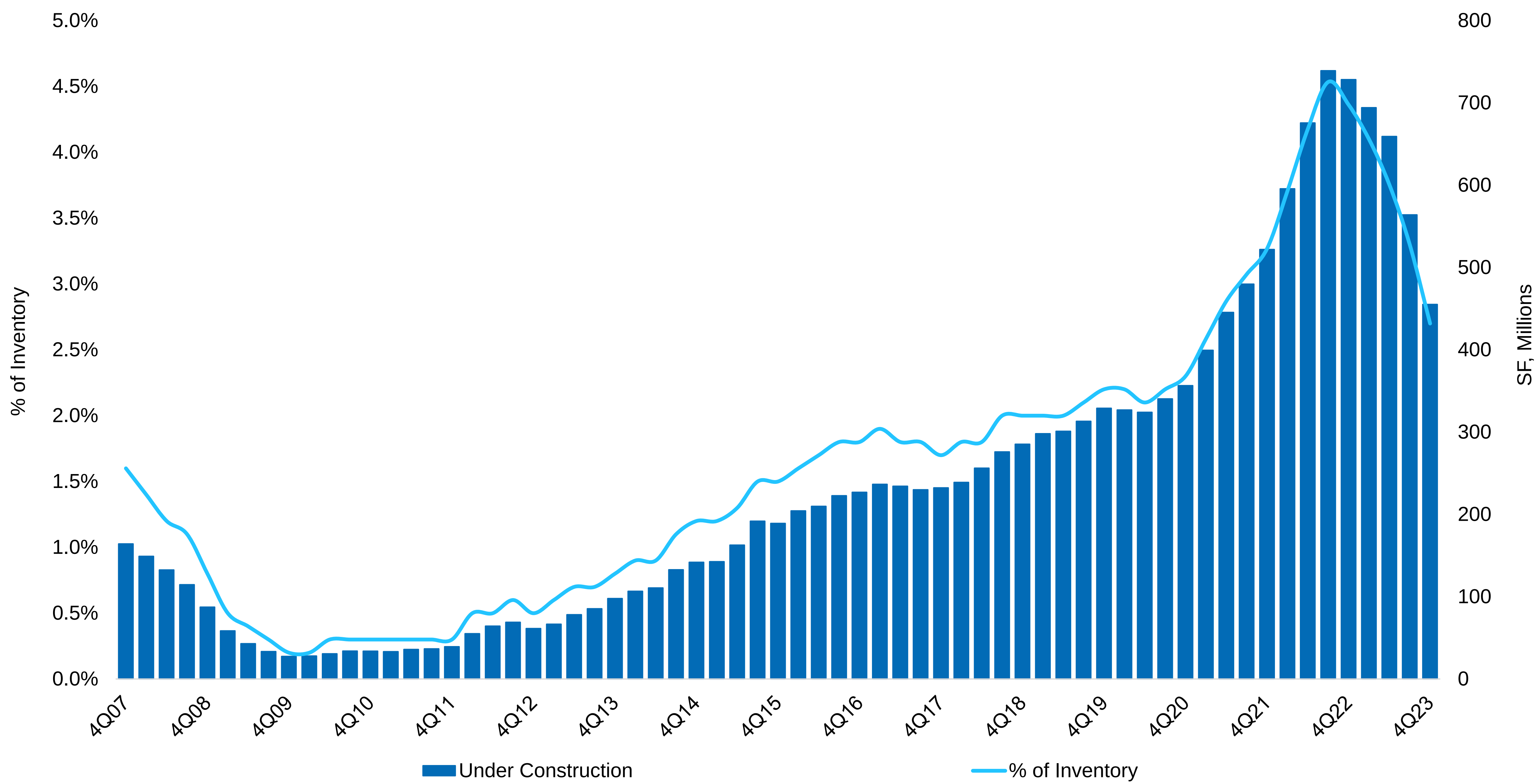


Source: Newmark Research, January 2024

Over Half a Billion Square Feet Delivered in 2023, with More to Come

Over 500 msf of space delivered in 2023, significantly depleting a record-high pipeline. Totaling 455 msf in the fourth quarter of 2023, the pipeline is still approximately 40% higher than measures at year-end 2019 but will be emptying out over the next four quarters as fewer projects enter the pipeline to backfill.

U.S. Industrial Under Construction and % of Inventory

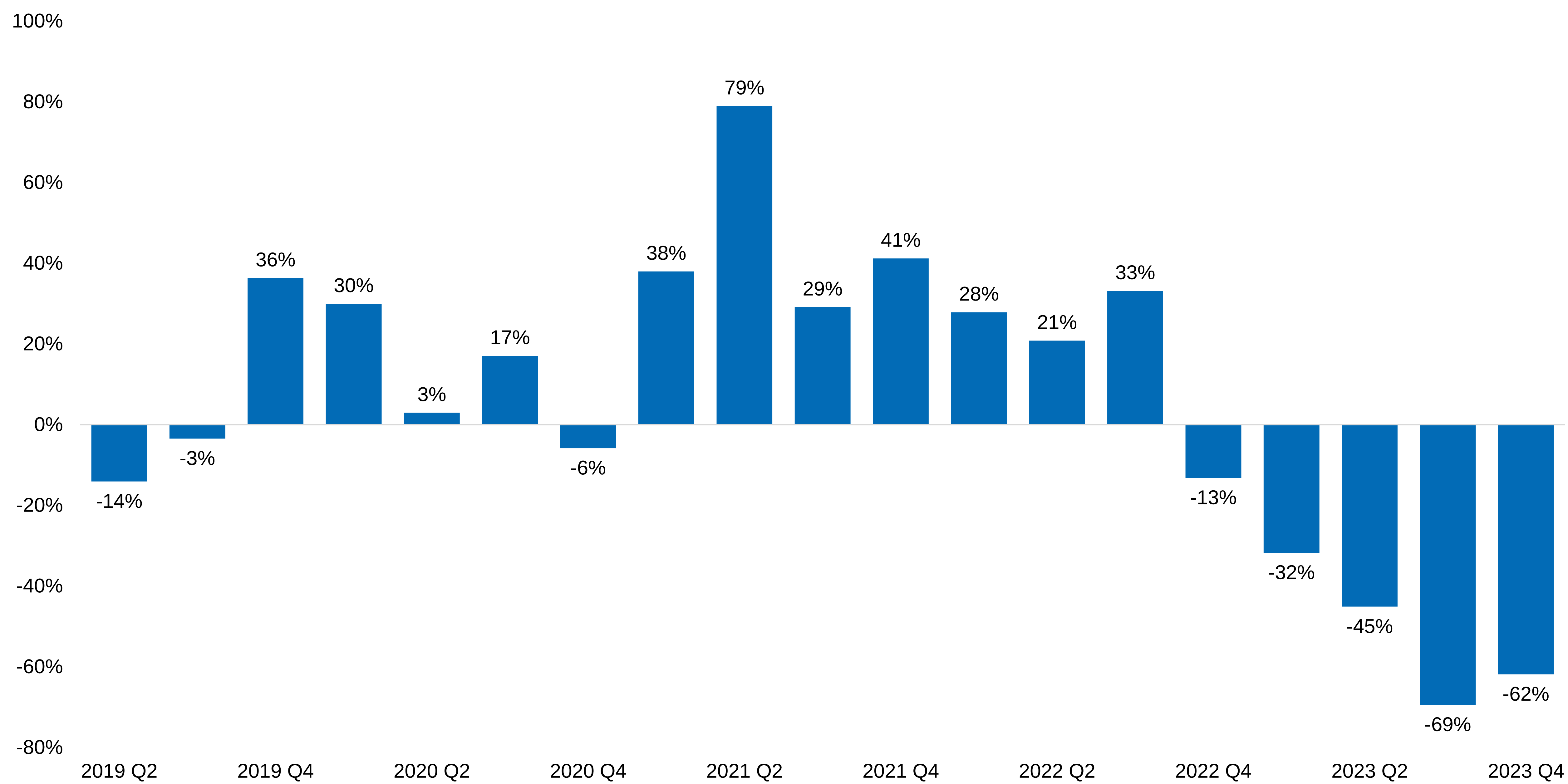


Source: Newmark Research, January 2024

New Industrial Construction Starts Are Down over 60% Year over Year

Construction starts decelerated significantly during the latter half of the year with Q3 and Q4 of 2023 marking the quietest quarters for commencements since 2015. Rapid tightening of lending standards and shifting market fundamentals in the ensuing 12 months have driven the precipitous drop-off.

Construction Starts, Year Over Year Percentage Change

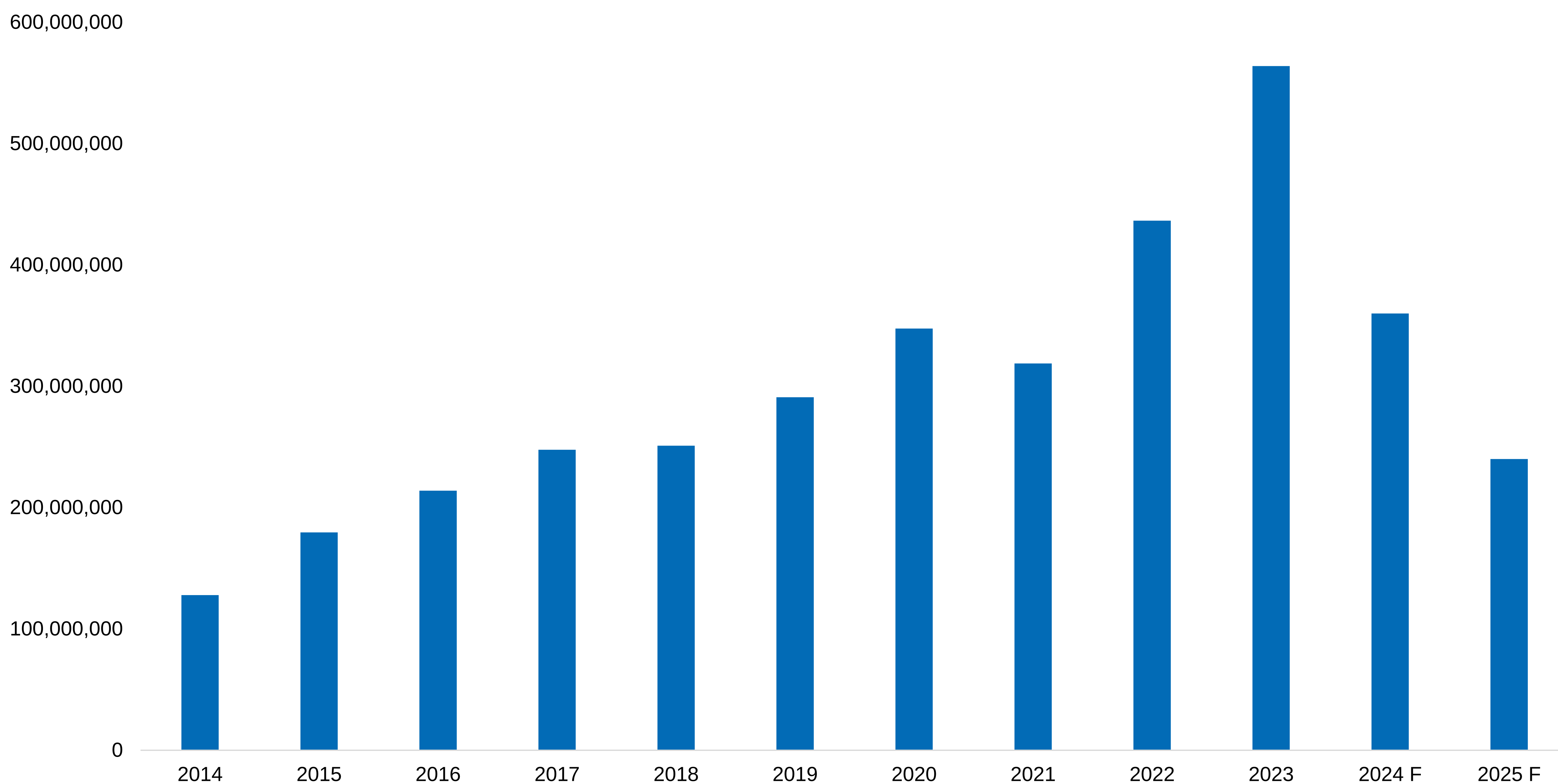


Source: Newmark Research, CoStar. January 2024.

National Industrial Deliveries Will Reach Pre-Pandemic Levels by 2025

By the first quarter of 2025, both the development pipeline and the volume of space delivering to the market are likely to reach parity with pre-pandemic volumes. This timeline could be trimmed further depending on the next few months of construction starts. If the volume of new project starts, especially for speculative product, falls below already-low levels, the pipeline would fall below 2019 levels by the final quarter of 2024.

U.S. Industrial Deliveries (SF), Historical and Forecast

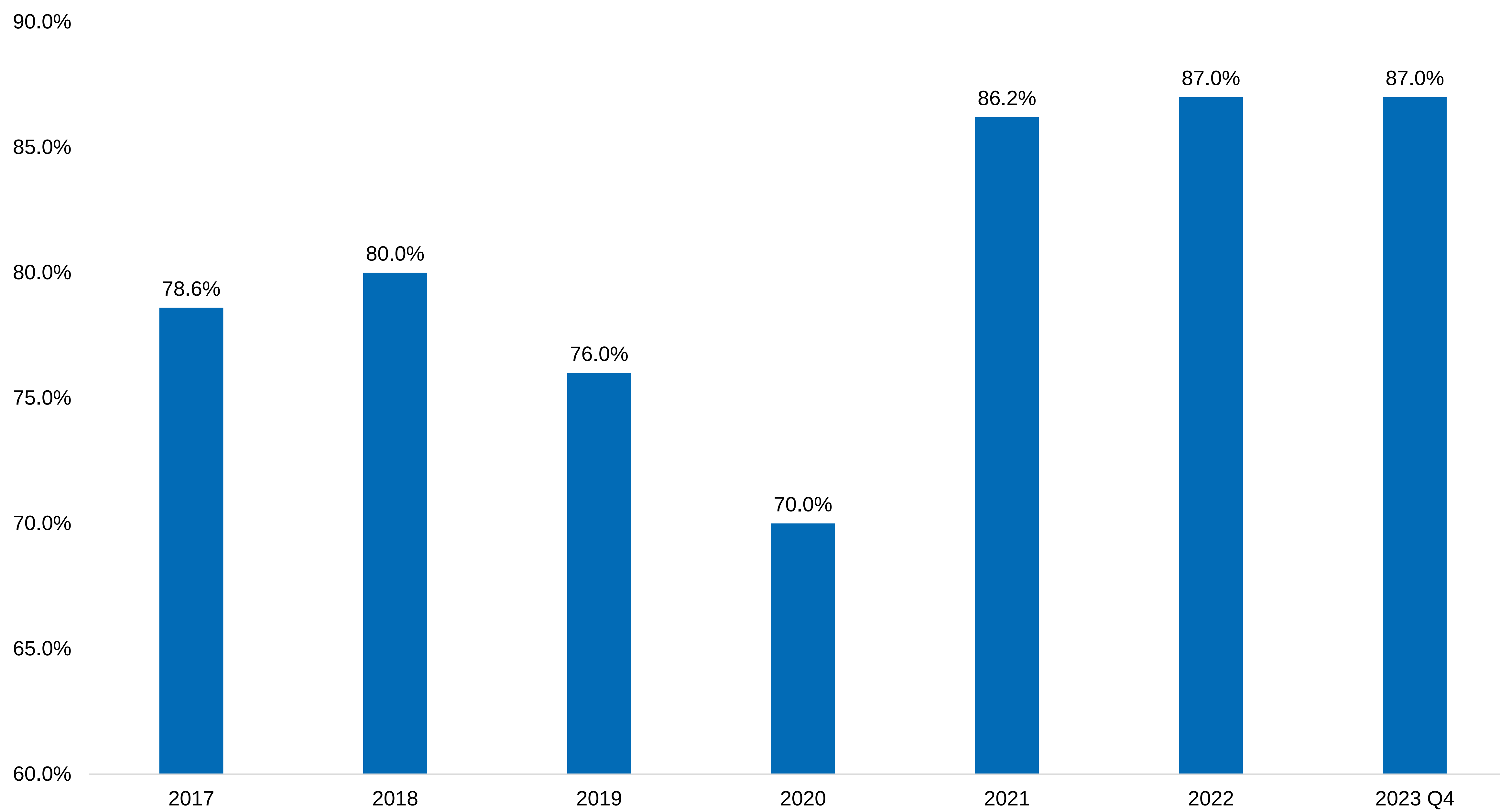


Source: Newmark Research, Green Street, CoStar, January 2024.

Spec Development Still Comprises Majority of Pipeline, but the Balance is Shifting

New warehouse design is now quite uniform across the country, leading to a rise in speculative construction which offers tenants with immediate-occupancy requirements the agility to move in swiftly. At year-end 2023, the pipeline was 87% spec, matching 2022 as the highest share in years. Going forward, BTS is expected to reclaim share; some major developers have recently announced an estimated mix of starts growing to 40% BTS in 2024.

Speculative Share of the Industrial Development Pipeline

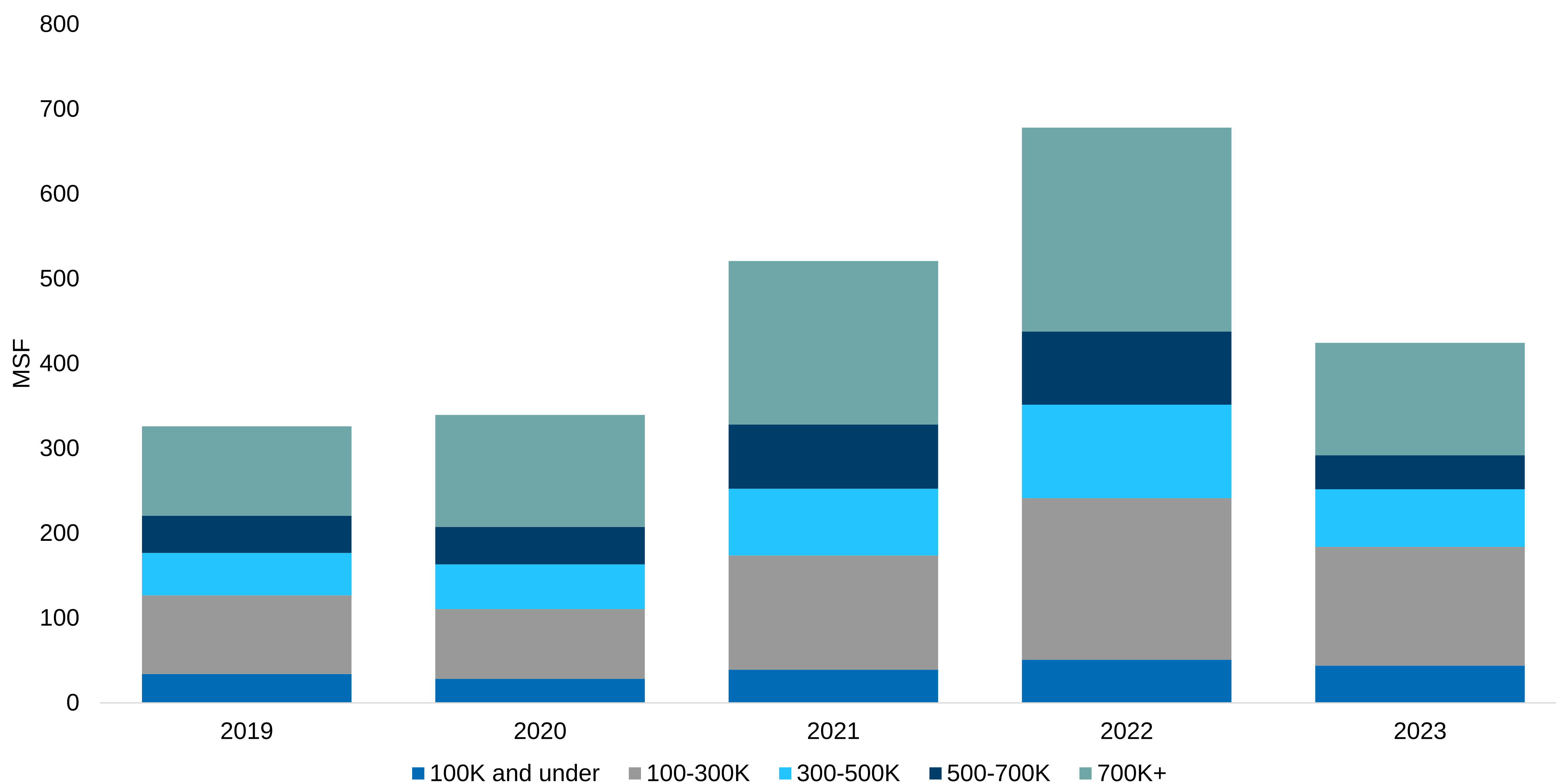


Source: Newmark Research, January 2024.

