TALENT ON THE MOVE:

WHERE PEOPLE WILL LIVE & WORK AFTER COVID-19

MAY 2021

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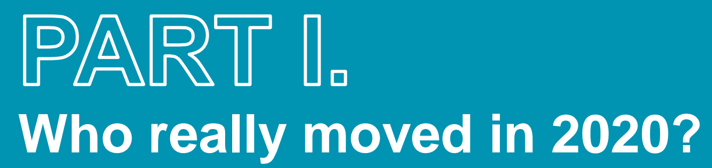
KEY FINDINGS

- **Overall mobility was up slightly during the pandemic:** There was a 1% increase in the number of moves in 2020 compared to the prior two years.
- **Longer distance moves did increase:** Two million people moved to a new county versus the two-year average of 1.8 million.
  - There was an 11.8% increase in people moving to a new state. However, the total was still under 300,000 households, and the most common interstate moves were to neighboring states (e.g., NY to NJ, DC to MD).
  - Temporary interstate moves increased in 2020 by 45%, indicating many people left just until the pandemic subsides.
- **The Sunbelt markets and Mountain West regions gained the most:** Multifamily absorption was above 5% of total inventory in markets such as Boise, Charleston, and throughout Florida.
- **The suburbs also gained:** Migration to mature and emerging suburbs increased by 40% in 2020.
- **Some people moved, but companies generally did not**: Gateway cities maintained roughly the same share of total leasing (~40%) as pre-pandemic levels.
- **Companies also did not leave city centers**: The CBD accounted for ~40% of office leasing since the pandemic began in Q2 2020.
- **Early-2021 data indicates that a strong rebound is building in the gateway cities**: Office leasing activity increased the most in gateway and gateway-adjacent markets.
- **Long-term growth is expected in major markets:** Gateway markets are expected to see annual job growth double this decade (from 0.6% in the 2010s to 1.2% in the 2020s). This will drive demand for housing, offices and e-commerce warehouse space to support population and job growth in and around these large cities.

BOTTOM LINE: All of this discussion about the pandemic creating large permanent shifts in terms of where people will live and work post-pandemic is overstated or at least premature.

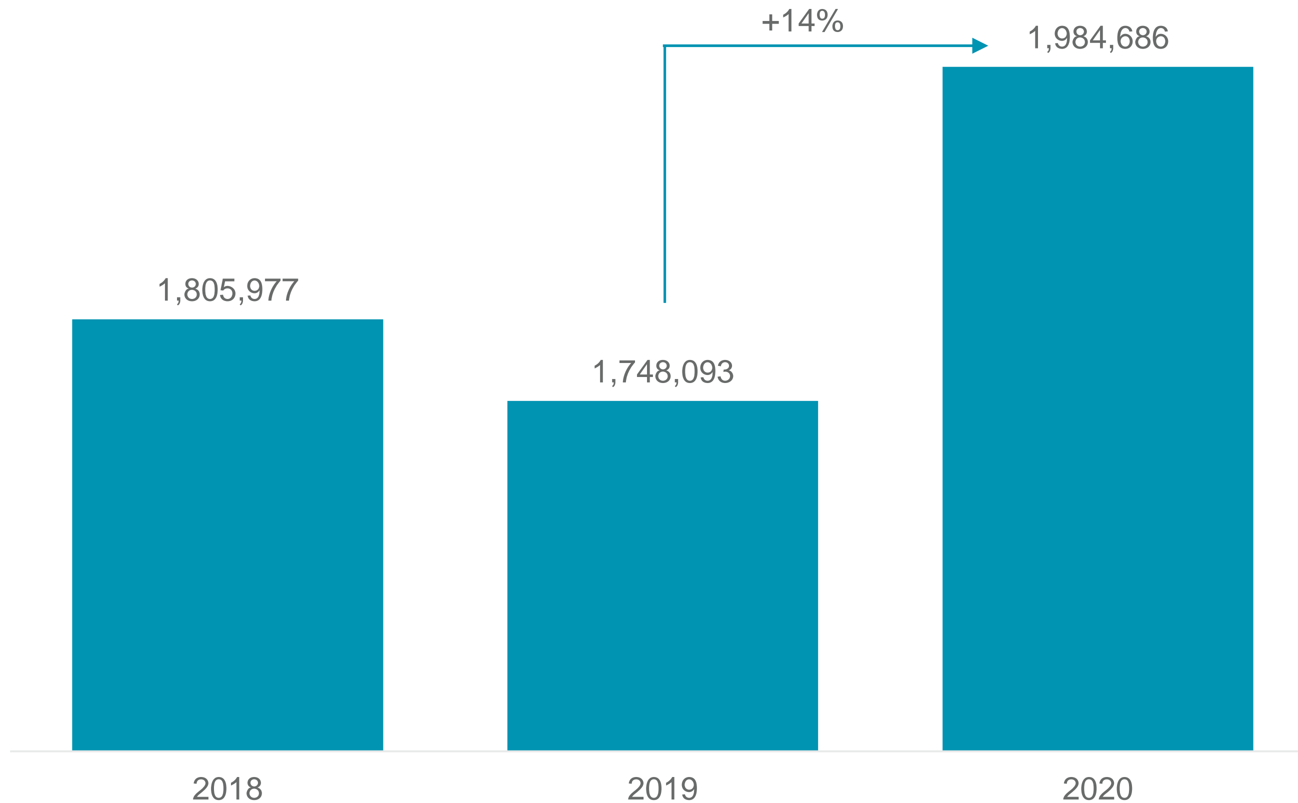


PART I.

Who really moved in 2020?

DURING PANDEMIC, MORE PEOPLE MOVED THAN USUAL

CROSS-COUNTY MOVES OF INDIVIDUALS & FAMILIES



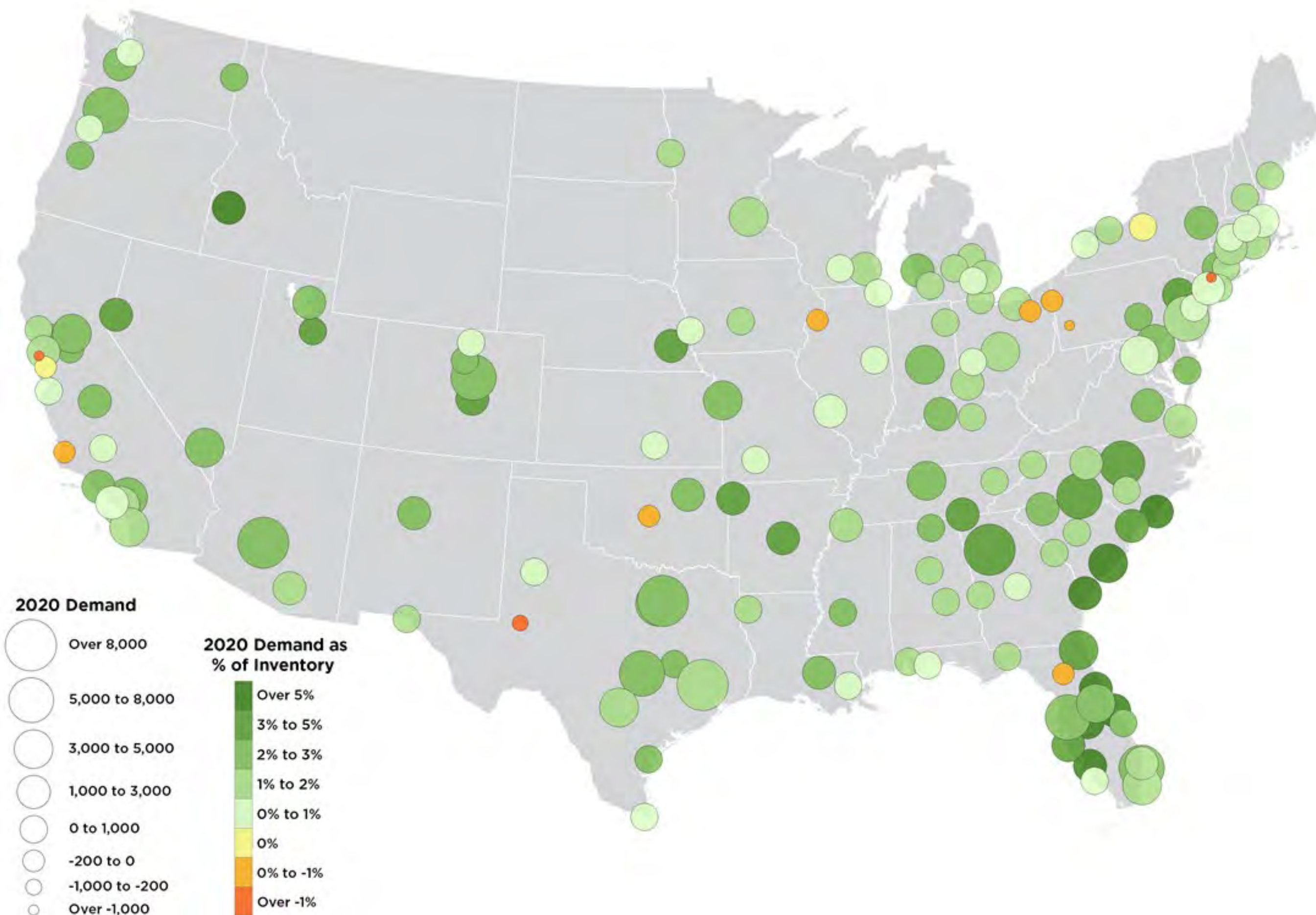
Source: U.S. Postal Service, Cushman & Wakefield

