Yardi® Matrix

National Office Report

March 2020

COVID-19's Impact on Office Real Estate: February Was the Calm Before the Storm

- The rapid growth of COVID-19 has made it clear that February was the last month of the record long economic recovery, and the economy has quickly shifted into contraction mode as the nation reacts to an unprecedented pandemic. This is a rapidly changing situation with no clear timeframe or conclusion, and as of now it's unclear how long the shelter-in-place orders, social distancing and moratoriums on public gatherings will last or how deep the economic contraction may become.

- Suddenly, millions of office workers are now working from home. Many of these workers are forced into less-than-ideal situations—without a home office, working at the kitchen table or a makeshift workstation. Yet the pandemic may cause a fundamental shift in how employers view remote work, if their employees can maintain productivity while utilizing less physical office space. While many workers will be anxious to return to their office once the crisis is past, a massive national experiment is underway that could change attitudes about working from home in the years to come.

- Coworking could be in for a rough go. For a budding subsector of the office market that was already damaged by the very public decline of WeWork in recent months, the COVID-19 pandemic could deal a much larger blow. Owners may be hesitant to lease space to coworking firms that are themselves dependent on short-term leases. Further, remote workers that had utilized coworking space may find themselves making the home office a permamant one over the next couple of months. However, for owners and investors in markets with a high percentage of stock devoted to coworking, the situation may not be as dire as it seems on the surface. Yardi Matrix research has found a consistent relationship between low vacancy rates and the percent of the market dedicated to coworking leases, suggesting that once the crisis abates there may be enough demand for office space in those markets to cover any coworking failures.

- Transactions will likely come to a halt for the time being despite record low interest rates and widening cap rate spreads. However, if the crisis is over by the late third or early fourth quarter then there could be a big rebound in transactions. For the most part, the office market didn't enter this situation overbuilt or with loans that are overleveraged. This should help fuel activity once the crisis subsides.

Lease Rate and Occupancy Trends: Modest Rate Growth Heading Into Slowdown

- National full-service equivalent listing rates grew by 0.9% year-over-year to $38.25 in February. The national vacancy rate decreased by 40 basis points to 13.4%.

- It is unclear what impact the COVID-19 pandemic will have on listing rates. Given that office leases are typically long term, if the economic contraction in response to the crisis is short then the effect on rates may be minimal. Conversely, if the slump lasts into 2021 then rates may drop sharply as owners compete to fill space.

- Same-store growth in February was led by Manhattan (14.8%), Seattle (7.4%) and San Francisco (7.2%). Of these, only Seattle showed a large discrepancy from the overall growth metric, coming in at -1.1%. Part of this is due to Seattle's strength as an office market. At The Atrium in the Lake Union submarket, 90,000 square feet was taken off the market after being listed at a full-service equivalent rate of $71.77 per square foot, thereby depressing average rates. The building was completed in September, excluding it from same-store calculations.

Listings by Metro

Market	Feb-20 Listing Rate	12-Month Change	Total Vacancy	Top Listing	Price Per Square Foot
National	$38.25	0.9%	13.4%		
Manhattan	$86.11	14.7%	7.7%	One Manhattan West	$140.00
Austin	$42.72	9.5%	7.9%	100 Congress	$76.83
Miami	$41.58	8.5%	13.1%	830 Brickell Plaza	$73.00
Brooklyn	$55.94	8.3%	13.6%	Brooklyn Navy Yard–Dock 72	$73.00
Bay Area	$50.86	8.2%	13.3%	525 University Avenue	$149.42
Tampa	$29.26	5.9%	11.7%	1001 Water Street	$55.70
San Diego	$39.09	5.6%	11.4%	Campus Pointe 1	$76.20
San Francisco	$71.84	4.7%	7.3%	2180 Sand Hill Road	$150.84
Atlanta	$27.52	4.4%	15.9%	Three Alliance Center	$53.98
Denver	$28.90	4.1%	13.1%	The William Building	$59.67
Houston	$29.95	3.7%	21.3%	Texas Tower	$58.40
Los Angeles	$39.59	3.6%	12.0%	1999 Avenue of the Stars	$93.00
Twin Cities	$26.95	2.8%	12.0%	The Offices at MOA	$41.00
Portland	$30.01	2.7%	12.2%	Broadway Tower	$46.16
Charlotte	$28.25	2.5%	10.5%	SouthPark Towers II	$41.52
Orlando	$21.72	1.1%	11.6%	Lake Nona Town Center–Phase II	$36.41
Phoenix	$27.13	0.8%	18.4%	The Watermark–Phase I	$45.00
Washington DC	$39.18	-0.1%	13.9%	900 Sixteenth Street	$81.52
Seattle	$38.56	-1.1%	8.2%	U.S. Bank Centre	$66.39
New Jersey	$31.43	-1.2%	22.1%	10 Exchange Place	$57.30
Dallas	$27.70	-1.4%	17.5%	Weir's Plaza	$63.44
Philadelphia	$28.88	-2.3%	13.1%	Three Logan Square	$51.57
Nashville	$30.08	-3.0%	12.7%	Peabody Plaza at Rolling Mill Hill	$50.81
Chicago	$28.79	-3.5%	14.3%	300 North LaSalle Drive	$59.46
Boston	$36.55	-6.6%	9.9%	Boynton Yards–Building 1	$90.00

