



Research

United States | Q3 2023

U.S. Office Outlook

RTO reaches new highs during an otherwise quiet quarter for leasing and sales activity

Executive summary

Economy

CPI increases saw a moderate uptick with increased energy prices, but core PCE continues to decline, reaching 3.6 percent in August, the lowest level since October 2021

Leasing

Leasing volume fell by 4.2 percent quarter-over-quarter to 40.5 million s.f., but still outperformed Q1 as large-scale leasing improved

Net Absorption

The U.S. registered 18.3 million s.f. of negative net absorption in Q3, bringing annual totals to 51 million s.f. of occupancy loss

Vacancy

Overall vacancy increased 39 basis points quarter-over-quarter to 21.0%, but a slowing volume of deliveries and increased inventory removals point to stabilization in 2024

Rental Rates

Asking rents continue to grow as higher-quality new space is added to the market, reaching \$39.50 per s.f. in Q3, a 0.5% increase quarter-over-quarter

Development

Just 1.7 million s.f. of new office construction broke ground in the second quarter and just 7.9 million s.f. has broken ground year-to-date, signaling future supply constraints for tenants seeking high-quality product



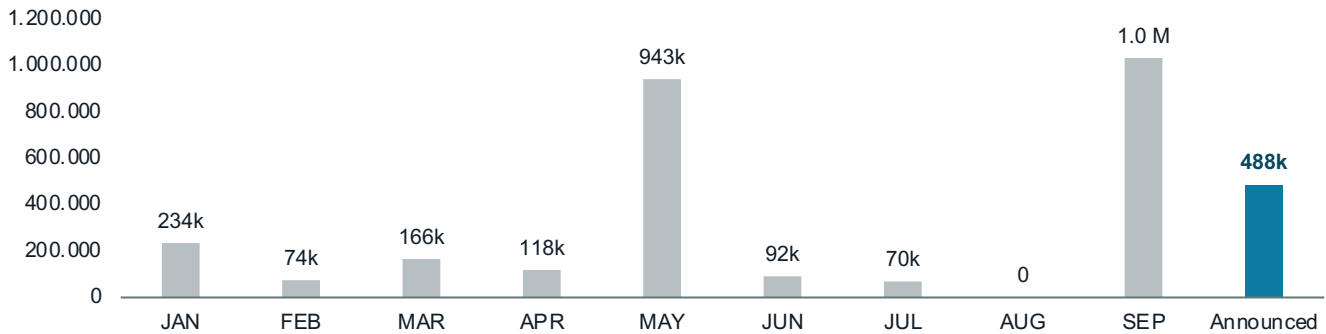


The third quarter brought mixed results for the U.S. office market as fundamentals continue to soften under intense cyclical headwinds created by interest rate hikes, but considerable progress in return-to-office plans, growing tenant requirements, declining sublease additions, and a tightening market for high-end space all point to stabilization in 2024.

Trends in the broader economy were largely neutral during the third quarter. Though headline CPI growth had fallen to its lowest levels since early 2021 as of June, recent increases in energy prices drove marginal upticks to year-over-year CPI growth in July. However, the core personal consumption expenditure (PCE) price index, excluding energy and food, has continued to decline steadily through August, and in the past three months has increased at an annualized rate of just 1.4 percent. After a strong first half of the year, public equity prices pulled back in Q3:

the NASDAQ Composite index fell by 4.1 percent and the S&P 500 declined by 3.6 percent. Despite the decline in valuations, corporates are seeing improved operating results: annualized earnings as reported from the S&P 500 index rose to \$1.7 trillion in Q3, the second highest on record and an increase of 4.7 percent quarter-over-quarter. The labor market remains healthy but continues to show gradual signs of softening, particularly within office-using sectors. Over the past three months, employment in finance grew by 23,000 (+0.3 percent) but fell by 2,000 (-0.1 percent) in professional services and 40,000 (-1.3 percent) in the information sector. Job openings continue to marginally decline quarter-over-quarter and are now more than 20 percent below peak levels in March 2022. Quit rates, an indication of employees' leverage in the labor market, have also declined and for the past two months have dipped below 2019 levels.

U.S. employees subject to newly effective return-to-office mandates



Source: JLL Research

Note: The above totals reflect RTO mandates that have been disclosed publicly and do not reflect mandates from smaller companies or announcements that did not garner public attention. Total U.S. employment figures for companies with large shares of non-office-using employment have been adjusted to estimate office-using employment.

The gradual rebalancing of intensely employee-favorable labor market conditions, in addition to an increased emphasis on productivity and operational efficiency amid market headwinds, is driving a persistent wave of companies adjusting hybrid policies in favor of greater office attendance. 30 different companies employing over 900,000 office-based workers in the U.S. issued office attendance directives in the third quarter, and previously announced policies went into effect for over 1 million workers in September, the highest volume in any month in 2023. Policies continue to shift among major technology employers, with firms like Zoom and IBM issuing attendance requirements during Q3, and other major employers taking efforts to increase compliance with existing policies. The legal sector is emerging as a leading office-centric industry with many large firms gravitating around a four-day attendance requirement: since Skadden Arps' four-day mandate was issued in June, Davis Polk, Ropes & Gray, Weil Gotshal, Osborne Clark, Vinson & Elkins, and Sidley Austin all followed suit with four-day attendance requirements, impacting more than 15,000 attorneys in the U.S. Outside of the private

sector, federal government agencies are under mounting pressure to formalize return-to-office plans for hybrid employees, and while more than a dozen agencies have issued new policies, federal workers' unions have signaled their intention to push back against requirements and may be successful in softening or delaying policies, especially where agencies struggle to recruit and retain talent. While the vast majority of office policy evolution is shifting in favor of more physical attendance, there are some isolated groups that are expanding flexibility as a recruitment tool in especially tight labor markets. In September, Samsung's North American semiconductor division announced a decrease of office attendance requirements to three days a week in efforts to retain extremely scarce semiconductor talent.

