



## REAL ESTATE

# Back to Work: Office Demand in a Post-Pandemic World

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### Summary

- COVID-19 shelter-in-place orders have called into question the need for office space.
- While we believe there may be a permanent shift to remote working arrangements, determining the impacts to office demand requires a more nuanced approach.
- Companies have already begun revamping office layouts to increase distance between employees, and we believe this could become an additional ESG consideration.

In the 1970's, futurists believed that the newly born internet could be a solution to the daily commute, and a potential nail in the coffin for the use of commercial office space. "Teleworking", as it came to be known in its earliest form, was adopted by household names like IBM and Xerox, but performance results on cost savings and productivity were mixed. As a result, a trend that promised to end gridlock and improve work-life balance for many Americans failed to materialize. Even with the aid of home internet in the 1990s and streaming video in the 2000s, working from home translated into a de minimis impact on office demand.<sup>1</sup>

Then came COVID-19, impacting every facet of society, including the modern workplace.

Nearly overnight, around half of the total U.S. workforce began working from home.<sup>2</sup> For comparison, between 2005 and 2015 the fraction of workers who regularly worked from home was virtually unchanged at roughly 5%.<sup>3</sup> As a result, employers have been forced to invest in remote working capabilities and quickly attempt to adapt company culture accordingly. But what effect will this have on office demand, and investments in office properties?

On the surface, it is easy to have a negative outlook. Several executives of some of the largest multinational firms have announced in recent weeks that the current work from home experiment has been a success.<sup>4</sup> Over the next 18 months, we expect a continuous stream of companies announcing plans to downsize their real estate space through work from home policies. We believe that history suggests, however, that many of these companies may reverse those decisions over the longer-term.

To understand where work from home policies and future office demand is headed, a more nuanced view may be appropriate.

## The Future of Office Employment

We believe that forecasting the effects of COVID-19 on office demand requires the consideration of four factors. These include [1] the number of workers who will permanently begin working from home full time, [2] the number of workers who will adopt flexible schedules such as working from home one or two days per week, [3] how firms will change space needs as a result of flex working, and [4] how firms will change layouts to be better prepared for future pandemics.

To help forecast the first two factors, we reviewed a number of studies and surveys on historical remote working trends. Examples include a 2007 meta-analysis of peer reviewed studies that concluded telecommuters' relationships with colleagues generally remain equally strong if they work from home one or two days per week, but diminishes with more than two days per week;<sup>5</sup> a 2015 meta-analysis that found partial working from home increased job satisfaction and job performance;<sup>6</sup> and a 2017 Gallup poll that found full time (5 day per week) working from home reduced productivity, but partial (1 or 2 days per week) working from home increased productivity.<sup>7</sup>



Full time working from home reduced productivity, but partial working from home increased productivity.

We were somewhat surprised to find that, from a wide array of studies, surveys, and anecdotes, there were almost no significant downsides for companies offering partial (1 or 2 day per week) work from home arrangements. Conversely, our examination also found almost no significant upsides to companies that switched the workforce to full time work from home. We therefore believe the COVID-19 environment may accelerate what companies probably should have done already; namely, adopting a flexible work from home policy, but not a full-time work from home policy.

With an understanding of potential future office employment trends, we now turn our attention to what that means for office investors.

## Analyzing Office Space Use

Overall, we believe the trend towards part time flexible working arrangements could present a headwind to space demand, but not as much as one might initially think. In many and perhaps most cases, an employee with a flexible working schedule retains an assigned desk, requiring the exact same amount of leased space as would have been required without work from home arrangements.

In some cases, however, office users seeking to cut costs may adopt a “hoteling” approach, in which a limited number of desks are made available on a first come, first served basis. This contributes to a net decrease in office demand if firms are willing to downsize their leased space to a point where they are physically unable to have everyone in the office at the same time. Technology companies were some of the first to implement flexible working arrangements. However, most have not adopted this type of cost reduction plan due to employee preferences.<sup>8</sup> We believe this may serve as a leading indicator of what’s to come as other tenants also adopt flexible work arrangements.

While we don’t think “hoteling” will become widespread, we believe companies who decide to experiment with it over the next 18 months could cause office demand to get worse before it gets better. Insofar as some firms stick with “hoteling” long term, we would expect a decline in net office demand. There is one new factor that we believe could help to offset this demand headwind: new floor plans that are sustainable during both this pandemic, and potential future pandemics.