- Moves increased from approximately 1.8 million in the previous two years to 2.0 million in 2020.
- As is normal, the vast majority of 2020 moves were local (86% of moves stayed within the same county).
- Of the 15.9 million people* who changed their address in 2020, 1.8% moved to a new state, which is in line with the previous two years (1.7%).
- Also, a greater number of interstate moves were "temporary." Many moved when the pandemic first started and then returned when it felt safer.

**Counted in this analysis are all change of address requests for individuals and families.*

SUNBELT & MOUNTAIN WEST BENEFITED

MULTIFAMILY NET ABSORPTION AS % OF INVENTORY

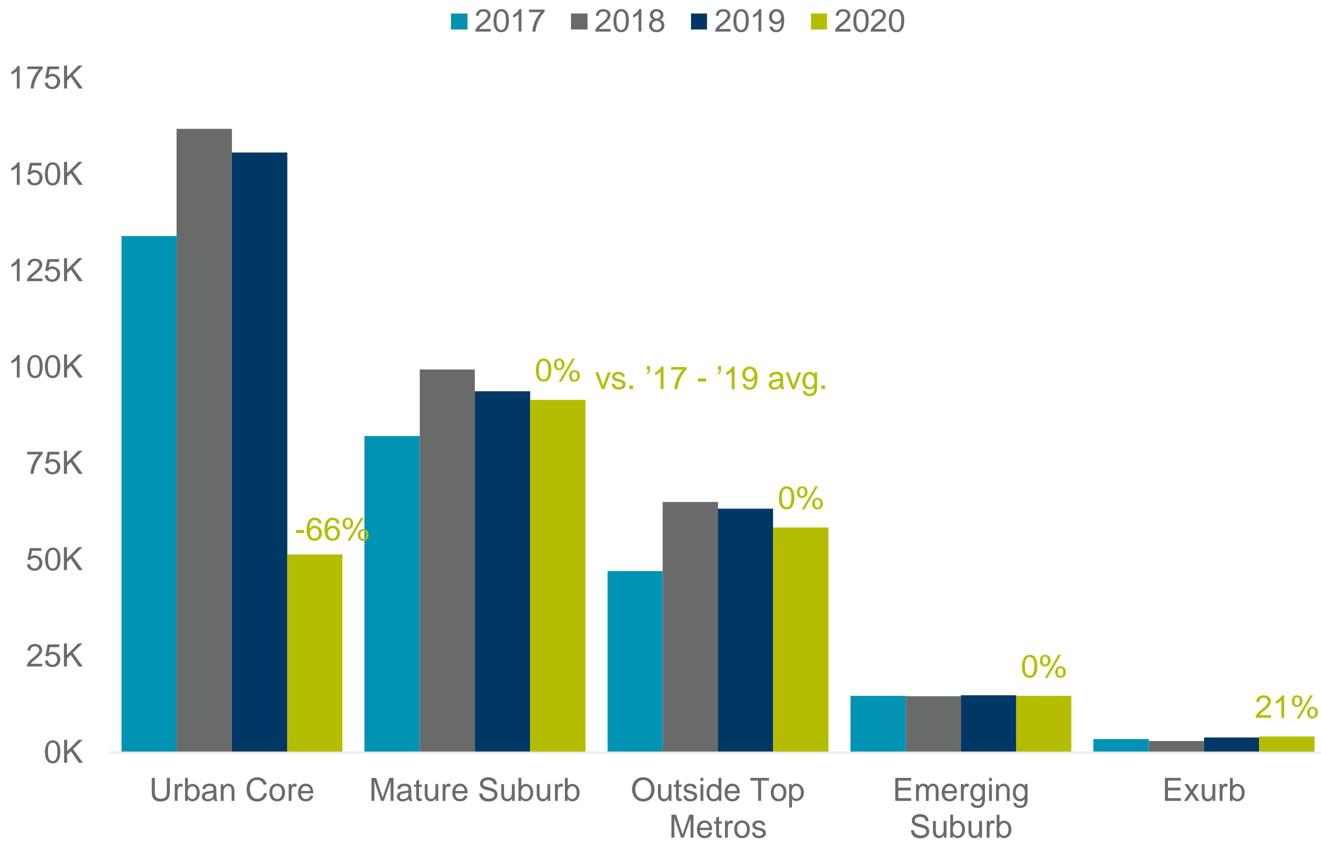


Source: Axiometrics, Cushman & Wakefield Research

- The multifamily sector remained strong throughout the crisis. Only a smattering of U.S. markets (12 out of 150) posted negative net absorption in 2020.
- Top demand markets with 12,000+ units of positive net absorption included Sunbelt locations: Atlanta, Dallas, and Houston.
- Relative to market size, Savannah, Boise, Charleston, and various Florida markets (Deltona-Daytona, Cape Coral, Lakeland-Winter Haven and Palm Bay) outperformed with 5-8% positive net absorption rates.
- In the Mountain West, Denver and Salt Lake City have experienced above-average net absorption relative to their existing rental housing stock (~2.5%), despite having an elevated pipeline for the past five years.

