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REAL ESTATE

The Pandemic Pitfall: Short-Term Forecasts Could Drive Mispricing in U.S. Office

- Remote working is causing demand headwinds for the office sector in the short-term, but we do not expect a significant long-term impact. In this report, we outline how the short-term pull back could vary by market.
- Office markets that do not rely on public transit, and whose population is younger and less wealthy, may be better insulated in the near-term.
- Suburban submarkets may exhibit short-term stability, but we expect CBD office submarkets to outperform suburbs over the next cycle.
- Some of the markets likely to experience the worst impacts in the near-term (2021 and 2022) may also have the strongest demand over the next decade, potentially creating a unique buying opportunity in coming quarters.

MetLife Investment Management

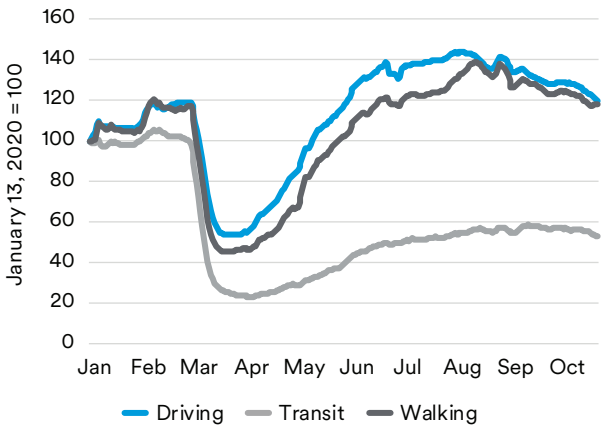
Introduction

In our recent whitepaper, *Back to Work: Office Demand in a Post-Pandemic World*, we outlined our macro-level view of the potential impacts of COVID-19 on the office sector. We believe that remote working trends could materially reduce office demand in the near-term, but should have a limited long-term impact as many companies reverse their remote workforce decisions in 2022 and beyond. With that premise – near-term demand headwinds and a long-term reversion to growth – we will discuss how various types of office investments could be impacted by remote working trends as the sector struggles in 2021 and 2022 and begins to recover thereafter. We believe key determinants include a local area's reliance on public transit, economic and demographic characteristics, and exposure to select employment sectors.

Transit Access

Close quarters and confined spaces are enemies one and two in the battle against COVID-19. As a result, public transportation has emerged as a high-risk activity, and national ridership remains more than 40% below pre-COVID levels (exhibit 1).

Exhibit 1 | Public Transit Ridership is Slow to Recover



Sources: MIM, Apple Mobility Trends Report, November 2020

Firms with office space in public transit-reliant markets may be more likely to downsize their office footprint in the near-term. Examples include the New York metro, where public transit ridership represents 30% of the commuting population, San Francisco (17%), Boston (13%), DC (13%), Chicago (12%), Seattle (11%), and Philadelphia (10%).[1]

We believe these markets could see a sharper drop in office demand until public transit is once again considered safe. Our best estimate on this time frame is year-end 2021, based on MIM's projection that a COVID-19 vaccine will be distributed globally in mid-2021.[2] Until then, some larger and still fairly dense office markets such as Los Angeles (5%), Miami (3%), and Dallas (3%) may fare better simply because they offer safer office access. As of September 18th, 40% of employees in Dallas had returned to the office, versus just 10% of New York office employees[3], and we believe this divergence is already putting pressure on leasing trends in transit-oriented markets. In addition to this structural trait that may define which cities could perform better or worse over the next several years, demographic and economic characteristics may also dictate which markets experience remote working headwinds.

Age and Income

We believe that risks from remote working are uneven by age cohort. In our view, the most junior and senior employees are less likely to work remotely and are also less likely to adopt desk sharing arrangements that could allow firms to downsize office space. We believe employees aged 35 to 54 are the most likely to continue working from home following the pandemic, however. This conclusion is a function of work habits, culture, recent survey responses, and an examination of Census data that implies (but doesn't directly track) the types of employees who were working remotely before the pandemic.

Younger employees tend to require in-person training, mentorship, and the ability to build trust and relationships with colleagues, in our view.[4] We estimate that prior to COVID, 9% of office using employees below the age of 34 worked remotely 1 to 2 days per week, compared to around 16% of those 35 and above.[5] On the other end of the spectrum from the youngest employees, senior leadership have management and oversight responsibilities that we believe are better facilitated in the office. Survey data suggests that these older workers also report more of an unwillingness to adopt desk sharing arrangements.[6]

That leaves the "middle management" cohort. Members of this group may require less training and are more likely to have already formed relationships with colleagues, unlike the average junior employee. They may also have less in-person meeting requirements per week than more senior staff, whose roles are more reliant on in-person collaboration. Lastly, the 35-54 age cohort is more willing to adopt desk sharing in exchange for more remote working flexibility unlike individuals 55 and above.[7] As a result, we believe the 35-54 age cohort is the highest risk for short-term demand headwinds associated with remote working.