Big Box Development Has Softened the Most in 2023

In 2022, half of the warehouse development pipeline was concentrated in product over 500,000 SF. The balance has shifted substantially during 2023, with fewer big box projects kicking off. At year-end, big box share of the pipeline had fallen to 40%. New construction remains most limited in the sub-100KSF size segment, placing heightened importance on the existing inventory of small-bay, multitenant, light industrial buildings.

Active Warehouse Development Pipeline by Size Range

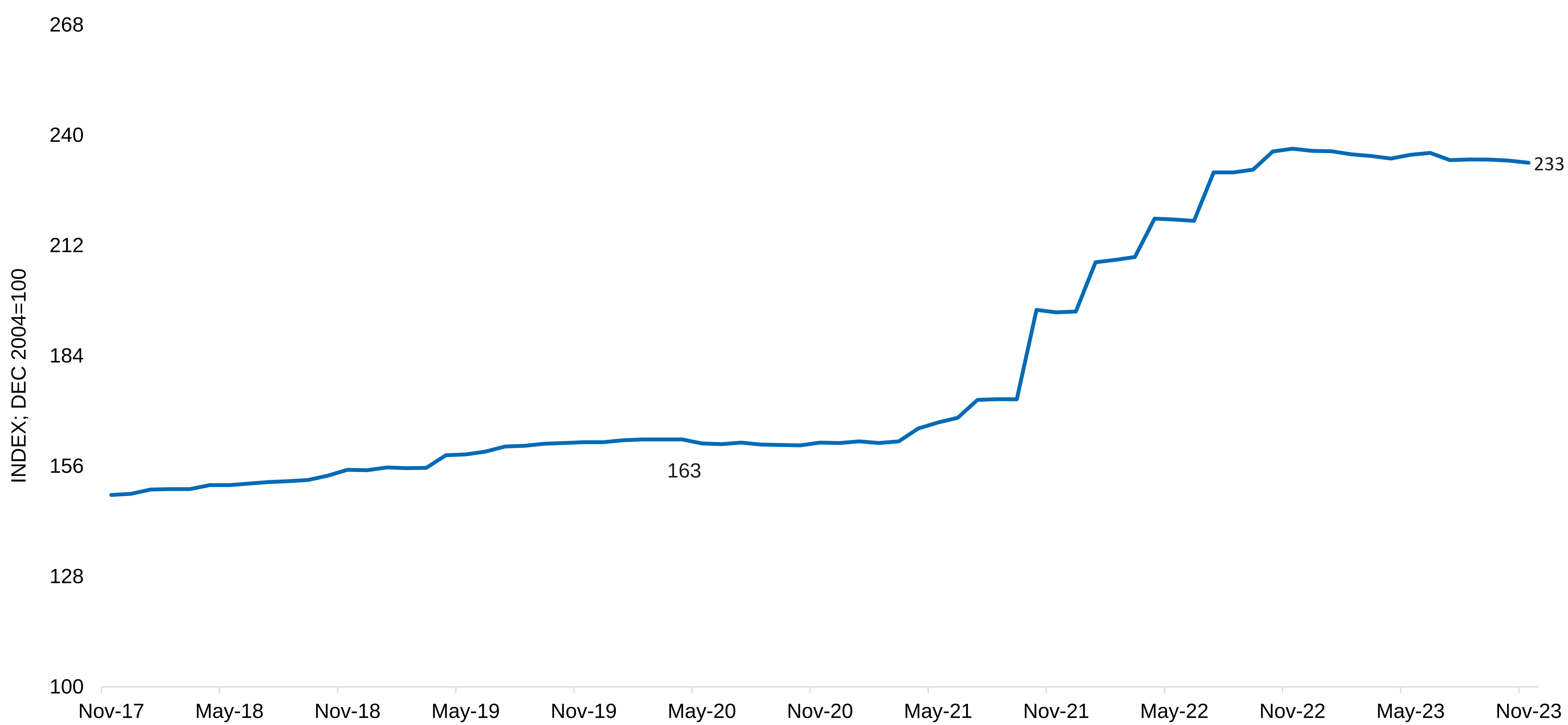


Source: Newmark Research, CoStar

Warehouse Construction Costs Have Plateaued

Construction-input costs have not yet meaningfully come down from the skyrocketing journey upward between 2021 and 2022.

Producer Price Index: New Warehouse Building Construction

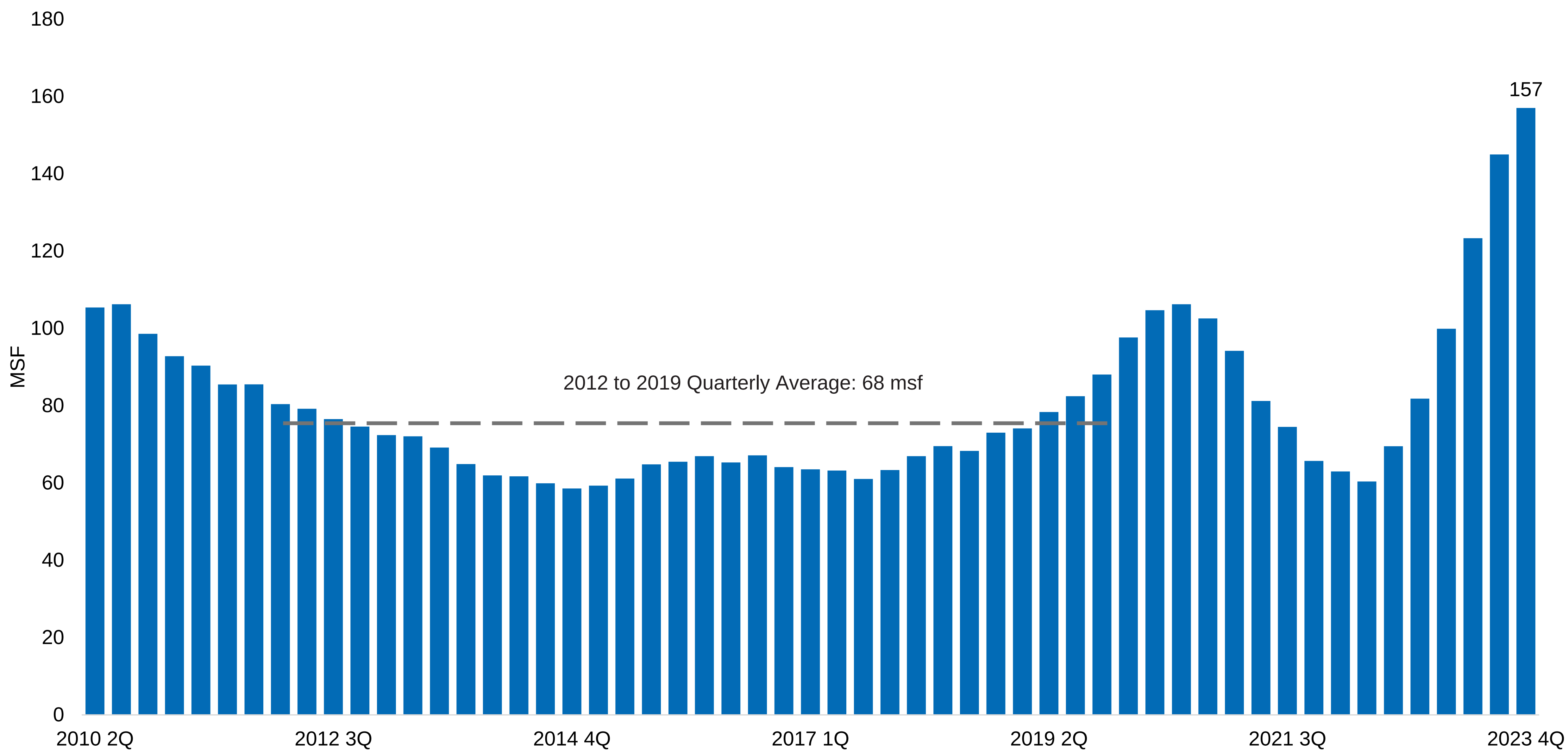


Source: Newmark Research, St. Louis Federal Bank, RSMeans

Industrial Sublease Availability: Historically High, Small in Context

A record volume of sublease space is on the market at 157 msf on the market during the fourth quarter of 2023. This volume is likely to grow further in 2024 but at a slower pace, with the rate of new subleases being added to the market slowing substantially in the fourth quarter of 2023.

Available Industrial Sublease Volume



Source: Newmark Research

United States Industrial Vacancy Rankings

The national vacancy rate increased to 5.5% in the final quarter of 2023, up from 3.7% charted one year ago and just below the 10-year trailing historical average of 5.6%. Mirroring the national trend, all but three industrial markets experienced increased vacancy year-over-year as new construction delivers and demand moderates.

Lowest Vacancy: Top 10 Markets

Market	4Q23 Vacancy
Los Angeles	2.6%
Miami	2.9%
Orange County, CA	3.0%
Portland	3.0%
Jacksonville	3.2%
Detroit	3.3%
Milwaukee	3.5%
New Jersey Northern	3.6%
Las Vegas	3.6%
Sacramento	3.7%
United States	**5.5%**

Most Minimal Changes in Vacancy 4Q22 to 4Q23: Top 10 Markets

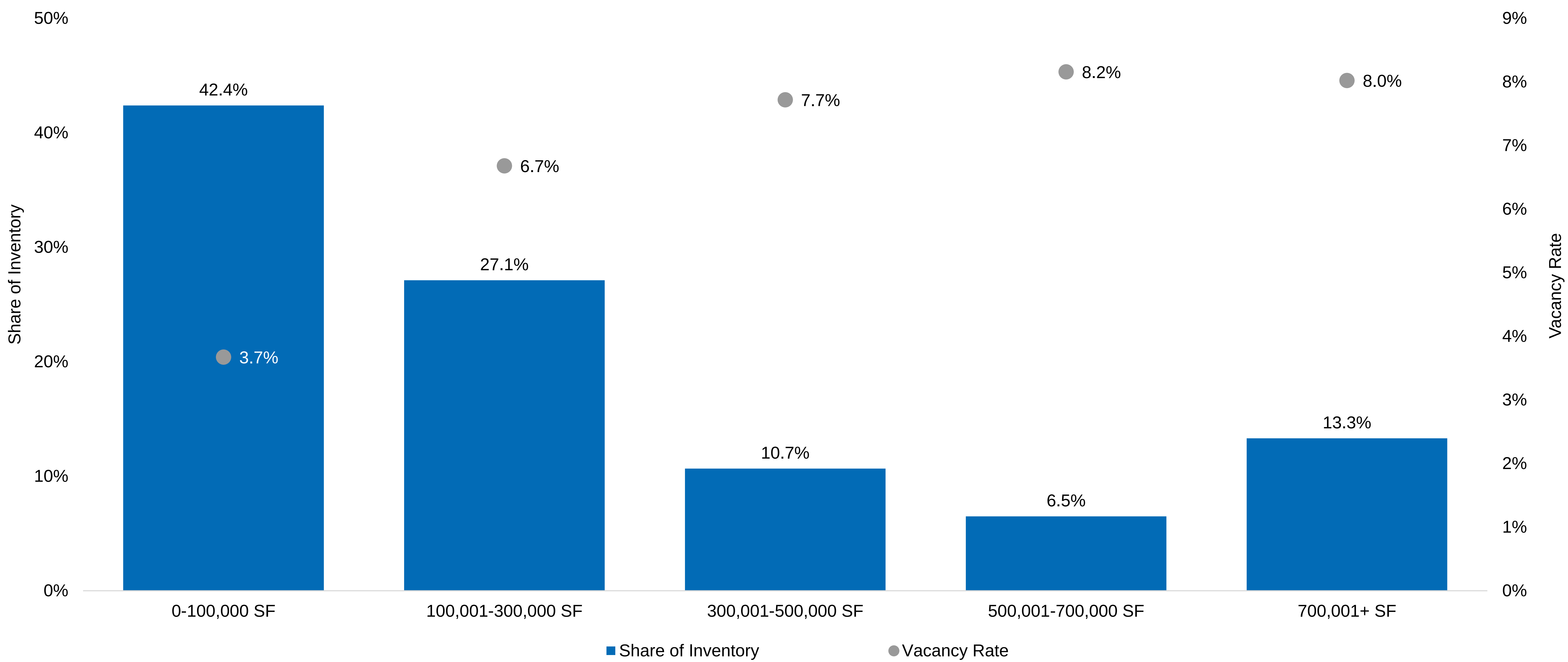
Market	4Q22-4Q23 Vacancy Change (BPS)
Detroit	-20
Miami	-7
Broward County, FL	-5
Orlando	10
Portland	19
Baltimore	39
St. Louis	50
Silicon Valley	50
Long Island	60
Denver	62
United States	**186**

Source: Newmark Research, January 2024.

Buildings under 100,000 SF Have the Lowest Vacancy of Any Size Segment

The 0- to 100,000-square-foot building tranche is the largest in terms of share of inventory and lowest in vacancy and contains a significant portion of the industrial buildings built before 2000. This segment is growing the slowest, as most industrial developers are building for larger warehouse and distribution users, requiring more space for efficient operations.

4Q23 Industrial Vacancy Rate by Building Size

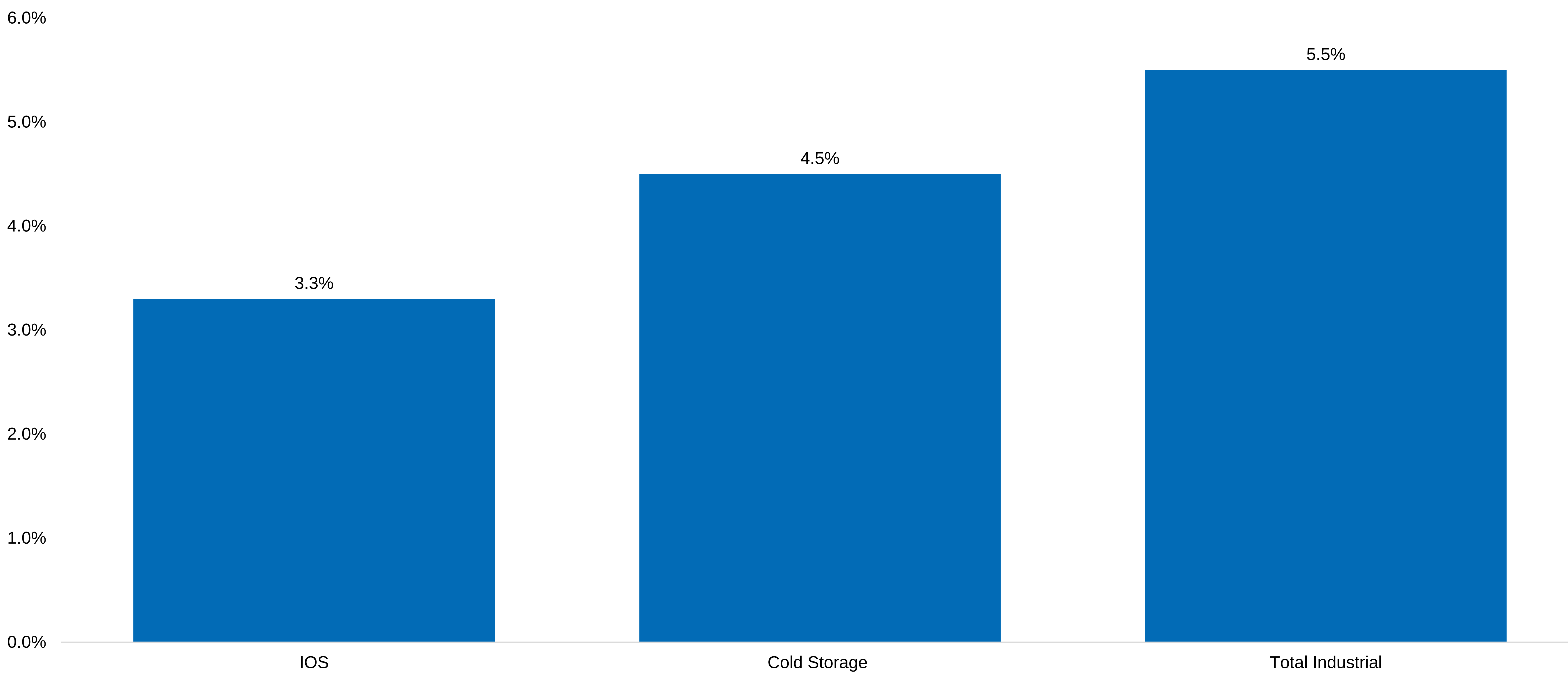


Source: CoStar, Newmark Research

Vacancy is Lowest in Alternative Industrial Sectors

Fundamentals in niche industrial sectors such as industrial outdoor storage (IOS) and temperature-controlled warehousing/distribution are tighter than the overall industrial average, owing to limited supply with high barriers to new development, coupled with consistent demand.

4Q23 National Vacancy Rate (%), Select Alternatives and Total Industrial

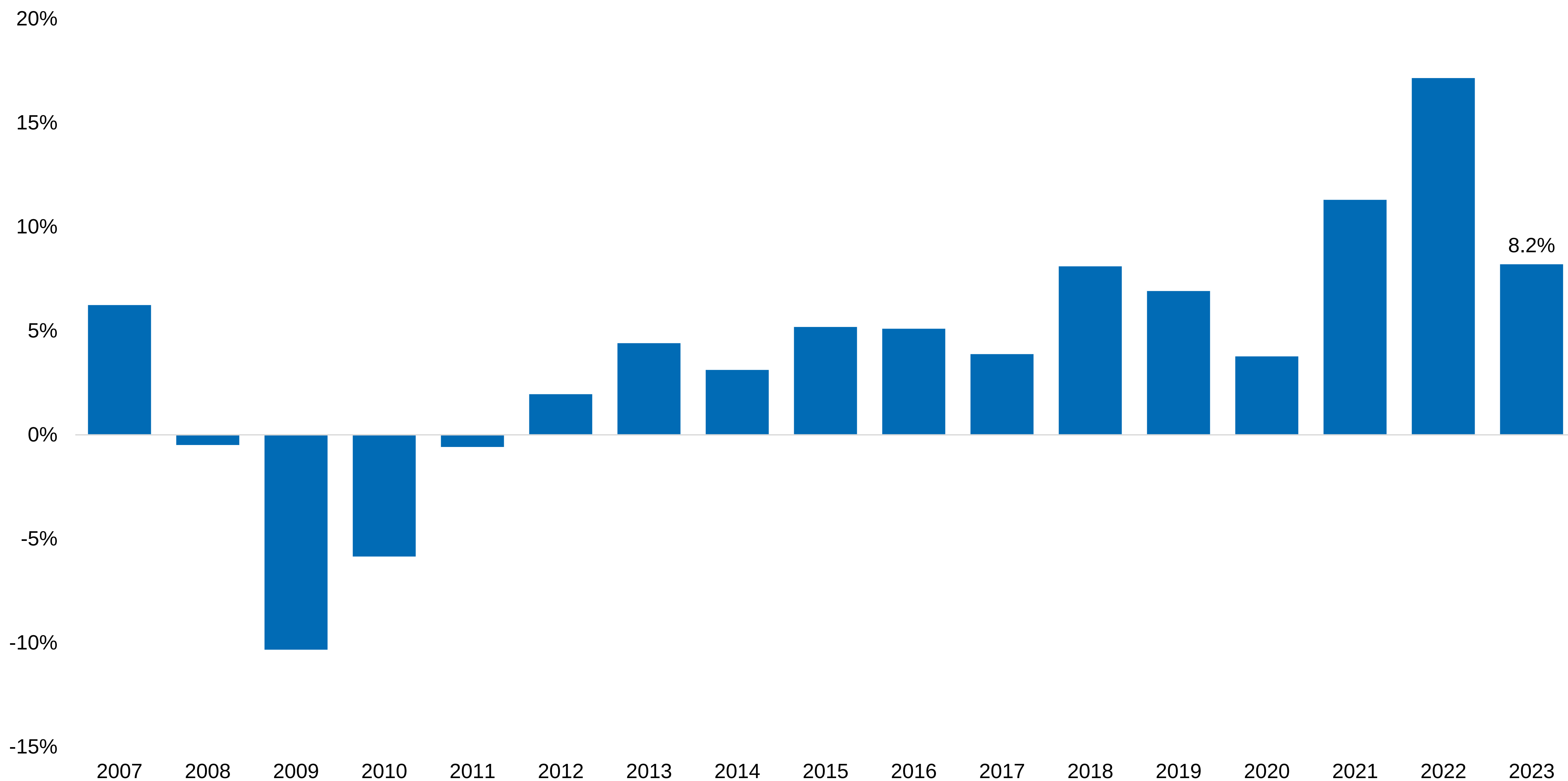


Source: Newmark Research, CoStar, January 2024.

Industrial Asking Rent Growth Coming Back Down to Earth

Decelerating from double-digit rent growth on an annualized basis earlier in 2023, average asking rents closed the year at 8.2% above levels in 4Q 2022. While rent levels remain sticky in many markets, higher-priced quality space coming online in larger quantities is contributing to higher asking rent growth averages.

Year-Over-Year Industrial Asking Rent Growth



Source: Newmark Research, January 2024.

