MOODY'S
ANALYTICS

ANALYSIS
17 FEBRUARY 2022

Author
Victor Calanog PhD
Jun Chen PhD
Todd Metcalfe PhD

Contact Us
Americas
+1.212.553.1658
clientservices@moodys.com

Europe
+44.20.7772.5454
clientservices.emea@moodys.com

Asia (Excluding Japan)
+85 2 2916 1121
clientservices.asia@moodys.com

Japan
+81 3 5408 4100
clientservices.japan@moodys.com

The Outlook for Multifamily, CRE, and Housing in 2022

Uncertainty Amidst a Strong Recovery

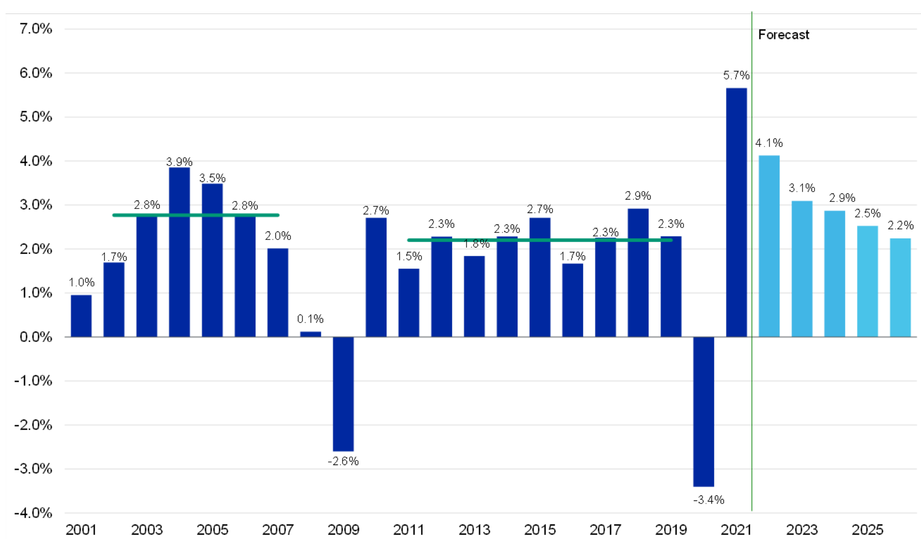
Executive Summary

Several sectors in multifamily, commercial real estate, and the US housing market experienced not just a robust recovery throughout 2021 – some property types and geographic markets posted record-breaking (positive) performance metrics. Still, with the prospect of tightening monetary policy, expect continued volatility throughout 2022 across asset classes. Hotel performance metrics took a hit from the Delta and Omicron variants throughout the latter half of 2021, and the future of property types like office and retail remains decidedly uncertain. Home price gains will likely moderate, but overall there is still a housing shortage in the US, which should forestall major downturns in residential prices.

I. Introduction

As expected, US real GDP grew at a rate unseen in nearly 40 years throughout 2021, clocking in at 5.7% for the year. Fourth quarter annualized figures came in at 6.9%, suggesting that economic activity ramped up in the last three months of the year even as it dipped (likely because of Delta fears) in the third quarter (2.3% annualized growth rate).

Figure 1 US GDP Growth Rates and Forecasts



Source: Bureau of Economic Analysis; Moody's Analytics

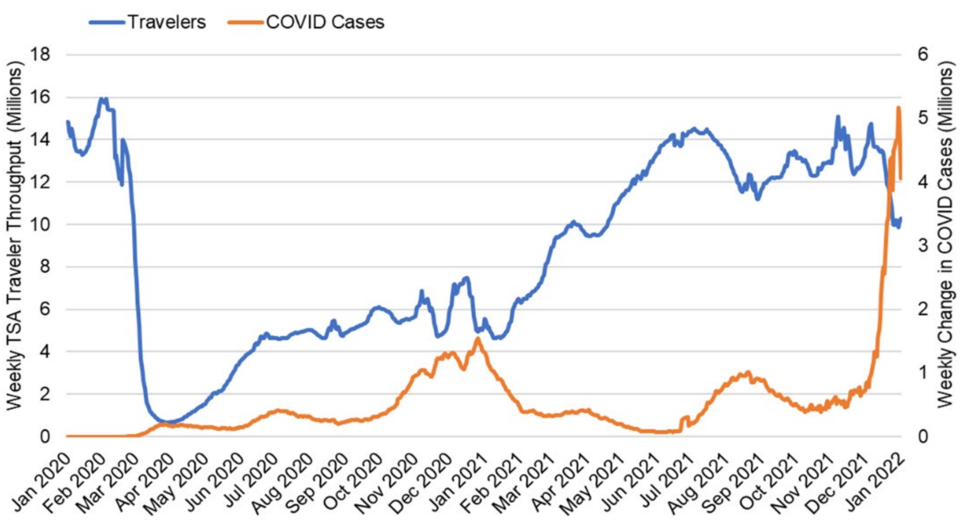
Our current forecasts call for US GDP to grow at 4.1% in 2022. While that represents a slowdown relative to 2021, it will still be the most robust growth rate on record in over two decades (with the exception, of course, of 2021). The US economy has not grown at 4.1% or above since the year 2000, during the height of the tech boom.

