

SPECIAL REPORT

The U.S. office market in a "post-COVID" world: shifting challenges offer rewards and pitfalls

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EXECUTIVE SUMMARY

- The office sector has been significantly dislocated by the collapse in demand resulting from COVID-19. impacted and are struggling with
- with a greater exposure to DIGITALdriven industries have seen more resilient demand. We anticipate these smaller markets with their deepening structural depth in tenants will lead the office sector.
- Non-traditional office sectors such as lab space and medical offices, which have benefited from structural shifts, have emerged as a fast-growing opportunity set. We expect these niche office sub-sectors to make significant advances.
- in the private market have not seen material deterioration. After a very volatile period, public market marks appear to have settled suggesting investors may have found a bottom.
- From a cyclical point of view, we are cautious on gateway markets where tenant requirements and use of space continue to evolve. We prefer smaller markets that benefit from a flexible tenant base and are less reliant on mass transit. Structurally, we prefer an overweight to markets with clear "DIGITAL" drivers regardless of size.
- 66 Commuting to office (for) work is obsolete. ??

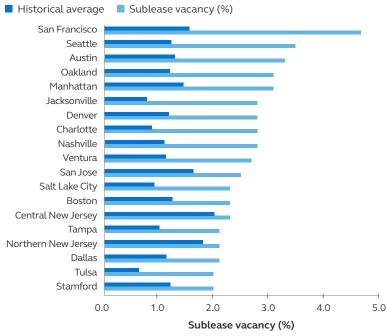
Peter Drucker WSJ, 1989

In this special report we examine the return to a new "normal" for the office property type and what it will mean for investors going forward. We examine the current state of cyclical demand as well as the potential structural outlook. We conclude that the office sector faces unique challenges during the coming decade and that investors need to remain nimble tactically to find value. Over the longer run, offices will remain an important part of business culture and the economy, as well as investor portfolios, but identifying key structural drivers along with the potential changes in tenant use will be critical in implementing a successful investment strategy.

Gateway markets have borne the brunt of the pandemic

Office fundamentals remain in a state of correction particularly in gateway markets, although there are signs of nascent improvement as both leasing and deal activity have picked up in recent months. Still, these markets remain weak and landlords are dealing with vacancy rates that are now well above the equilibrium levels required for meaningful rental growth. The pandemic has been particularly severe on larger coastal gateway markets, such as San Francisco, Manhattan, and Seattle as their density and reliance on public transportation has made it more difficult to facilitate a return for office workers. Evidence of this is seen in elevated sublease vacancy rates which have risen above the prior highs experienced following the 2001 tech crash (Exhibit 1). Most notably, larger global gateway cities and regions have generally experienced more active sublease markets, while smaller and secondary metros that tend to be lower density have held up better since the pandemic began.

EXHIBIT 1: Gateway subleases have soared in the pandemic Markets with highest sublease vacancy rates, Q2 2021



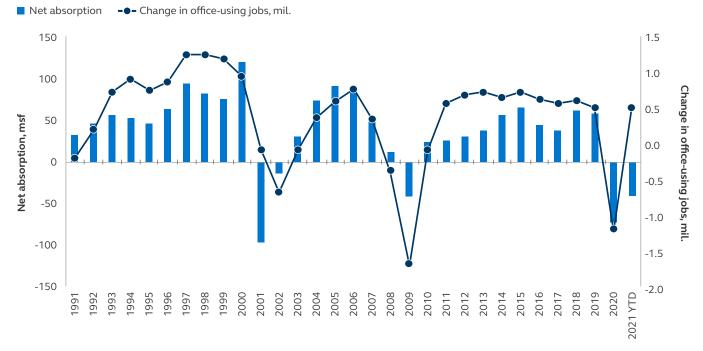
Source: CBRE EA, Principal Real Estate Investors, Q2 2021.

Net absorption has declined by 120 msf since the start of the pandemic, the largest since the Global Financial Crisis (GFC) and 2001 technology bubble wreck. In a sign that gateway markets have disproportionately suffered, net absorption for the seven largest markets declined by approximately 60 msf over the same period. Conversely, smaller markets, particularly those benefiting from DIGITAL drivers¹, saw net absorption decline by 12 msf indicating a more resilient tenant base. The good news, however, is that the job market is now recovering and office payrolls, which had declined by three million peak-to-trough, are now just 0.8 million, or 2.3%, below their pre-crisis peak. The recovery will help occupiers backfill space more quickly once workers are cleared to return to the office en masse (Exhibit 2).