The large volume of attendance mandates effective in September has already led to record post-pandemic attendance rates: the Kastle badge swipe index in major markets reached its highest level the week of September 18 at 50.4 percent, and the highest single-day attendance rate of 59.8 percent on Wednesday of that week.

With nearly 500,000 employees subject to attendance mandates that will take effect between October and January 2024, attendance is expected to continue to incrementally rise through year-end, with average attendance rates reaching as high as 55 percent and peak-day attendance approaching 65 percent. Kastle's index, while providing a precise metric on office attendance, has a limited scope which covers less than 2 percent of national office inventory, and reportedly omits many of the larger landlords and new, high-quality office assets in the subject markets. The Partnership for New York City released a study recently which found average office utilization levels in Manhattan at 58 percent, as compared to 80 percent in 2019 when accounting for travel, sick

days, and remote work — indicating a 72 percent return to pre-pandemic levels. Despite varying methodologies, return-to-office metrics are universally trending upwards during 2023, and with most Fortune 500 employers gravitating around three or more days of in-office requirements, the prospect of most of the white-collar labor force returning to regular attendance in office buildings is becoming more of a certainty. As companies encourage their existing employees to attend the office, they are also pivoting away from fully remote hiring: in July and August, just 9 percent of job postings on LinkedIn were listed as remote, down significantly from over 20 percent of jobs being posted as remote in early 2022.

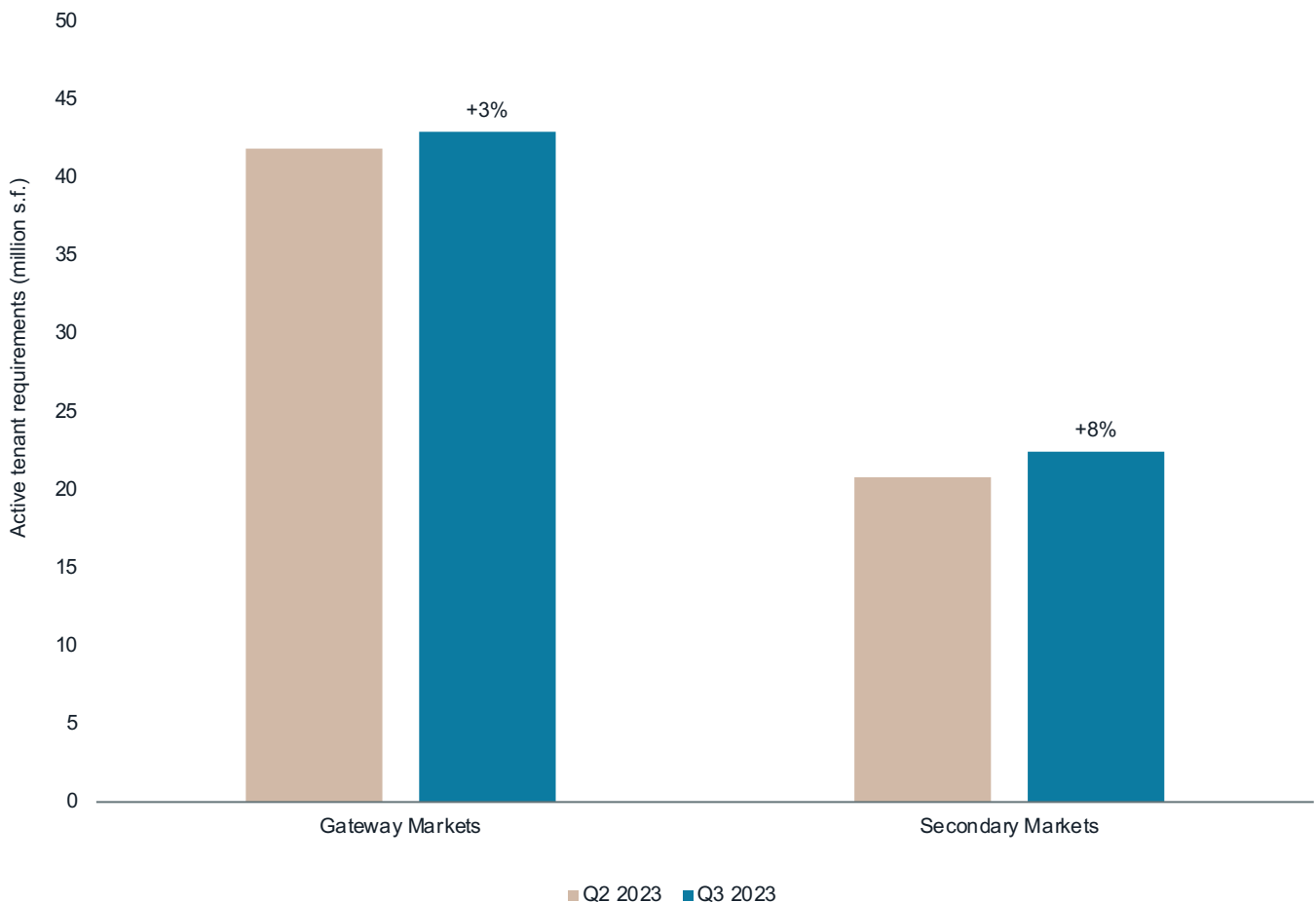


As hybrid schedules become more ubiquitous and mandates take effect, the impacts of companies' imbalance between hiring and office leasing may become starker. Since the end of 2019, office-using industries have expanded their employee headcount by 6.3 percent but have cut their office portfolios by 6.1 percent.

