

CRE Market Update and Outlook

August 2020

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Note to readers: Because of significant changes in much of the data caused by COVID-19, we have been very selective as to data sources used in this report. As a result, the exhibits are fewer in number and the level of detail is more limited than what is usually provided.

“Iterating” Towards Solutions

- Iterating (aka, “trial and error”) is perhaps the best way to describe what is occurring in all major sectors of the economy, as we continue to search for a way out of the pandemic. After experiencing some positive effects from previous advice regarding social distancing, wearing masks and handwashing, it seems that holidays (Memorial Day, Fourth of July) result in a step backward in reducing the number of infections. As we approach Labor Day and attendant school openings and sporting activities, the thought of another round of infections comes to mind.
- The current economic environment is being further clouded by: (1) ambiguity in areas such as school attendance and distance learning (or some combination of both) by school districts; (2) business entities announcing that working from home will continue for a year or more; (3) retail stores and restaurants closing, then re-opening; (4) social unrest and mass demonstrations being held in major CBDs; and the list goes on.
- All of the above combined with an overlay of individuals, groups and businesses deciding to maintain their “freedom and independence” by not complying with either government directives or voluntary “best practices,” further complicates matters.

Public Policy Responses

- “Operation Warp Speed” appears to be well underway, with at least three major pharmaceutical firms currently attempting to develop vaccines and are now approaching phase-three trials. Optimistic forecasts would have results from these trials ready by year-end. Depending on results and the complexity of vaccine(s) selected, production could commence in early-2021.
- Benefits from the \$2.1 trillion CARES Act, which provided direct funding via Economic Impact Payments of \$1,200 per adult in households, the PPP (Payroll Protection Program) for businesses and the extended unemployment insurance program that added an additional \$600 per week per unemployed individual, are beginning to wane. Congress is now attempting to pass another measure designed to supplement household incomes.
 - Unfortunately, passage of any legislation is currently at an impasse. Republicans want to extend benefits at a rate of \$400 per week while Democrats want to keep payments at current levels of \$600 per week. Given that this provision of the CARES Act expired on July 31, we expect to see some resolution soon, so as to keep some level of benefit payments flowing again by the end of August.

Current Monetary Policy

- We are likely to see a continuation of current Fed policy stressing low interest rates and a very accommodative monetary policy for the foreseeable future. While this was not unexpected, the length of time that this policy is to remain effective (into 2022) was surprising to many. Indeed, because of this, investors may be revising their assessment of the depth and duration of the recession.

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- While we see no threat of any immediate, significant inflation for the remainder of 2020, we remain somewhat skeptical of current monetary policy and the distortions that it may be causing over the longer term. Questions are being raised by many regarding the value of the dollar in international currency markets and the increase in U.S. debt as the Fed purchases debt issued by the Treasury to sustain low interest rates.
 - Long-term interest rates should remain near historic lows for at least the remainder of 2020. In addition to a very accommodative monetary policy, the Fed has also instituted various lending facilities through which it will make loans directly to businesses, state agencies and municipalities who may have difficulty raising capital in bond markets. The Fed also announced an expansion of its acquisition of corporate bonds by direct purchases, rather than buying ETF corporate bond funds.
 - The Fed also stressed that its involvement in private sector bond markets will cease when the economy resumes “normal growth.” As always, these actions become problematic at the time that the Fed faces a decision to cease expansion, so as to avoid withdrawing prematurely and impairing future economic growth.
 - An additional target established by the Fed is a “near zero” short-term rate and a very low long-term rate until inflationary pressure reaches a sustained level of 2%.
 - Low interest rates have motivated a significant increase in both single-family housing starts as well as refinancing existing mortgage loans.

Sizing the Impact on CRE

Employment.