Source: Yardi Matrix. Data as of February 2020. Listing rates are full service or "full service equivalent" rates for spaces available as of report period.

Supply:
Large Pipelines Coincide With Strong Fundamentals

- At the end of February, 145.4 million square feet of new office space was under construction. While some construction will be temporarily halted or delayed, many governments have exempted construction work from shelter-in-place orders.

- The majority of new construction (90%) is A+/A properties, which could become problematic if the economic downturn turns into a protracted slump akin to the Great Financial Crisis in 2008. However, if a recovery occurs quickly then many new buildings should face only a slight slowdown in finding tenants. The planned and prospective segments of the new-construction pipeline may shrink throughout this year, especially as uncertainty becomes the new economic norm.

- Many of the cities with large construction pipelines have exceptionally low vacancy, high employment growth or both. Austin, for example, has 7.6 million square feet of office space under construction, representing 10.7% of existing stock. Yet at the end of February the Texas capital also had a vacancy rate (7.9%) rivaling Manhattan and San Francisco, and had added 88,000 office jobs since the start of 2014, a 40% increase in merely six years.

Supply Pipeline (by asset class and location)

National Market	Under Construction	Under Construction % Stock	Plus Planned % Stock
A+/A	131,597,108	4.4%	4.7%
B	13,231,136	0.4%	0.5%
C	581,953	0.2%	0.2%
CBD	38,721,606	3.0%	3.8%
Urban	62,736,459	4.7%	6.6%
Suburban	43,952,132	1.2%	1.7%

Source: Yardi Matrix. Data as of Feb. 29, 2020

Supply Pipeline (by metro)

Market	Under Construction	Under Construction % Stock	Plus Planned % Stock
National	145,410,197	2.3%	3.1%
Austin	7,601,179	10.7%	15.5%
Nashville	3,859,640	7.3%	11.8%
Brooklyn	2,596,027	6.9%	8.3%
Charlotte	3,679,776	5.5%	7.9%
San Francisco	7,802,025	5.2%	6.4%
Seattle	6,967,048	5.2%	6.2%
Boston	10,850,437	4.6%	5.5%
Manhattan	18,307,458	3.9%	4.5%
Los Angeles	8,906,104	3.2%	3.4%
Miami	2,047,862	3.1%	3.6%
Bay Area	6,218,485	3.1%	6.5%
Tampa	1,759,148	2.8%	3.4%
Atlanta	4,805,866	2.6%	2.7%
Chicago	6,703,204	2.2%	2.9%
Dallas	5,639,708	2.1%	3.2%
Twin Cities	2,243,008	1.9%	2.4%
Washington DC	7,199,960	1.9%	2.6%
Portland	1,076,315	1.9%	2.9%
Houston	3,897,356	1.7%	2.6%
Denver	2,511,270	1.6%	2.7%
Philadelphia	2,342,452	1.4%	1.7%
Orlando	709,625	1.3%	2.4%
Phoenix	1,489,526	1.2%	2.3%
San Diego	1,112,005	1.2%	1.7%
New Jersey	161,800	0.1%	0.2%

Source: Yardi Matrix. Data as of Feb. 29, 2020

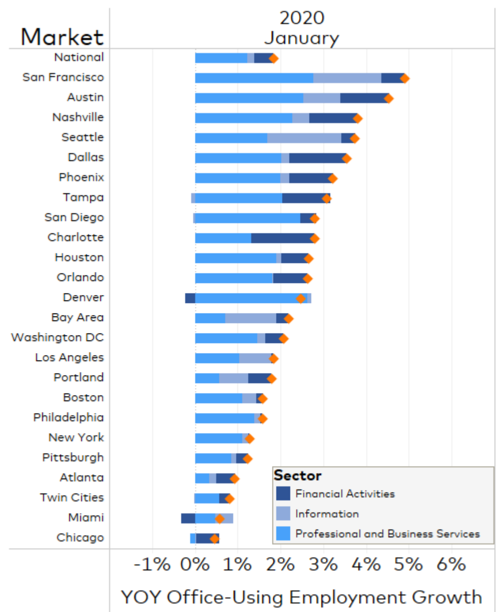
Office-Using Employment:
Growth Will Slow but Office-Using Sectors Well Positioned

- On the employment front, sectors classified as office-using employment may be the best suited to weather the storm, even though many offices will be dark in the coming weeks and months. A large share of office workers are able to work remotely, and videoconferencing can temporarily take the place of face-to-face meetings. However, if the crisis is prolonged then no sector of employment will be immune.