This has already led to select instances of companies finding themselves undersupplied with office space after implementing return-to-

office and forced companies to seek expansion space or remove listings from the sublease market. Nationally, active tenant requirements continue to trend upwards, growing by 2.6 percent quarter-over-quarter in gateway markets and 8.0 percent in secondary markets. Typically, increases in active requirements precede an acceleration of leasing volume by two to three quarters, suggesting an acceleration of national leasing volume in the short-term.

U.S. office active tenant requirement volume



Source: JLL Research

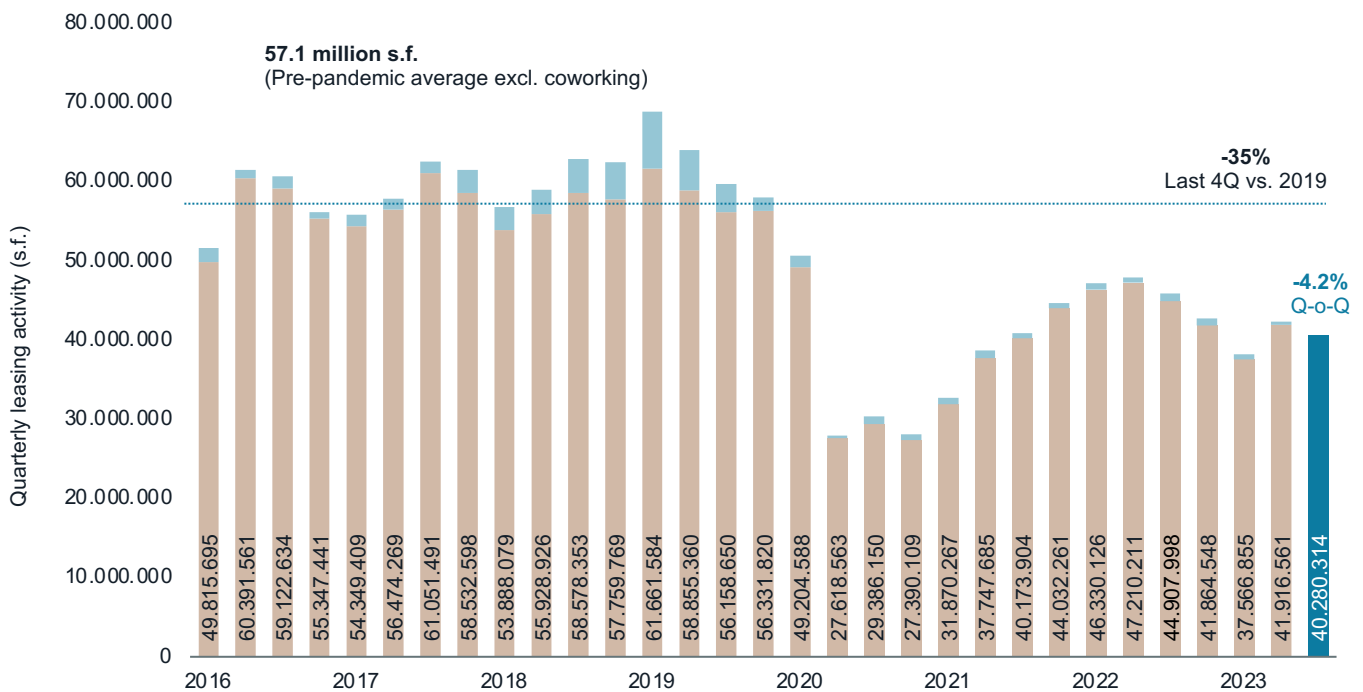
Note: Tan bars represent leasing volume by coworking providers and are excluded from pre-pandemic average but not the quarter-over-quarter comparison.



After a substantial increase in Q2, gross leasing activity was relatively flat in the third quarter, declining 4.1 percent quarter-over-quarter, but still 6.3 percent higher than Q1 leasing volume. The recovery remains disjointed with larger markets lagging — gateway markets were down 8.4 percent quarter-over-quarter and saw just 55.3 percent of pre-pandemic leasing

volume over the past 12 months, while secondary markets are down 3.8 percent quarter-over-quarter and 70.7 percent recovered to pre-pandemic levels, and tertiary markets increased by 4.9 percent quarter-over-quarter and have registered 76.7 percent of pre-pandemic leasing volume in the past year.

Gross leasing activity



Source: JLL Research

Note: Tan bars represent leasing volume by coworking providers and are excluded from pre-pandemic average but not the quarter-over-quarter comparison.

While leasing activity over the past four quarters remains 34.6 percent below 2019 levels, the decline in volume is concentrated within a few segments of the market that have seen more intense cyclical headwinds in recent quarters, while a large segment of office market demand has reached or is exceeding pre-pandemic averages over the past year. A pullback in leasing from technology tenants, lack of meaningful recovery from flexible office providers, and a widespread avoidance of large-scale transactions are attributable to virtually all declines in leasing activity over the past year compared to 2019 levels. In 2019, technology leasing comprised over 50 million s.f. of gross volume, while in the past 12 months it has generated just 21.1 million s.f. Flexible office providers, who have been

relatively inactive for the entirety of the pandemic, leased over 15 million s.f. in 2019 and just 2.7 million s.f. over the past 12 months. Combined those two industries are responsible for a 42.0 million s.f. deficit in leasing activity compared to 2019 — nearly half of the decline. The U.S. office market is also experiencing a 53 million s.f. deficit from lack of large-scale lease transactions above 100,000 s.f. in the past year as larger transactions were early to be placed on hold or reconsidered amid macroeconomic challenges and landlords' inability to fund large concession packages. Altogether, this means that over the past year, leasing activity under 100,000 s.f. across all industries except for technology and flexible office is 6.3 percent higher than 2019 levels.