DEMAND STRONGER IN MATURE SUBURBS

MULTIFAMILY NET ABSORPTION BY URBAN DESIGNATION

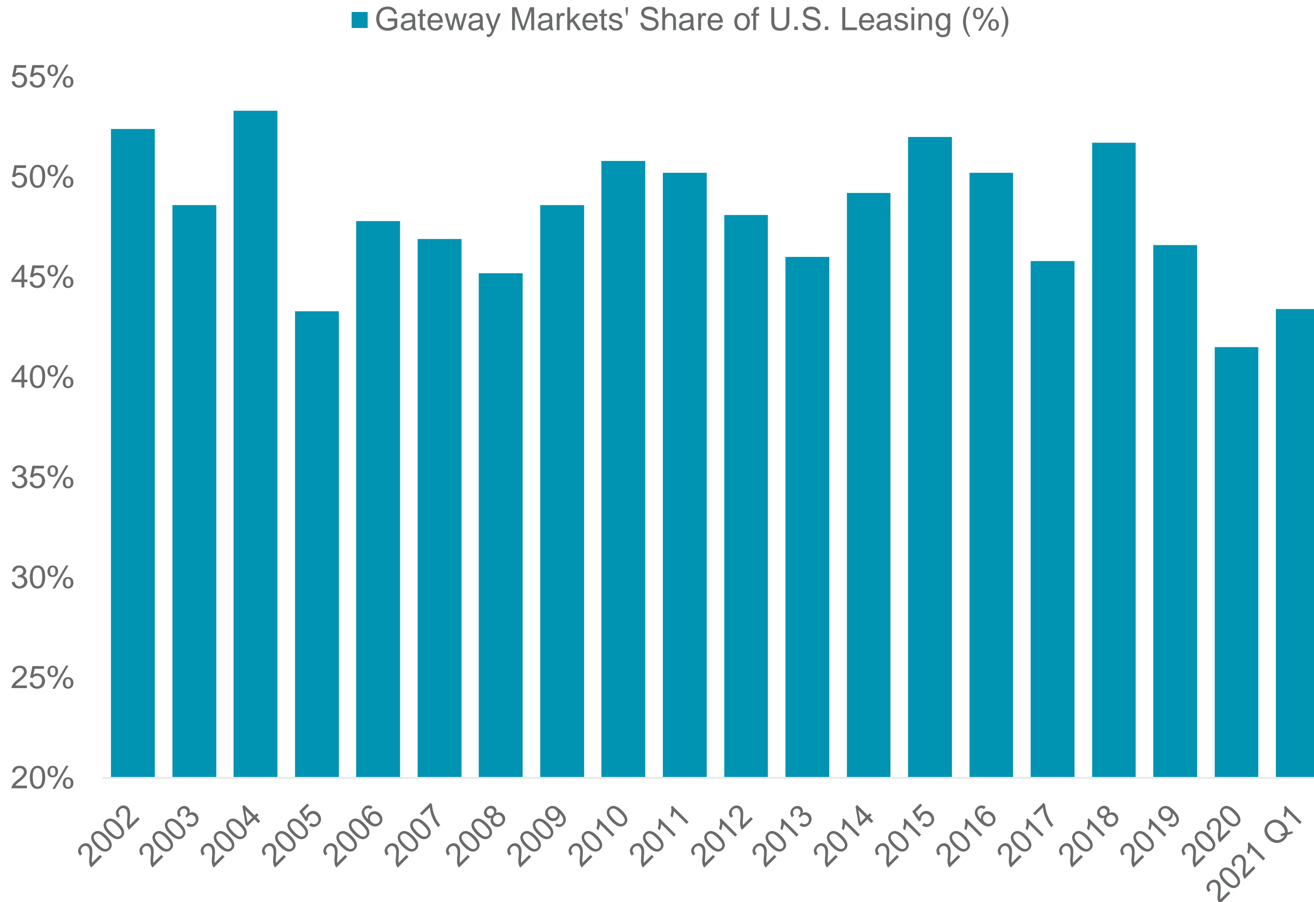


Source: Axiometrics, Moody's Analytics, Cushman & Wakefield Research

- Multifamily demand in urban core counties dropped sharply in 2020, but absorption remained positive. In contrast, net absorption in counties outside urban cores effectively held steady.
- The top five markets—Atlanta, Houston, Dallas, Ft. Worth and Denver—accounted for 77% of positive net absorption in urban markets. South Florida urban core markets (Miami and Ft. Lauderdale) are noteworthy as well.
- Among these top markets, the urban-suburban divide varies. For Atlanta, Houston, Denver and Ft. Worth, the majority of net absorption occurred in core counties. In contrast, mature suburbs in Dallas and Phoenix played an equal or greater role in share of renter market demand.

WHILE PEOPLE MOVED, BUSINESSES DID NOT

GATEWAY MARKETS' SHARE OF U.S. OFFICE LEASING



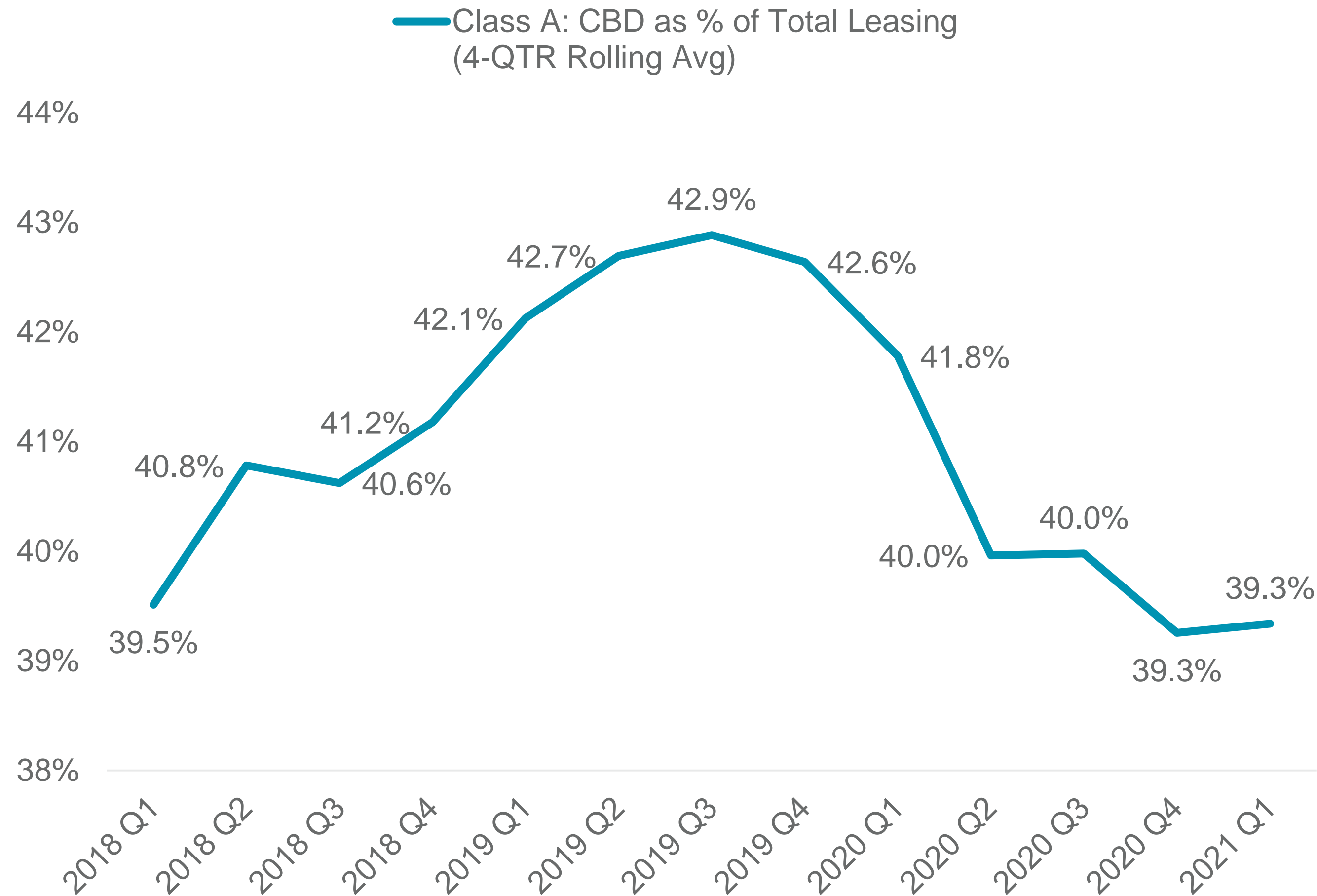
Source: Cushman & Wakefield Research

- Gateway markets are often on the leading edge of recessions, with office fundamentals declining and then recovering more quickly than the rest of the U.S. Note the strong rebound in the chart (2010 and 2011) following the Great Recession.
- Historically, the six gateway markets* have accounted for 44% of office leasing that occurs in the U.S. In 2020, leasing share declined to 41.5%, lower, but still within the normal range.
- Gateway markets' share improved in Q1 2021 to 43.4% of total leasing, which may be an early sign of recovery. Another positive sign in Q1 is that gateway markets saw 50% QoQ improvement in new leasing activity in their CBDs, led by Chicago (+101%) and Manhattan (+68%).