United States Industrial Asking Rent Rankings

Industrial markets across the U.S. are still realizing annual asking rent growth with only a handful seeing flat or modestly lower average asking rents in 4Q23 compared to 4Q22. Growing volumes of higher-priced space delivering in markets with traditionally low, stable rates, such as Savannah and Indianapolis, is boosting rent growth numbers, while constrained coastal markets with sustained demand such as Miami and North Jersey are still seeing outsized rent growth on a market average basis.

Highest Asking Rent: Top 10 Markets

Market	4Q23
Silicon Valley*	$28.60
Los Angeles	$20.67
Orange County, CA	$19.69
Oakland/East Bay	$17.33
Inland Empire, CA	$17.24
Long Island	$16.95
San Diego	$16.57
New Jersey Northern	$16.21
Boston	$15.77
Miami	$15.62
United States	**$10.86**

Largest Asking Rent Growth: Top 10 Markets

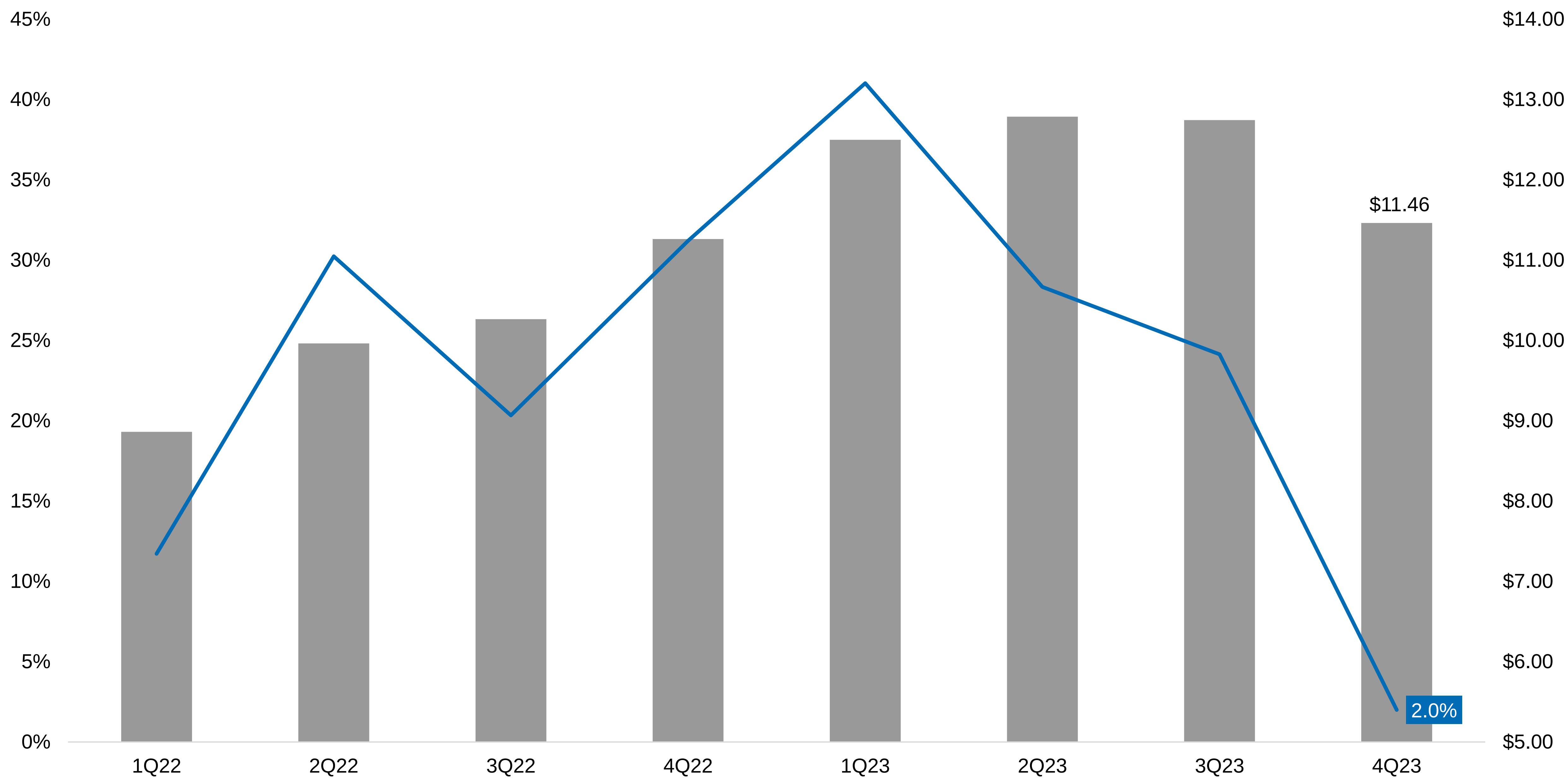
Market	4Q22-4Q23 Pct. Change
Savannah, GA	29.3%
Indianapolis	24.0%
Jacksonville	21.2%
Raleigh/Durham	20.9%
Cleveland	19.3%
Palm Beach	18.8%
Charlotte	18.0%
Miami	17.8%
Orlando	17.6%
New Jersey Northern	17.3%
United States	**8.2%**

Source: Newmark Research, January 2024.
*Note: An outsized share of the Silicon Valley industrial market is R&D space which contributes to the relatively high overall asking rent.

Annual Contract Rent Growth Finally Hits the Brakes

The average U.S. industrial contract rent for new leases was $11.46/SF in the fourth quarter of 2023, a 2% year-over-year increase. Markets with the most vertiginous recent run-up in rents are seeing modest rent depreciation in some segments, and the overall market is reacting to greater volumes of supply online now compared with one year ago. Quarter-over-quarter, average contract rents have moderated, but remain 34% above levels two years ago.

Year-Over-Year Industrial Taking Rent Growth

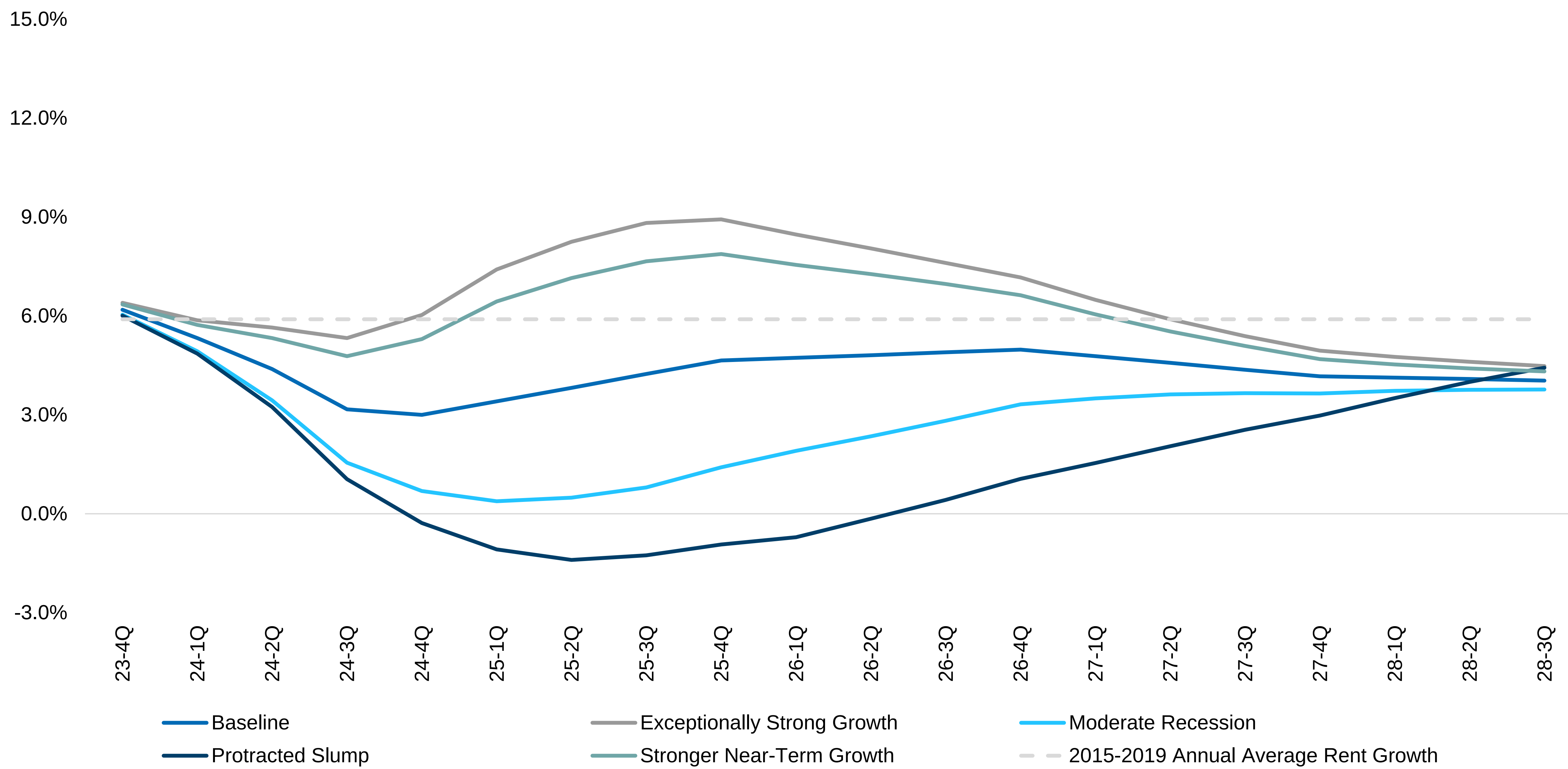


Source: Newmark Research, January 2024. Direct new leases of at least 24 months and 30,000 SF, exclusive of flex. Note that contract rent series are inherently more volatile than asking rent series.

Green Street Industrial Rent Forecast

The U.S. industrial market faces in a period of uncertainty and unpredictability as economic headwinds and demand dynamics cloud rent forecasting. Under all scenarios save a protracted slump, annual effective rent growth remains positive, albeit lower than the pre-pandemic 5-year average.

Green Street's Top 50 Industrial Markets: Annual Effective Rent Growth Forecasts

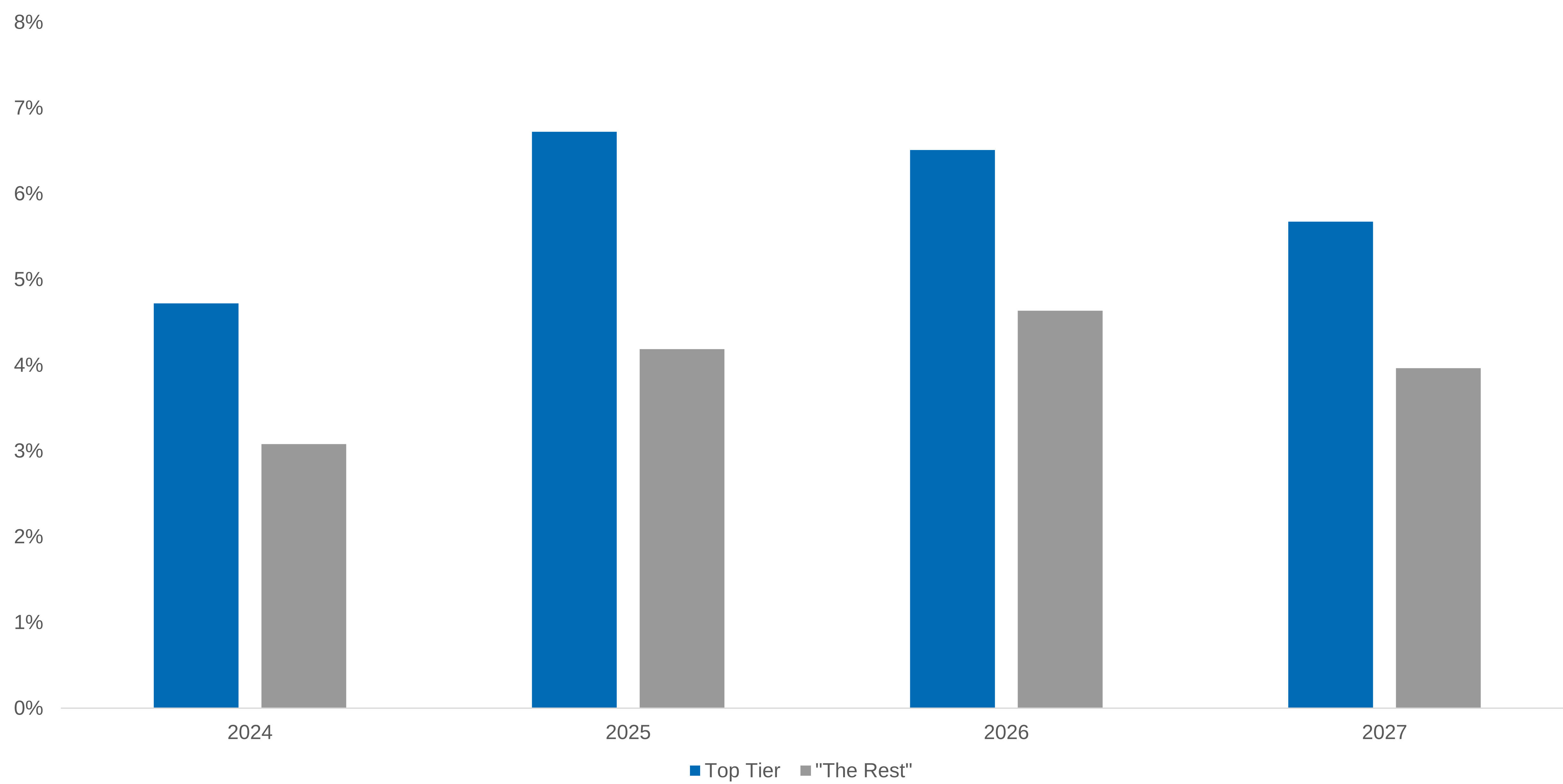


Source: Newmark Research, Green Street, January 2024.

Top-Tier, “Safe Shore” Infill Port Markets Will See Superior Rent Growth

Los Angeles, North Jersey and Miami are comfortably within the top-10 markets for rent growth projections through 2027 due to ever-tightening constrictions around development, and persistently strong demand drivers.

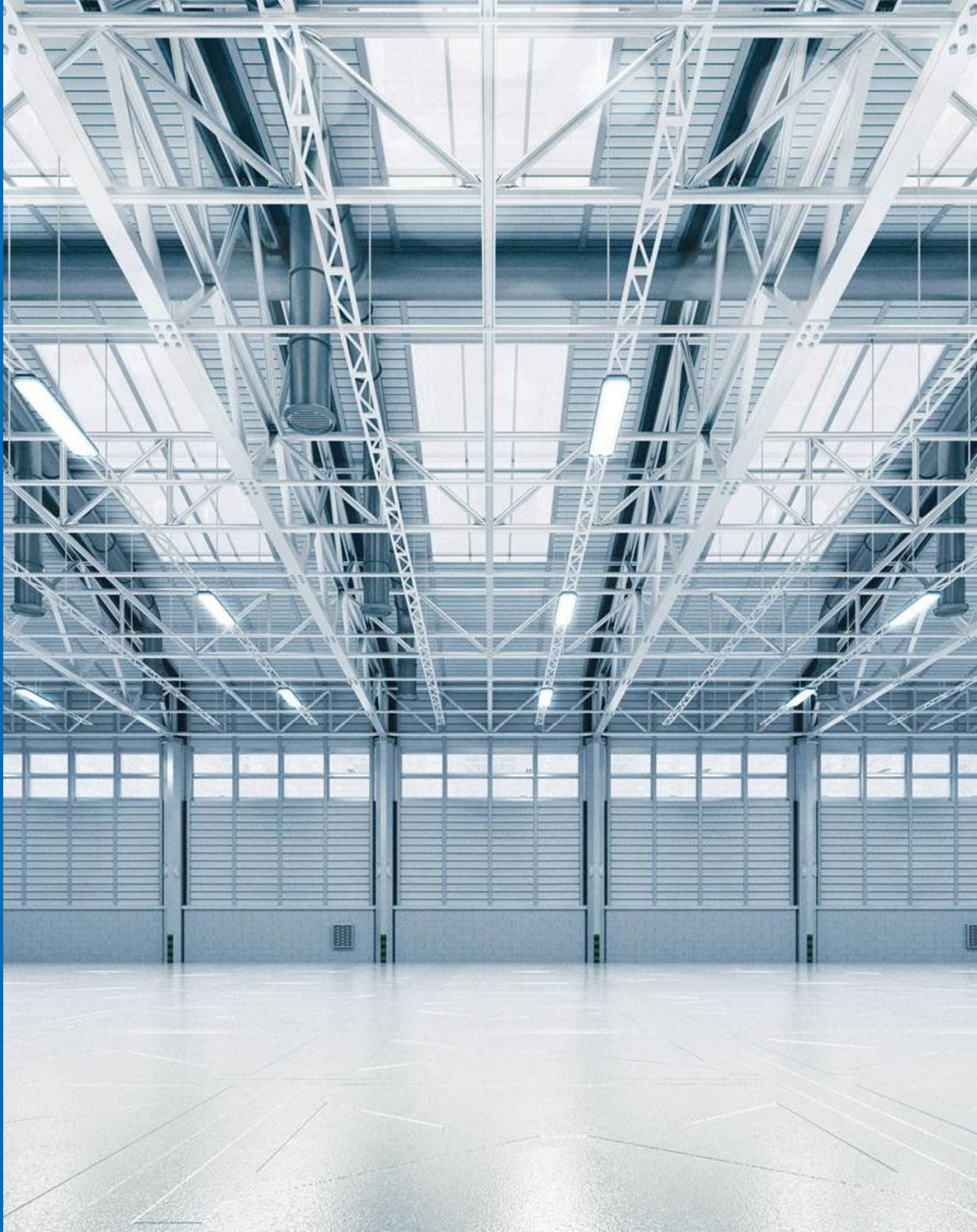
Annual Rent Growth Forecasts: Top Tier (LA, North Jersey and Miami) Compared to “The Rest”



Source: Newmark Research, Green Street.

4Q23

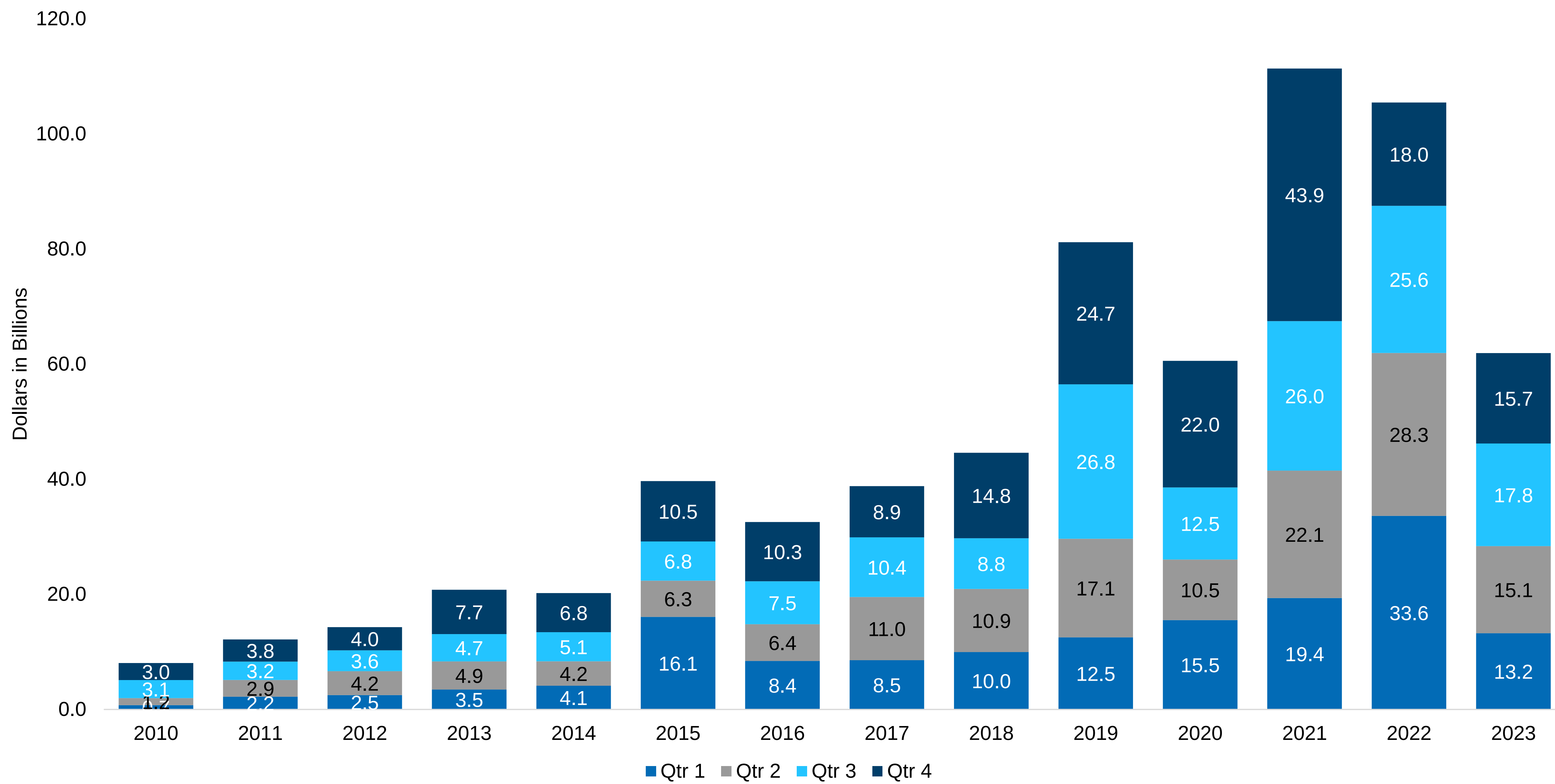
Capital Markets



Industrial Debt Originations Declined 41% Year-over-Year in 2023

Based on preliminary data, fourth-quarter 2-23 originations were down 13% year-over-year and 12% quarter-over-quarter. While originations were far from levels seen in 2021 and 2022, activity was still 13% higher compared to the 2017 to 2019 average. Looking forward, industrial liquidity has good prospects for improving on the basis of the sectors strong cash flow fundamentals, particularly compared with other sectors competing for limited capital.

