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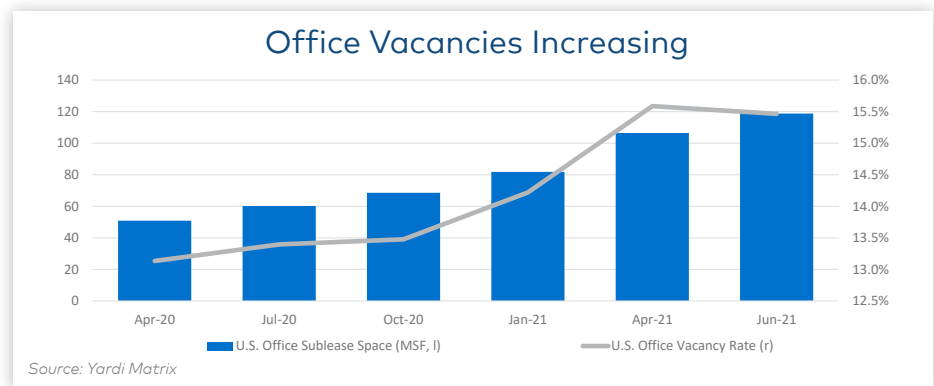
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Office Vacancies Climb. How High Will They Go?

Of all the commercial property types, none faces more uncertainty about post-COVID-19 prospects than the office market. The discovery that office workers could be productive working from home while many employees are happy to avoid commuting has companies rethinking their space needs.

As office buildings emptied in the wake of shelter-in-place policies that started in March 2020, office sublease space shot up and vacancy rates increased. The total U.S. vacancy rate hit 15.5% in May 2021, up 240 basis points from where it started the pandemic, according to Yardi Matrix's office database. The amount of space available for sublease during that time more than doubled to 118.8 million square feet, per Yardi.



At the same time demand is increasingly ambiguous, 161 million square feet of office space is under construction and slated to add 2.5% to total stock over the next couple of years. The large amount of new supply was planned when corporate space needs were anticipated to be more robust—now new deliveries look like a drag on the market. The combination of companies downsizing space needs and the increase in supply is almost certain to push vacancy rates even higher.

Just how high? To come up with an estimate, we analyzed space per foot by office workers, occupancy rates, and the potential drop in demand. If office usage drops by 10%—a not unreasonable estimate given employer surveys—and companies reduce space needs by a corresponding amount, vacancy rates could rise by 7 to 9 percentage points, according to our analysis. If that happens, vacancy rates could rise to 25-30% in many metros.

A decline in occupancy rates of that amount would be a huge drag on the office market, but it is by no means a sure thing. There remain many unknowns that will impact demand—including when workers can safely return; how many people will use offices and how often they need to be there; where offices should be located; how offices interact with lifestyle preferences such as commuting and walkability; and how to re-design space to attract and maintain talent while meeting functional needs.

Higher vacancy rates will limit rent growth and erode property values, especially on B- and C-quality properties, some of which may be converted to other uses. While details remain fuzzy, offices face many challenges in coming years that involve a re-thinking of the nature of work and how to design workspaces in the future.

Growth in Subleases and Vacancies

Pre-pandemic, the office market was in good shape. The 13.1% national vacancy rate was stable in recent years and the industry basked in the growth of downtown office buildings favored by fast-growing technology firms. Then COVID-19 forced companies to send workers home for an extended period. As of May 2021, about three-quarters of downtown office workers nationally remained remote, with the level closer to 85% in New York City and San Francisco, according to security firm Kastle Systems.

Surveys of employers find that most expect to increase flexible work arrangements in the future. For example, the Urban Land Institute and accounting firm EY found that 83% of employers expect remote time to increase. Half of the respondents said that 60% of employees will work remotely at least half the time going forward.