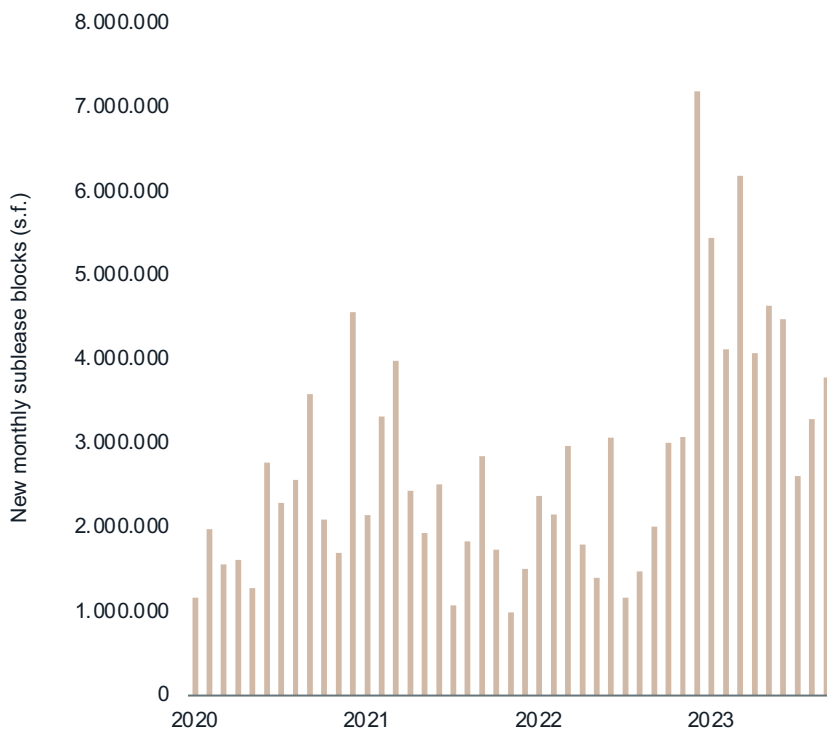
Leasing activity by industry

2019 Rank	TTM Rank	Industry	TTM leasing activity (m.s.f.)	TTM vs. 2019 change (%)
2	1	Banking & Finance	25,6	-12,5%
1	2	Technology	23,4	-51,1%
3	3	Legal Services	16,1	-0,5%
7	4	Government	13,0	16,2%
5	5	Health	10,1	-31,9%
10	6	Architecture & Engineering	8,1	2,1%
6	7	Accounting & Consulting	6,8	-46,6%
11	8	Energy & Utilities	6,8	-11,9%
9	9	Media	5,6	-48,5%
8	10	Insurance	5,4	-50,4%
14	11	Food & Beverage	4,7	-38,4%
12	12	Real Estate	4,5	-41,4%
21	13	Aerospace & Defense	4,4	3,2%
18	14	Other Professional Services	4,3	-16,7%
17	15	Construction, Machinery, Materials	3,9	-25,7%
20	16	Nonprofits & Associations	3,8	-18,9%
13	17	Retail	3,6	-53,8%
16	18	Life Science	3,3	-39,6%
4	19	Coworking	3,2	-78,6%
19	20	Education	2,1	-55,4%

The more acutely cyclical industries are also registering an outsized impact to sublease activity. Gross sublease additions above 20,000 s.f. declined 27 percent quarter-over-quarter to 9.7 million s.f. but remain more than 10 percent higher than the quarterly average since 2020 as large technology tenants continue to adjust their footprints through sublease additions. For most of the past year, technology and biotech users have comprised the majority of sublease additions, which is driving notable contrasts to sublease additions at the outset of the pandemic.

Whereas 2020 additions were largely excess space in older vintage campuses that were already likely candidates for relocation, technology users had actively expanded during 2020 and 2021 and are now rightsizing some of those recent additions. Because of the different profile of sublessor, more sublease vacancy is being listed in newer-vintage buildings, and listings are receiving more attention from active tenants and spending less time on the market. As a result, executed subleases and sublease removals during Q3 were nearly equivalent to additions, and the sublease vacancy rate nationally increased just seven basis points quarter-over-quarter to 3.1 percent.

Gross sublease additions over 20,000 s.f.



Net quarterly change in sublease availability	
2020 Q1	-2.4 m.s.f. (-2.4%)
2020 Q2	+7.1 m.s.f. (+7.5%)
2020 Q3	+21.8 m.s.f. (+21.4%)
2020 Q4	+19.5 m.s.f. (+15.8%)
2021 Q1	+10.2 m.s.f. (+7.2%)
2021 Q2	+5.8 m.s.f. (+3.8%)
2021 Q3	-2.8 m.s.f. (-1.7%)
2021 Q4	-1.0 m.s.f. (-0.7%)
2022 Q1	+5.7 m.s.f. (+3.7%)
2022 Q2	+10.8 m.s.f. (+6.7%)
2022 Q3	+11.7 m.s.f. (+6.8%)
2022 Q4	+8.9 m.s.f. (+4.8%)
2023 Q1	+11.0 m.s.f. (+5.7%)
2023 Q2	+5.9 m.s.f. (+2.9%)
2023 Q3	+3.0 m.s.f. (+1.4%)

While sublease vacancy appears on the cusp of a plateau nationally, many markets have seen stable sublease levels for several quarters. Technology-dominant submarkets that consist of more than 20 percent technology tenancy and house at least 500,000 s.f. of technology users had diverged sharply from the remainder of the country earlier in the year but saw less than a 1 percent increase in sublease availability quarter-over-quarter, the slowest increase since 2021. Still, these areas have seen a 37.0 percent increase in sublease availability in the past four quarters, while the remainder of the U.S. has grown by 7.7 percent, and by just 1.5 percent year-to-date. Historically, technology sublease listings have correlated strongly with public equity pricing and entity-level valuations, so the recovery in public pricing earlier in the year, coupled with increasingly pro-office posturing from major technology employers, should lead to a continued stabilization of sublease additions from the