- Exhibit 1 shows that total U.S. payroll employment peaked during February (pre-COVID) at 152.4 million jobs. It has subsequently declined by some 22.2 million jobs as of the end of April. However, since April it has rebounded by 9.3 million jobs. Nonetheless, a deficit of 12.9 million jobs from the February peak remains as of the end of July.
 - The unemployment rate, which escalated to 14.7% during April has fallen to 10.2% during July.
 - An important, and, perhaps, a very positive trend has followed, indicated by first-time weekly unemployment claims, which fell below 1 million in early August. This is the first reading below 1 million since early April.
- Exhibit 2 shows the major impact that COVID-19 has had on various employment sectors in the U.S. economy. To no surprise, YoY declines have been greatest in leisure and hospitality (including hotels and restaurants) with 4 million jobs lost, followed by trade and transportation (including retail stores and airlines) with 1.6 million jobs lost and education and healthcare with 1.2 million jobs lost.
 - Many observers were surprised by the magnitude of job losses during such a short time period. As a recovery gets underway, we expect a sharp increase in employment to occur in the above categories. However, a complete recovery is likely to take longer than the rate at which layoffs occurred in these sectors.

Transaction Volumes.

- Exhibit 3 shows that a significant decline in transaction volume has occurred during the past 12 months in all property categories. Total volume has declined by 62% on a YoY basis. The slowdown was greatest in the retail and multifamily property sectors where each declined by about 65%. As we have noted, transaction volume during the most recent quarter (2Q 2020) has fallen to almost zero among properties included in the NCREIF Property Index.

Cap Rates.

- As shown in Exhibit 4, cap rates in each property category have unambiguously increased. The average or composite cap rate during (2Q) 2020 stood at 0.057, up from 0.05 during the same period in 2019. This is consistent with the decline in transaction volume noted in Exhibit 3 and indicates that more volatility (risk) is expected in future employment, rents and occupancies. Further increases in cap rates are highly likely.

Investment Performance.

- Perhaps the most significant change in returns shown in Exhibit 5 occurred during the second quarter when the rate of appreciation in all property sectors turned negative, even for industrial/warehouse properties. However, industrial properties produced positive total returns (annualized) during (2Q)2020, which indicates the strength in demand for this property type in spite of turbulent economic conditions.

Expected Supply-Demand

- In Exhibits 6-7, we attempt to provide readers with a sense of supply-demand conditions as of the end of the second quarter by MSA. This, in turn, may help assess (1) how employment (demand) has been affected in a given MSA as well as relative to other MSAs; and (2) how extensive existing supply conditions may be when growth resumes.
 - By way of example, randomly choosing San Antonio, we see that during the most recent year, that MSA lost 70,667 jobs. When compared to its 10-year average job gain of 22,673, this shows that employment losses (in red) were 3.12x its normal annual job gain. However, the average job loss for all 35 MSAs was 7.46x the average annual gain. Therefore, San Antonio experienced less than average job losses compared to the average for all 35 MSAs.
- Looking to Exhibit 7 (Supply), we again pick San Antonio to illustrate.
 - In Panel A we see that for multifamily, current vacancy rates as of (2Q)20 was 6.2%, or slightly higher than the 4.8% reported for all 35 MSAs.
 - Expected completions are projected to be 1.6x, or higher, than its 10-year average. However, that is lower than the average reported for all 35 MSAs, which is 1.73x the reported 10-year growth averages. This implies that supply conditions for San Antonio multifamily properties are better than average when compared to all MSAs. A similar comparison can be made for office (Panel B), retail (Panel C) and warehouse (Panel D). Comparisons can be made within individual MSAs, as well as with other MSAs and/or the 35 MSA averages.

Exhibits

Exhibit 1 - Current Employment Trends					
	Total Employment (thous.)	Labor Force Participation	# TE Change	% TE Change	Unemployment Rate
Aug-19	151,160	63.2%	207	0.1%	3.7%
Sep-19	151,368	63.2%	208	0.1%	3.5%
Oct-19	151,553	63.3%	185	0.1%	3.6%
Nov-19	151,814	63.2%	261	0.2%	3.5%
Dec-19	151,998	63.2%	184	0.1%	3.5%
Jan-20	152,212	63.4%	214	0.1%	3.6%
Feb-20*	152,463	63.4%	251	0.2%	3.5%
Mar-20	151,090	62.7%	-1,373	-0.9%	4.4%
Apr-20	130,303	60.2%	-20,787	-13.8%	14.7%
May-20	133,028	60.8%	2,725	2.1%	13.3%
Jun-20	137,819	61.5%	4,791	3.6%	11.1%
Jul-20	139,582	61.4%	1,763	1.3%	10.2%