In addition to age disparities, there is also an economic disparity in employees who work remotely. We estimate that individuals in office using employment sectors that report household incomes above $100,000 have historically been 47% more likely to work remotely on either a part time or full-time basis than those earning between $75,000 and $100,000.

There are two potential reasons for this disparity. First, job turnover is higher among lower income earners.[8] This could require more in-person training and relationship building than higher-income earners, who on average have longer tenure.[9] Secondly, lower income earners may be less likely to have a dedicated home workspace. These conditions are unlikely to change as a result of COVID, and we thus believe that all else equal, higher-income workers will continue to be more likely to work remotely.

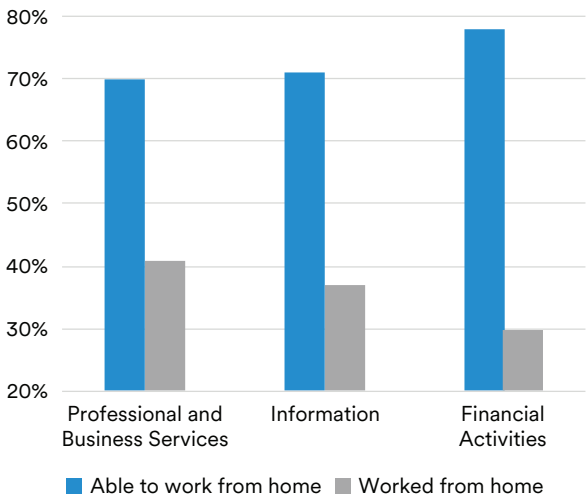
As a result of these disparities in remote working trends, we believe that office markets with a higher balance of middle-aged, higher income workers could experience above-average short-term remote working headwinds. Atlanta is an illustrative example of this demographic profile. On the other end of the spectrum, markets like Tampa and San Diego may be better positioned in the short-term from this perspective.

Occupation

Thus far we have described structural traits that put a metro at higher risk for remote working, as well as varying economic and demographic characteristics. The final metro-level attribute that we believe is worth considering is job sector concentration.

Professional and business services, information, and financial activities are the three employment categories with the highest exposure to U.S. office space.[10] Within these categories, remote working trends are not uniform. In exhibit 2, we show the percent of workers in each category that have the ability to work from home, as well as the percent of workers that actually worked from home at least one day per week as of a 2018 survey. We believe a higher propensity to work from home prior to COVID can help forecast increases in remote working going forward. The survey shows that while nearly 80% of finance workers have the ability to work from home, less than 30% did so. In the other two categories, although fewer survey respondents say they had the option to work from home, a higher percentage actually did.

Exhibit 2 | Ability vs. Propensity to Work From Home



Sources: MIM, BLS, September 2020

As a result, although several financial institutions have announced longer-term work-from-home plans, we believe that markets with a higher concentration of finance jobs relative to other office using employment sectors may see more stable office demand during this crisis.

That being said, some occupational subcategories that fall within information and professional and business services may be more resilient than others. For example, it is estimated that 100% of computer and mathematical occupations have the ability to work from home, whereas only 54% of life, physical, and social science occupations have the ability to work from home.[11] This implies that a market such as Boston, whose STEM presence has a life sciences and defense focus, may be better positioned than a market such as Seattle, whose STEM presence is more oriented towards hardware and software development, in the near-term.[12]

Submarket Analysis

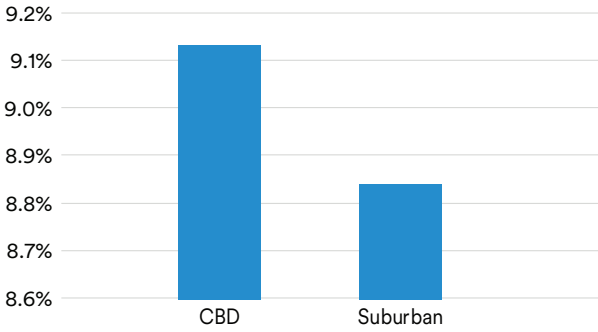
The final consideration in our analysis is whether office demand could vary between central business districts (CBDs) and suburban office markets during or following the COVID-19 crisis.