Industrial Debt Origination Volume*

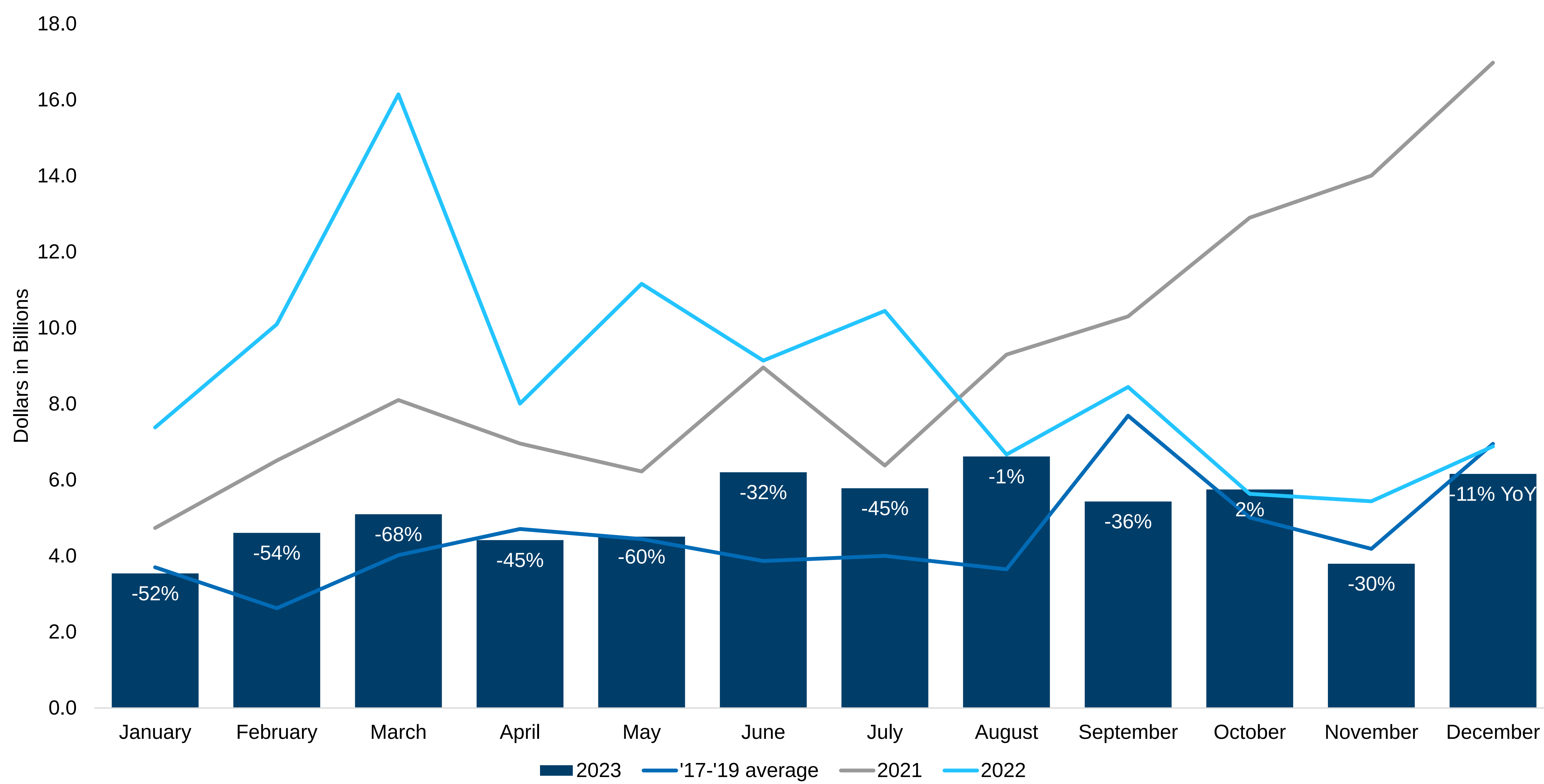


Source: RCA, Newmark Research as of 2/2/2024
* Preliminary data. Excludes construction finance. Data is based preliminary loan sums, which are subject to future revision – potentially significant.

Originations Experienced Little Seasonal Acceleration in 4Q23

In contrast to earlier in the year, the industrial lending market appears to have lost ground relative to the pre-pandemic average in the fourth quarter of 2023. Subsequent revisions could prove this to be a mirage, but the current impression is one of flat to declining activity into year-end. This is arguably better than it sounds given that the decline in rates did not begin until mid-November.

Monthly Industrial Debt Originations Volume*

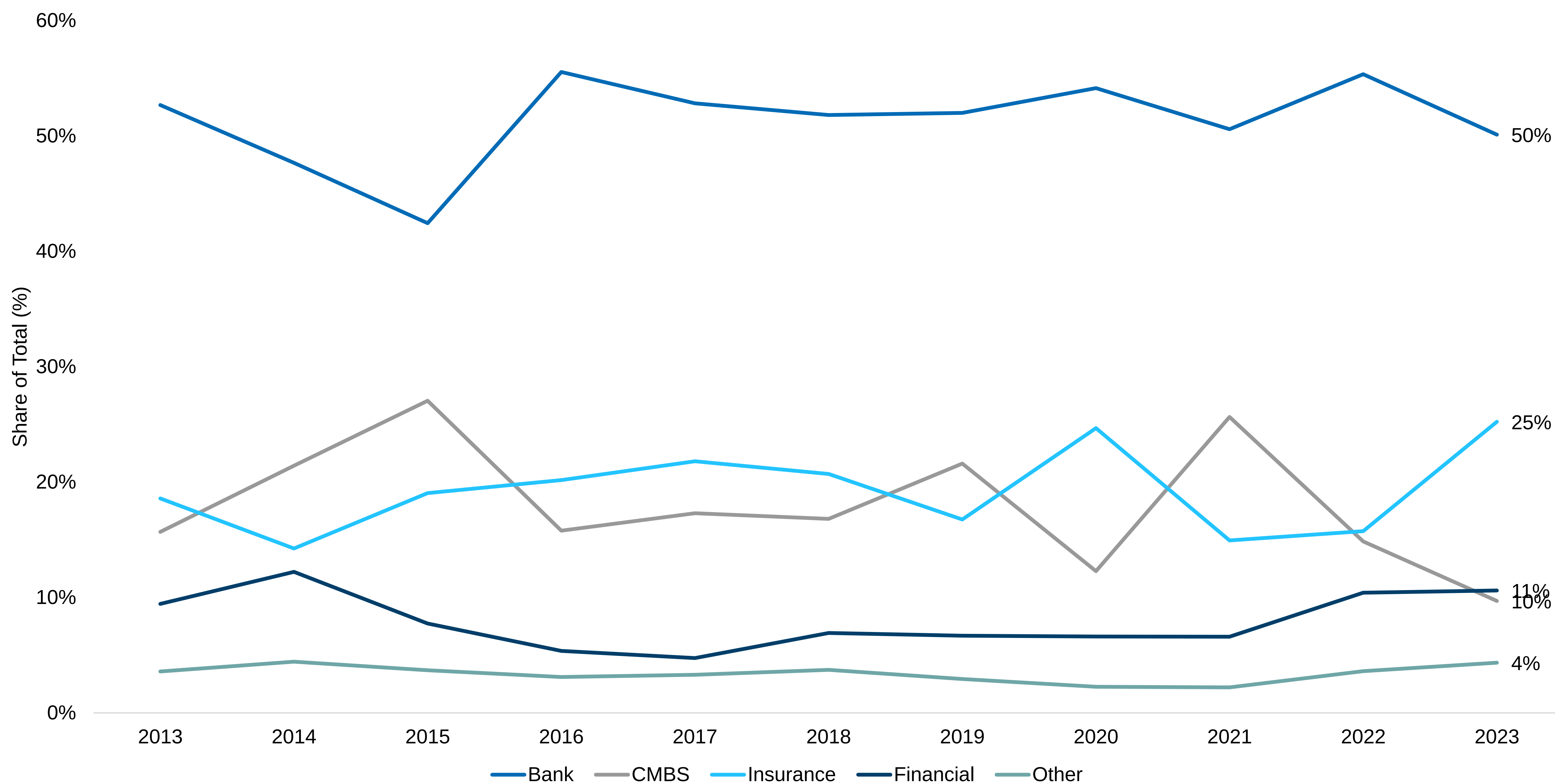


Source: RCA, Newmark Research as of 2/2/2024
* Preliminary data. Excludes construction finance. Data is based preliminary loan sums, which are subject to future revision – potentially significant.

Industrial Borrowers Heavily Dependent on Bank Finance

Banks continued to dominate industrial property finance in 2023. Securitized debt finance by contrast has fallen sharply from its recent peak in 2021 amid a depressed issuance market. On the other hand, insurance lending have picked up share in 2023, particularly in the second half of 2023. There are also signs of debt funds shifting allocations to industrial. This is consistent with anecdotes coming in from the markets.

Origination Share by Lender Group

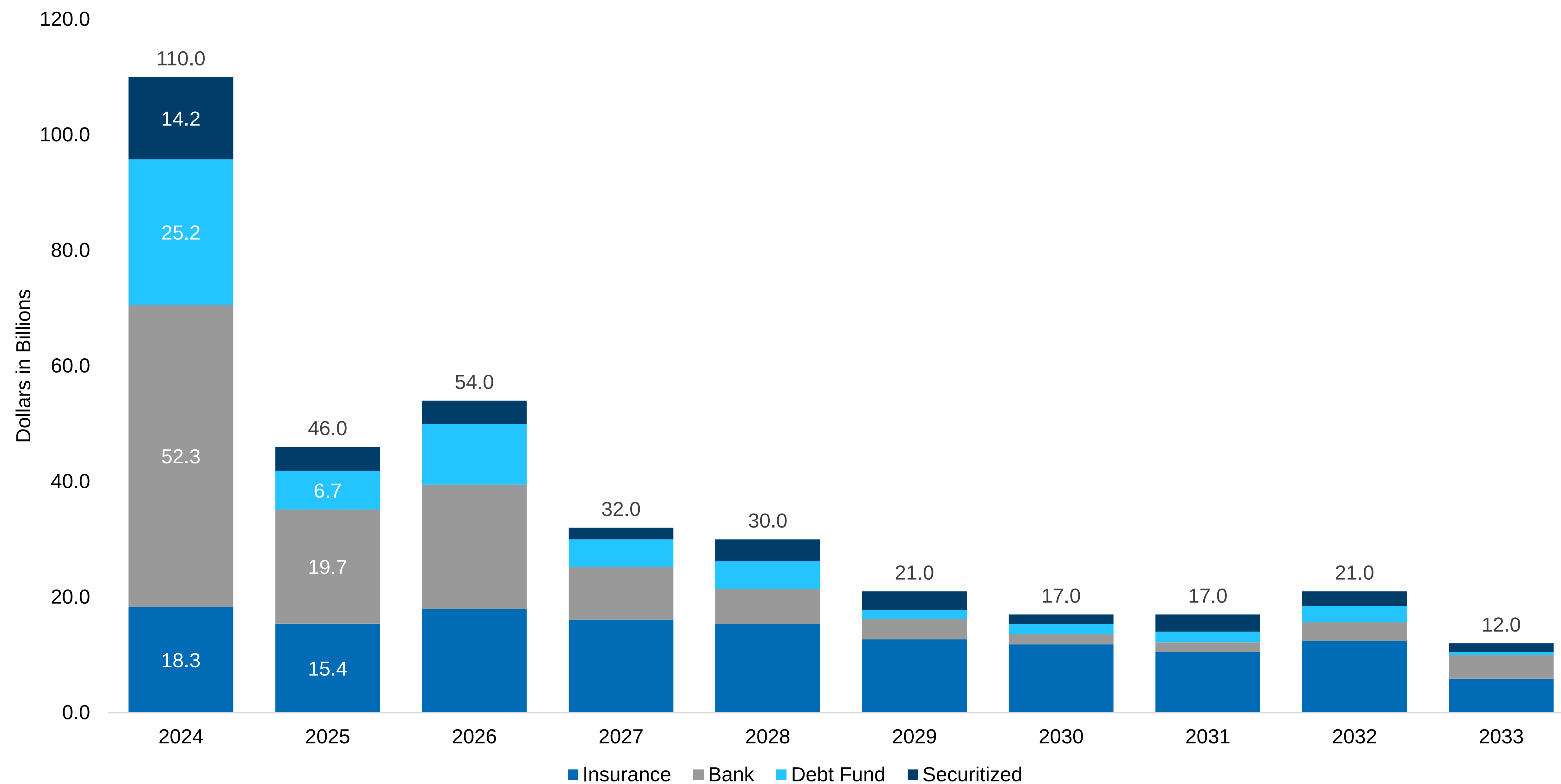


Source: RCA, Newmark Research as of 2/2/2024
*Excludes construction finance. Data is based preliminary loan sums, which are subject to future revision – potentially significant.

Market Faces Sizeable Industrial Maturities in 2024 Before Tapering Off

A significant share of 2023 loan maturities has been extended into 2024. The illustrate, the MBA's previous estimate for 2024 maturities was $62B compared to $110B today. Banks represent the largest source of maturing loans over the next several years followed by insurance and debt fund lenders. Debt fund maturities are particularly front-loaded in 2024.

Industrial Loan Maturities by Lender Group

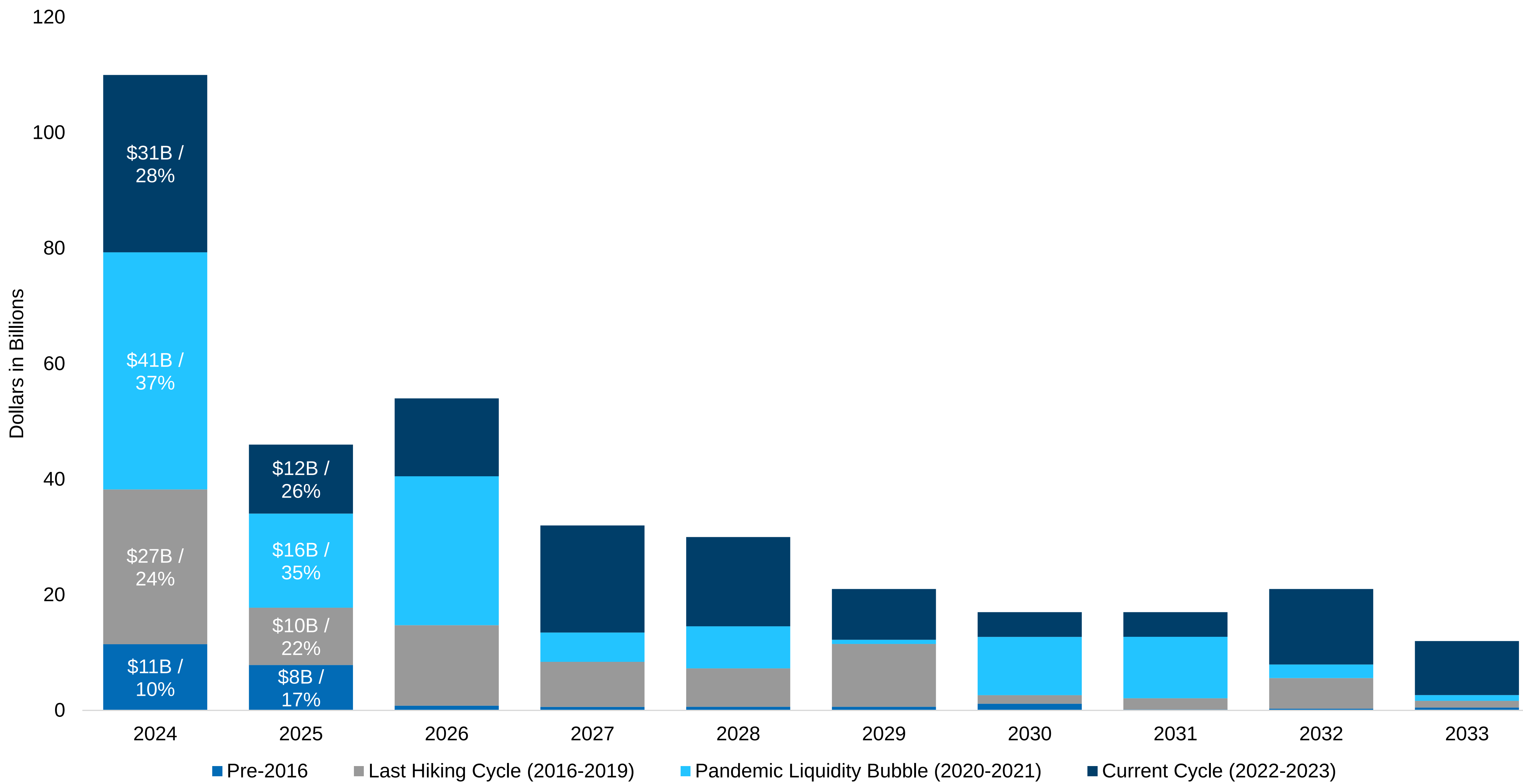


Source: MBA, Trepp, RCA, Newmark Research as of 2/15/2024

Maturing Loans Originated at Peak Prices, Record Low Cost of Capital

67% of the debt maturing in the 2024-2026 period was originated in 2020 or later. This means most of this debt was originated at record low cap rates and interest rates.