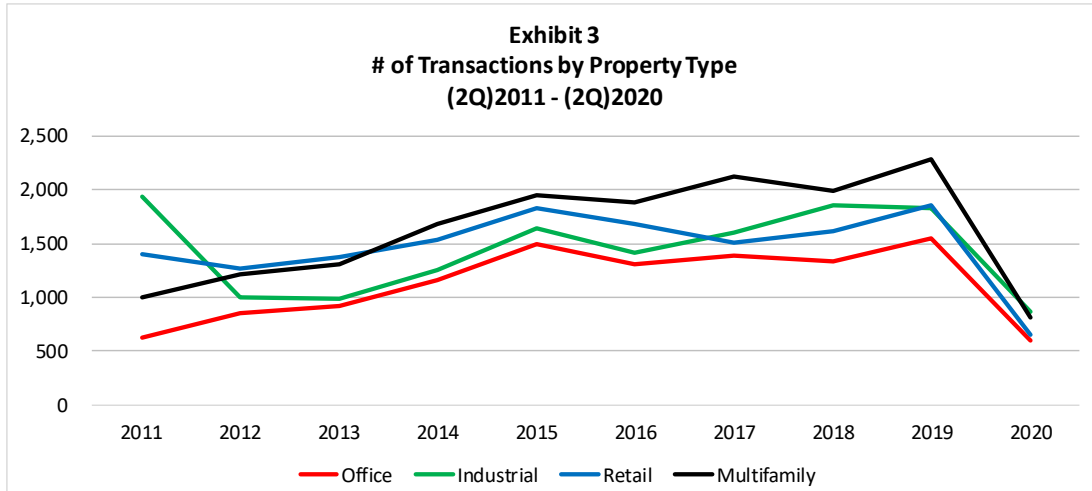
*peak

Source: Bureau of Labor Statistics

Exhibit 2							
Employment Characteristics by Industry Sector*							
(July 2010 - July 2020)				(July 2019 - July 2020)			
Rank	Sector	# 10yr Change	Share of # Chg	Rank	Sector	# 1yr Change	Share of # Chg
1	Professional and business services	3,129	34%	1	Leisure and hospitality	-4,001	35%
2	Education and healthcare	2,995	33%	2	Trade; transportation; and utilities	-1,569	14%
3	Construction	1,687	18%	3	Professional and business services	-1,435	13%
4	Trade; transportation; and utilities	1,549	17%	4	Education and healthcare	-1,229	11%
5	Financial activities	952	10%	5	Government	-967	9%
6	Manufacturing	551	6%	6	Manufacturing	-733	6%
7	Other services	-12	0%	7	Other services	-591	5%
8	Mining and logging	-87	-1%	8	Construction	-309	3%
9	Information	-139	-2%	9	Information	-298	3%
10	Leisure and hospitality	-521	-6%	10	Financial activities	-124	1%
11	Government	-949	-10%	11	Mining and logging	-115	1%
	Total	9,155	100%		Total	-11,371	100%