Non-traditional office sectors shine

At the same time, life-sciences and medical office assets have outperformed traditional office as demand for space has remained consistently strong, as both subsectors reflect key secular demographic trends within the U.S. Life sciences experienced new demand of roughly 12 msf in 2021 year-to-date and has grown 37% on a year-over-year basis, according to the CBRE Research.² The outlook for these sectors is underpinned by an aging population, strong growth in both venture capital funding, and employment in health care and biotech employment over the past decade. For example, since 2014 Biotech and R&D employment has increased by 80%.

EXHIBIT 2: Silver lining for the office market provided by the labor market Office employment and net absorption



Source: CBRE EA; Moody's Analytics; Bureau of Labor Statistics; Principal Real Estate Investors, Q2 2021.

¹ DIGITAL refers to key long-term growth drivers centered around demographics, innovation, globalization, infrastructure, and technology that Principal has identified as metrics of long-term market outperformance.

² CBRE Research, "United States Life Sciences: Biotech Revolution Accelerates Demand for Lab Space", Q2 2021.

Are we working from home forever?

The COVID-19 pandemic rekindled the debate surrounding the long-term future of offices in an increasing technologically advanced world where workers could do their jobs virtually anywhere. Headlines suggesting the end of office have abounded as a vast majority of businesses went remote. The big question is whether office use as we knew it before the pandemic will resume. There are two ways to think about that: (a) productivity and (b) employee morale and retention.

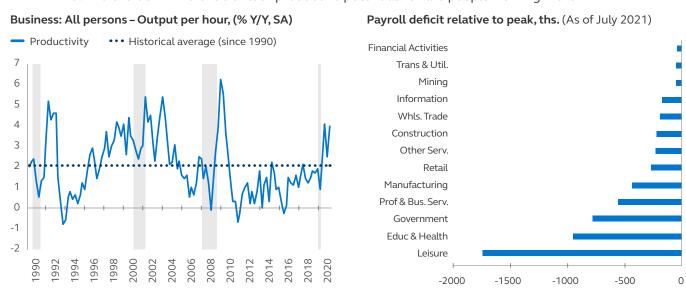
If indeed some productivity enhancements did occur because of a shift away from the office, increased worker flexibility could offer some potential gains for businesses (Exhibit 3). Yet, some of the productivity gains during the pandemic are likely overstated. First, productivity increases could be a function of more severe layoffs in less productive industries such as leisure, education, health, and government. At the same time office-using occupations saw far fewer losses on a relative basis due to their ability to work remotely. Hotel and retail store workers on the other hand do not have that option and as a result they were laidoff in greater proportions. Second, and perhaps just as important, office workers may have been more productive working remotely because they worked longer hours rather than being more efficient. A study from Harvard Business School in late 2020, showed that the average workday during the pandemic increased by 8.2%, or 48.5 minutes on average.4

66 Over the long run, productivity could actually slow if we continued to work fully remote forever. In contrast, I see hybrid work ... as a big driver of productivity, because it combines the best of both models. Workers spend part of the week at home being more productive at individual tasks, and part of it in the office, collaborating and innovating. ??

Nicholas Bloom

Professor of Economics, Stanford University³

EXHIBIT 3: Did the COVID-19 crisis unlock productive potential? Or are people working more?



Source: Bureau of Labor Statistics, Principal Real Estate Investors, July 2021.

³ "The Post-Pandemic Future of Work", Goldman Sachs, Global Macro Research, July 2021.

⁴ Defilipps, Evan, Impink, Stephan, Singell, Madison, Polzer, Jeffrey, Sadun, Raffaella, "Collaborating During Coronavirus: The Impact of COVID-19 on the Nature of Work", Harvard Business School Organizational Behavior Unit Working Paper No. 21-006, Harvard Business School Strategy Unit Working Paper No. 21-006.