**Gateway markets include Boston, Chicago, Los Angeles, New York, San Francisco and Washington, DC*

SAME STORY IN THE CBD: MOST DID NOT MOVE OUT

CBD SHARE OF CLASS A OFFICE LEASING



Source: Cushman & Wakefield Research

- The data does not support a mass exodus of companies from urban cores and city centers. While leasing is down everywhere, the CBD continues to be a desirable location for occupiers attracting and retaining knowledge economy talent.
- Although the share of CBD leasing dipped during the pandemic, that can largely be explained by the fact that the CBDs were more deeply impacted by the pandemic versus the suburbs.
- The current range of 39.3% remains well within historical norms. In Q1 2018, for example, the share of CBD leasing was a very similar 39.5%.

CORPORATE HQ LEADERS STABLE

LARGEST COMPANIES CONTINUE TO CLUSTER IN LARGE STATES: CA, TX, NY & IL

U.S. State	2020 Count	Net Change 2010 to 2020
California	119	-6
Texas	96	2
New York	87	-2
Illinois	64	3
Ohio	53	0
Pennsylvania	44	-1
Florida	39	3
Virginia	36	1
Georgia	34	-1
Massachusetts	33	-1
North Carolina	32	5
New Jersey	28	-4
Michigan	27	-2
Connecticut	25	0
Minnesota	24	-1

Source: Fortune, Various web articles, Cushman & Wakefield Research

Previous Decade, 2010-2020

- Fortune 1000 firms' headquarters shifted towards the Sunbelt and Mountain regions. The biggest gainers include states wiath lower costs of doing business, high quality of life metrics, and a growing college-educated workforce: (e.g., NC, FL, CO).
- However, corporates continued to maintain a strong presence in CA, TX, NY, and IL, where over a third are headquartered.

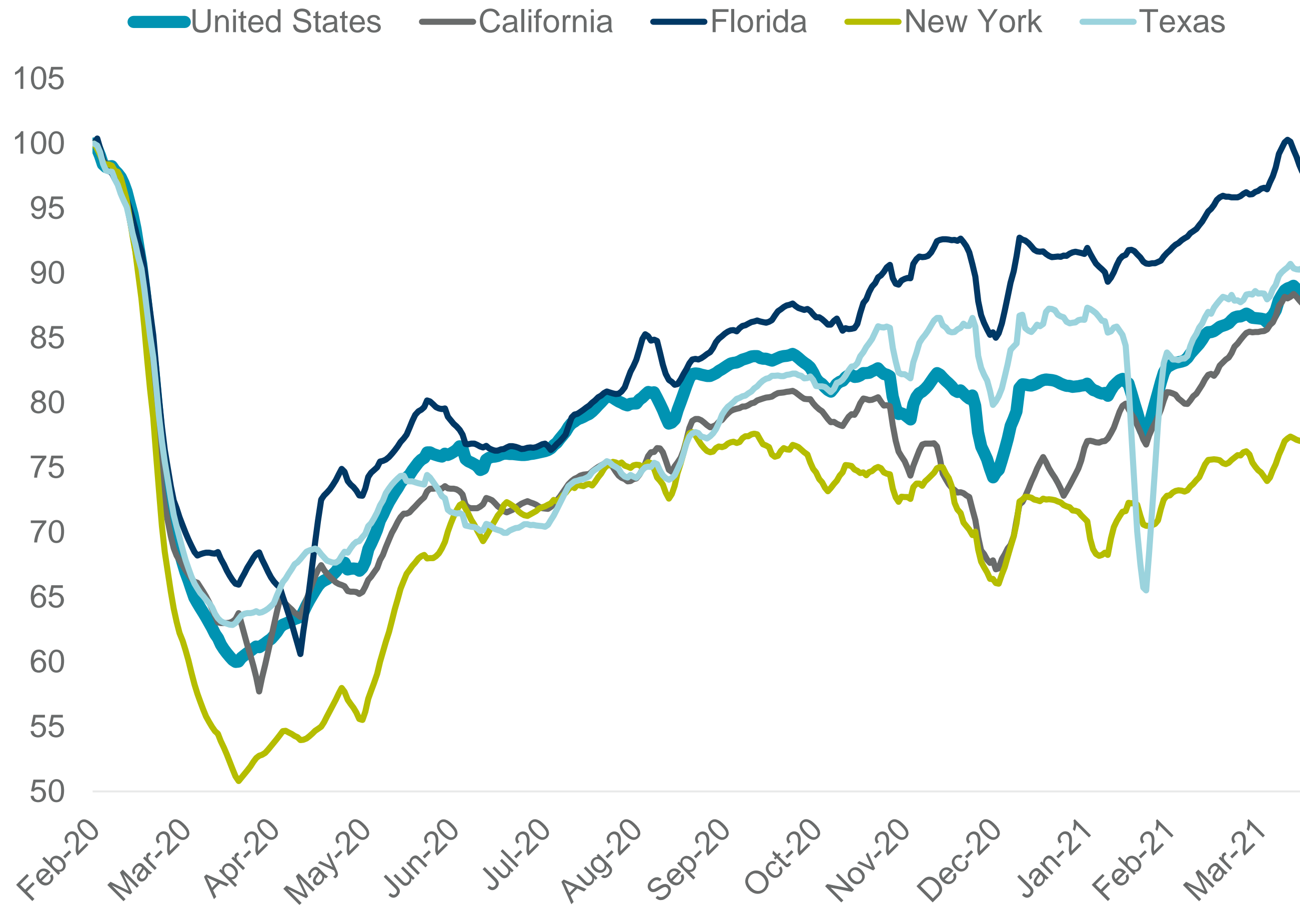
Recent Announcements

- Between 2019 and Q1 2021, 78 large corporates announced HQ moves, of which 68 are interstate. More than half of these announcements are leaving CA, and the most common destination is TX (55%).
- Some of these moves will mean more for corporate governance than they will be related to a large-scale shift of jobs. Most companies are moving to markets where they already have a presence and are planning to expand or build to fit the new HQ requirements.

What to expect in 2021 & beyond

WHAT IS THE HIGH FREQUENCY DATA TELLING US?