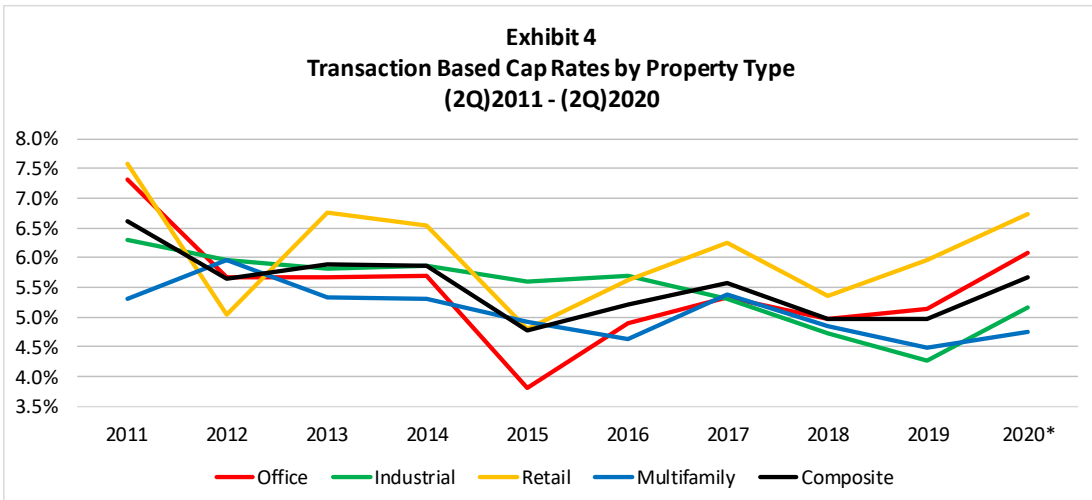
*Employment in thousands

Source: Bureau of Labor Statistics



Property Type	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Office	626	846	914	1,159	1,497	1,308	1,388	1,339	1,551	596
Industrial	1,934	1,005	983	1,260	1,647	1,413	1,607	1,855	1,829	866
Retail	1,407	1,266	1,380	1,531	1,833	1,685	1,514	1,620	1,853	652
Multifamily	1,000	1,219	1,303	1,684	1,956	1,880	2,123	1,995	2,288	808
Total	4,967	4,336	4,580	5,634	6,933	6,286	6,632	6,809	7,521	2,922

Source: Real Capital Analytics



Property Type	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020*
Office	7.3%	5.7%	5.7%	5.7%	3.8%	4.9%	5.3%	5.0%	5.1%	6.1%
Industrial	6.3%	6.0%	5.8%	5.9%	5.6%	5.7%	5.3%	4.7%	4.3%	5.2%
Retail	7.6%	5.0%	6.8%	6.5%	4.8%	5.6%	6.2%	5.4%	6.0%	6.7%
Multifamily	5.3%	6.0%	5.3%	5.3%	4.9%	4.6%	5.4%	4.8%	4.5%	4.8%
Composite	6.6%	5.7%	5.9%	5.9%	4.8%	5.2%	5.6%	5.0%	5.0%	5.7%

*Transaction volumes declined significantly towards the latter half of (2Q)20, which included only 28 transactions

Source: NCREIF

Exhibit 5							
Comparative Investment Performance: CRE by Property Type (Through 2Q20)							
Part A Property Sectors	Components	Returns (%)					
		2Q20 [†]	1-yr	3-yr	5-yr	10-yr	20-yr
CRE COMPOSITE*	Total:	-3.90%	2.69%	5.44%	6.77%	9.70%	8.42%
	Appreciation:	-7.76%	-1.65%	0.89%	2.07%	4.35%	2.22%
	Income:	4.10%	4.40%	4.52%	4.63%	5.19%	6.09%
MULTIFAMILY	Total:	-2.50%	2.98%	5.06%	6.23%	9.71%	8.29%
	Appreciation:	-6.40%	-1.21%	0.76%	1.77%	4.72%	2.75%
	Income:	4.10%	4.23%	4.28%	4.40%	4.83%	5.43%
INDUSTRIAL/WAREHOUSE	Total:	4.14%	10.26%	12.73%	12.77%	12.90%	9.88%
	Appreciation:	-0.28%	5.50%	7.68%	7.52%	7.03%	3.18%
	Income:	4.43%	4.57%	4.78%	4.98%	5.59%	6.54%
OFFICE	Total:	-1.99%	3.97%	5.76%	6.42%	9.05%	7.72%
	Appreciation:	-6.17%	-0.41%	1.22%	1.84%	3.84%	1.54%
	Income:	4.39%	4.40%	4.50%	4.52%	5.07%	6.10%
RETAIL	Total:	-14.53%	-5.58%	0.16%	3.80%	8.63%	9.07%
	Appreciation:	-17.41%	-9.67%	-4.27%	-0.87%	3.11%	2.62%
	Income:	3.32%	4.42%	4.58%	4.70%	5.40%	6.33%
SENIOR LIVING**	Total:	-3.94%	3.50%	7.41%	9.70%	11.36%	N/A
	Appreciation:	-7.91%	-1.44%	2.19%	4.31%	5.30%	N/A
	Income:	4.23%	4.95%	5.23%	5.39%	6.07%	N/A

Source: NCREIF Real Estate Performance Report, 2Q 2020.