Traumatic events typically make good catalysts for change, and the severity of today’s crisis may be no different. Following the prior downturn in 2008, for instance, many regulations were enacted to prevent the kinds of financial fallout that occurred during the Global Financial Crisis.

In a recent report providing guidance on how property managers can prepare for the return to the office after the abatement of COVID-19, Cushman & Wakefield introduced a number of recommendations, including increased space between employee desks, single direction walk paths, and advanced air filtration, among other factors.<sup>9</sup> While this guidance will no doubt be valuable in the short term, we believe it also has longer term implications for a grim, but very real, reason. Pandemics are becoming more common,<sup>10</sup> and we believe sustainable offices could become an increasingly important adaptation not just in 2020, but also in coming years and decades.

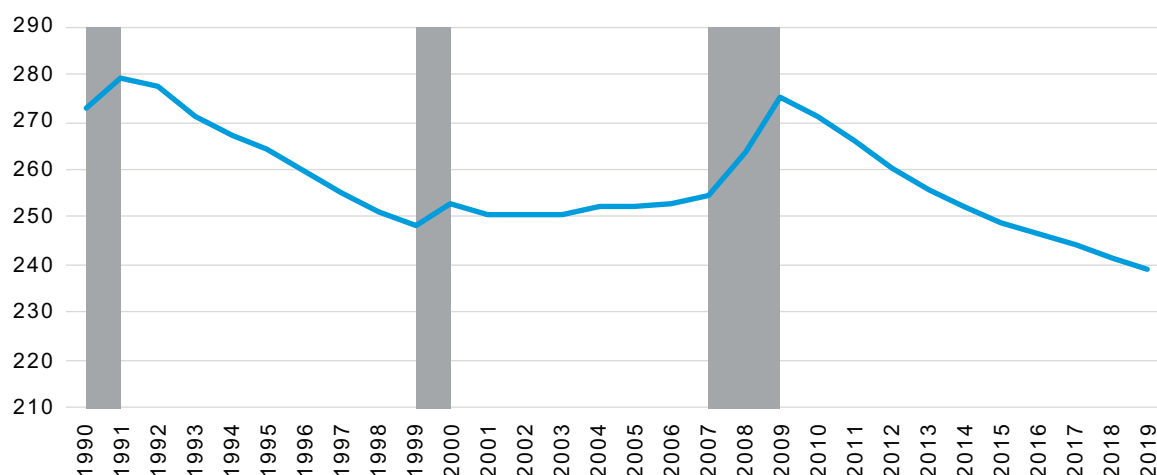


We believe that “pandemic compliant” offices could become another ESG factor for both U.S. businesses and landlords. If true, this could slow or reverse the densification trends that have been a headwind to office demand since the early 1990s. But how many companies may actually implement social distancing in the workplace?

In a 2020 sustainable investing report, KPMG estimates that 15% of U.S. organizations have a “mature and fully implemented” ESG policy, and an additional 44% are in the process of implementing a policy.<sup>11</sup> Based on these numbers and conversations within the industry in recent weeks, we believe it could be reasonable to expect 25% of office tenants to adopt pandemic compliance (with at least six feet distances between desks) as a result of this crisis. Although we do not expect the other 75% of tenants to adopt these standards, they may at least stop increasing density beyond current levels.

Using these assumptions, we estimate that in coming decades office densification could reverse from today’s 239 SF per employee<sup>12</sup> to around 245 SF per employee, or to around year 1998 levels (see Exhibit 1). It is also worth noting that pandemic compliance could possibly preclude adoption of hoteling/desk sharing arrangements, which could be seen as vectors for spreading viruses and bacteria.