Although this transition will take years to fully take shape, there has been an immediate impact on demand for office space as companies have

Sublease Space by Metro

Market	Jun-21 Sublease SF	Change from Apr-20
National	118,778,051	67,929,098
Manhattan	12,568,361	5,232,932
Bay Area	9,376,247	4,482,551
Chicago	8,638,036	6,671,153
San Francisco	8,294,174	6,023,176
Houston	6,567,755	1,394,730
Seattle	5,901,323	4,303,898
Los Angeles	4,976,143	3,432,084
Dallas-Fort Worth	4,116,612	2,147,812
New Jersey	3,923,558	391,272
Boston	3,865,174	3,087,438
Atlanta	3,662,818	2,576,514
Denver	3,402,984	1,964,128
Austin	2,872,851	1,894,711
Washington, D.C.	2,632,218	1,516,892
Orange County	1,866,100	1,357,318
Phoenix	1,864,284	1,271,355
Bridgeport-New Haven	1,789,249	-79,635
Philadelphia	1,370,543	876,736
Minneapolis-St. Paul	1,244,558	1,015,502
Detroit	1,088,444	398,185
Raleigh-Durham	1,033,465	863,065
San Diego	941,512	514,476
Baltimore	918,467	532,049
Cleveland-Akron	694,968	429,629
Pittsburgh	551,164	273,354

Source: Yardi Matrix

downsized and/or put space up for sublease. At the end of the first quarter in 2020, 50.8 million square feet of sublease space was available, and the number rose over the next four quarters, gaining momentum through the first quarter of 2021.

The net amount of sublease space available in the U.S. grew by 9.4 million square feet in 2Q20, 8.4 million square feet in 3Q20, 13.2 million square feet in 4Q20, and 24.7 million square feet in 1Q21. Some of the markets with the most growth included San Francisco, up to 8.3 million square feet in May 2021 from 2.3 million square feet in April 2020; San Jose

Vacancy Rate by Metro

Market	Apr-20 Vacancy	Jun-21 Vacancy	Change
National	13.1%	15.5%	2.3%
San Francisco	6.8%	13.9%	7.1%
Austin	7.7%	17.2%	9.5%
Manhattan	7.8%	10.8%	2.9%
Seattle	8.7%	15.0%	6.3%
Boston	9.6%	11.9%	2.2%
Raleigh–Durham	10.8%	12.7%	1.9%
Los Angeles	11.0%	12.9%	1.9%
Minneapolis	11.1%	15.9%	4.8%
Orange County	11.1%	12.7%	1.6%
San Diego	11.3%	13.2%	1.9%
Denver	11.9%	16.7%	4.8%
Philadelphia	12.6%	13.4%	0.8%
Baltimore	12.7%	13.3%	0.7%
San Jose	14.1%	17.6%	3.4%
Chicago	14.4%	16.5%	2.2%
Washington, D.C.	14.5%	16.4%	2.0%
Pittsburgh	14.6%	15.6%	1.0%
Atlanta	15.8%	19.7%	3.9%
Cleveland	17.2%	17.4%	0.2%
Phoenix	17.4%	17.1%	-0.3%
Detroit	17.6%	17.5%	-0.1%
Dallas	17.9%	17.8%	0.0%
New Haven	20.8%	18.8%	-2.0%
New Jersey	21.3%	18.9%	-2.4%
Houston	22.3%	22.7%	0.5%

Source: Yardi Matrix

(9.4 million square feet in May 2021 from 4.9 million square feet in April 2020); Chicago (8.6 million square feet in May 2021 from 2.0 million square feet in April 2020) and Manhattan (12.6 million square feet in May 2021 from 7.3 million square feet in April 2020).

Among the large blocks of space put up for sublease, J.P. Morgan listed 700,000 square feet in lower Manhattan in early 2021; Yelp is trying to sublease more than 500,000 square feet combined in several markets, including New York City, San Francisco and Chicago; PricewaterhouseCoopers is reportedly consolidating space in New York

City and was fielding offers for sublease at its 800,000-square-foot office at 300 Madison Ave.

The amount of sublease space available in the U.S. slowed in April and May 2021, rising only by 12.3 million square feet. There are reports of space being taken off the market, which is abnormal and reflects the unusual amount of uncertainty that corporations have as they plan space needs for the future.