Organizations find that office culture matters. Offsetting the potential gain in productivity has been a challenge to both organizations and workers during the pandemic while working remotely. While some productivity increases have been observed, workers can also miss benefits of being on-site like creativity and innovative thinking that tend to be enhanced in the office setting. Workers have also reported feeling more isolated and are less likely to participate as often in online meetings, which has reduced communication and a sense of community.

Moreover, the benefits of working from home, such as not commuting and more flexibility, have been asymmetric: while older and more well-established employees enjoyed working from their home offices, younger workers began to feel the impact of living and working in smaller confines and missed out on camaraderie, networking and regular in-person meetings with leadership. Many younger workers—particularly those living in densely populated and expensive urban locations sought housing outside of cities and even relocated to new, less expensive regions while offices were closed. Some of these relocations were permanent, but most were likely temporary and, as restrictions are lifted, they are once again returning to cities.

In fact, office demand has been steadily declining

While there is little doubt that for many companies the five-day in the office work week is a thing of the past, for most who worked in professional occupations it was never a reality prior to the pandemic. Office professionals have increasingly worked from home or remotely as they have traveled, so office occupancy even in the tightest of markets was never close to 100 percent. The new model will continue to shift toward a more hybrid flexible one with core working hours and days for collaboration combined with work from home for more focused tasks.

In fact, investors need to understand that COVID-19 is another catalyst towards a more consolidated office market. Recessions and commercial real estate cycles have historically not been kind to office owners. Since the 1980s, office demand has been in a period of secular decline as each subsequent cycle and recovery has been followed by less space take up than the last. Exhibit 4 shows demand as measured by net absorption, by decade, starting with the 1980s. What it highlights is that since the 1980's aggregate demand for space has declined by 47% when compared with the expansion that started just following the GFC. Over the expansion that occurred between 2011 and 2019 annual office demand averaged just 44 msf per year—the slowest pace of take up on record. What we can clearly discern is that a hybrid work model has been steadily gaining acceptance in the U.S. and that in fact many markets were already familiar with an evolving pattern of office usage.

Demand for office space by cycle, net absorption, msf 140 1992-2000 1980s 71.0 msf 120 82.5 msf 100 2003-2008 2010-2019 57.4 msf 44.1 msf 80 60 40 20 2005 2012 2013 2014 2015 2016 2017 2018 2019 1989 0661 991

EXHIBIT 4: Secular decline of office demand

Source: CBRE Econometric Advisors, Principal Real Estate Investors, Q2 2021.

So how much office demand will we see once workers return to the office?

In the near-term we may see a sizable bounce back in office demand over the next 12 to 18 months. One reason for this is that occupiers have already allowed a sizable share of occupied stock to roll off and become vacant, and office-using payrolls, as we discussed earlier, are rebounding sharply. Leasing activity has begun to pick up from its trough in 2020 and declines in demand are already starting to lessen. We also anticipate that by the end of 2022, payrolls will recover to their pre-recession peak and begin to expand with many of those workers requiring office space.

It's still difficult to say with certainty how much office space will be needed heading forward, but many re-entry plans have workers in the office at least three days a week for collaboration and perhaps more as needed. Moreover, some occupations are better suited for the office with tasks that may be more difficult to accomplish remotely. Ironically, some of these are located within the technology industry, which itself has facilitated the remote working phenomenon, yet as history tells us, many of these companies (e.g., Yahoo in 2013 and IBM in 2017) have had to call workers back to the office in the past to promote culture, efficiency and accountability. There is little doubt that more will need to do the same in a post-COVID world.

We expect an ongoing consolidation in long-term office demand:

We believe that the office sector may witness a loss of demand for space of between 10% to 20% over the course of the next decade. Assuming that office space demand was already poised to decline another 10% based on secular trends the range of estimates for net absorption during the next cycle would average between 30 msf to 35 msf—compared with the 44 msf experienced post-GFC. Though this represents a significant reduction in space and could prove meaningful for income growth and investment returns in the immediate future, fewer office buildings would need to be developed and those that were could help offset the shortage of modern office space caused by older and functionally obsolete buildings in more mature markets. Most importantly for investors, we believe this loss of demand will not be felt across all markets but will be most profound in cities that will remain challenged from a high cost of living, coupled with highly educated but mobile workforces.

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So where should investors focus their office investment efforts?

This is obviously the most significant question office investors are grappling with and unfortunately, there are no silver bullets. However, there are some key observations we can utilize in generating conviction around where we believe the best risk-adjusted office strategy may lie.