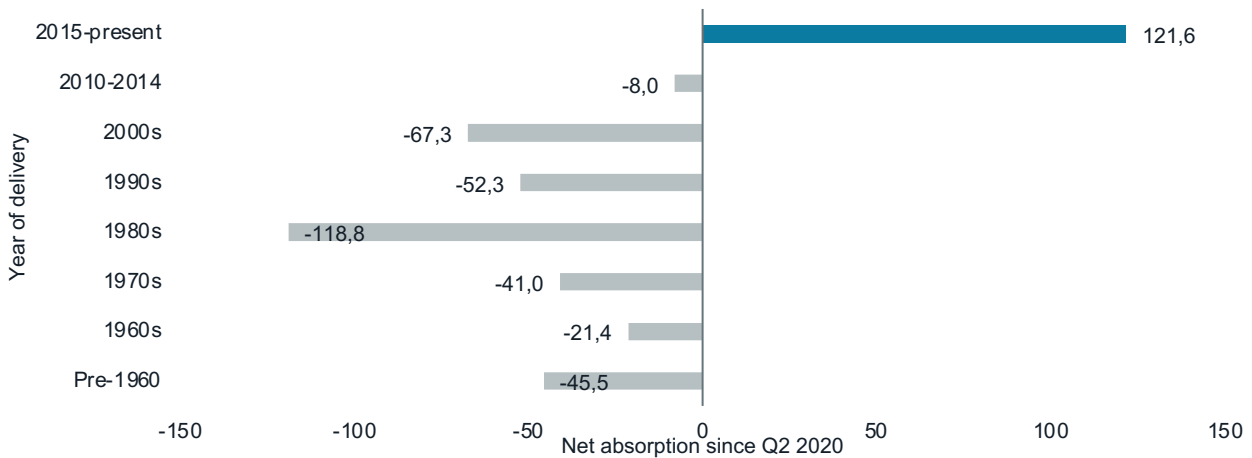
technology sector. Though stabilizing, the increase in sublease vacancy contributed 5.1 million s.f. to Q3's negative net absorption of 18.6 million s.f., as defensive occupier sentiment over the past several quarters translated to downsizing activity upon expiration for many leases that are currently taking occupancy. Overall vacancy continues to rise as a result, reaching 21.0 percent at quarter-end. Although vacancy rates have grown dramatically since 2019, the impacts are disproportionately concentrated in a minority of assets that based on locational weakness, functional obsolescence, or financial pressures, are failing to adequately capture demand from office tenants in the post-pandemic era. In fact, more than 60 percent of U.S. office vacancy is concentrated in just 10 percent of buildings, predominantly large-scale campuses and towers developed in the 1980s and 1990s, and 40 percent of office buildings have no vacancy at all.



The bifurcation in the office market according to asset quality has obscured the fact that the high-quality segment of the office market has continued to perform strongly and even outperform pre-pandemic trends in many markets since the pandemic. While the U.S. office market has registered over 230 million s.f. of negative net absorption since Q2 2020, new product developed since 2015 has seen occupancy gain in every single quarter and since the pandemic has generated over 120 million s.f. of positive net absorption. Not only are occupancy gains predominantly concentrated in newer

product and differentiated offices, but occupancy losses are also concentrated in a relatively small subset of underperforming assets. As of Q3, just 25.2 percent of office buildings have lost occupancy since the end of 2022, while 20.6 percent of buildings have gained occupancy, and more than half have remained static. In addition to occupancy gains, best-in-class product has seen rising base rents and effective rents over the course of the pandemic, with more than 80 percent of JLL's tracked markets setting record rental rates from 2021-2022.

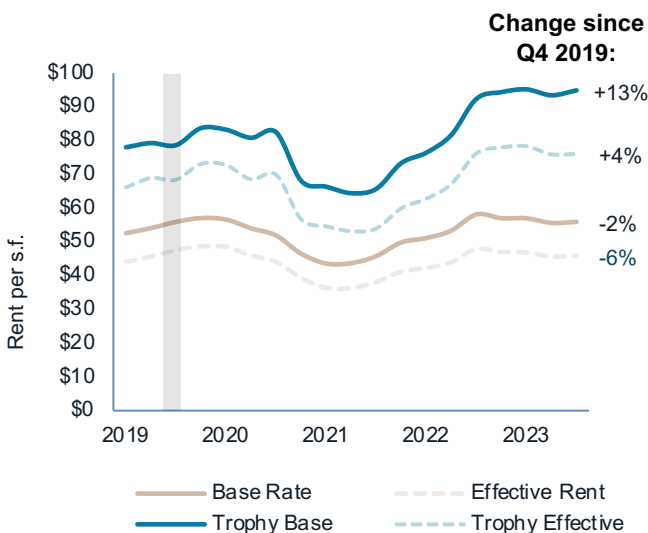
Net absorption by building vintage



Overall asking rates continue to increase marginally as new product delivers and older offices are removed from inventory for redevelopment or conversion: overall asking rents increased by 0.5% to \$39.50 per s.f. in Q3. Rent growth in recent quarters has been driven more by the delivery of new higher-rent properties than from organic rent growth across existing office buildings — excluding Class A properties in CBDs, overall asking rents declined 0.2 percent quarter-over-quarter. High-end rent momentum has stalled in recent months as landlords have struggled to fuel the same elevated concessions packages that were driving rental rates higher during the pandemic, but transactions are still being executed at elevated rental rates for premier assets. More than 40 leases were executed in Q3 at base rental rates of over \$100 per s.f., including the highest-rent lease year-to-date, AIMCO’s nine-year lease in SL Green’s One Vanderbilt which was executed