CNN BUSINESS/MOODY'S ANALYTICS' BACK TO NORMAL INDEX NEARING PRE-PANDEMIC LEVELS

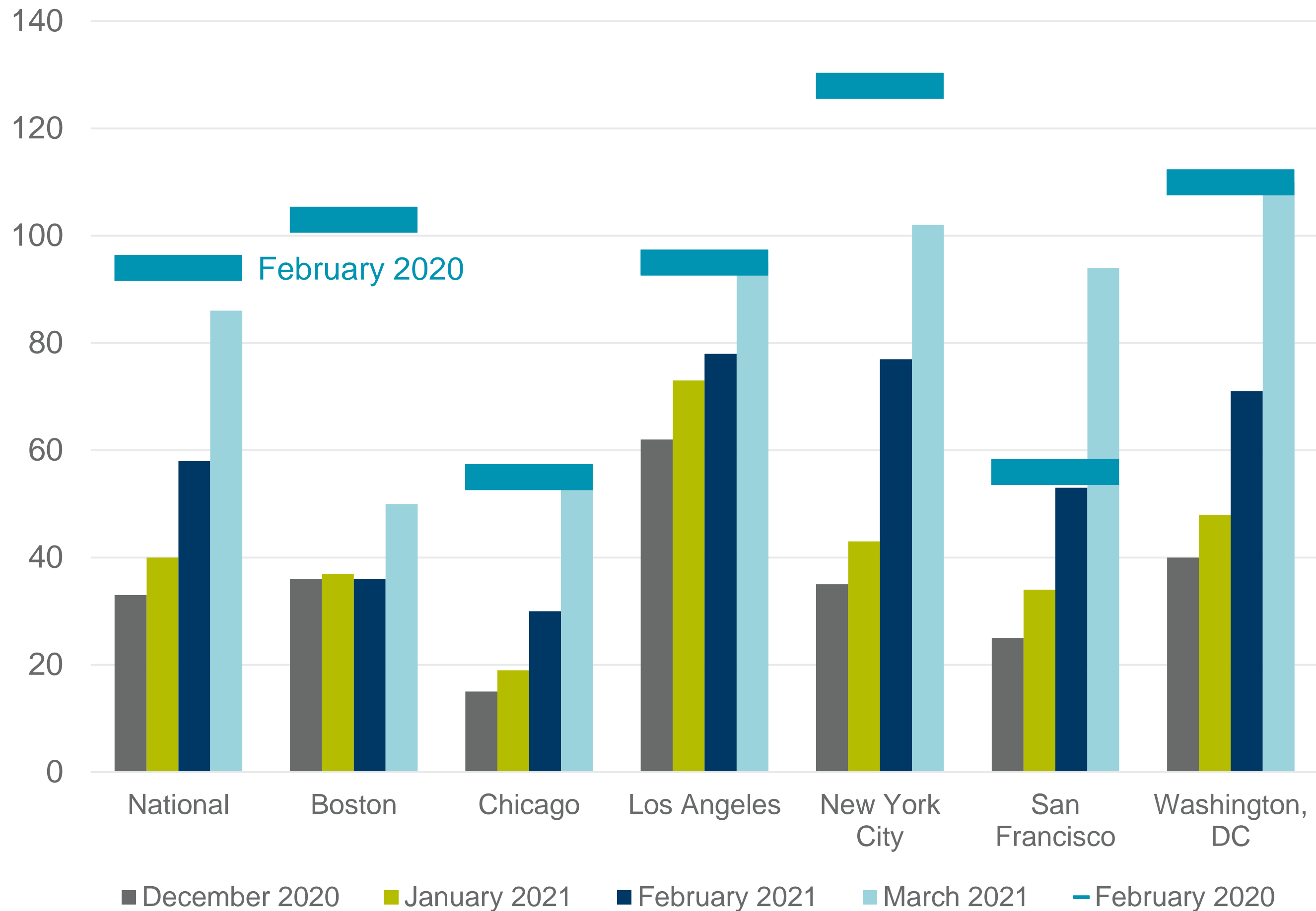


Source: CNN Business/Moody's Analytics: Back to normal index, (Index 29Feb2020=100, NSA)

- The high frequency data is telling us that the economy is very much on the mend.
- The daily Back-to-Normal index combines government data with high frequency data to measure how far the economy is from return to pre-pandemic performance. The national index has improved 18% since the beginning of the year, and many states have been trending up since February.
- However, the improvement has been uneven with the South recovering more quickly and the Northeast and Midwest lagging behind.
- If cases remain low as the vaccine rollout continues, on-the-ground activity should continue to improve, serving as a boon to office, retail and hospitality activity.

OFFICE TOURING ACTIVITY PICKING BACK UP

VTS OFFICE DEMAND INDEX (100 = 2018 LEVELS)

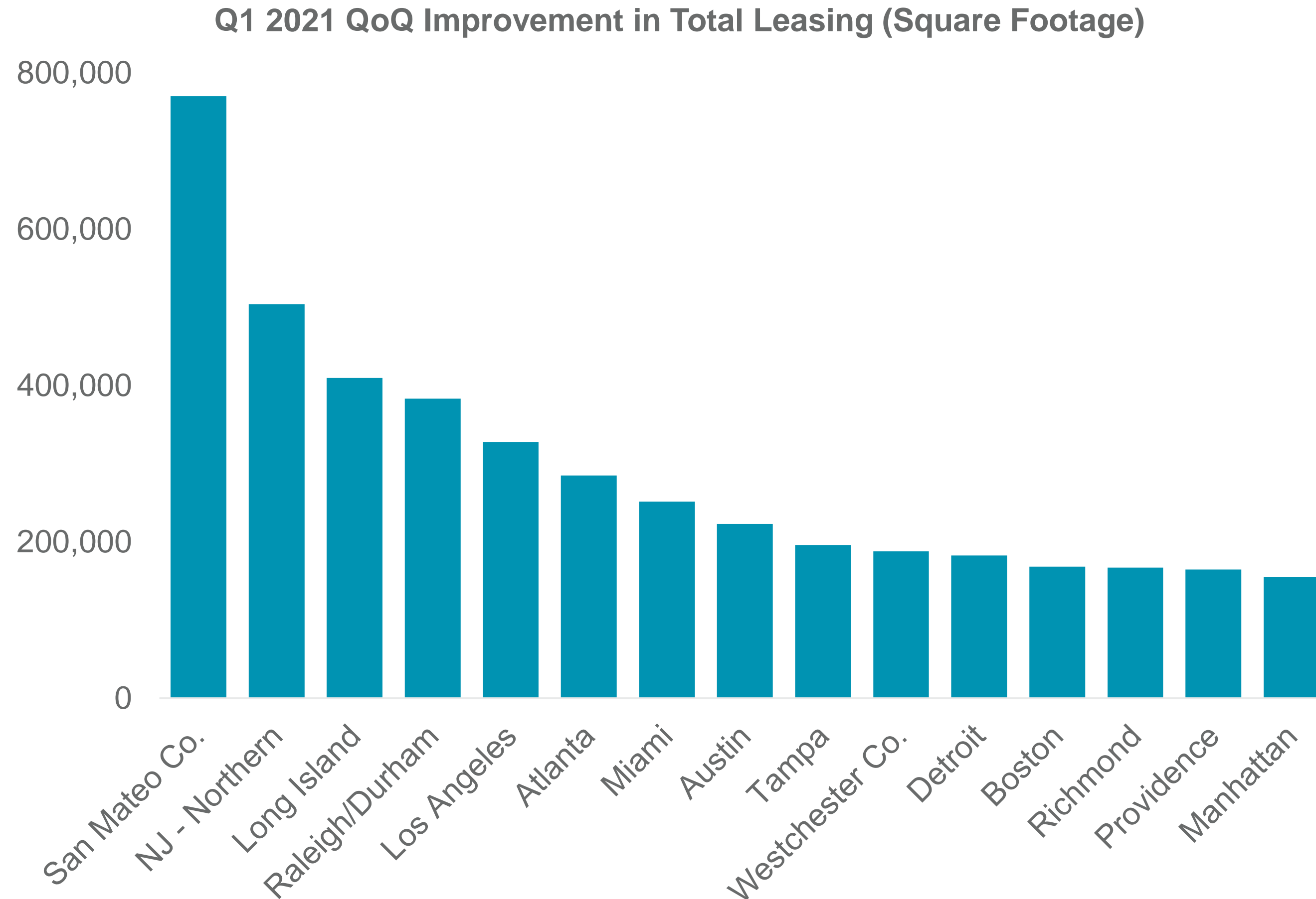


Source: VTS Office Demand Index (VODI), March 2021 Report

- Touring activity, a leading indicator of leasing, improved considerably in Q1.
- According to VTS, office touring activity cratered in the spring of 2020 when office workers moved to work-from-home en masse. Tours declined 85% between February and May.
- As of March 2021, U.S. office tour activity was just 9% below pre-pandemic levels.
- Gateway markets have seen substantial improvement in the quantity of occupiers searching for space in Q1 2021. Between December and March, the index more than doubled in four gateway markets:
  - San Francisco: +276%
  - Chicago: +253%
  - New York: +191%
  - Washington, DC: +175%