We do not expect a significant uptick in suburban office demand but are expecting more stability relative to CBD markets in the coming months, given that CBDs are more likely to contend with challenges related to public transit.

As the pandemic subsides, we believe the pendulum will swing back in favor of CBD offices, although our rationale requires consideration of several decades of history. Suburban office demand growth was strongest in the 1970's and 1980's, when CBDs struggled with high crime rates. When crime began to subside in the 1990's firms took advantage of the deeper talent

pools available to CBD submarkets (inclusive of residents who live in both the CBD and surrounding suburbs). Falling crime and access to deeper talent pools is likely the reason why CBD submarkets have outperformed for much of the last 20 years (exhibit 3). Similarly, in the COVID-19 era, when the perception of health safety returns to cities and their transportation networks, either through a vaccine, treatment, or more universal social distancing protocols, we believe firms will again choose locations that provide access to the largest number of highly productive employees.

Exhibit 3 | Office Total Return CAGR, 1999-2019



Sources: MIM, NCREIF, 2Q2020

The Long Game

As we concluded in our report Back to Work, we expect remote working trends from COVID-19 to have a relatively limited impact on demand for office space in the long term, but also expect many firms to try (and eventually reverse) permanent full-time work from home arrangements in the near-term. These headwinds could offer tactical investment opportunities.

Based on the analysis outlined in this paper, office assets in San Francisco, Washington DC, Seattle, Denver, and San Jose may see the most significant remote working headwinds in the next 12-18 months, and thus potentially the most significant asset price declines. However, these are also the markets where we believe long-term office demand tailwinds are strong. We believe pricing in these markets, especially for office assets with lease-up or near-term lease rollover risk is already beginning to imply an overly negative view of the long-term future. A "re-setting" of office prices may offer access to markets that have become extremely competitive in the recent past, which could create opportunity for office investors in 2021 and 2022.

Our analysis also suggests that office assets in Tampa, the California Inland Empire area, Miami, Phoenix, and Orlando might exhibit more near-term stability in both demand and pricing. We believe this relative stability over the next two years could lead to an overly optimistic view of markets that could have softer long-term fundamentals. See exhibit 4 for a summary of these markets. A detailed analysis of MIM's primary markets is included in the appendix.

Exhibit 4 | Divergences Between Near-Term and Long-Term Office Demand Drivers

	Near-term demand (1 = stronger demand, 30 = weaker demand)					Long term demand (1 = stronger demand, 30 = weaker demand)		
	"Middle Management" Percent of Total Labor Pool	Computer Science Percent of Total Employment	Median Household Income	Reliance on Public Transportation	Near-Term Demand Composite Score	STEM Share of Employment	Network Effects	Long Term Demand Composite Score
Washington, DC	28	30	30	27	29	5	4	5
San Francisco	21	28	29	29	26	3	2	2
San Jose	25	30	30	16	26	1	11	3
Seattle	22	29	26	24	25	4	29	9
Denver	24	24	23	17	22	9	27	13
Orlando	14	12	5	6	9	25	19	24
Phoenix	7	13	7	7	9	20	30	22
Miami	12	3	3	14	8	29	8	25
Inland Empire	10	1	8	3	6	30	19	28
Tampa	1	11	1	2	4	21	19	21

We believe investors should maintain a long-term perspective on a market's fundamental drivers of office performance, which we believe includes amassing, retaining, and growing talent and ideas. Innovative firms experiencing growth tend to be more focused on product and process than operating cost. They have historically clustered in large, dense metropolitan areas where they can tap specialized workers, suppliers, and institutions (localization), and take advantage of dense air and ground transport links (urbanization).[13] Cities that have had this ability to aggregate the talent that supports rapidly growing industries, such as the STEM fields, have had been among the best performing office markets in terms of total returns over the last two economic cycles.[14] We expect this to hold true in the coming cycle, and do not believe COVID has caused a permanent disruption in this primary driver of office demand.

Appendix

The table below quantifies the analysis outlined in this paper for MIM's Primary Markets. Markets with higher near-term risk, and higher long-term potential such as DC, San Francisco, San Jose, Seattle, and Denver could produce attractive investment opportunities over the next several years. Additionally, markets like San Diego and Dallas may offer attractive investment opportunities based on both solid near- and long-term demand drivers.