Industrial Loan Maturities by Origination Period

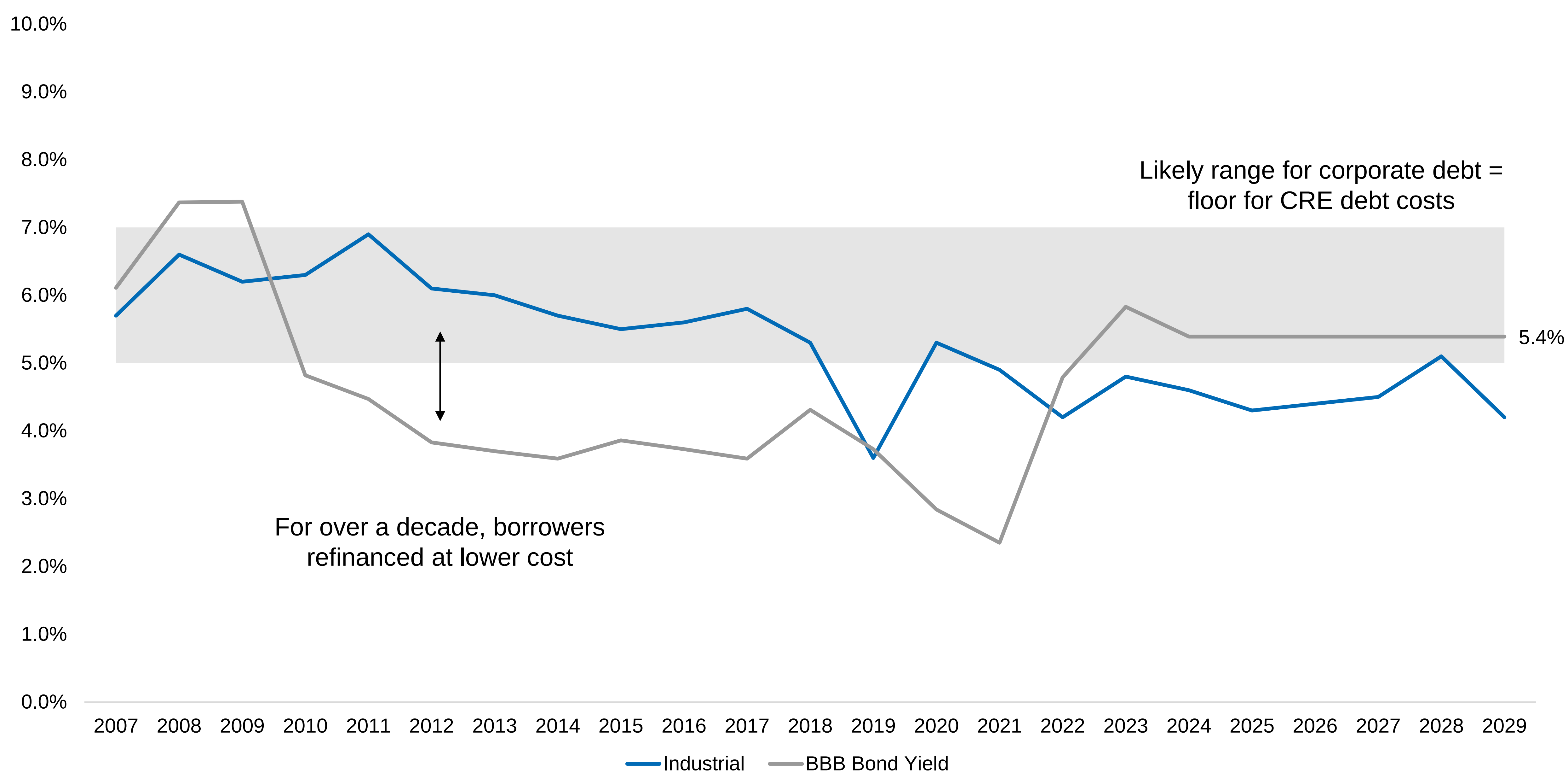


Source: MBA, Trepp, RCA, Newmark Research as of 2/15/2024

Maturing Loans Face Significantly Higher Costs, Driving Payment Stress

Corporate debt yields have come down sharply in recent months from the top of our projected range to near the bottom. This has carried through into some segments of CRE debt. Even so, maturing fixed-rate CRE debt continues to face negative roll yield on refinancing. 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

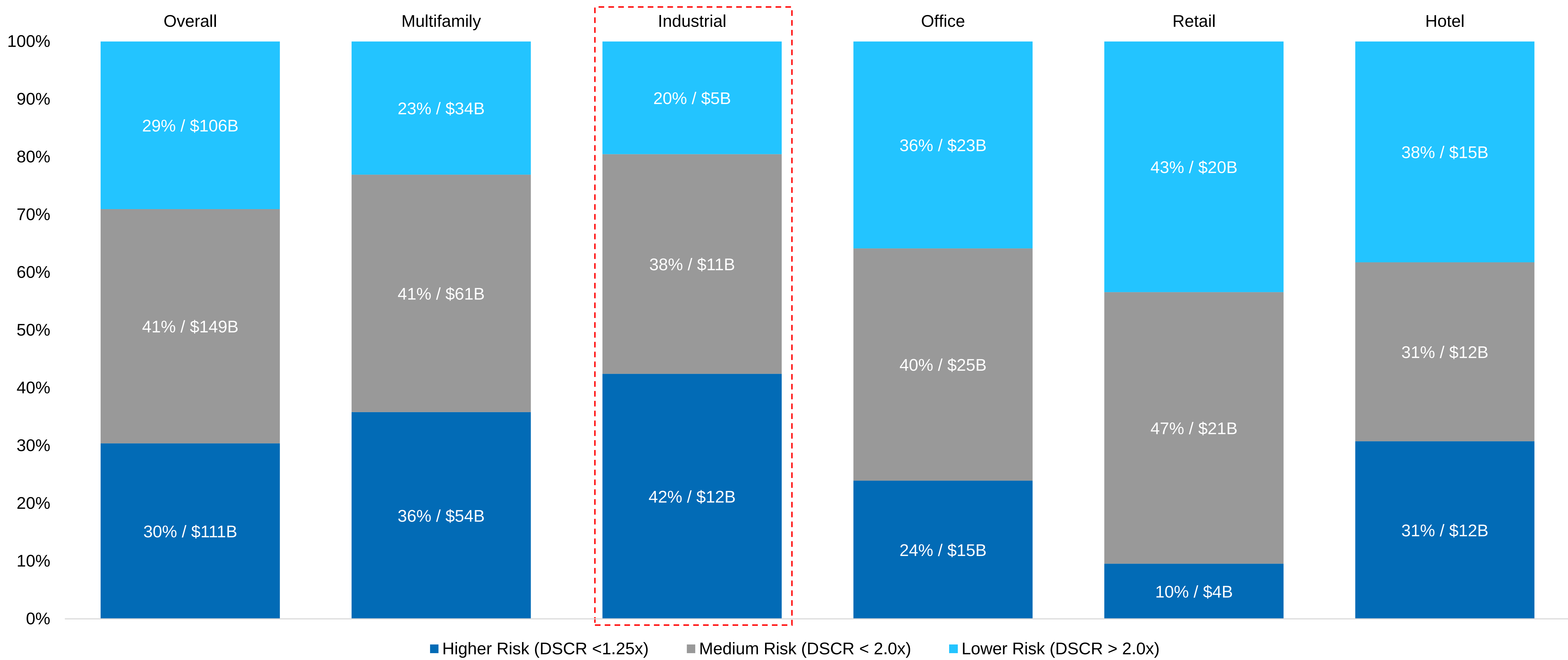


Source: RCA, ICE Data Indices, Newmark Research as of 2/6/2024

Most 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 DSCR's.

DSCR Profile of Securitized CRE Debt Maturing between 2023 and 2025

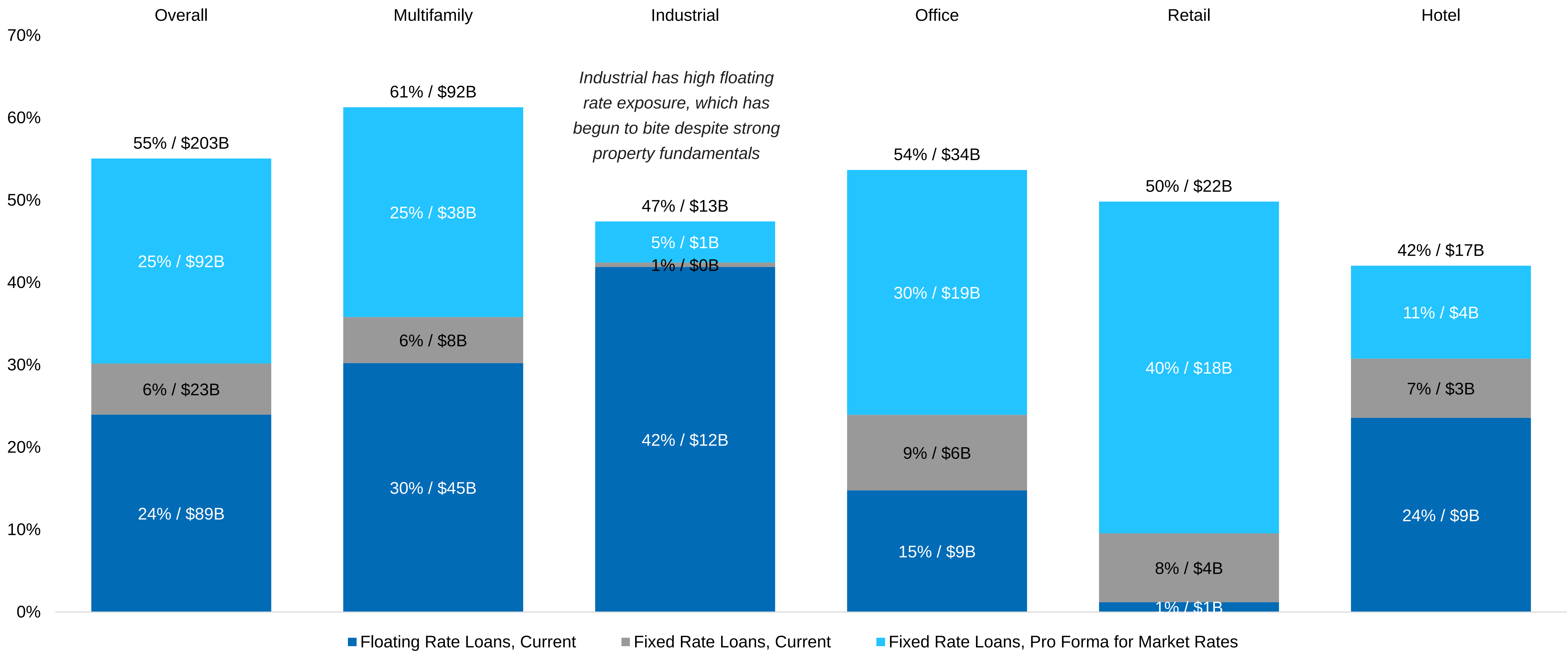


Source: Trepp, Newmark Research as of 2/7/2024

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")

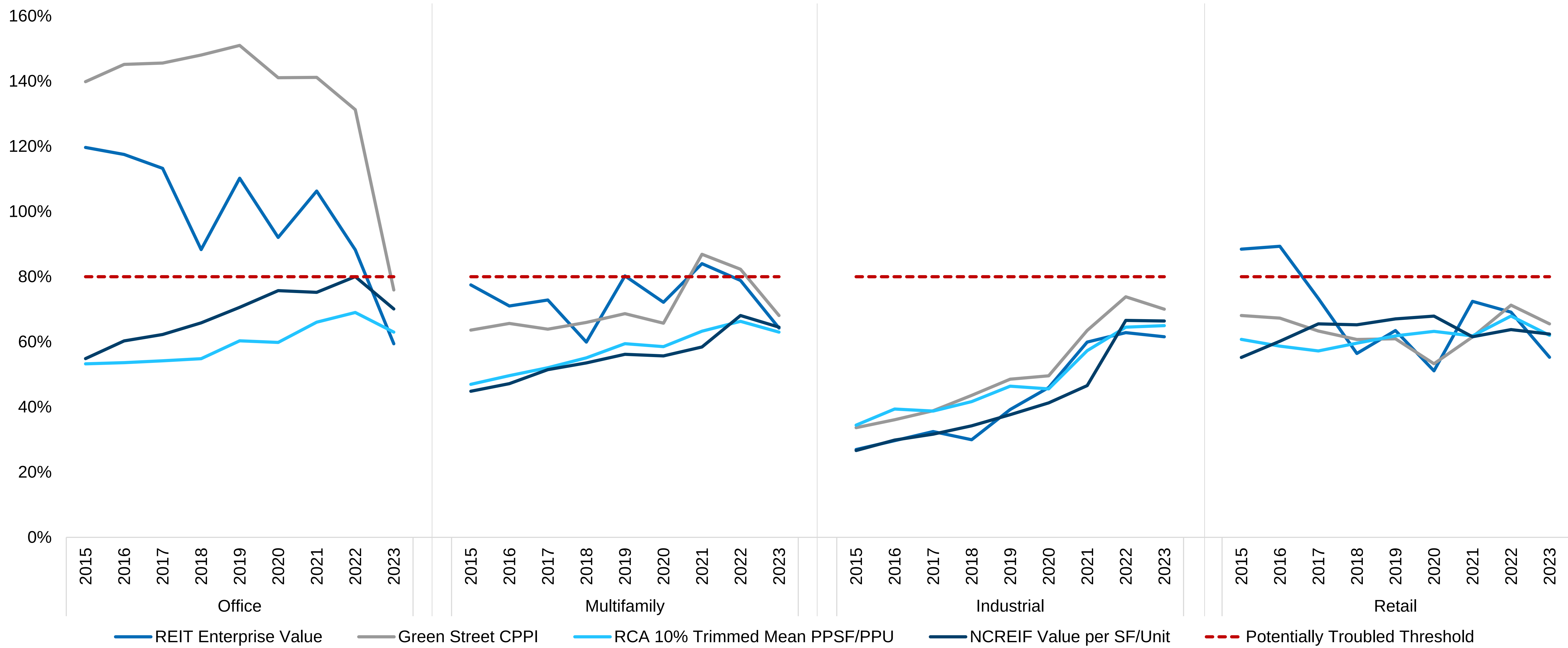


Source: Trepp, Green Street, Newmark Research as of 2/7/2024
Note: to estimate the impact of market rates. We analyzed representative samples of 2023 to 2025 maturity loans for each property type. We calculated a pro forma DSCR by comparing the current loan rate with the current market rate. For the current market rate, we used data from Trepp's weekly balance sheet lender survey for loans with LTV's between 66% and 70%. The assumed market debt rates were 6.01%, 6.12%, 6.49% and 6.05% for multifamily, retail, office and industrial, respectively. We applied the office rate for hotels.

Strong Price Appreciation Helps Protect against Industrial Distress

Industrial values have risen tremendously since 2015. As a result, most recent loan vintages have organically deleveraged even when accounting for the recent reduction in market values. That said, industrial loans originated in 2021-2022 are at greater risk, having been struck at the top of the market though this is counterbalanced by further-off maturity dates. Transitional debt and construction loans will also bear watching.

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

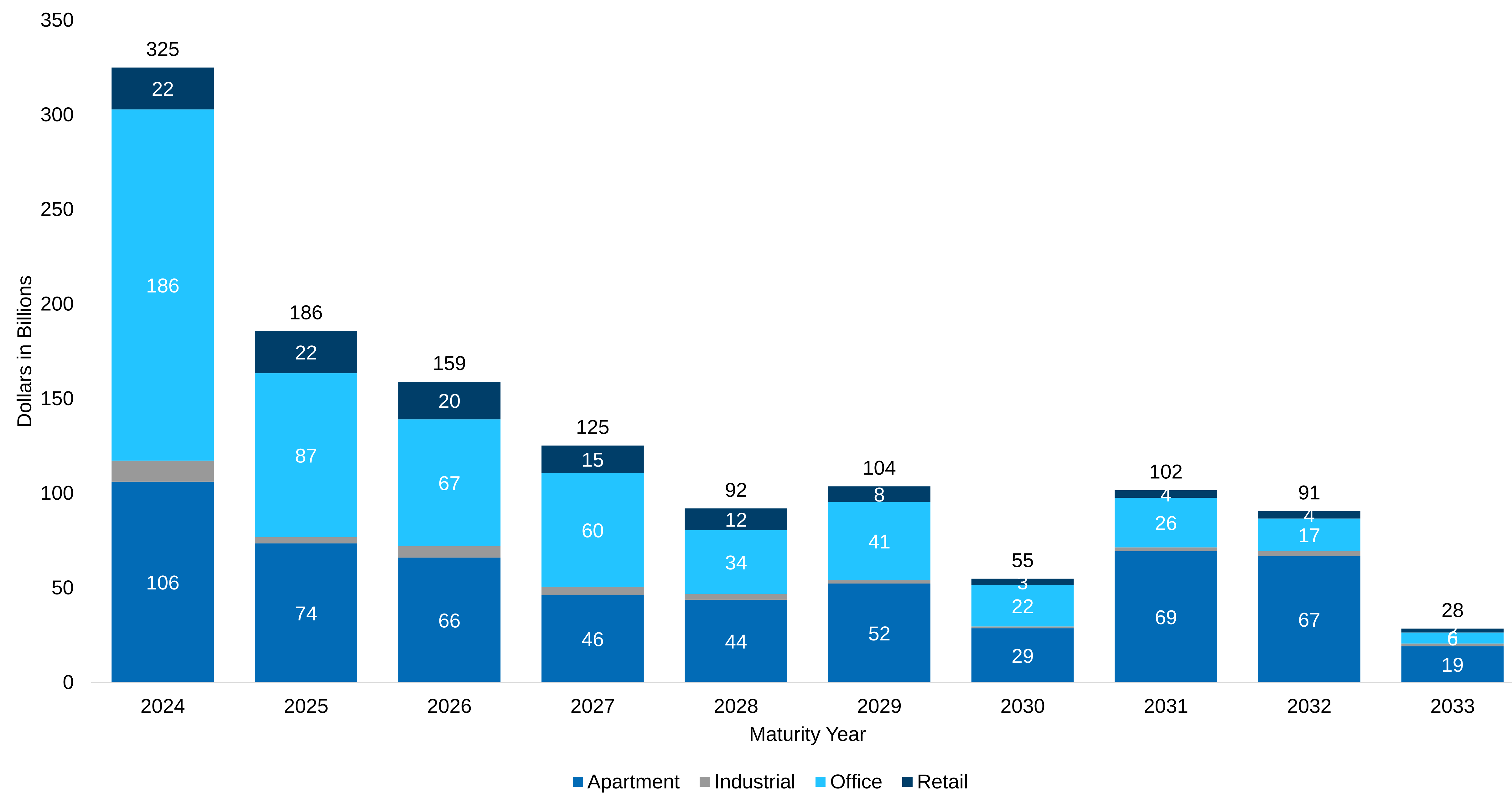


Source: RCA, Green Street, NCREIF Newmark Research as of 2/6/2024
*We take the average loan-to-value ratio of loans originated in each respective year based on an analysis of RCA data, then we mark the value of the assets to market using the various proposed benchmarks.

$1.3T of Outstanding CRE Debt is Potentially Troubled, But Only $37B is Industrial

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 the vast majority of potentially troubled loans, particularly in 2024. The high office volume results from most loans being underwater. The distribution of LTVs 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*

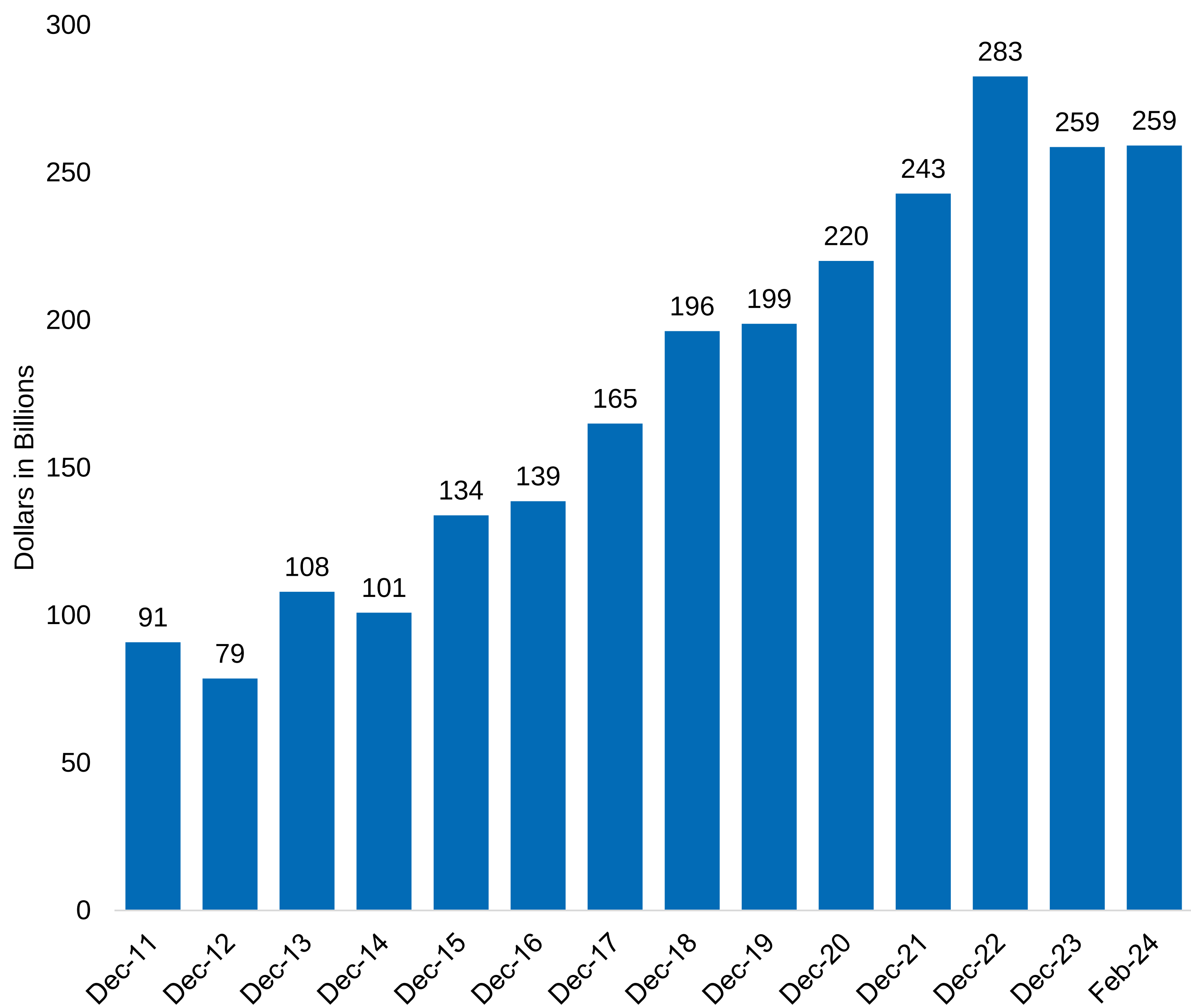


Source: Green Street, NCREIF, RCA, Trepp, MBA, Newmark Research as of 2/15/2024
*Loans with an estimated senior debt LTV of 80% or greater are potentially troubled. The loans are marked-to-market using an average of cumulative changes in the Dow Jones REIT sector price indices, REIT sector enterprise value indices and Green Street sector CPPI.