OFFICE LEASING PICKING UP IN SPOTS

INCREASE IN TOTAL LEASING BETWEEN Q4 2020 & Q1 2021

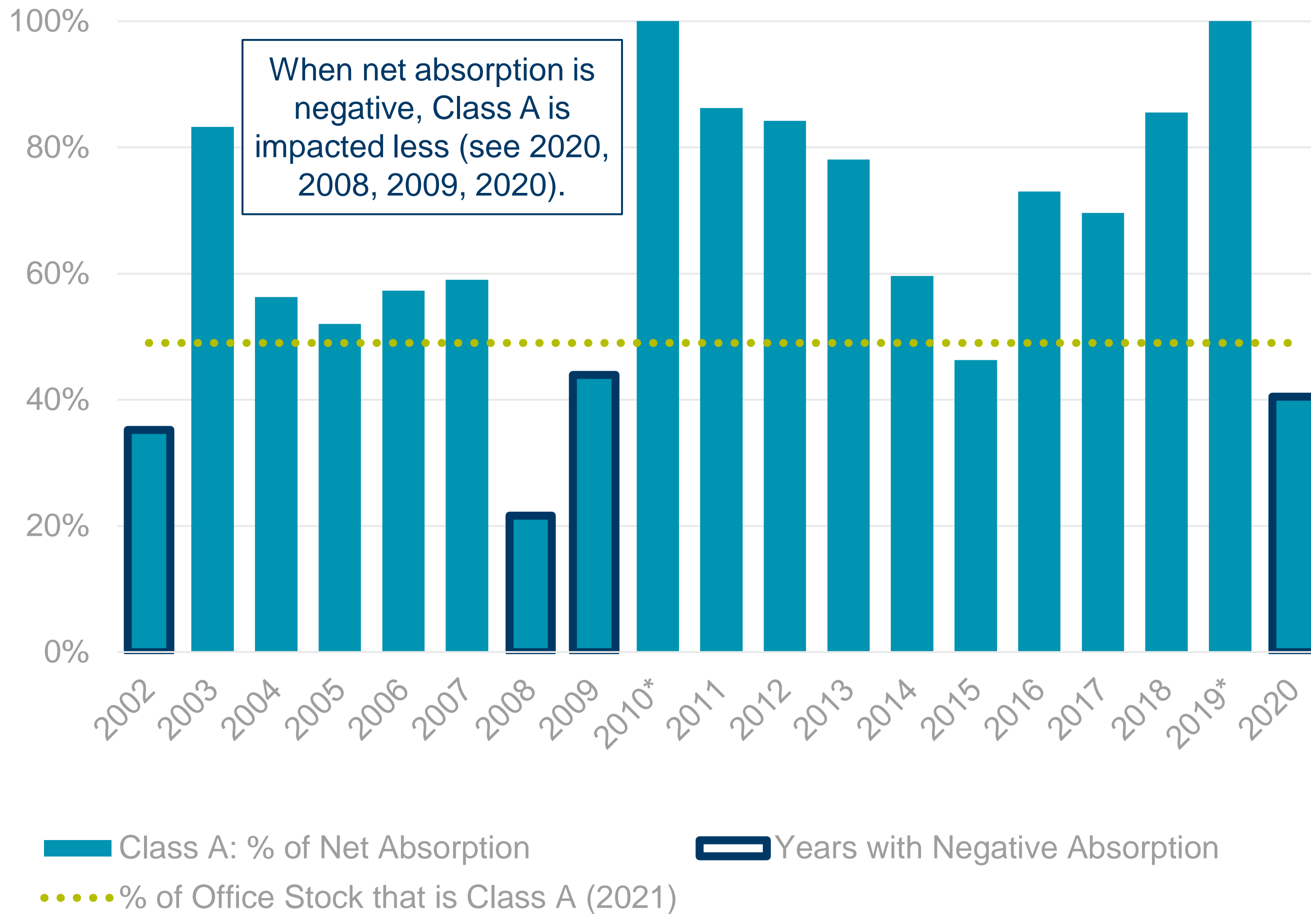


Source: Cushman & Wakefield Research

- Office leasing has been down across the board since the pandemic started. Negative net absorption has now exceeded the drops during the previous two recessions.
- Nationally, total office leasing declined in Q1 2021 by 10.7% quarter-over-quarter (QoQ). However, 40 of the 88 markets tracked by Cushman & Wakefield did improve.
- Many of the largest improvements were in gateway markets (e.g., Los Angeles, Boston and Manhattan) or gateway-adjacent markets outside New York and San Francisco (e.g., San Mateo Co., Northern NJ, Long Island and Westchester Co.).

FLIGHT TO QUALITY WILL CONTINUE

CLASS A: AS A % OF NET ABSORPTION



Source: Cushman & Wakefield Research

**In 2010 and 2019, Class A accounted for more than 100% of overall net absorption (i.e., Class B & C absorption was negative).*

- There has been a flight to quality as occupiers leverage office space to attract and retain in-demand, office talent. Between 2011 and 2019, 72% of net absorption was in Class A buildings.
- Immediately after the previous two recessions, Class A product made up 80%+ of net absorption (see 2003 and 2010-2012).
- This focus on quality has continued during the pandemic. While Class A product accounts for 49% of U.S. inventory, it has only accounted for 43% of the negative absorption since Q2 2020.
- As occupiers leverage greater workforce agility, the quality of space will be more, not less important. Employees coming in 2-4 days a week will expect the office to provide the space, services and amenities not available when working from home.

FLASH-IN-THE-PAN VS. SLOW & STEADY

MULTIFAMILY EFFECTIVE RENT GROWTH FORECAST 2021-2025

Average annual 2022-2025F effective rent growth rate is higher than both the 2021F *and* national forecast

Top 20 MSAs 2021F Eff. Rent Growth	2021F Eff. Rent (% Chg)	2022-2025F Eff. Rent (Avg. Annual % Chg)
Riverside	7.5%	3.1%
Sacramento	6.1%	2.4%
Phoenix	5.3%	4.8%
Tucson	5.0%	7.1%
Richmond	4.5%	4.9%
Virginia Beach	4.2%	2.5%
Memphis	4.1%	2.8%
Greensboro/Winston	4.0%	2.9%
Detroit	3.8%	3.5%
Nassau County	3.4%	3.2%
Tampa	3.3%	2.6%
Indianapolis	3.3%	2.8%
Atlanta	3.2%	3.8%
Columbus	3.1%	3.4%
Providence	3.0%	2.6%
Jacksonville	2.9%	2.0%
Fort Worth	2.7%	2.6%
Cincinnati	2.6%	3.7%
Hartford	2.5%	2.5%
Baltimore	2.4%	2.8%

Bottom 20 MSAs 2021F Rent Growth	2021F Eff. Rent (% Chg)	2022-2025F Eff. Rent (Avg. Annual % Chg)
Denver	-0.2%	3.2%
San Antonio	-0.3%	1.8%
Dallas	-0.4%	3.5%
Minneapolis	-0.7%	2.6%
Pittsburgh	-1.0%	3.5%
Miami	-1.9%	2.5%
Houston	-1.9%	3.4%
Nashville	-2.1%	2.9%
Newark	-2.1%	1.6%
Orlando	-2.3%	2.6%
Austin	-3.4%	3.0%
Chicago	**-3.7%**	**1.8%**
Washington D.C.	**-3.8%**	**3.3%**
Seattle	-3.9%	3.8%
Oakland	-4.0%	3.4%
Los Angeles	**-5.0%**	**2.7%**
Boston	**-6.4%**	**5.3%**
New York	**-9.8%**	**1.8%**
San Jose	-11.8%	2.6%
San Francisco	**-15.7%**	**5.5%**

Source: Axiometrics, Cushman & Wakefield Research; Only top 60 markets included in terms of multifamily unit inventory; Gateway markets are in blue

- National multifamily effective rent growth is forecasted to be just under 1.5% in 2021 with a longer-term outlook of a 3.1% average annual rate from 2022-2025.
- Forecasted effective rent growth among top 2021 performers—Inland Empire/Riverside, Sacramento, and Phoenix—is expected to slow, but remain above the national average.
- Rent growth is expected to accelerate sharply in Denver and Dallas in the coming years. Investors are willing to look past small effective rent growth declines in these markets because of this strong long-term outlook.
- Gateway markets have been a harder sell because of sharp ongoing rent declines, despite projected rental growth in out years.