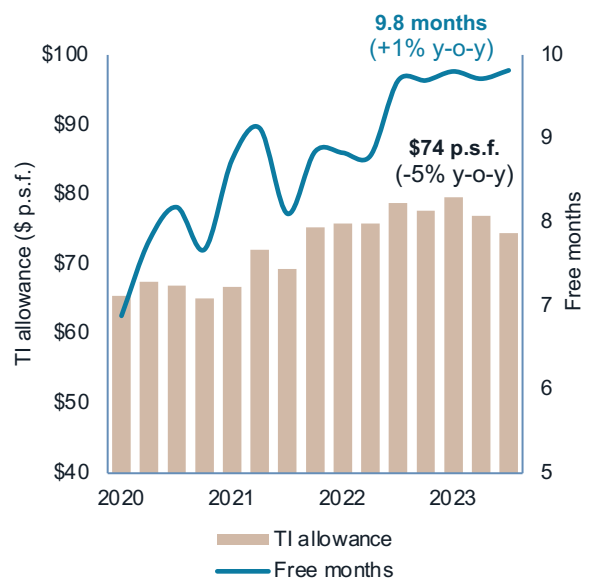
at \$247 per s.f. despite including no tenant improvement allowance. Across SL Green’s entire portfolio, tenant improvement allowances averaged \$60.81 in the first half of 2023, down more than 20 percent from 2022 levels of \$77.55. This is consistent with national trends, where tenant improvement allowance packages have seen downward pressure since rate hikes began and have now declined 5.5 percent year-over-year while free rent has continued to marginally expand to balance overall concessions packages. Executed rents on leases signed this quarter remain extremely consistent with the past four quarters: overall base and effective rents continue to marginally decline and are now 2 percent and 5.8 percent below pre-pandemic averages, respectively. However, high-end space continues to see positive momentum, and base rents have grown 13.3 percent compared to the end of 2019 while effective rents are up 4 percent.

Executed rental rates



Source: JLL Research
 Note: Executed rents are weighted by lease size and term.

10-year lease equivalent concessions

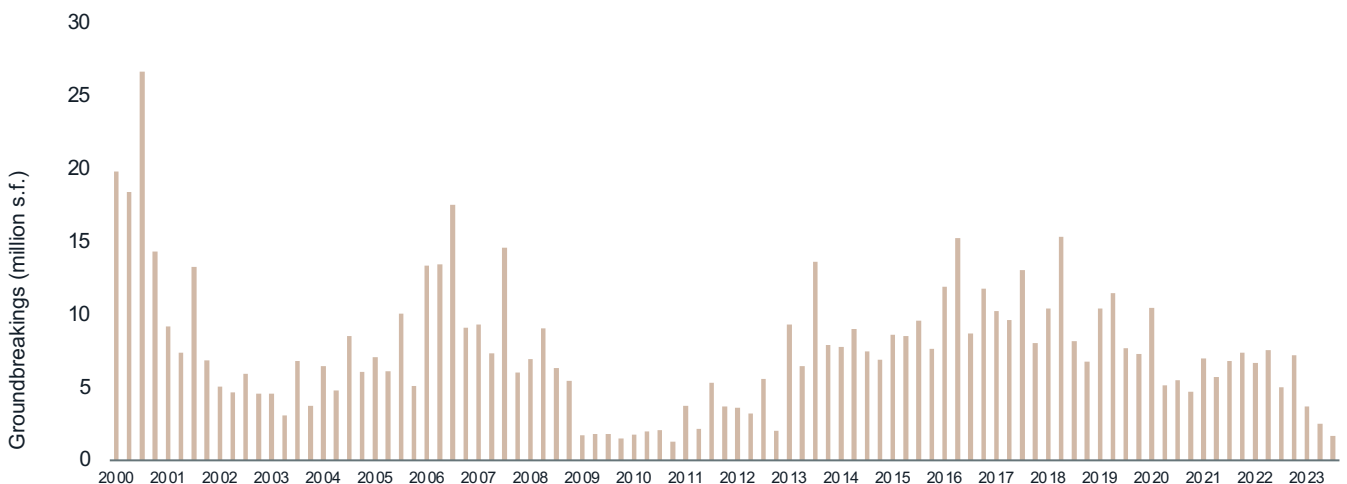




The outperformance of high-quality offices and new construction has been consistent since the pandemic outset, but substantial shifts in the development pipeline since the beginning of the interest rate hike cycle may drive intensification of flight to quality in the coming years. 12.4 million s.f. of new construction delivered in the third quarter and 33.7 million s.f. has been completed year-to-date but increases to financing costs and poor investor sentiment for the office sector has led to a dearth of new development activity: just 1.7 million s.f. of new projects broke ground in the third quarter, and only 7.9 million s.f. has broken ground year-to-date. While 74.9 million s.f. remains under development nationally, this has caused

the pipeline to decline by 33.4 percent in the past five quarters and is increasing the prospects of intense supply constraints in new construction materializing from 2024-2026. Over the past three years, new construction has averaged 9.0 million s.f. of occupancy gain per quarter; as the pipeline continues to decline, quarterly deliveries will fall to 7.2 million s.f. in 2024 and may reach as low as 3.0 million s.f. per quarter in 2025. As supply constraints in high-end product become more acute, not only will rental rates in new and Trophy offices begin to experience upward pressure, but landlords of non-trophy properties may begin to see spillover demand as availability declines.