It's too soon to say whether the recent slowdown in the growth of subleasing is a temporary blip. Decisions on space needs will play out over a period of years, as existing leases expire. During that time, companies will get a better handle on flexible working arrangements and how being apart impacts productivity, the ability to onboard new workers, and corporate culture.

Falling Occupancies

Uncertain demand and new supply have depressed occupancy rates. Nationally, the vacancy rate increased 2.4 percentage points between April 2020 and May 2021. Although gateway metros were among the hardest hit, the pain was spread around the country.

The most-impacted metro was Austin, where the total vacancy rate rose 950 basis points to 17.2%. One of the country's fastest-growing markets, Austin has a booming technology sector and lost relatively few jobs during the pandemic, but a heavy dose of deliveries has outstripped demand. Austin has added nearly 8 million square feet of space in recent years and has 7.4 million square feet under construction, which will add another 10% to total stock. Tech giants including Google and Indeed have pre-leased large blocks of space.

Other metros with large increases include San Francisco, up 710 basis points to 13.9%; Seattle, up 630 basis points to 15.0%; Denver, up 480 basis points to 16.7%; and Minneapolis, up 480

basis points to 15.9%. Seattle is another rapidly growing metro that boasts major technology firm headquarters, but some kinds of technology work—such as programming—are the kinds of tasks that can be done remotely.

A small number of metros have seen vacancy rates fall during the pandemic. Phoenix (-30 basis points to 17.4%) has maintained strong demand while having a limited supply pipeline. Bridgeport, Conn. (-200 basis points to 18.8%) and New Jersey (-240 basis points to 18.9%), suburbs of New York City, have seen some tenants move from New York and have had some obsolete stock renovated into other asset types.

Return to Work

Office market fundamentals in coming years will depend on the collective decisions of thousands of employers about remote work and corporate culture. Many (if not most) employers will offer more flexibility to employees going forward, and the proportion of office workers that will go to offices every day will shrink. How much will that reduce demand for office space?

To get a rough sense of how vacancy rates of office buildings could be affected, we performed a sensitivity analysis in 20 large metros. First, we used data from the Bureau of Labor Statistics to determine the number of office-using employees by metro. We divided that number by the amount of total office square feet per metro to derive the amount of occupied square feet per metro.

Next, we multiplied the number of office-using employees by the percentage of workers returning to the office to calculate how much space would be occupied under various return-to-work scenarios. Third, we divided the amount of total square feet by the amount of occupied square feet under two scenarios (one if 90% of office workers return to the office and the other

if 75% return) to get a modified occupancy rate under those scenarios.

Under the 90% scenario, vacancy rates of the metros we studied increase by 7.8 percentage points (Houston) to 9.3 percentage points (San Francisco). Vacancy rates would be highest in Houston (30.0%), Dallas (26.1%) and Phoenix (26.1%), while San Francisco (16.1%), New York City (17.6%) and Seattle (17.8%) would have the lowest vacancy rates. (The scenarios created do not change metros' relative position—in other words, under the sensitivity analysis, metros with the highest current vacancy rates continue to have the highest.)

The 75% return-to-work scenario—which we view as less likely, although the chances are greater than zero—would have a catastrophic impact on the office market. Vacancy rates would increase between 19.4 percentage points (Houston) and 23.3 percentage points (San Francisco). Vacancy rates would be at least 30% in every major metro, led by Houston (41.7%), Dallas (38.4%) and Phoenix (38.0%). The vacancy rate in four metros that entered the pandemic at levels below 10%—San Francisco, New York, Seattle and Boston—would range between 30.1% (San Francisco) and 32.2% (Boston).

The analysis does not account for some factors that will impact the future vacancy rate. On the negative side, we didn't account for future delivery of new space, which would (all else being equal) increase the vacancy rate. More than 160 million square feet of space is currently under construction in the U.S., concentrated in the largest and fastest-growing office markets, which will add 2.5% to total stock.