- Nationally, office-using employment sectors grew 1.8% year-over-year for the period ending in January.

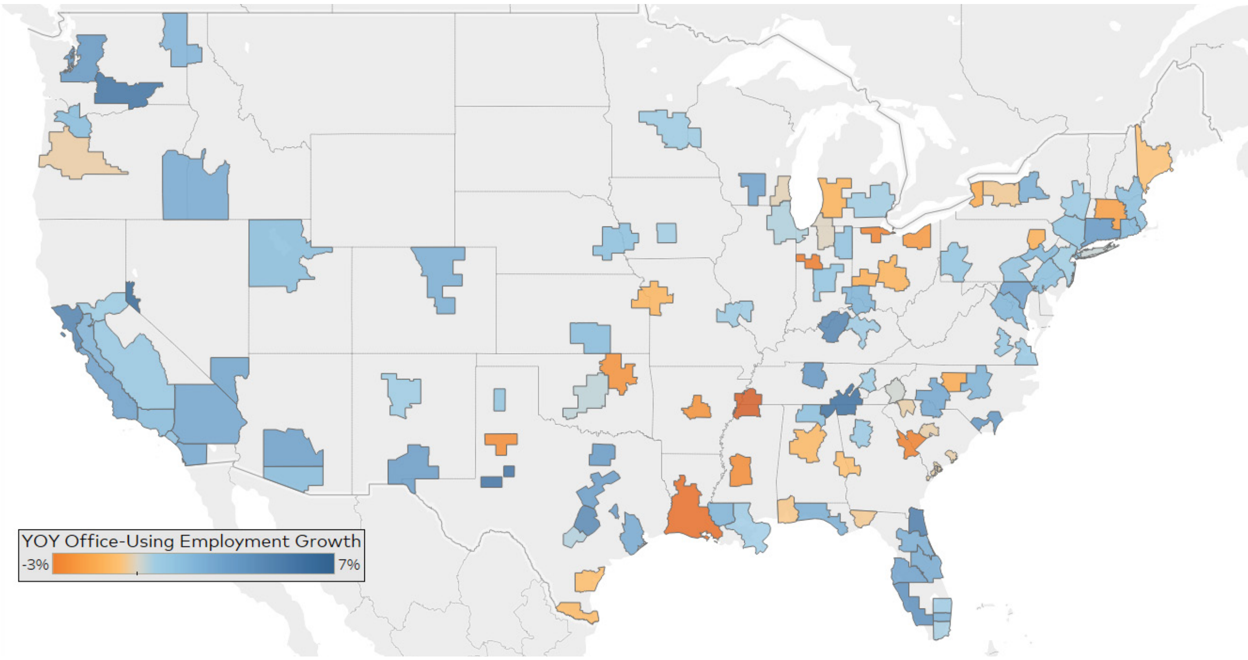
- While many major markets have had robust office-using employment growth over the last few years, some markets that have experienced anemic growth of late may find themselves much more at risk to major shocks in demand for office space. Chicago has added 25,000 office jobs since the beginning of 2017, an increase of only 2.1% over three years.

Growth by Sector



Sources: Bureau of Labor Statistics and Moody's Analytics

Office-Using Employment Growth



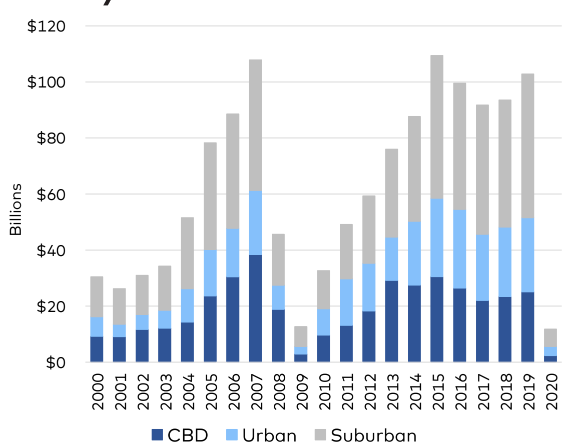
Sources: Bureau of Labor Statistics and Moody's Analytics

Transactions:
Activity Expected to Slow in Near Term

- A total of $11.8 billion in transactions were completed in the first months of 2019, and that may very well account for most of the activity that we will see during the first two quarters of the year.