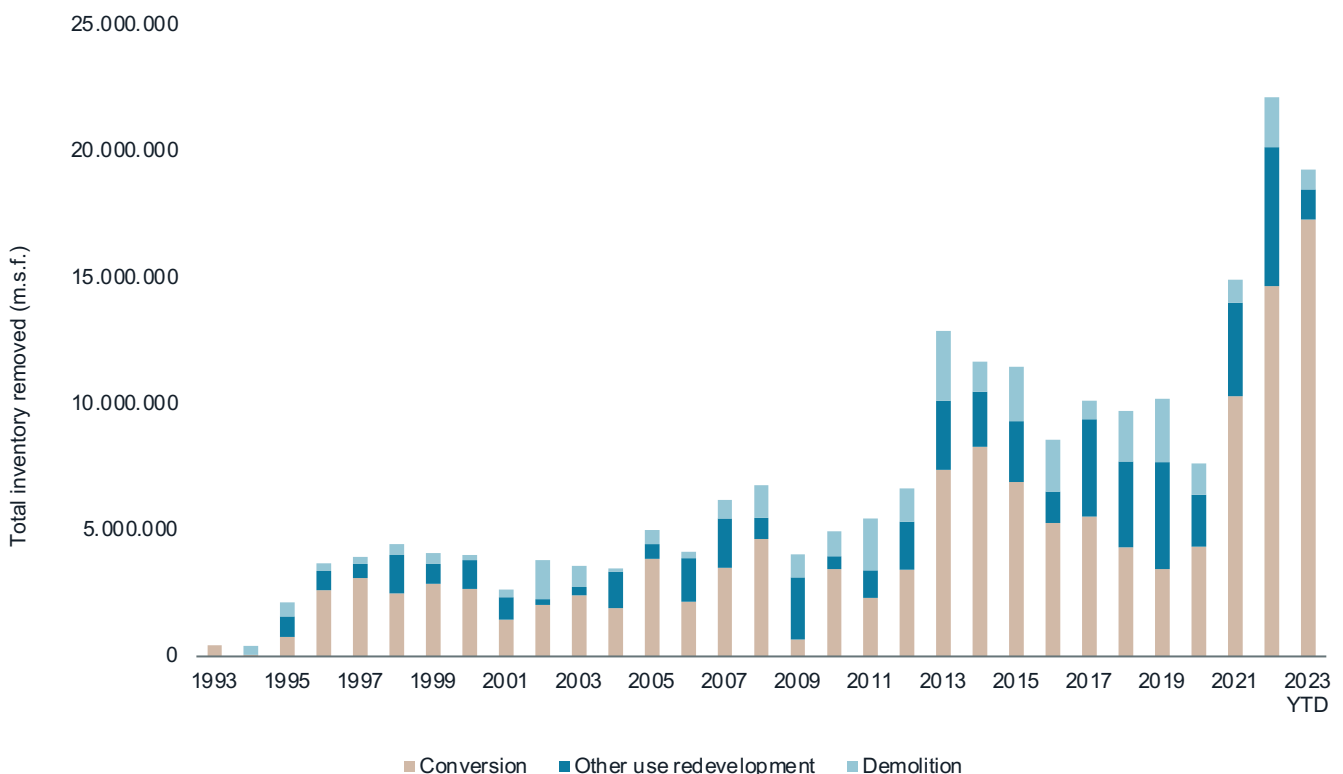
U.S. office groundbreaking volume



As groundbreakings decline, inventory removals have also been accelerating nationally amid a unified push for increased office-to-residential conversion activity in major cities. During the third quarter, Boston joined a number of other major office markets in creating a new incentive program to facilitate office-to-residential conversions, in their case offering developers up to a 75 percent discount on future tax assessments for buildings that convert commercial space into residential. Boston joins New York, Washington, DC, Chicago, Portland, Los Angeles and the Bay Area in creating new incentives to encourage office conversions since the pandemic, with many other municipalities in the process of creating new programs to facilitate similar projects. As a result, year-to-date conversions have already exceeded

full-year 2022 volume, and have set record levels for the third consecutive year, with 19.3 million s.f. of office inventory removed in 2023, with nearly 90 percent earmarked for conversion. Conversions remain a marginal impact to office fundamentals: economics still prevent many conversion projects from taking place in the absence of significant incentives, and converted product has usually had static vacancy for several quarters before a redevelopment proposal is created. However, the removal of transitional inventory will aid in stabilizing overall vacancy rates over the near term: inventory removals year-to-date have outpaced groundbreakings by 13.1 million s.f., suggesting that overall U.S. office inventory will likely see a period of marginal decline as deliveries slow in 2024 and 2025.