### Exhibit 1 | Office Square Footage per Employee



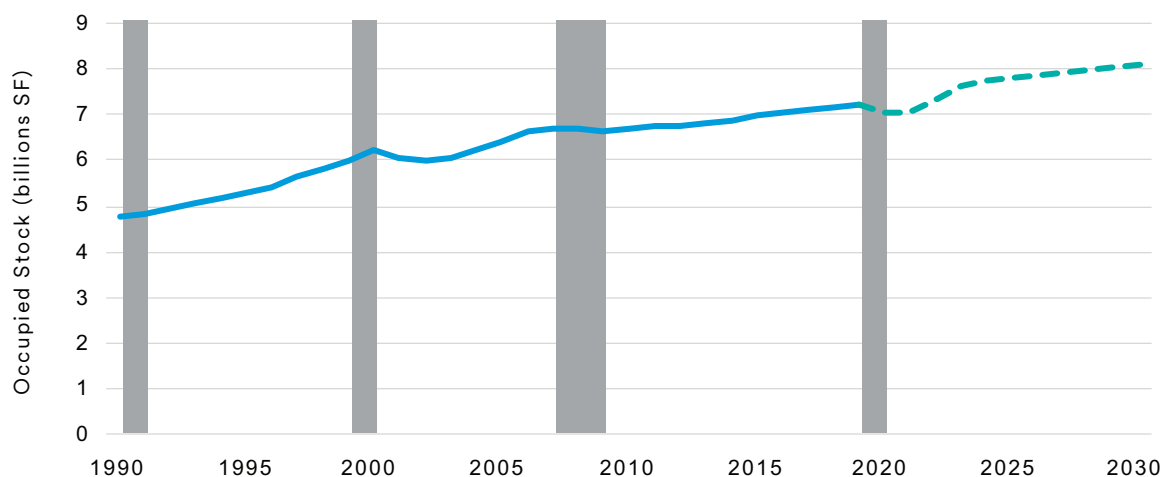
Moody's Analytics, CoStar, CBRE Econometric Advisors, National Bureau of Economic Research.  
Shaded areas represent recessions.

As mentioned, we believe flexible remote working arrangements could modestly accelerate companies' adoption of “hoteling”, likely serving as a headwind for office demand. But at the same time, companies shifting to sustainable office layouts could increase the required space between each employee. So what is the overall impact on future demand for office space?

### Opposing Forces Offset Impacts

By applying our density and hoteling forecasts to our office demand model, we believe the shift towards sustainable office layouts could fully mitigate long term headwinds caused by the acceleration in remote working. By 2030, we expect U.S. occupied office stock to reach 8.1 billion SF, which represents average annual growth of 1.4% from today's approximate 7.1 billion SF and in line with the long-term historical average growth rate of 1.5%.<sup>13</sup>

## Exhibit 2 | U.S. Office Occupied Stock (billions SF)



MIM Occupied Stock metric is derived from Moody's Analytics, CoStar and CBRE Econometric Advisors data. Shaded areas represent recessions.

## Conclusion

We expect remote working trends resulting from COVID-19 to have a relatively limited impact on overall demand for office space in the long term, but also expect many firms to try (and fail) with permanent work from home arrangements in the near term. In our view, the shift towards sustainable office layouts could offset modest headwinds caused by the likely acceleration in flexible working arrangements. Any stigma or fear that COVID-19 creates related to the office sector, especially as a growing number of firms announce real estate cost savings plans, could create investment opportunities.

While this analysis presents our macro view for the office sector, we are also turning our attention to several additional considerations. Could “pandemic compliant” office planning also include lower density office locations such as smaller cities or suburbs, or locations that don’t require public transit use? Will future remote working trends vary significantly by industry? We expect that answering these types of questions will help investors fine tune investment strategies for the office sector in the coming years.

## Endnotes

- <sup>1</sup> Alternative Work Arrangements, Mas and Pallais, Harvard University & NBER, December 2019.
- <sup>2</sup> Figures include all employment types. Telecommuting will likely continue long after the pandemic. <https://www.brookings.edu/blog/up-front/2020/04/06/telecommuting-will-likely-continue-long-after-the-pandemic/>
- <sup>3</sup> Alternative Work Arrangements, Mas and Pallais, Harvard University & NBER, December 2019.
- <sup>4</sup> CFO Actions in Response to COVID-19, Gartner, April 2020.
- <sup>5</sup> Journal of Applied Psychology, Gajendran, Vol 92, No. 6, 2007.
- <sup>6</sup> Allen, T.D., Psychological Science in the Public Interest, Vol. 16, No. 2, 2015.
- <sup>7</sup> State of the American Workplace, Gallup, 2017.
- <sup>8</sup> Ibid.
- <sup>9</sup> Recovery Readiness: A How-To Guide for Reopening Your Workplace, Cushman & Wakefield, April 2020.
- <sup>10</sup> Outbreak Readiness and Business Impact, World Economic Forum, January 2019.
- <sup>11</sup> Sustainable Investing: Fast-Forwarding its Evolution, KPMG, February 2020.
- <sup>12</sup> CoStar estimate of office space per employee in 2019. We recognize many companies target office space per employee closer to 170 square feet, allowing for growth and hiring plans. As a result, observed office space per square feet may be slightly higher than what is typically quoted by occupiers of office space or the brokerage community.
- <sup>13</sup> CoStar, CBRE-EA, Moody's. 1990-2019.

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