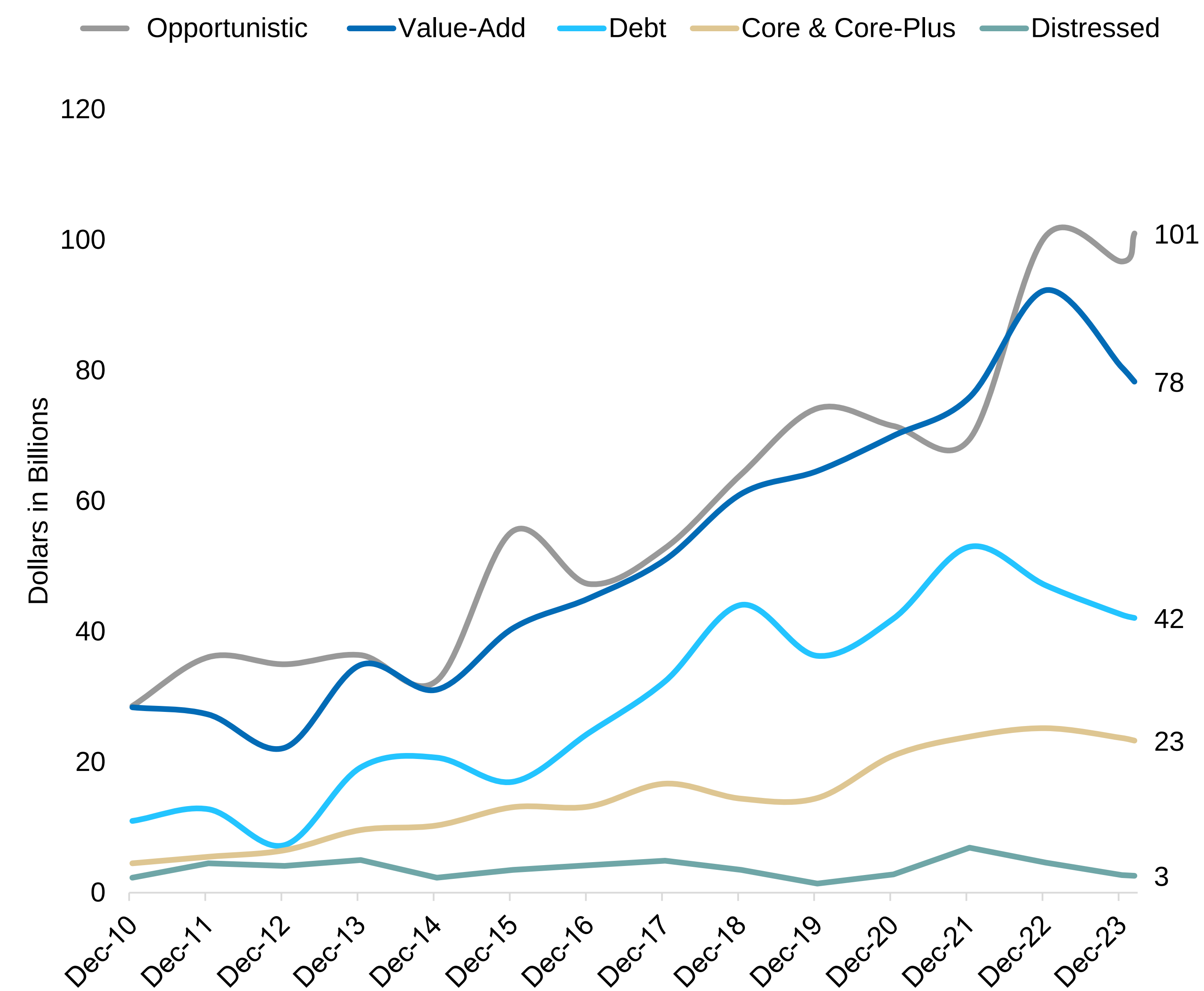
Private Equity Dry Powder Has Declined from 2022 Peak, but Still Elevated Overall

Dry powder at closed-end funds is 8% below its December 2022 peak, reflecting declines in dry powder at value-add and debt funds. Opportunistic fund vehicles are also off the peak but by a smaller margin. New fundraising declined sharply from $199B in 2022 to $148B in 2023. Capital deployment was also weak as funds have husbanded their powder in anticipation of new, attractive entry points. Less positively, some funds will find it necessary to use dry powder to bail-in investments made in early years.

Dry Powder – Closed-End Funds



Dry Powder by Strategy*

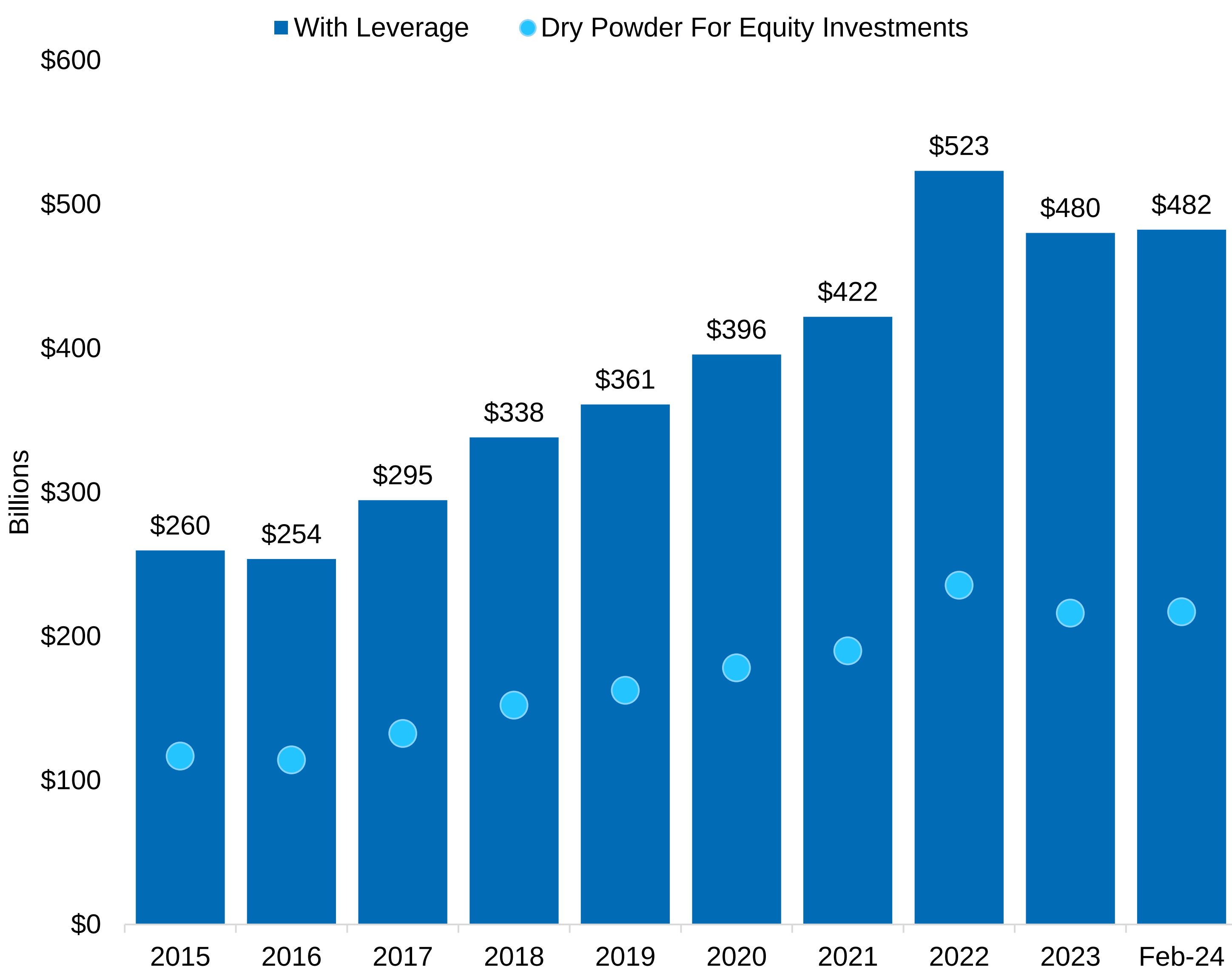


Source: Newmark Research, Preqin as of 2/2/2024
*Not shown: Fund of funds, co-investments, and secondaries strategies

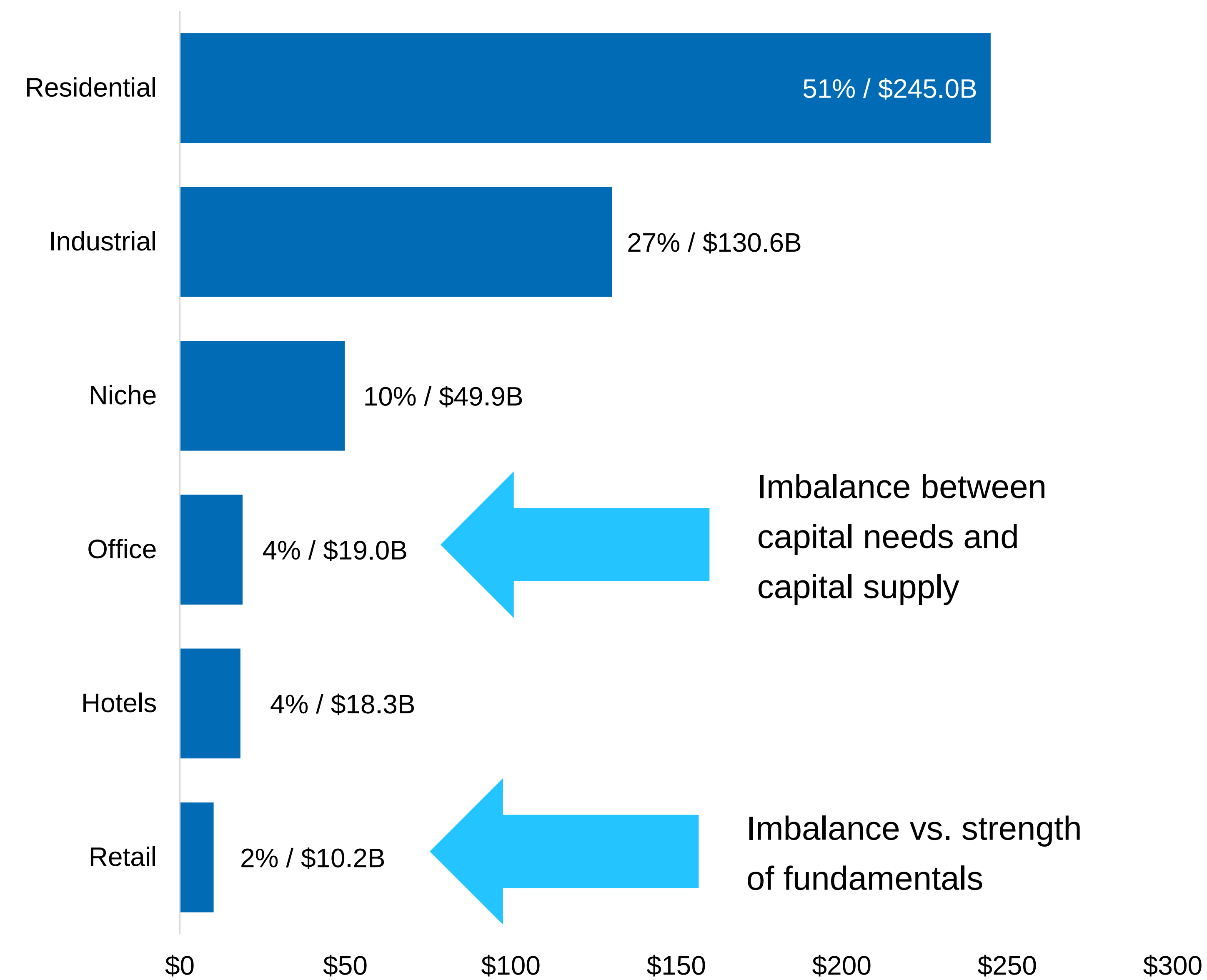
Ample Capital for Industrial Investment, Recapitalization

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 2/2/2024
*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.

Liquidity Still Flows into Top Tier Markets – Even in a Tough Market

Investment volume was down across the board in 2023 when compared to 2022, but top markets still saw plenty of major transactions close.

Number of Deals over $50 Million, 2022

Market	Number of Deals
SoCal	76
Dallas	29
North Jersey/NY	21
Atlanta	17
Chicago	15
South Florida	10

Number of Deals over $50 Million, 2023

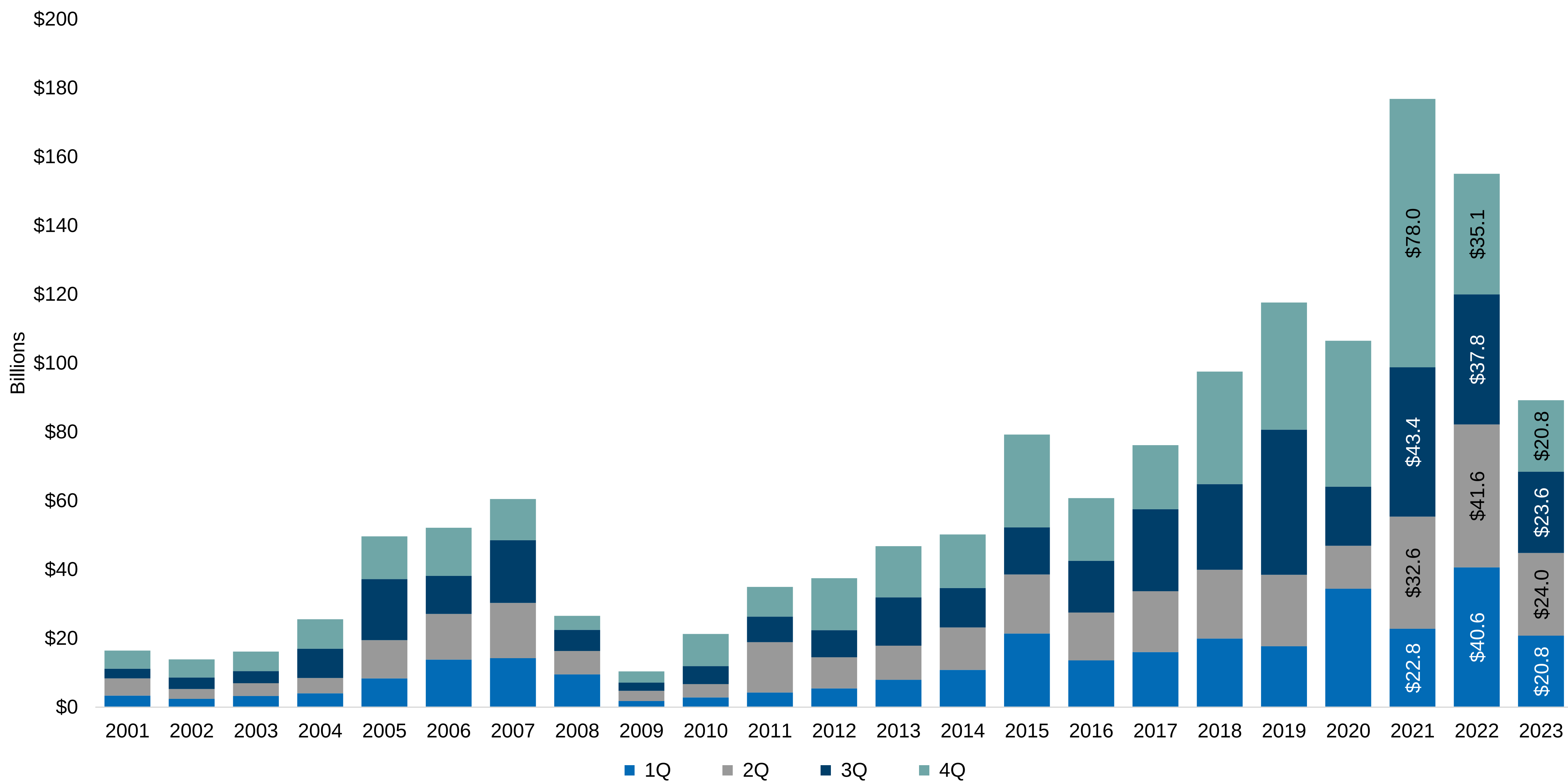
Market	Number of Deals
SoCal	61
Dallas	21
North Jersey/NY	16
Atlanta	12
Chicago	6
South Florida	6

Source: RCA, Newmark Research

Annual Sales Volume on Par with 2017-18 Levels

Fourth-quarter 2023 sales volume measured $20.8 billion, a 41% decrease year-over-year and the sixth consecutive quarter of significant annualized declines. Annual totals for 2023 are on par with 2017-2018 levels of transaction volume.

Investment Sales Volume

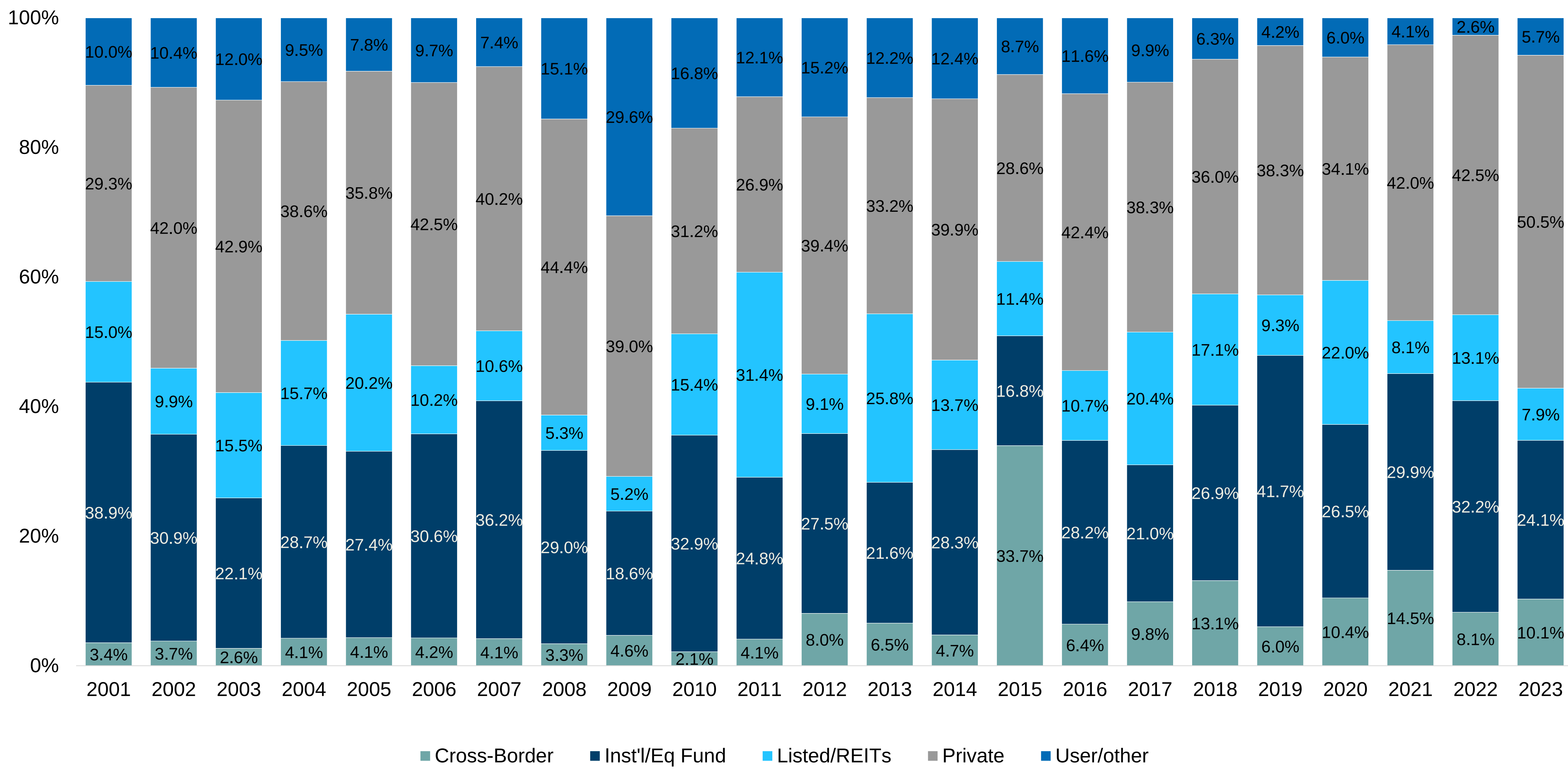


Source: Newmark Research, MSCI Real Capital Analytics. February 2024.

Private Buyers Accounted for Half of All Investment Volume in 2023

Across the ecosystem of investor profiles, only users acquired more in 2023 than in 2022, with greater opportunities for site acquisitions driving a 19% increase in user acquisitions year over year. Private capital expanded market share the most, accounting for a record 50.5% of total acquisitions.