*Composite index also includes hotels and some misc. properties not shown separately. **For information only; not included in the Composite. †Quarterly returns, annualized

Part B Other Benchmarks	Returns (%)						
	2Q20 [°]	1-yr	3-yr	5-yr	10-yr	20-yr	
10-YR TREASURY	Total:	0.69%	1.41%	2.24%	2.17%	2.28%	3.30%
CORP. HIGH YIELD BONDS	Total:	7.57%	6.34%	6.26%	6.58%	6.67%	8.56%
NAREIT EQUITY INDEX	Total:	13.25%	-6.47%	3.39%	6.49%	10.35%	10.11%
S&P 500	Total:	20.54%	7.51%	10.73%	10.73%	13.99%	5.91%

Sources: °Federal Reserve Bank of St. Louis; NCREIF Real Estate Performance Report, 1Q 2020

°Annualized

Exhibit 6

Employment Growth & Momentum for 35 Largest MSAs

Through (2Q)2020*

PANEL A		PANEL B		PANEL C - MOMENTUM					
MSA - Rank	Job Growth (2Q19 - 2Q20)	MSA - Rank	10yr. Avg. Growth	MSA - Rank	(i) Current**	(ii) VS. 35 MSAs***			
1	San Antonio	-70,667	1	New York MSA	137,177	1	Austin	-2.37	0.32
2	Austin	-79,767		New York	118,030	2	Phoenix	-2.68	0.36
3	Kansas City	-94,667		Newark	6,303	3	Dallas-Fort Worth MSA	-2.72	0.36
4	Indianapolis	-97,067		Long Island	12,123		Dallas	-2.36	0.32
5	Nashville	-97,100	2	Los Angeles MSA	83,983		Fort Worth	-3.75	0.50
6	Tampa	-101,400		Los Angeles	56,003	4	San Antonio	-3.12	0.42
7	Phoenix	-116,067		Anaheim	28,027	5	Nashville	-3.35	0.45
8	San Jose	-118,233	3	Dallas-Fort Worth MSA	83,377	6	Denver	-3.91	0.52
9	Columbus, OH	-125,833		Dallas	62,837	7	Tampa	-3.92	0.53
10	Denver	-128,867		Fort Worth	20,510	8	Houston	-4.03	0.54
11	Cincinnati, OH	-130,933	4	Houston	56,890	9	Atlanta	-4.27	0.57
12	Charlotte	-132,667	5	Atlanta	53,667	10	San Jose	-4.45	0.60
13	Portland	-134,300	6	San Francisco MSA	51,557	11	Riverside	-4.82	0.65
14	St. Louis	-138,367		San Francisco	31,367	12	Charlotte	-4.83	0.65
15	Cleveland	-163,300		Oakland	18,720	13	Indianapolis	-5.52	0.74
16	Baltimore	-166,033	7	Miami MSA	50,203	14	Orlando	-5.56	0.74
17	Pittsburgh	-169,000		Miami	22,400	15	Portland	-5.74	0.77
18	Riverside	-176,767		Fort Lauderdale	14,880	16	Miami MSA	-5.76	0.77
19	Orlando	-180,367		West Palm Beach	12,863		Miami	-5.26	0.70
20	San Diego	-188,033	8	Chicago MSA	46,890		Fort Lauderdale	-6.56	0.88
21	Las Vegas	-202,733		Chicago	38,820		West Palm Beach	-5.90	0.79
22	Dallas-Fort Worth MSA	-226,767		Lake County	4,000	17	Seattle MSA	-6.24	0.84