NOMINAL HOME PRICE GROWTH FORECAST NEXT FIVE YEARS

GATEWAY HOME PRICE GROWTH SHARPLY CONTRASTS RENTAL TRENDS, WHILE INLAND EMPIRE, SACRAMENTO & TUCSON MAKE NO SUCH TRADEOFF

Rank	MSA	2021F Nominal Price (% Chg)	2022-2025F Price (Avg. Annual % Chg)
1	Riverside	13.9%	5.7%
2	**San Francisco**	**13.8%**	**11.0%**
3	Hartford	13.3%	8.2%
4	Sacramento	13.1%	7.5%
5	San Diego	13.0%	7.1%
6	Albuquerque	12.8%	5.3%
7	Worcester	12.4%	4.2%
8	San Jose	12.3%	13.2%
9	**Boston**	**11.5%**	**4.1%**
10	Philadelphia	10.9%	5.5%
11	**Washington D.C.**	**10.8%**	**4.2%**
12	Rochester	10.7%	5.2%
13	Richmond	10.6%	4.8%
14	**New York**	**10.5%**	**6.7%**
15	Seattle	10.4%	5.6%
16	Buffalo	10.2%	4.6%
17	Cincinnati	10.1%	5.0%
18	Tucson	9.9%	4.5%
19	St. Louis	9.9%	4.7%
20	**Los Angeles**	**9.8%**	**8.7%**

Rank	MSA	2021F Nominal Price (% Chg)	2022-2025F Price (Avg. Annual % Chg)
21	Kansas City	9.8%	3.7%
22	Portland	9.8%	6.7%
23	Tulsa	9.7%	4.8%
24	Providence	9.4%	5.5%
25	Virginia Beach	9.3%	5.6%
26	Oklahoma	9.2%	4.6%
27	Baltimore	9.1%	4.9%
28	Albany	8.9%	5.1%
29	Knoxville	8.8%	3.3%
30	Atlanta	8.7%	3.6%
31	Minneapolis	8.6%	3.3%
32	**Chicago**	**8.5%**	**5.3%**
33	Omaha	8.5%	3.6%
34	Phoenix	8.4%	2.3%
35	Pittsburgh	8.4%	3.8%
36	Raleigh	8.3%	2.9%
37	Louisville	8.2%	3.6%
38	Indianapolis	8.2%	4.2%
39	Milwaukee	8.0%	4.1%
40	Memphis, TN	7.9%	3.9%

Rank	MSA	2021F Nominal Price (% Chg)	2022-2025F Price (Avg. Annual % Chg)
41	Columbus	7.9%	4.2%
42	Charlotte	7.7%	2.5%
43	Birmingham	7.4%	4.1%
44	Grand Rapids	7.4%	3.5%
45	Cleveland	7.4%	5.9%
46	Dallas	7.0%	2.7%
47	Houston	6.8%	2.6%
48	San Antonio	6.6%	2.4%
49	Austin	6.5%	1.0%
50	Nashville	6.5%	2.4%
51	North Port	6.3%	0.0%
52	Tampa	6.3%	0.6%
53	Salt Lake City	6.2%	2.8%
54	New Orleans	6.1%	4.1%
55	Jacksonville	6.1%	1.0%
56	Detroit	5.9%	4.8%
57	Miami	5.7%	1.3%
58	Orlando	4.8%	0.5%
59	Denver	3.6%	1.9%
60	Las Vegas	1.8%	1.5%

Source: National Association of Realtors, Moody's Analytics, Cushman & Wakefield Research

Note: Median existing single-family home nominal price; Only top 60 markets represented in terms of number of households; Gateway markets highlighted in blue

JOB GROWTH ACCELERATING IN MAJOR MARKETS

NONFARM EMPLOYMENT GROWTH, CAGR

Average CAGR for 2020-2030F employment is higher than the previous decade

MSAs, Select *(Alphabetical Order)*	2010-2020 CAGR	2020-2030 CAGR
Atlanta	2.0%	1.4%
Austin	3.5%	2.3%
Baltimore	0.6%	1.0%
Boston	**0.5%**	**1.5%**
Chicago	**0.4%**	**0.9%**
Charlotte	2.0%	1.4%
Cincinnati	0.8%	1.1%
Cleveland	-0.1%	0.9%
Columbus	1.2%	1.3%
Dallas/Ft. Worth	2.4%	2.0%
Denver	2.2%	1.7%
Detroit	0.5%	0.9%
Houston	1.6%	1.9%
Indianapolis	1.6%	1.2%
Kansas City	0.9%	0.8%
Las Vegas	1.6%	2.6%
Los Angeles	**0.8%**	**1.2%**
Miami	1.5%	1.8%
Milwaukee	0.0%	1.1%
Minneapolis	0.7%	1.1%

MSAs, Select *(Alphabetical Order)*	2010-2020 CAGR	2020-2030 CAGR
Nashville	2.7%	1.2%
New York City	**0.4%**	**1.3%**
Orlando	2.0%	2.4%
Philadelphia	0.3%	1.0%
Phoenix	2.4%	1.7%
Pittsburgh	-0.2%	0.9%
Portland	1.4%	1.7%
Inland Empire	2.2%	1.7%
Sacramento	1.4%	1.3%
San Francisco	**1.6%**	**1.4%**
Silicon Valley	2.0%	1.4%
San Diego	1.3%	1.2%
Salt Lake City	2.4%	1.7%
San Antonio	2.0%	1.7%
Seattle	1.6%	1.8%
St. Louis	0.3%	0.8%
Tampa	1.9%	1.7%
Virginia Beach	0.4%	1.0%
Washington, DC	**0.7%**	**1.2%**

Source: Moody's Analytics, Bureau of Labor Statistics

Note: MSA data for markets with at least 750,000 nonfarm jobs as of 2020 Q1.

- The pandemic had a sudden and dramatic impact on employment, shedding over 22 million jobs in two months. Unlike other recessions, the recovery began quickly with nearly 14 million of those jobs restored by March 2021. It took 6+ years after the GFC to return to pre-recession levels, but the U.S. is forecast to return to pre-pandemic employment within three years.
- This will vary by market. Some that have been more resilient, such as Denver, are expected to return to pre-pandemic employment by early next year. Markets more severely impacted by the pandemic (e.g., New York) are expected to recover in 2023. Even those markets will recover considerably faster than after the GFC.
- Projected job growth for the next decade is expected to accelerate for gateway markets (from 0.7% to 1.3% CAGR), while secondary market growth is forecast to remain stable.

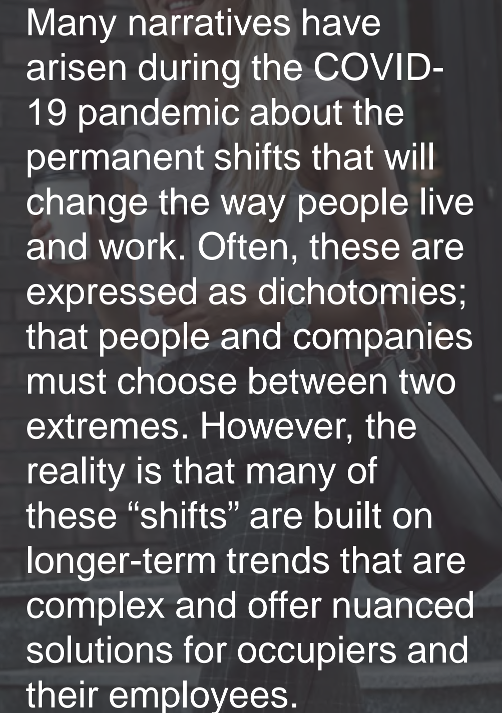
SECTION III.