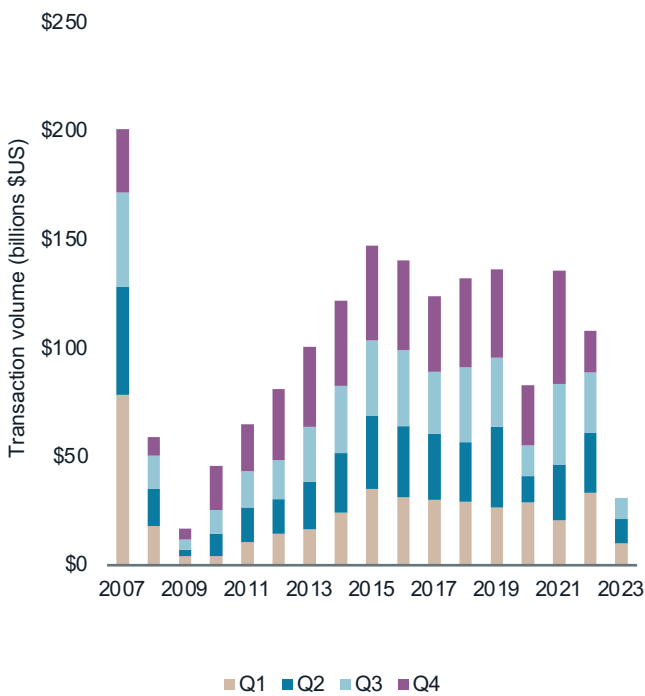
Office inventory removed



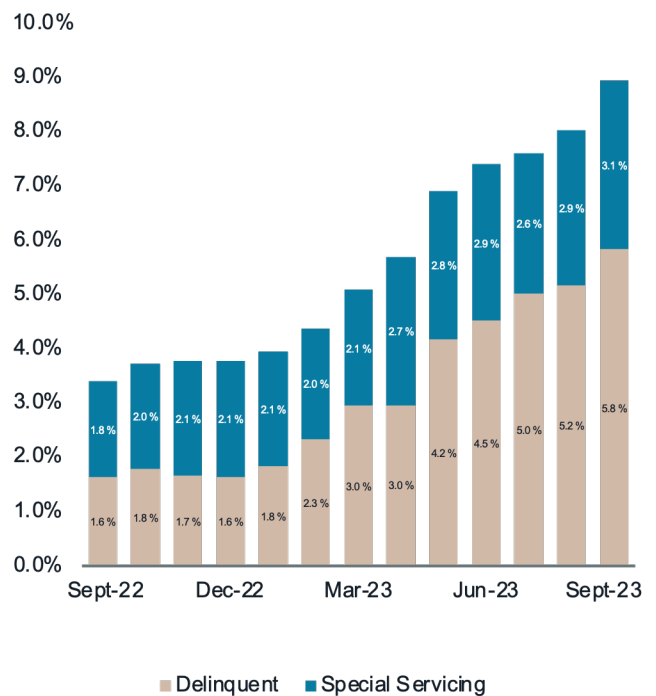
Capital markets activity continues to see a sluggish recovery as prolonged interest rate cut outlook has weighed on investment activity and pricing remains highly disrupted by increases to financing costs. While buy-side capital is forming and current price discounts are appealing to some buyers, large bid-ask spreads persist as sellers have generally been slow to capitulate on asset valuations. Investment volume over the first three quarters of 2023 has yet to exceed even first quarter volume from 2022, and collectively transactions are down 69 percent year-over-year. As of September, delinquency rates on office CMBS debt had grown 130 basis points quarter-over-quarter to 5.8 percent while 3.1

percent of debt was in special servicing. Meaningful improvement in capital markets conditions will likely depend on clear signals of rate cuts on the horizon, and Federal Reserve statements over the course of this year are delaying the outlook for those cuts investors now expect that interest rates will not begin to decline until early-to-mid 2024. Still, the sales environment is seeing some positive momentum as office REITs saw pricing improvement during the third quarter: after trading at a discount to net asset value of 45-50 percent for the majority of Q2, REIT prices improved and reflected a sub-35 percent discount to net asset value for the majority of Q3.

Office investment volume



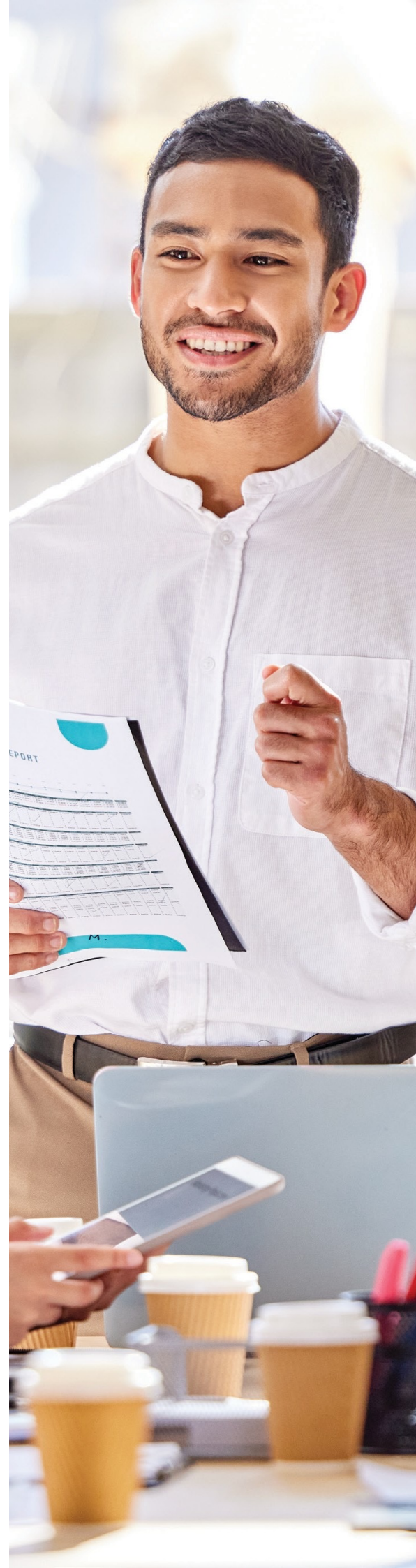
Delinquency and special servicing rates on office CMBS debt



Outlook

While fundamentals saw a slight pullback from strong Q2 figures in the third quarter, the U.S. office market continues to progress towards a cascading top-down recovery that will accelerate in the coming years. Office attendance continues to approach a new equilibrium, with the vast majority of major employers now adopting hybrid attendance policies that require at least three days of office attendance for employees. With the majority of previously office-based employees returning to offices with frequency, opportunities to downsize office portfolios will continue to wane, and some groups may see expansionary pressures as attendance normalizes with larger headcounts than 2019.

Growth in tenant requirements across the majority of markets points to an acceleration of leasing activity over the next two to three quarters, just as new supply begins to decline precipitously as a result of the lack of new construction over the past year. With high-end supply already peaking and declining in recent quarters, and overall office supply slated to be stable to negative over the next three years, space constraints, particularly in Class A and Trophy space, will intensify and drive rent growth at the top end of the market and occupancy gain in secondary tiers of quality as new supply fails to accommodate the more broad recovery in office demand.



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