Composition of Industrial Buyers

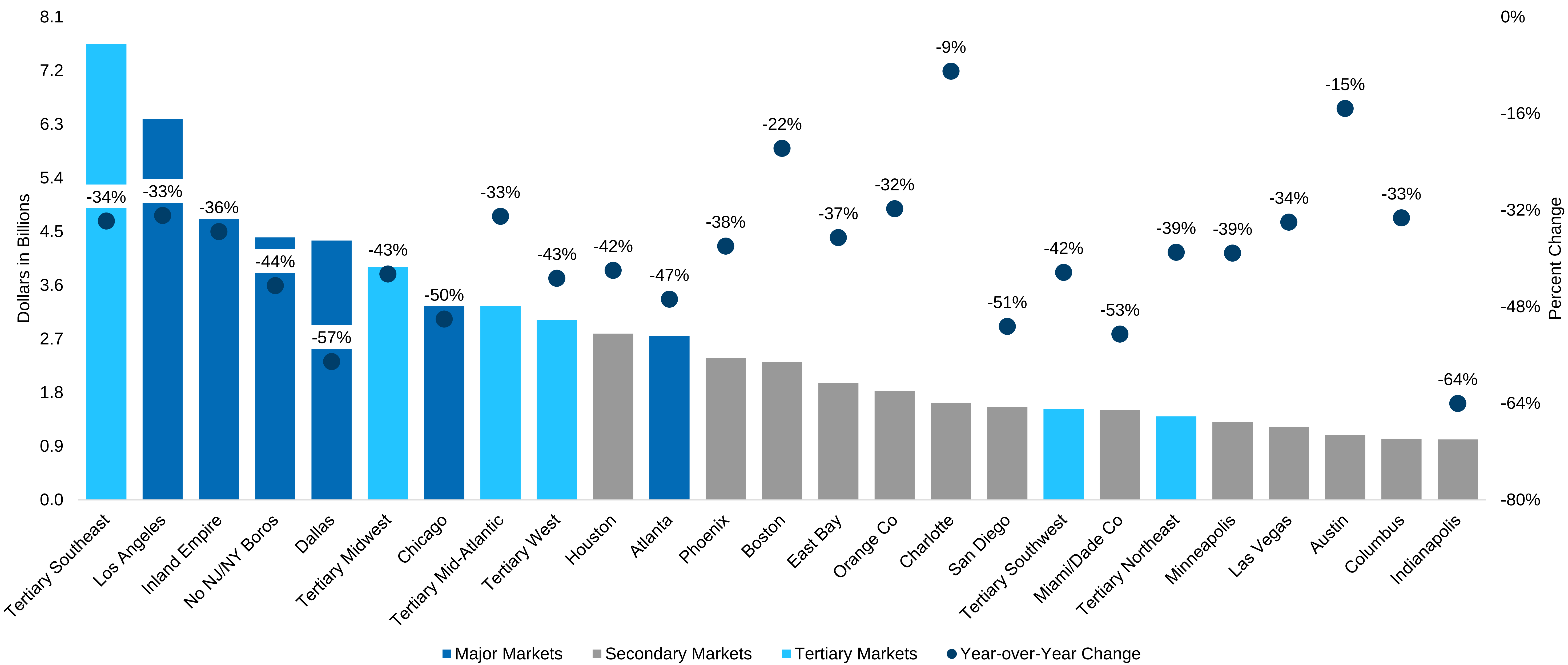


Source: Newmark Research, MSCI Real Capital Analytics

Volumes Down Universally in 2023; Major Markets Retain Primacy

None of the top 25 markets experienced positive sales volume growth year-over-year, with an average 39% decline in annual volume. Major markets represented four of the top five largest recipients of capital in 2023. With the significant amount of investment in mega manufacturing projects throughout the Midwest, Mid-Atlantic and Southeast most prominently, tertiary markets with less existing exposure to institutional ownership may draw increasing interest as projects kick off.

Top 25 Industrial Markets by Annual Sales Volume, 2023

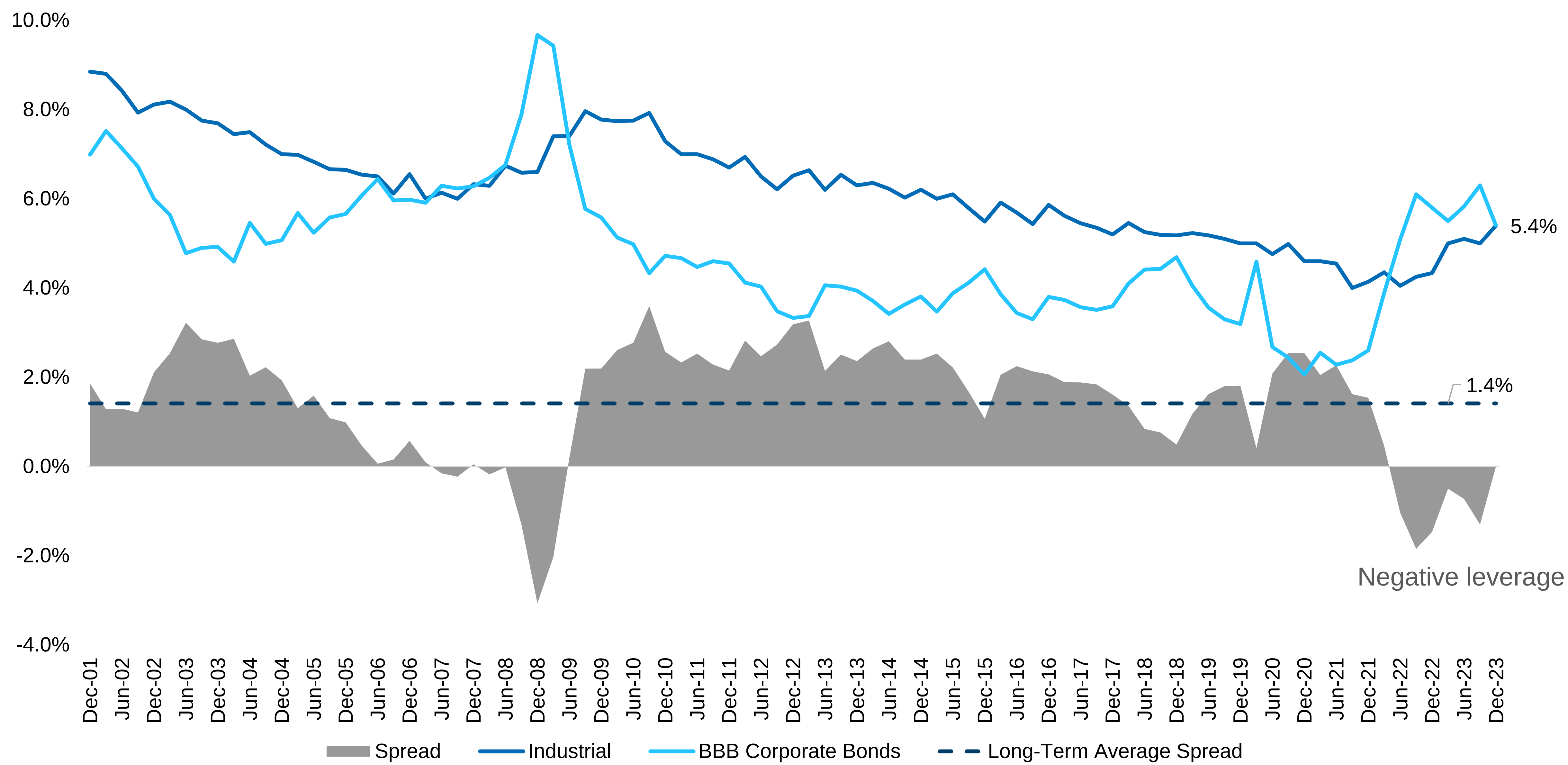


Source: Newmark Research, MSCI Real Capital Analytics

In the Private Markets, Cap Rates Have Expanded Out of Negative Leverage

Industrial transaction cap rates continued to expand in 4Q23 and have increased 100 basis points in total from the end of 2022. While no longer mired in negative leverage, spreads to BBB corporate bonds remain below long-term averages – both cap rate and bond yield measures were 5.4% at the close of 2023. That said, spreads are distinctly more attractive compared to recent history.

Top Quartile Transaction Cap Rate*

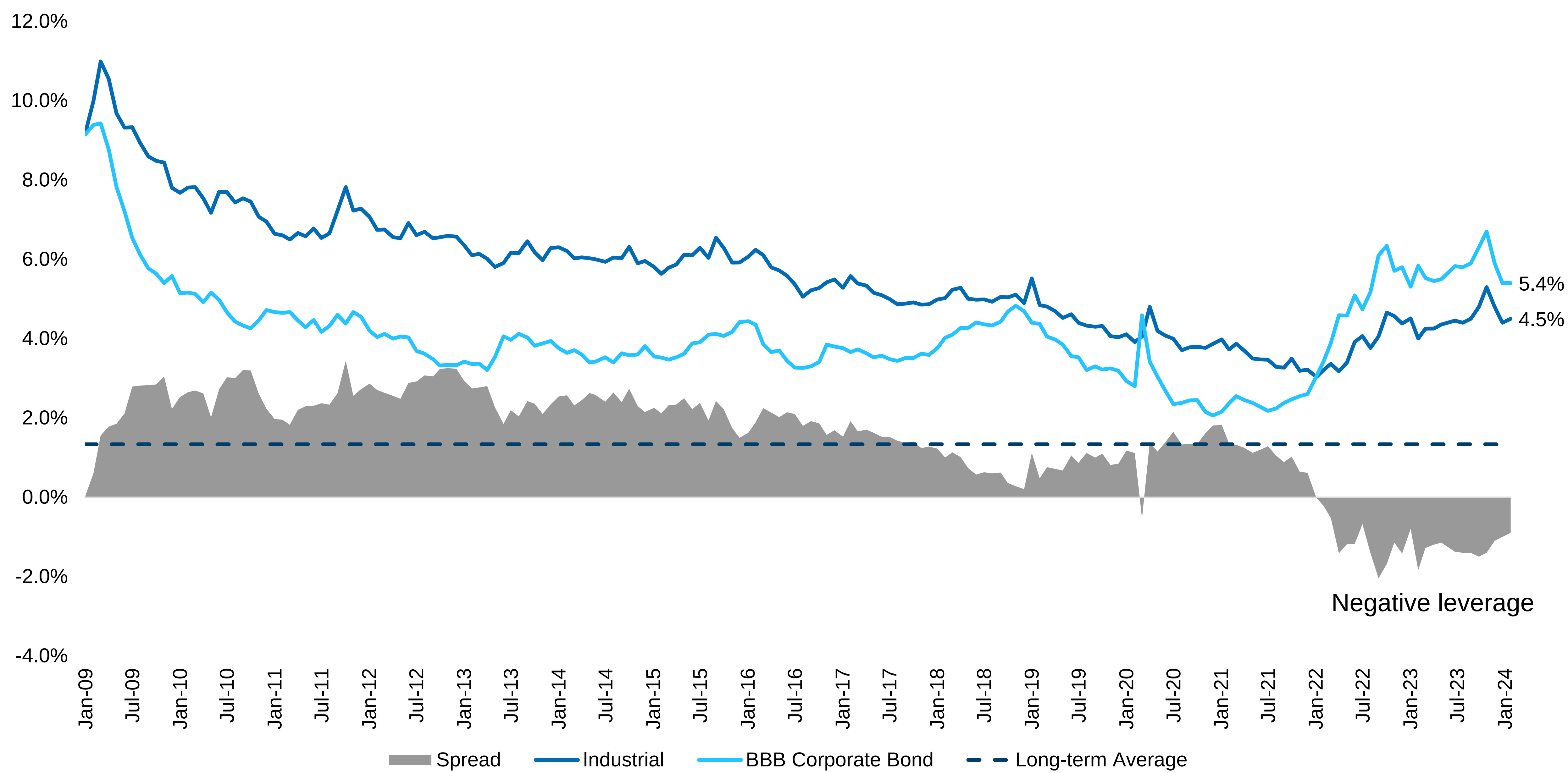


Source: Real Capital Analytics, Federal Reserve Bank of St. Louis, Moody's as of 2/12/24
*Quarterly

Adjustment Process Continues in the Public Markets

Industrial implied cap rates have declined since October 2023 alongside BBB bond rates. The public markets have been in a state of negative leverage for nearly two years. Historically abnormal NOI growth is a factor in keeping cap rates lower for longer, but further adjustment is likely required.

REIT-Implied Nominal Cap Rate

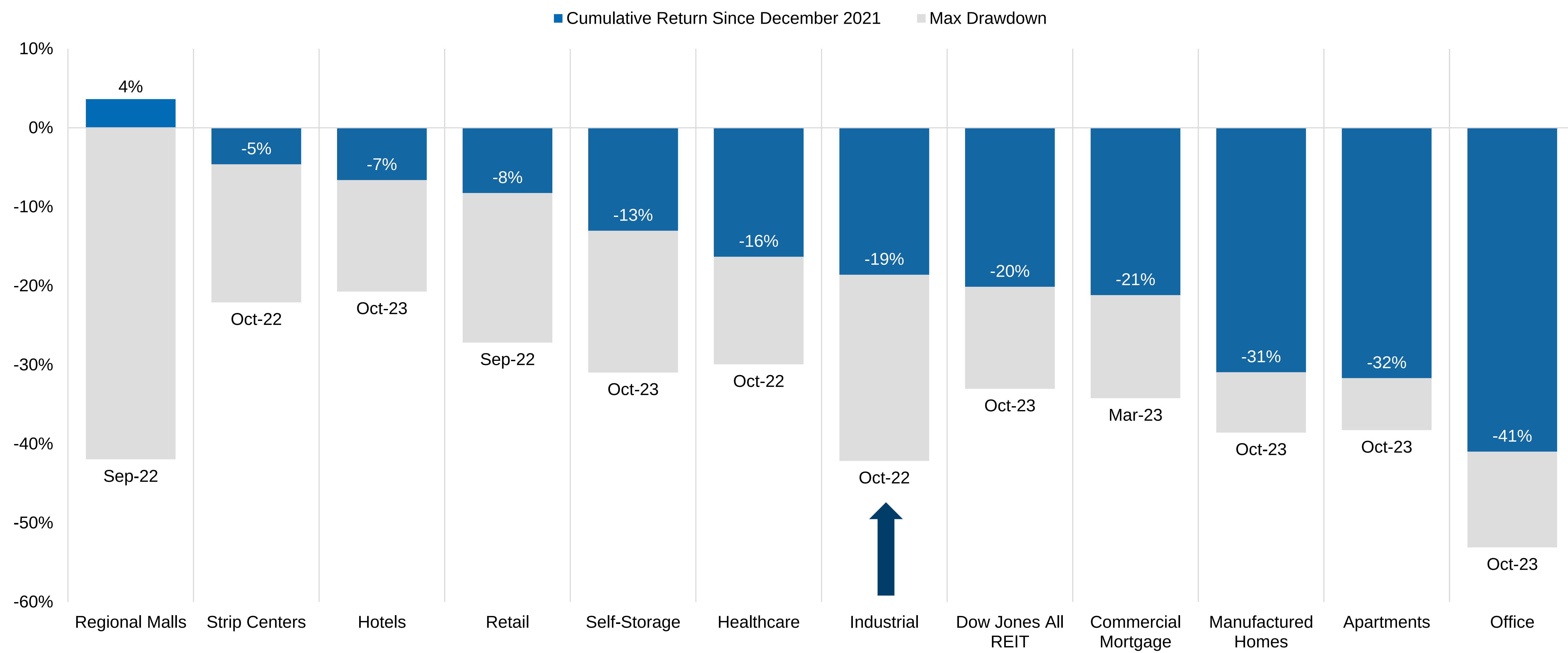


Source: Green Street, FRED, Nareit, Newmark Research as of 2/12/24

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

REITs had a tumultuous 2023 exhibiting strong momentum in January and February before declining sharply into June, then a summer rally before setting new lows in October. The recent decline in treasury yields has fed a new rally with REITs returning 19% since the October bottom. As a result, REITs have returned 6.6% since December 2022. Future performance will require some combination of greater evidence of firming fundamentals and/or further declines in the cost of capital.

Dow Jones REIT Index Total Returns

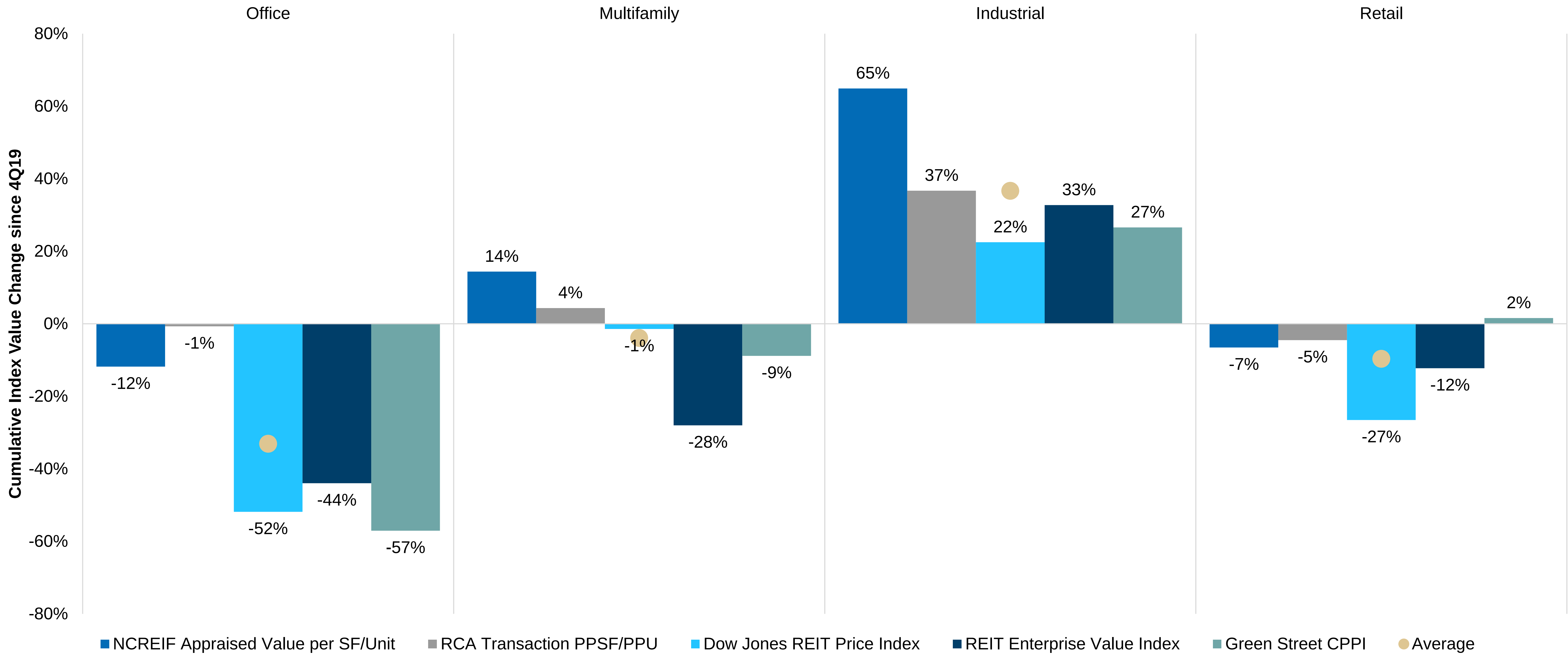


Source: Dow Jones, Moody's, Newmark Research as of 2/9/2024

What Has Happened to Values? Depends on the Benchmark

Industrial is the only sector for which a range of benchmarks show large and significant gains since 4Q19. Conversely, all benchmarks show office values down, but there is a large difference between appraisal / transaction-based measures, which show modest depreciation and measures informed by the public markets. The latter seem far more realistic. Multifamily markets show the same cleavage with the enterprise value and NCREIF measures clear outliers. Retail measures generally point to modest declines in value.