	Dallas	-148,167	9	Phoenix	43,320		Seattle	-6.14	0.82
	Fort Worth	-77,000	10	Seattle MSA	39,477		Tacoma	-7.03	0.94
23	Houston	-229,067		Seattle	34,237	18	San Francisco MSA	-6.45	0.86
24	Atlanta	-229,133		Tacoma	5,247		San Francisco	-4.84	0.65
25	Minneapolis	-239,933	11	Boston	38,757		Oakland	-8.79	1.18
26	Seattle MSA	-246,467	12	Washington, D.C.	38,050	19	Columbus, OH	-6.81	0.91
	Seattle	-210,167	13	Riverside	36,680		35 MSA AVG	-7.46	1.00
	Tacoma	-36,900		35 MSA AVG	35,508	20	San Diego	-7.57	1.01
	35 MSA AVG	-265,052	14	Austin	33,587	21	Washington, D.C.	-7.71	1.03
27	Miami MSA	-289,400	15	Denver	32,950	22	Kansas City	-8.01	1.07
	Miami	-117,833	16	Orlando	32,443	23	Minneapolis	-8.82	1.18
	Fort Lauderdale	-97,567	17	Detroit MSA	30,167	24	Los Angeles MSA	-9.74	1.30
	West Palm Beach	-75,933		Detroit	7,443		Los Angeles	-10.27	1.38
28	Washington, D.C.	-293,300		Warren	22,570		Anaheim	-8.59	1.15
29	San Francisco MSA	-332,433	18	Nashville	28,983	25	Las Vegas	-9.92	1.33
	San Francisco	-151,933	19	Charlotte	27,473	26	Cincinnati, OH	-10.47	1.40
	Oakland	-164,467	20	Minneapolis	27,213	27	Baltimore	-10.91	1.46
30	Philadelphia MSA	-386,633	21	San Jose	26,557	28	Boston	-11.45	1.53
	Philadelphia	-102,300	22	Philadelphia MSA	26,123	29	Chicago MSA	-11.87	1.59
	Montgomery County	-159,533		Philadelphia	10,737		Chicago	-11.28	1.51
31	Detroit MSA	-392,067		Montgomery County	9,610		Lake County	-12.88	1.72
	Detroit	-151,267	23	Tampa	25,863	30	New York MSA	-12.99	1.74
	Warren	-241,600	24	San Diego	24,843		New York	-11.03	1.48
32	Boston	-443,667	25	Portland	23,397		Newark	-32.06	4.29
33	Chicago MSA	-556,467	26	San Antonio	22,673		Long Island	-20.85	2.79
	Chicago	-438,000	27	Las Vegas	20,440	31	Detroit MSA	-13.00	1.74
	Lake County	-51,500	28	Columbus, OH	18,477		Detroit	-20.32	2.72
34	Los Angeles MSA	-817,800	29	Indianapolis	17,570		Warren	-10.70	1.43
	Los Angeles	-575,367	30	Baltimore	15,223	32	St. Louis	-14.52	1.95
	Anaheim	-240,833	31	Cincinnati, OH	12,507	33	Philadelphia MSA	-14.80	1.98
35	New York MSA	-1,781,533	32	Kansas City	11,823		Philadelphia	-9.53	1.28
	New York	-1,302,367	33	St. Louis	9,530		Montgomery County	-16.60	2.22
	Newark	-202,067	34	Cleveland	7,710	34	Cleveland	-21.18	2.84
	Long Island	-252,767	35	Pittsburgh	7,187	35	Pittsburgh	-23.52	3.15