- We expect that transaction activity will slow greatly in the next few months. Deals that were already in place may still go through if both parties are comfortable with the transaction despite the uncertain circumstances, and deals are not always immediately visible. However, it is a sure bet that sales will not reach the average of $97 billion of the last six years.

Sales by Location



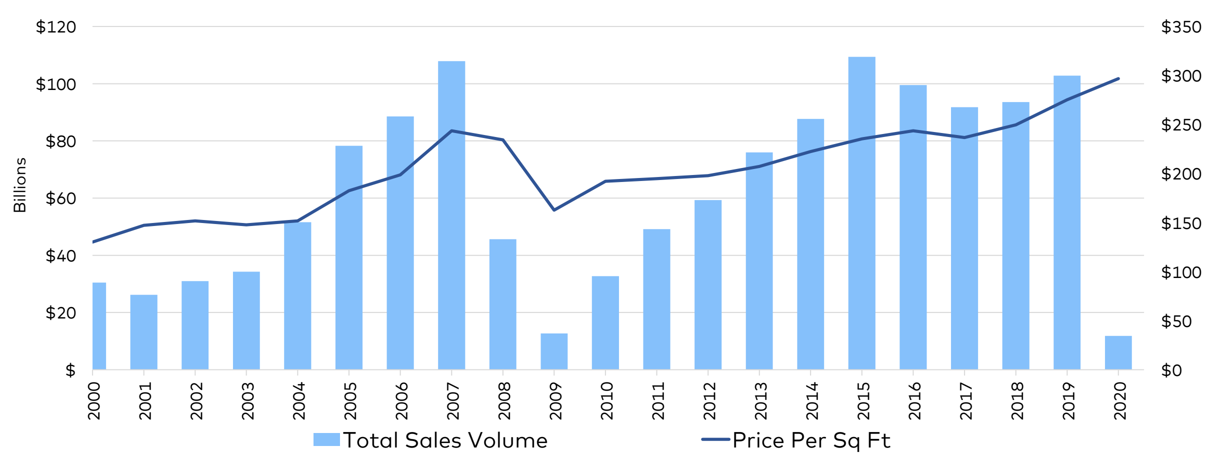
Source: Yardi Matrix; Data as of Feb. 29, 2020

Sales Activity

Market	YTD Sales Price PSF	YTD Sales (Mil, as of 2/29)
National	$297	$11,817
Boston	$426	$1,353
Manhattan	$560	$1,289
San Francisco	$1,227	$942
New Jersey	$251	$940
Washington DC	$370	$935
Dallas	$362	$929
Los Angeles	$495	$596
Denver	$223	$581
Bay Area	$407	$496
Nashville	$445	$372
Austin	$410	$369
Brooklyn	$687	$165
Atlanta	$166	$147
Phoenix	$164	$145
Portland	$181	$140
San Diego	$368	$130
Twin Cities	$144	$90
Houston	$144	$79
Chicago	$117	$79
Miami	$193	$66
Seattle	$234	$50
Philadelphia	$85	$48
Charlotte	$205	$46
Orlando	$144	$38
Tampa	$121	$19

Source: Yardi Matrix. Data as of Feb. 29, 2020

Total Sales



Source: Yardi Matrix. Data as of Feb. 29, 2020

Definitions

This report covers office buildings 50,000 square feet and above. Yardi® Matrix subscribers have access to 25,000-square-foot and larger buildings for a continually growing list of markets.

Yardi® Matrix collects listing rate and occupancy data using proprietary methods.

- *Listing Rates*—Listing Rates are full-service rates or "full-service equivalent" for spaces that were available as of the report period. Yardi® Matrix uses aggregated and anonymized expense data to create full-service equivalent rates from triple-net and modified gross listings. Expense data is available to Yardi® Matrix subscribers.
- *Vacancy*—The total square feet vacant in a market, including subleases, divided by the total square feet of office space in that market. Owner-occupied buildings are not included in vacancy calculations.

A and A+/Trophy buildings have been combined for reporting purposes.

Stage of the supply pipeline:

- *Planned*—Buildings that are currently in the process of acquiring zoning approval and permits but have not yet begun construction.
- *Under Construction*—Buildings for which construction and excavation has begun.

Office-Using Employment is defined by the Bureau of Labor Statistics as including the sectors Information, Financial Activities, and Professional and Business Services. Employment numbers are representative of the Metropolitan Statistical Area and do not necessarily align exactly with Yardi® Matrix market boundaries.

Sales volume and price-per-square-foot calculations do not always include portfolio transactions or those with unpublished dollar values.

To learn more about Yardi® Matrix and subscribing, please visit www.yardimatrix.com or call Ron Brock, Jr., at 480-663-1149 x2404.

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