Comparison of Value Benchmarks: Cumulative Index Change since 4Q19

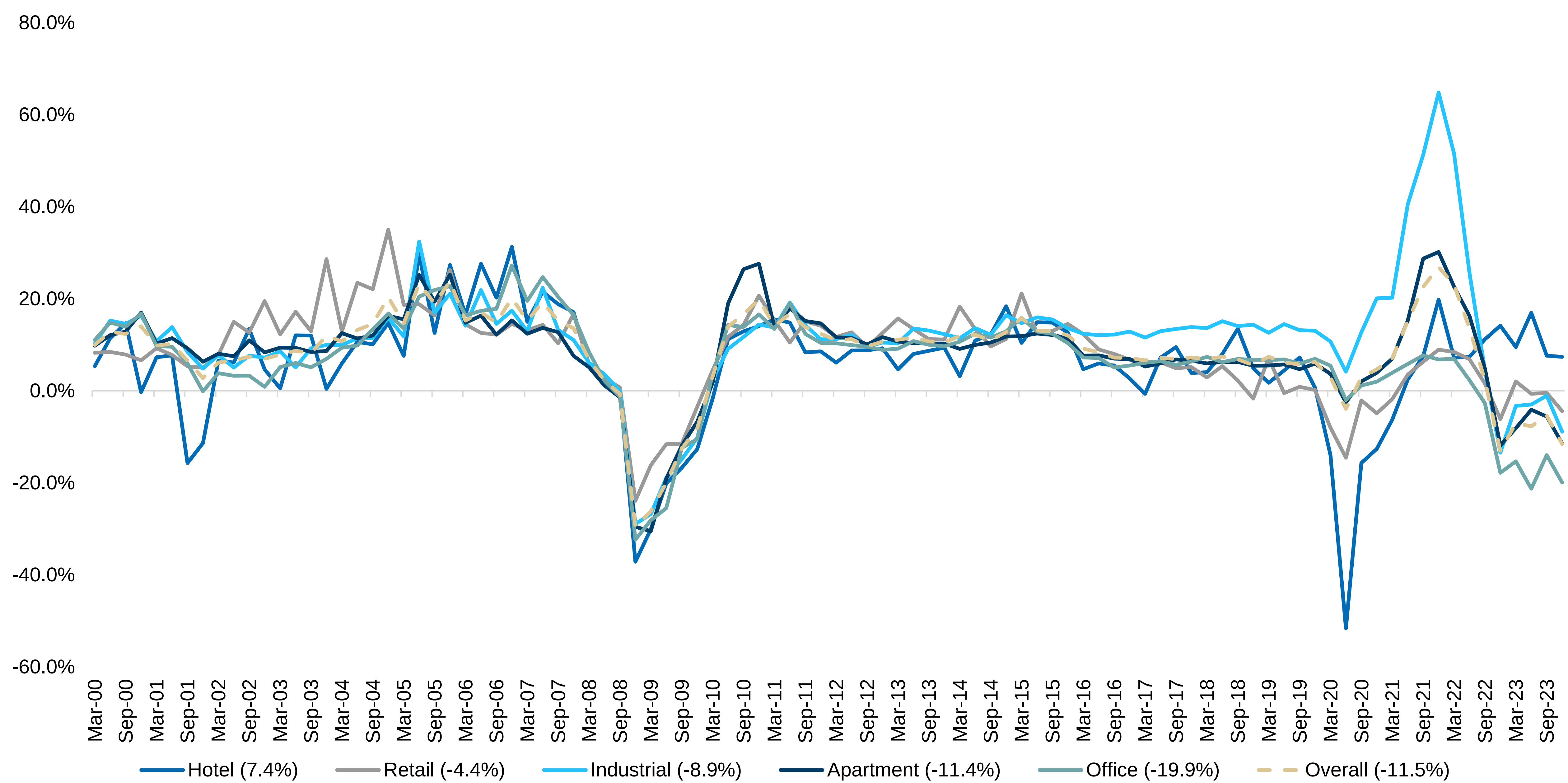


Source: NCREIF, RCA, Dow Jones, Green Street, Moody's Analytics, Newmark Research as of 2/6/2024

Private Market Core Properties Returned -11.5% Annualized in 4Q23

All major property types (with the notable exception of hotels) generated negative returns in 4Q23. 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 more modestly. Retail decelerated further 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

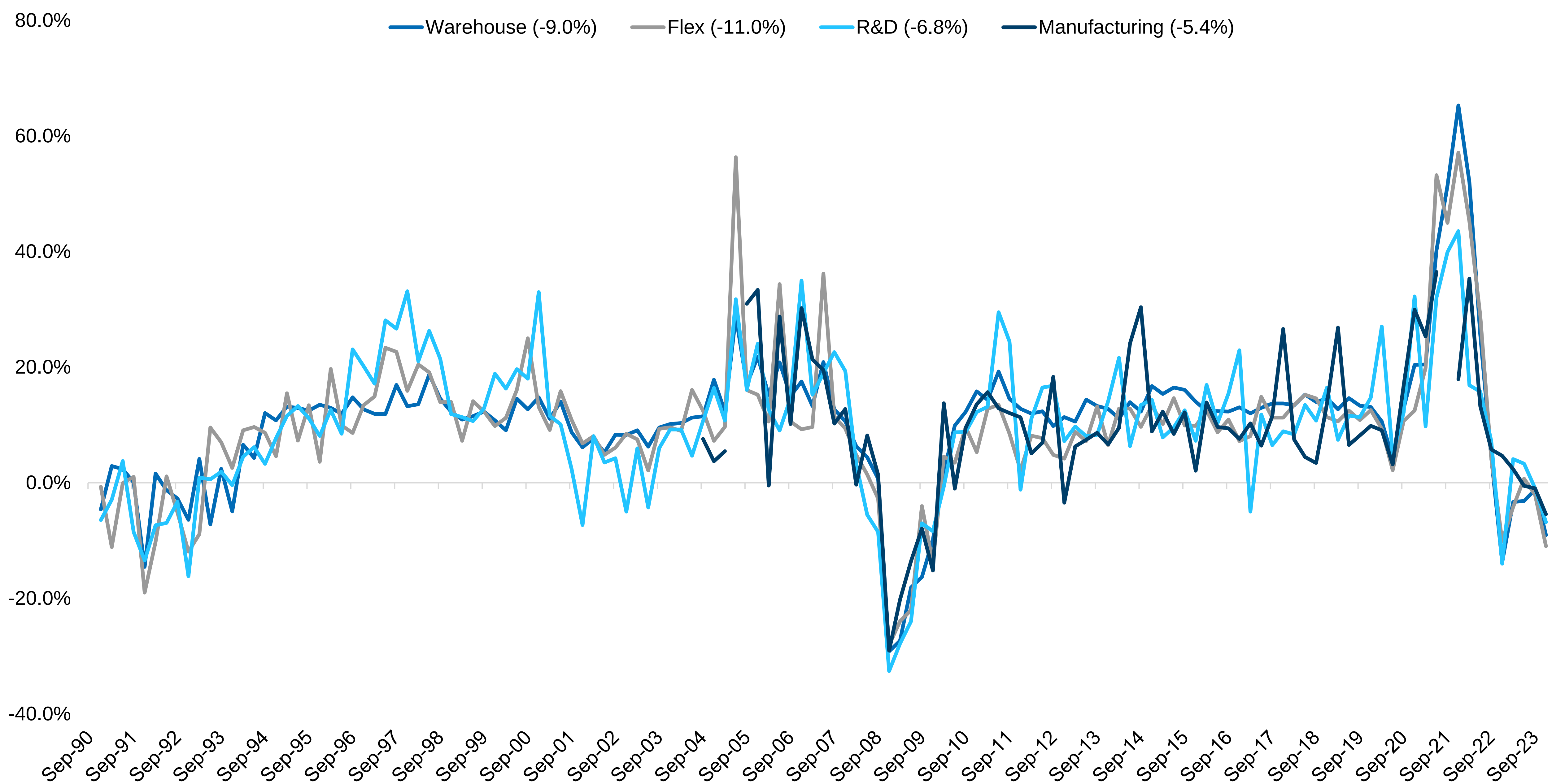


Source: NCREIF, Newmark Research as of 2/2/2024

NCREIF Industrial Returns Continued to Decelerate in 4Q23

Industrial returns were negative across subsectors. Manufacturing facilities outperformed, followed by R&D, warehouse and flex. For all of 2023, warehouse and flex each returned 4.2% while R&D (-0.2%) and manufacturing (-1.2%) were nearly flat.

NCREIF Quarterly Annualized Total Return

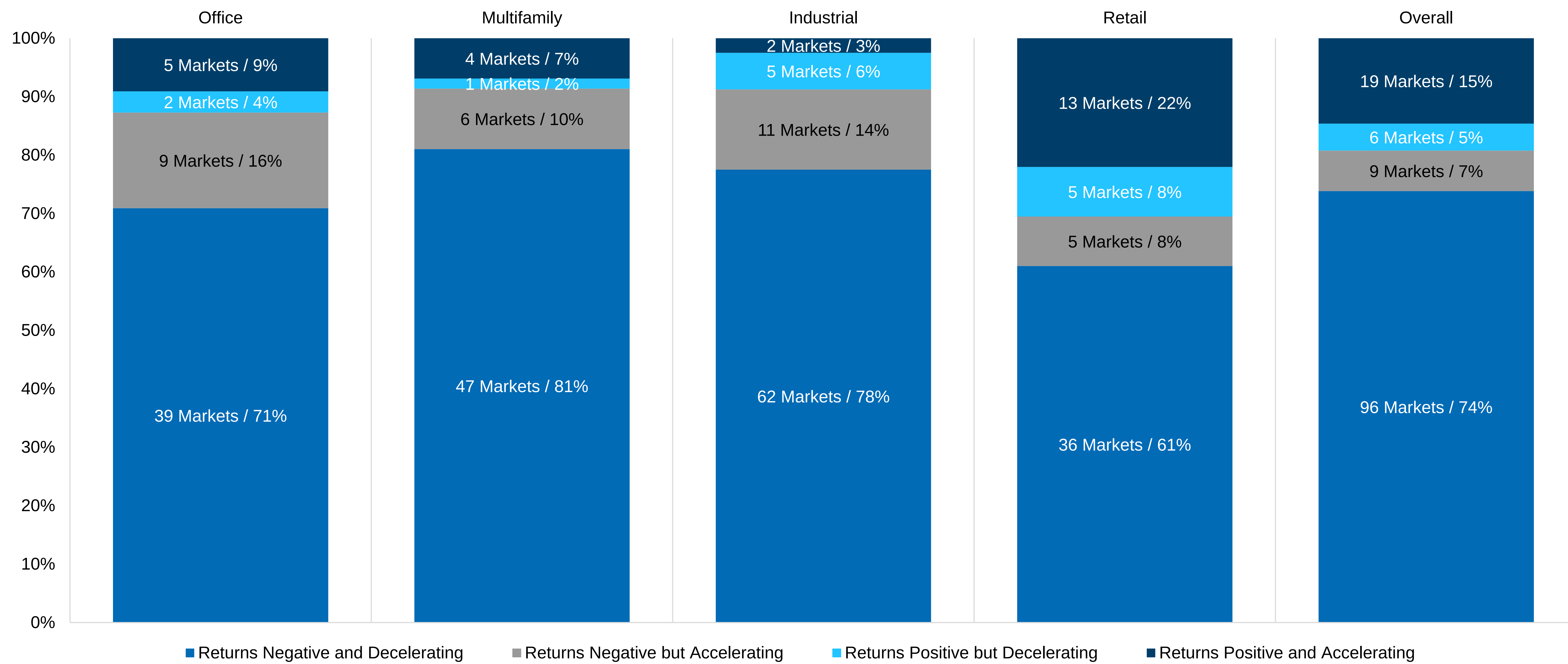


Source: NCREIF, Newmark Research as of 2/2/2024

NCREIF Returns Negative in 81% of Markets in 4Q23 up from 60% in 3Q23

Returns were negative across large majorities of all property types in 4Q23. The multifamily and industrial sectors had the highest share of negative returning markets followed by office. Retail markets outperformed on the margin, though there too 61% of markets had negative and decelerating returns in 4Q23. For all of 2023, 80% of markets generated negative total returns. Just 7% of markets generated positive and increasing total returns compared to 2022.

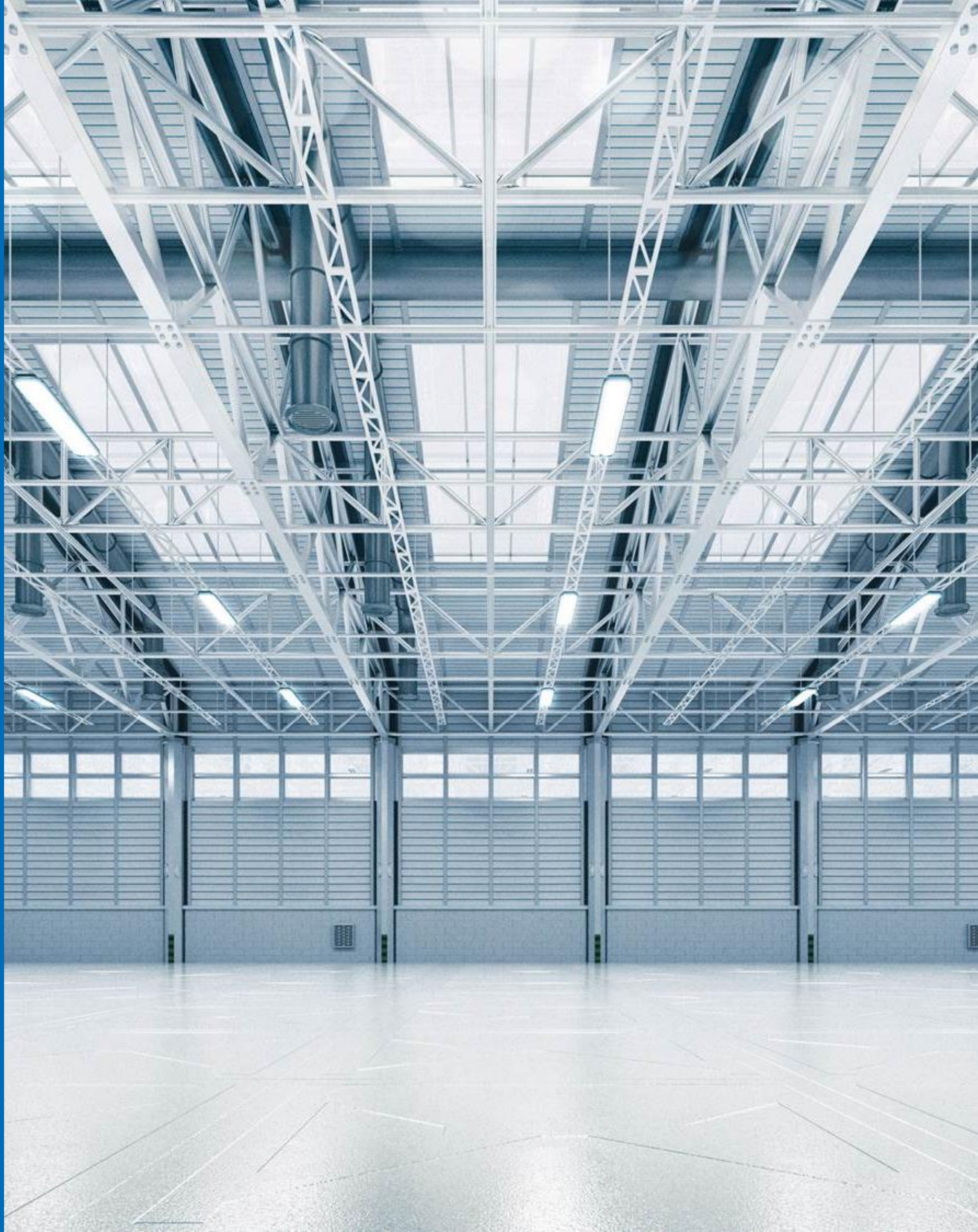
Breakdown of NCREIF CBSA Total Returns: 3Q 2023



Source: NCREIF, Newmark Research as of 2/2/2024

4Q23

Appendix: Market Statistics



National Industrial Market Statistics

Fourth Quarter 2023

Market Statistics

	Total Inventory (SF)	SF Under Construction	SF Absorbed This Quarter	SF Absorbed Year-to-Date	Vacancy Rate	Average Asking Rent (Price/SF)
National	**17,125,849,436**	**455,249,415**	**56,266,298**	**236,978,150**	**5.5%**	**$10.86**
Atlanta	746,830,252	27,724,209	1,777,134	5,574,903	5.4%	$6.83
Austin	130,352,204	19,869,793	1,225,692	4,404,907	9.8%	$14.16
Baltimore	264,483,689	1,485,593	644,339	147,488	6.0%	$8.28
Boston	219,766,134	1,231,590	3,458,809	2,178,478	5.9%	$15.77
Broward County, FL	116,399,517	1,092,775	188,003	115,654	4.7%	$14.47
Charleston, SC	98,231,500	8,585,499	1,573,994	3,468,555	6.2%	$8.03
Charlotte	442,544,199	16,184,402	-170,383	7,029,166	5.7%	$7.22
Chicago	1,222,548,353	18,949,125	5,584,202	21,443,592	4.5%	$6.37
Cincinnati	313,629,045	3,762,222	125,395	783,379	6.2%	$6.15
Cleveland	294,499,068	899,500	425,842	668,801	5.1%	$6.13
Columbia, SC	73,351,266	2,192,028	-163,442	639,009	4.7%	$5.18
Columbus	285,380,688	4,251,737	1,888,151	6,997,014	6.2%	$5.57
Dallas	1,093,246,165	38,908,178	4,681,970	30,514,047	8.7%	$9.11
Denver	220,479,242	8,205,613	1,918,147	3,877,039	8.4%	$11.10
Detroit	430,830,548	4,781,840	113,511	6,248,577	3.3%	$7.82
Greenville, SC	259,072,864	7,648,688	-251,119	6,405,228	9.3%	$5.38
Houston	748,816,085	21,480,795	2,263,382	18,428,817	7.0%	$9.36
Indianapolis	417,585,869	11,095,274	720,447	8,030,233	7.7%	$6.66
Inland Empire, CA	713,869,610	25,126,457	4,997,489	5,937,890	5.1%	$17.24

Note: Asking rents are quoted on a NNN basis. The average asking rent is the weighted average across warehouse, manufacturing, flex, and general industrial properties. Older, available buildings often cite asking rents, while newer facilities often withhold rent values. Based on this, today's asking rent averages may be materially understated.

National Industrial Market Statistics

Fourth Quarter 2023

Market Statistics

	Total Inventory (SF)	SF Under Construction	SF Absorbed This Quarter	SF Absorbed Year-to-Date	Vacancy Rate	Average Asking Rent (Price/SF)
National	**17,125,849,436**	**455,249,415**	**56,266,298**	**236,978,150**	**5.5%**	**$10.86**
Jacksonville	148,575,359	5,934,434	2,120,280	3,825,191	3.2%	$9.67
Kansas City	332,484,364	9,054,514	340,849	4,482,395	5.4%	$5.87
Las Vegas	155,030,933	16,948,200	1,911,272	6,013,016	3.6%	$14.56
Long Island	168,497,672	2,174,506	170,651	-17,809	4.5%	$16.95
Los Angeles	1,060,985,574	7,423,053	-2,836,763	-11,833,952	2.6%	$20.67
Memphis	320,063,825	817,326	-700,094	882,133	7.3%	$4.61
Miami	224,051,478	6,162,101	882,336	3,150,323	2.9%	$15.62
Milwaukee	284,535,445	2,198,488	800,046	2,345,036	3.5%	$4.64
Minneapolis	426,770,555	5,960,583	1,699,178	4,022,261	4.0%	$7.73
Nashville	285,250,898	11,688,231	3,392,317	5,405,222	4.0%	$9.31
New Jersey Northern	692,335,219	14,023,352	912,153	4,954,641	3.6%	$16.21
Oakland/East Bay	263,175,804	4,045,206	-1,388,454	-1,906,328	6.0%	$17.33
Orange County, CA	266,936,070	1,803,999	-485,019	-2,171,262	3.0%	$19.69
Orlando	177,267,214	8,411,469	257,527	4,238,592	4.1%	$10.24
Palm Beach	47,044,725	2,262,428	33,516	443,104	6.4%	$14.88
Penn. I-81/78 Corridor	469,405,337	8,091,959	1,716,433	15,257,530	6.4%	$9.49
Philadelphia	530,763,590	11,256,783	4,110,225	7,128,659	5.8%	$11.43
Phoenix	390,482,906	35,034,206	4,347,466	19,325,245	8.7%	$12.51
Pittsburgh	155,692,063	448,815	1,301,280	1,933,666	6.5%	$5.48

Note: Asking rents are quoted on a NNN basis. The average asking rent is the weighted average across warehouse, manufacturing, flex, and general industrial properties. Older, available buildings often cite asking rents, while newer facilities often withhold rent values. Based on this, today's asking rent averages may be materially understated.

National Industrial Market Statistics

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National	**17,125,849,436**	**455,249,415**	**56,266,298**	**236,978,150**	**5.5%**	**$10.86**
Portland	206,843,774	6,295,117	64,498	779,657	3.0%	$11.11
Raleigh/Durham	143,462,503	7,710,582	254,759	2,707,127	5.8%	$11.94
Sacramento	171,065,608	3,001,633	102,746	1,186,232	3.7%	$10.03
Salt Lake City	296,387,665	8,978,323	1,504,254	6,534,233	4.9%	$10.19
San Antonio	160,348,582	5,056,836	705,434	2,498,828	7.3%	$8.54
San Diego	167,612,585	2,420,379	-514,923	-1,806,070	4.7%	$16.57
Savannah, GA	125,072,011	12,665,958	2,690,563	11,088,631	10.0%	$7.33
Seattle	323,319,923	7,707,251	40,180	1,860,138	5.6%	$13.09
Silicon Valley	137,187,188	2,648,463	-158,797	-996,967	8.5%	$28.60
St. Louis	292,675,910	2,825,300	-32,702	1,406,069	4.8%	$6.01
Tampa/St. Petersburg	253,108,503	5,190,397	567,507	4,634,753	6.6%	$8.15
Washington, DC	357,499,855	13,534,205	1,456,017	6,715,079	6.6%	$13.55

Note: Asking rents are quoted on a NNN basis. The average asking rent is the weighted average across warehouse, manufacturing, flex, and general industrial properties. Older, available buildings often cite asking rents, while newer facilities often withhold rent values. Based on this, today's asking rent averages may be materially understated.

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