*Years ending 2Q

**1yr growth (A) divided by 10yr avg. growth (B). Green (red) shading indicates 1yr growth exceeds (is less than) the 10yr avg.

***Ratio of current growth for each MSA relative to the 35 MSA average. Green (red) shading indicates that current momentum for an MSA exceeds (is below) the average momentum for all 35 MSAs

Source: Bureau of Labor Statistics

Exhibit 7
Supply Trends by Property Type and MSA
(2Q) 2020

(Panel A): Multifamily					(Panel B): Office					(Panel C): Retail					(Panel D): Industrial								
Rank on O/U	Market	(2Q)20 Vacancy	Exp Comp*	10yr Avg Comp	Over/Under ^o	Rank on O/U	Market	(2Q)20 Vacancy	Exp Comp*	10yr Avg Comp	Over/Under ^o	Rank on O/U	Market	(2Q)20 Vacancy	Exp Comp*	10yr Avg Comp	Over/Under ^o	Rank on O/U	Market	(2Q)20 Vacancy	Exp Comp*	10yr Avg Comp	Over/Under ^o
1	Pittsburgh	3.6%	647	976	0.66	1	Baltimore	10.2%	692	1,236	0.56	1	Columbus	10.9%	0	102	0.00	1	Saint Louis	5.2%	2,816	2,872	0.98
2	Columbus	5.1%	1,686	2,408	0.70	2	Houston	17.3%	3,001	5,078	0.59	2	Portland	7.0%	0	173	0.00	2	Washington, DC MSA	5.6%	1,781	1,757	1.01
3	Indianapolis	5.3%	1,384	1,874	0.74	3	Columbus	7.6%	656	880	0.75	3	Cleveland	13.9%	0	52	0.00	3	Seattle	5.2%	4,000	3,104	1.29
4	Las Vegas	4.4%	1,528	1,553	0.98	4	Cincinnati	8.2%	491	613	0.80	4	Minneapolis	10.8%	0	88	0.00	4	Riverside	4.0%	22,916	16,737	1.37
5	Denver	5.9%	5,877	5,672	1.04	5	Indianapolis	8.2%	538	619	0.87	5	San Diego	6.3%	0	123	0.00	5	Los Angeles MSA	3.3%	6,128	4,367	1.40
6	Baltimore	4.6%	2,442	2,238	1.09	6	Cleveland	6.8%	430	486	0.89	6	St. Louis	12.5%	0	68	0.00	6	San Diego	5.9%	1,371	914	1.50
7	Riverside	3.8%	1,181	1,022	1.16	7	Dallas-Ft. Worth	15.9%	4,740	5,335	0.89	7	San Jose	5.5%	0	158	0.00	7	Portland	4.3%	3,839	2,501	1.53
8	Nashville	5.5%	4,134	3,435	1.20	8	Philadelphia	8.5%	1,330	1,399	0.95	8	San Francisco MSA	7.2%	0	198	0.00	8	Kansas City	4.6%	6,315	4,049	1.56
9	Chicago	5.4%	6,217	4,826	1.29	9	Washington, DC MSA	13.2%	3,687	3,873	0.95	9	Pittsburgh	11.5%	0	55	0.00	9	Chicago	6.2%	21,022	13,282	1.58
10	Austin	5.9%	7,677	5,924	1.30	10	Boston	7.9%	3,579	2,728	1.31	10	Baltimore	8.2%	21	179	0.12	10	Dallas-Ft. Worth	6.7%	26,696	15,855	1.68
11	Orlando	6.0%	5,254	4,023	1.31	11	San Antonio	9.7%	1,459	1,071	1.36	11	Indianapolis	16.5%	10	61	0.16	11	Boston	4.6%	1,978	1,160	1.71
12	Portland	5.8%	4,106	3,114	1.32	12	Denver	11.0%	2,266	1,601	1.42	12	Suburban D.C.	6.6%	46	253	0.18	12	San Antonio	7.0%	4,489	2,625	1.71
13	St. Louis	4.6%	1,310	985	1.33	13	Pittsburgh	8.5%	1,171	792	1.48	13	Atlanta	11.3%	71	285	0.25	13	Charlotte	7.2%	6,498	3,783	1.72
14	Tampa	4.8%	4,045	3,013	1.34	14	San Diego	10.0%	1,135	767	1.48	14	Detroit	12.0%	41	164	0.25	14	Cleveland	4.7%	1,373	764	1.80
15	Seattle MSA	5.0%	9,107	6,469	1.41	15	Phoenix	12.2%	2,852	1,899	1.50	15	Cincinnati	10.8%	20	69	0.29	15	Austin	8.1%	3,020	1,673	1.81
16	Dallas-Ft. Worth	5.8%	21,300	13,869	1.54	16	Las Vegas	11.1%	766	500	1.53	16	Philadelphia	11.4%	71	233	0.30	16	Houston	8.0%	22,848	12,560	1.82
17	San Antonio	6.2%	5,705	3,563	1.60	17	35 MSA AVG	9.4%	2,732	1,704	1.60	17	Dallas-Ft. Worth	12.1%	205	635	0.32	17	Cincinnati	5.6%	5,686	3,108	1.83