On the positive side, the analysis leaves out the impact of growth in office employment, which would reduce vacancies. The U.S. economy is expected to add more than 10 million jobs over the next two years. While many of those are

Post-COVID-19 Vacancy Rate Analysis by Metro

Market	Vacancy - March 2020	Total SF - March 2020	Office-Using Employees - March 2020	Vacancy - 90% Return	Vacancy - 75% Return
Houston	22.3%	256,112,734	715,350	30.0%	41.7%
Dallas	17.9%	306,041,118	864,250	26.1%	38.4%
Phoenix	17.4%	139,702,473	618,300	25.6%	38.0%
Atlanta	15.8%	206,798,506	840,550	24.2%	36.9%
Washington DC	14.5%	398,954,484	1,036,967	23.0%	35.8%
Indianapolis	14.5%	59,548,928	275,720	23.0%	35.8%
Chicago	14.4%	325,119,355	1,228,420	22.9%	35.8%
Philadelphia	12.6%	198,178,787	778,420	21.4%	34.5%
Portland	12.4%	69,514,473	291,560	21.2%	34.3%
Orlando	12.4%	62,371,282	388,260	21.1%	34.3%
Miami	12.1%	66,733,640	285,440	20.9%	34.0%
Denver	11.9%	172,808,096	541,580	20.7%	33.9%
Salt Lake City	11.4%	70,773,303	271,660	20.3%	33.6%
San Diego	11.3%	101,517,003	359,800	20.2%	33.5%
Tampa	11.1%	75,070,185	450,440	20.0%	33.4%
Minneapolis	11.1%	149,114,103	542,080	20.0%	33.3%
Los Angeles	11.0%	301,172,910	1,086,980	19.9%	33.2%
Charlotte	10.0%	74,479,133	348,590	19.0%	32.5%
Boston	9.6%	256,135,266	812,470	18.7%	32.2%
Seattle	8.7%	158,747,176	493,480	17.8%	31.5%
New York	8.4%	524,793,906	2,081,160	17.6%	31.3%
San Francisco	6.8%	169,903,557	554,510	16.1%	30.1%

Source: Yardi Matrix

service industry jobs related to resumed travel and entertainment, office employment will grow as well.

Another caveat is that the exercise assumes companies will maintain a similar amount of space per worker, which is no sure thing. One of the most debated aspects of the new paradigm is how lifestyle considerations will force office owners to rethink layout and amenities. For example, workers may demand less density for health considerations. And if workers go to the office less frequently, then more collaborative space is likely needed to make efficient use of the time they are together. The myriad redesigns, and even downsizing, are likely to require costly capital expenditures.

Many Challenges Ahead

Yardi's sensitivity analysis isn't a forecast but a simple exercise to demonstrate the potential severity of the reduction in office occupier demand and how companies' work-from-home and office layout strategies can impact the market. Office leases typically encompass seven to 10 years, which limits the ability of companies to react quickly but also means that decisions about space will be spread out. Workers are just beginning to return to the office, and until there is more certainty regarding vaccines and COVID-19 transmission, office attendance will be optional at many companies. Then they will begin the process of studying what types of arrangements and workplace amenities work best for their situation.

The implications will reverberate through the market. Demand and occupancy rates will impact rent growth. It's hard to see robust rent growth if vacancy rates and new construction increase substantially, and some submarkets might even see rents decline. Of course, if rents are cheaper, companies may be inclined to be more generous with space estimates.

There are other issues. Office buildings in many metros are dealing with capital expenditures to reduce greenhouse gas emissions, so the whammy on income and expenses could reduce profits and

erode property values. A wildcard factor is the economy—growth forecasts for the next few years are positive, but a downturn or bout of inflation could impact decisions.

Scenarios are easy to imagine, but the central point remains that change is coming in trends related to office work, commuting, and the future of cities, with a very real potential for adverse impacts on demand. The industry must meet the challenge and manage the changes to survive and thrive.

—Paul Fiorilla, Director of Research

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