		Near-term demand (1 = stronger demand, 30 = weaker demand)					Long term demand (1 = stronger demand, 30 = weaker demand)		
	Name	"Middle Management" Percent of Total Labor Pool	Computer Science Percent of Total Employment	Median Household Income	Reliance on Public Transportation	*Near-Term Demand Composite Score*	STEM Share of Employment	Network Effects	*Long Term Demand Composite Score*
Potential Pricing Opportunity	Washington, DC	28	30	30	27	*29*	5	4	*5*
	San Francisco	21	28	29	29	*26*	3	2	*2*
	San Jose	25	30	30	16	*26*	1	11	*3*
	Seattle	22	29	26	24	*25*	4	29	*9*
	Denver	24	24	23	17	*22*	9	27	*13*
	Minneapolis	18	22	24	20	*21*	15	19	*16*
	Austin	26	26	19	10	*20*	6	10	*7*
	Portland	23	18	18	22	*20*	10	6	*9*
	Boston	3	23	27	26	*20*	11	5	*10*
	Baltimore	6	25	25	21	*19*	12	23	*14*
	Atlanta	30	21	10	12	*19*	18	3	*15*
	New York	9	10	22	30	*18*	14	19	*15*
	Chicago	15	14	14	25	*17*	19	24	*20*
	Dallas	30	20	12	4	*17*	8	14	*9*
	Philadelphia	4	15	17	23	*15*	26	19	*25*
	Charlotte	29	16	6	5	*14*	23	15	*21*
	Los Angeles	17	6	16	19	*14*	17	26	*18*
	Houston	27	7	11	8	*13*	24	30	*25*
	San Diego	2	17	20	11	*13*	7	12	*8*
	Sacramento	5	19	13	9	*12*	22	13	*20*
	Nashville	19	8	9	1	*9*	27	28	*27*
	Orlando	14	12	5	6	*9*	25	19	*24*
	Phoenix	7	13	7	7	*9*	20	30	*22*
	Miami	12	3	3	14	*8*	29	8	*25*
	Inland Empire	10	1	8	3	*6*	30	19	*28*
	Tampa	1	11	1	2	*4*	21	19	*21*

- Middle management Percent of Labor Pool: Share of working-age population between ages 34-54 (Census)
- Computer Science Percent of Total Employment: Computer science and math occupational codes (Census)
- Median Household Income: Census
- Reliance on Public Transportation: Share of working-age population commuting via public transit (Census)
- Risk Composite Rank: Equal Weight of Near-term Headwinds
- STEM Share of Employment: Moody's STEM special aggregate
- Network Effects: Index of data from Meetup.com, Payscale.com, Indeed.com, Coworker.com, and the Bureau of Labor Statistics (https://tech.co/news/best-cities-networking-2019-01)
- Long-term Tailwinds Rank: 80% weight attributed to STEM share, 20% attributed to network effects
- Geographical coverage: San Francisco MSA inclusive of Oakland, New York MSA inclusive of Northern NJ, Los Angeles MSA inclusive of Orange County, Miami MSA inclusive of Ft. Lauderdale and Palm Beach
- All data queried in October 2020

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[1] https://www.census.gov/library/visualizations/interactive/work-travel-time.html. Queried September 2020.

[2] COVID-19 Vaccination Program Interim Playbook for Jurisdiction Operations, CDC, September 16, 2020.

[3] CBRE-EA. As cited in https://www.wsj.com/articles/manhattan-offices-are-nearly-empty-threatening-new-york-citys-recovery-11601371800. September 2020.

[4] Research by Cigna finds that workers who have not interacted in-person with colleagues are more likely to report that their relationships with others are not meaningful. The Harvard Business Review reports that new remote trainees struggle with reduced managerial support and communication and are often surprised by the added time and effort needed to locate information from co-workers. https://www.cigna.com/static/www-cigna-com/docs/about-us/newsroom/studies-and-reports/combatting-loneliness/cigna-2020-loneliness-report.pdf, January 2020. https://hbr.org/2020/03/a-guide-to-managing-your-newly-remote-workers, March 2020.

[5] U.S. Decennial Census, BLS Current Population Survey, November 2020.

[6] Gensler U.S. Workplace Survey, Summer/Fall 2020.

[7] Ibid.

[8] Harvard Business Review: A 10% higher base pay is associated with a 1.5-percentage-point increase in the likelihood that workers will stay at their current company the next time they move to a new role. https://hbr.org/2017/03/why-do-employees-stay-a-clear-career-path-and-good-pay-for-starters, March 2017.

[9] Ibid.

[10] Moody's. https://www.economy.com/support/blog/buffet.aspx?did=3FFAD5E4-5DD8-4D17-B4BE-F2FD7B9411CC

[11] BLS, Occupational Information Network, 2018 survey.

[12] US Census. October 2020.

[13] Brookings, The Case for Growth Centers. December 2019.

[14] TechMarkets 2.0, MetLife Investment Management. March 2019.

MetLife Investment Management Real Estate Research and Strategy

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