Capital markets remain quite favorable:

Despite weak fundamentals for office properties, capital markets point to more favorable conditions. U.S. office sales volume through the end of Q2 2021 increased 92% compared with a year ago—though the increase is partially a result of a very weak 2020 reading. Capital values for private office assets, as measured by the NPI appreciation index, are down just 2.7% from their pre-crisis level as discount rates remain at historical lows, allowing cap rates to remain remarkably stable. However, evidence of lower marks in some gateway markets are emerging.

Long-lease assets continue to perform:

High-quality assets in core and gateway cities with little to no vacancy with long-term leases are strongly sought after. In some cases, higher quality assets are setting pricing records as investors continue to focus on quality and stability—something that has continued to force cap rates down in many markets. Non-core assets with higher vacancy and lease rollover remain challenged but have been aided by better availability of capital and debt pricing more recently. Moreover, record low pricing for preferred property types, such as industrial and apartment, have helped office yields remain attractive on a relative basis.

REIT market data is reasonably constructive:

Although REITs experienced a sell-off of 38% based on the NAREIT office price index, they have since rebounded strongly. Important to note are regional divergences which suggest that gateway markets remain under pressure. Office REITs with a heavy exposure to San Francisco and New York continue to remain at significant discount to underlying net asset values reflecting the uncertainty on leasing demand.

DIGITAL markets and drivers are outperforming:

Smaller-to mid-size markets with strong ties to technology and life sciences have outperformed larger gateway metros bearing the brunt of the correction. Two examples—both with strong life sciences and lab office subsectors—are San Diego and Cambridge.

Conclusion: Tactical awareness will drive office outperformance

Though challenges have intensified for the office market as it confronts a new decade, we believe it will remain a viable and important part of institutional portfolios. Recognizing the many challenges and opportunities the sector offers, we strongly believe that investors need to remain tactically agile and focus on markets with flexible tenant bases and less reliance on mass transit. We believe that dense transit-oriented markets like Manhattan, Chicago, Washington DC., and San Francisco will remain vulnerable to leasing risk over the next 12 to 18 months. Lower quality assets with weaker leasing and potentially less stable income streams are particularly vulnerable to negative repricing. We also favor newer office assets that can accommodate the fast growing and evolving ESG requirements of many tenants.

Conversely, we remain confident on the outlook for smaller office markets with exposure to some of our DIGITAL drivers. Thus far they have outperformed significantly, and we expect them to provide short-term leadership before gateway markets start to recover leasing demand and would offer them as potential portfolio additions for investors interested in adding to or rebalancing their office exposure (Exhibit 5). We are also very positive on non-traditional office sectors and would recommend investors look closely at lab spaces and medical office buildings as a way to play some of the structural DIGITAL themes unfolding in the U.S.

14 12 Cambridge 10 1-yr. appreciation return (%) Boston 8 Salt Lake Raleigh San Diego 6 Los Angeles Metro Seattle 4 Oakland Atlanta 2 Charlotte Chicago DC Dallas 0 Nashville -2 Minneapolis Austin -4 San Jose Denver Phoenix Portland San Francisco -6 **New York** Houston -8 0 2 4 6 8 10 12 -8 -6 -4 -2

2-yr. appreciation return (%)

EXHIBIT 5: Secondary and biotech markets are leading the capital value recovery Office appreciation returns, annualized % change

Source: NCREIF NPI; Principal Real Estate Investors, Q2 2021.

Over the longer-term, investors will need to be very disciplined when approaching office acquisitions, recognizing the high beta nature of the office property type and increasing capital expense they may incur when adding it to their portfolios. Investors need to broaden their horizons beyond the traditional gateway markets and increasingly into DIGITAL markets. Moreover, we believe that investments in alternative property types will drive investment returns over the next several decades—for office this means refocusing and/or adding to include life-sciences and lab/flex offices, as well as medical offices, to take advantage of structural economic and demographic shifts and enhance portfolio returns. We strongly believe that offices will remain a component of real estate portfolios but alpha generation will lie in successful market selection that looks beyond traditional supply and demand metrics and taps into our high conviction DIGITAL growth drivers.

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MM12402 | 09/2021 | 1828376-102022