18	Washington, DC MSA	4.7%	14,096	8,592	1.64	18	Saint Louis	7.0%	1,024	600	1.71	18	Charlotte	9.7%	45	129	0.34	18	35 MSA AVG	5.6%	7,994	4,345	1.84
19	Charlotte	6.3%	7,264	4,278	1.70	19	San Jose	8.9%	4,865	2,739	1.78	19	Chicago	12.3%	86	235	0.37	19	Baltimore	9.1%	4,681	2,525	1.85
20	Atlanta	5.1%	10,237	5,970	1.71	20	Riverside	7.0%	533	282	1.89	20	Orlando	9.8%	107	283	0.38	20	Pittsburgh	6.0%	1,734	917	1.89
21	Cincinnati	4.1%	1,695	983	1.72	21	Charlotte	7.4%	2,655	1,387	1.91	21	Los Angeles MSA	6.5%	144	313	0.46	21	Detroit	3.6%	4,350	2,274	1.91
22	35 MSA AVG	4.8%	6,951	4,010	1.73	22	Chicago	12.4%	4,649	2,413	1.93	22	Kansas City	11.6%	44	92	0.48	22	Philadelphia	5.2%	7,365	3,834	1.92
23	Houston	5.6%	16,691	9,472	1.76	23	Seattle	6.3%	5,148	2,660	1.94	23	Seattle MSA	7.6%	124	180	0.68	23	Atlanta	6.2%	18,867	9,625	1.96
24	San Diego	3.8%	3,889	2,042	1.90	24	Minneapolis	8.1%	2,409	1,201	2.01	24	35 MSA AVG	9.9%	151	207	0.73	24	Minneapolis	3.7%	4,899	2,471	1.98
25	New York MSA	4.0%	13,156	6,877	1.91	25	Kansas City	8.1%	1,691	783	2.16	25	Houston	12.2%	817	1,017	0.80	25	New York MSA	4.3%	11,933	5,893	2.02
26	Boston	5.4%	8,024	4,058	1.98	26	Tampa	7.6%	1,290	588	2.20	26	Boston	7.6%	118	138	0.86	26	Denver	5.8%	6,009	2,927	2.05
27	Minneapolis	4.3%	6,234	3,047	2.05	27	Los Angeles MSA	10.1%	5,597	2,524	2.22	27	Tampa	9.5%	87	97	0.90	27	Indianapolis	4.4%	11,778	5,258	2.24
28	Cleveland	4.0%	1,309	617	2.12	28	Austin	10.1%	4,530	2,035	2.23	28	Suburban NYC	10.3%	345	339	1.02	28	San Jose	5.7%	1,284	539	2.38
29	Miami MSA	6.0%	14,371	6,552	2.19	29	New York MSA	8.8%	11,980	5,371	2.23	29	Riverside	9.8%	213	199	1.07	29	Columbus	6.5%	9,698	4,049	2.39
30	Philadelphia	4.0%	6,361	2,853	2.23	30	Atlanta	11.8%	4,174	1,824	2.29	30	Nashville	9.1%	138	84	1.64	30	Miami MSA	5.5%	9,486	3,875	2.45
31	Kansas City	4.4%	4,893	2,135	2.29	31	Nashville	7.4%	3,029	1,324	2.29	31	Miami MSA	7.9%	595	359	1.66	31	Orlando	6.7%	4,829	1,923	2.51
32	San Jose	3.8%	5,523	2,285	2.42	32	San Francisco MSA	8.5%	4,871	1,934	2.52	32	San Antonio	9.6%	347	208	1.66	32	Phoenix	7.3%	15,610	6,010	2.60
33	Phoenix	4.5%	11,132	4,347	2.56	33	Portland	8.0%	1,911	758	2.52	33	Phoenix	9.5%	485	268	1.81	33	Tampa	5.1%	3,488	1,332	2.62
34	Los Angeles MSA	3.9%	20,328	7,763	2.62	34	Miami MSA	9.2%	2,956	1,159	2.55	34	Denver	8.9%	213	105	2.02	34	Las Vegas	5.8%	6,957	2,587	2.69
35	San Francisco MSA	4.0%	10,835	2,854	3.80	35	Detroit	10.0%	1,584	536	2.96	35	Austin	7.8%	466	191	2.44	35	San Francisco MSA	5.9%	5,591	1,995	2.80
35	Detroit	3.3%	3,661	677	5.41	35	Orlando	7.6%	1,941	637	3.05	35	Las Vegas	13.0%	436	111	3.92	35	Nashville	3.4%	8,472	2,946	2.88

*Four quarter average (3Q20 - 2Q21), in thousands of square feet or in units (multifamily)

^oRatio of expected completions to 10yr average. Values (red) >1.0 indicate expected completions for the coming year will be in excess of 10yr average. Values (green) <1.0 indicate that expected completions for the coming year will be below 10yr average.

Sources: CoStar, REIS