How to take advantage of these trends

WHAT THIS MEANS FOR OCCUPIERS…

A CONTINUED PURSUIT OF OPPORTUNITY: CUSTOMERS & TALENT

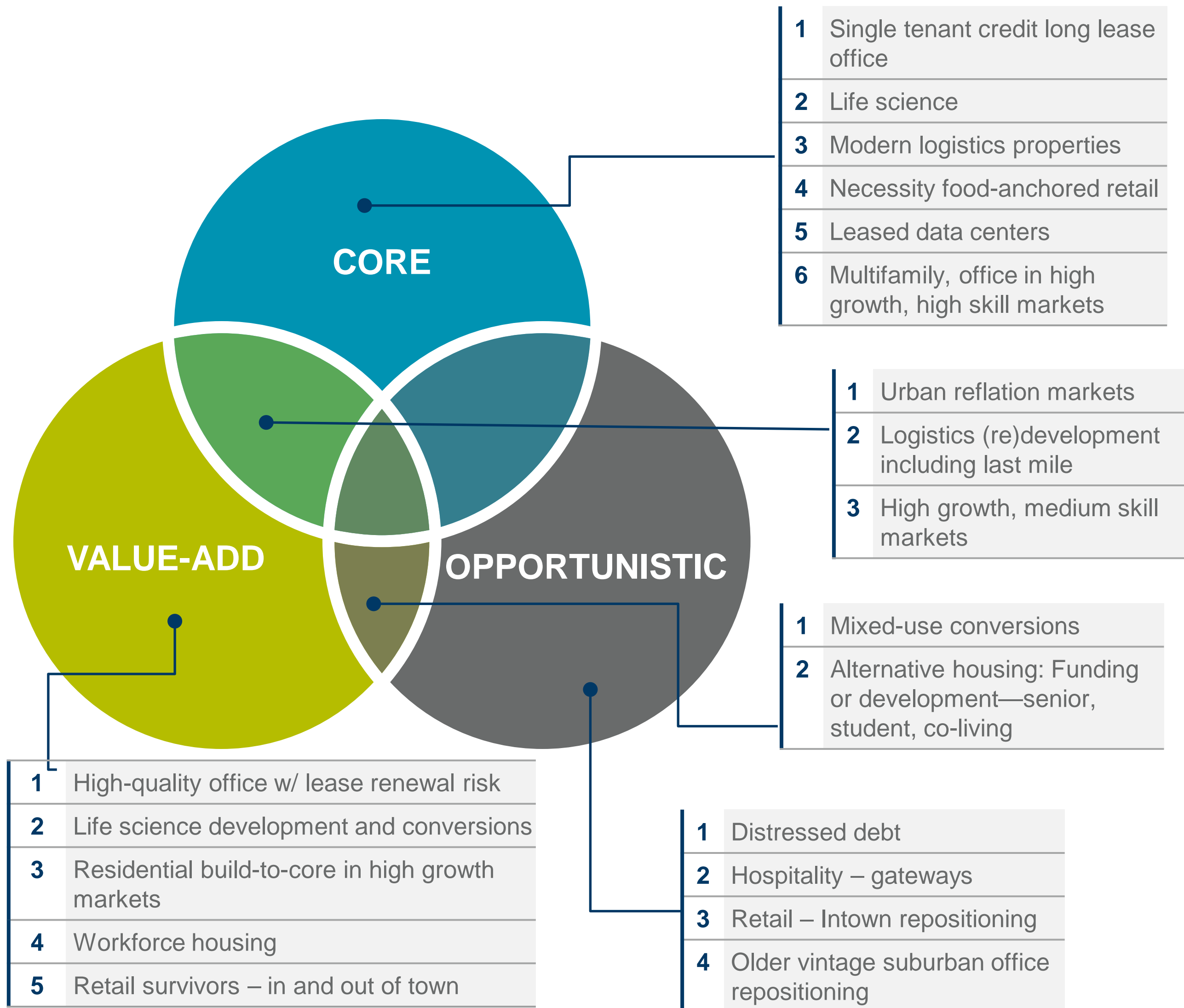
FALSE DICHOTOMY	THE FULL STORY
City or the suburbs?	During the pandemic, there has been an outflow of residents from city centers, understandably given the lack of amenities available during a health crisis. Two-thirds of the urban core population loss is actually due to a drop in move-ins; much of that demand is likely to return once the health concerns are behind us. There has been a large increase in temporary moves. Both of these facts support that many people will return to the CBD. The suburbs—especially urbanized suburban nodes—are likely to be attractive locations that offer occupiers and workers may of the amenities and services of the urban core with more proximity for some workers living in mature suburbs just outside the city. However, urban cores will thrive over the next decade as they attract in-demand, knowledge economy talent drawn to the revitalized CBDs on the other side of the pandemic.
The office or the *home* office	The pandemic-induced work-from-home experiment has exposed the fact that remote work was being under-utilized by occupiers and employees. There are real benefits of flexibility that allow office workers to focus better, balance work and life, and—maybe most importantly—experience autonomy over their work environment. The downsides of 100% remote work are also clear: disconnection with corporate culture and goals, a lower sense of wellbeing, reduced learning, and lower employee engagement. The post-pandemic workplace will look different. Office workers will be more agile and will access an ecosystem of workplaces that will include core office hubs, working from home, flexible office and on-demand event spaces, and third places. Employees will leverage multiple locations to optimize convenience, productivity and wellbeing.
Large or small markets	The pandemic has been disproportionately difficult for larger markets. There has also been a decades-long growth trend for Sunbelt markets offering low cost of living and high quality of life. However, most occupiers are leveraging both large and small markets to optimize their HR and business goals. Gateway markets—such as New York and San Francisco—will continue to be magnets for people and industry. Residents are drawn to the vitality, economic activity and social benefits of large, resourced markets. Many of these residents are knowledge economy and/or creative class workers who are in high demand for leading industries, such as technology, financial services, professional and business services, etc.



Many narratives have arisen during the COVID-19 pandemic about the permanent shifts that will change the way people live and work. Often, these are expressed as dichotomies; that people and companies must choose between two extremes. However, the reality is that many of these “shifts” are built on longer-term trends that are complex and offer nuanced solutions for occupiers and their employees.

WHAT THIS MEANS FOR INVESTORS…

SKATE TO WHERE (AND HOW) PEOPLE WILL LIVE AND WORK



Investment success will depend on each investor's ability to position their portfolio to benefit from where and how people will live and work in the post-pandemic economy.

We face an uneven recovery with winners and losers and a significant acceleration in structural changes.

For all assets, defining their "reason to be" for occupiers will be key—what do they add?

- For office, this will mean a greater focus on the collaborative potential of a location both within a single firm and across related firms.
- For logistics, the further expansion of last mile and even last meter distribution networks is set to continue unabated.
- For retail, the resilience of necessity retail has been demonstrated by experience. We expect experiential retail, particularly in higher income areas will rebound strongly from an end-user demand perspective. Those properties that were successful before will survive while others will be left moribund and need of substantial repositioning and or redevelopment.
- For residential, the pandemic accelerated shifts in demand into the homeownership market and in less dense and/or less costly areas within and across metros. Many investors were already well positioned for these shifts. Rents are repricing in dense urban markets and this will weigh on returns in the near-term, but contrarians can take advantage of lower basis plays to capitalize on eventual urban reflation.

Repurposing existing assets is a major area of opportunity, including mixed-use and specific sector prospects.

Demand for yield and term will bring greater opportunity for sale and leasebacks for buyers and sellers.

Strong debt availability adds to performance potential, but risk aversion brings more opportunity in providing development and structured finance.

Market access may be optimized via recapitalizing existing structures.

Indeed, platform potential including public to private, remains significant, particularly in adding AUM and in well-focused vehicles where management can add value.

A growing challenge in new and existing assets will be improving their ESG profile— without which they risk becoming unusable and irrelevant in the global market. Indeed, a new appraisal of performance may be needed to include non-financial targets.

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