Trends over the last couple of decades have in fact prompted economists to lower estimates for the US economy's long-run growth potential – down approximately 100 basis points, to between 1.9 and 2.1%. Given that we grew at nearly three times that rate in 2021, and are slated to grow at the double our long-run growth potential this year, aggregate demand has been undeniably robust. With much-discussed supply chain issues still in play, it is also therefore no surprise that strong GDP growth came with higher prices in general: for consumer goods, headline inflation of 7% was the highest 12-month increase since 1982.[1] US wages rose at around 4% - the highest since 2001.[2]

Given this mixed bag of higher growth and higher prices, it is also not a surprise that the Federal Reserve has signaled an increase in overnight borrowing rates in their next meeting in March. This will likely impact CRE capital markets in very nuanced ways, and we will discuss this in more detail in Section IV.

February 2022 also marks the second year since the recognition of the pandemic's potential effect and related lockdown policies came into play. We now have two years of data on how COVID-19 cases tends to affect travel volume in the US, allowing us to make reasonable inferences about how this should inform our 2022 outlook.

Figure 2 COVID Cases and Travel Volume



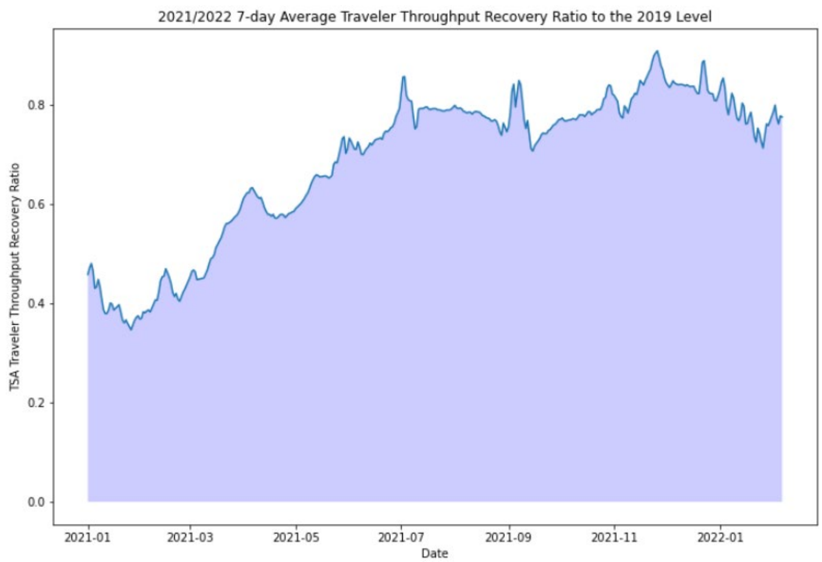
As Figure 2 above shows, the Delta variant prompted COVID cases to rise starting at or around July of 2021, but there wasn't a marked (or permanent) decline in travel volume. If anything, the dip in TSA traveler throughput evident at or around September 2021 may have been driven by the start of the school year and the return of most US educational institutions to the face-to-face option.

[1] https://www.cnbc.com/2022/01/12/cpi-december-2021-.html
[2] https://www.wsj.com/articles/us-employers-labor-costs-inflation-11643331612

Omicron, on the other hand, spread quickly starting last December 2021, knocking down travel in late December throughout January 2022 to levels unseen since April of 2021. Data from several states suggest that COVID spikes appear to have peaked and are on the decline; at the beginning of February 2022, TSA travel throughput sat at 78.58% relative to 2019 averages. That's down from a recent high of 90.84%, recorded during Thanksgiving weekend in late November 2021 – but slightly up from what appears to be the Omicron-driven nadir of 71.27% recorded on January 26, 2022.

Overall, the time series data presented in Figure 2 suggests two specific points: first, we have not quite reverted to pre-COVID travel volumes. And second, that there is an intuitively consistent inverse relationship between travel volume and COVID cases. A spike in COVID cases generally leads to lower travel volume (and in Section II we will discuss how that affected hotel performance metrics in late 2021) but if strict lockdown measures are not reimposed, it does not appear that we will experience the same kind of massive drop in demand that characterized those incredibly volatile days from March through April 2020.

Figure 3 7-Day Average Traveler Throughput (% Relative to 2019)



Economic growth for 2021 was at its strongest since 1984, but higher aggregate demand combined with supply chain issues equates to price pressure. The outlook for monetary policy is therefore tightening: just three to four months ago we expected one (maybe two) rate hikes. We now expect three rate hikes throughout 2022. Continuing uncertainty stems from how the world is continuing to figure out how to live with this pandemic. There was uncertainty around elements of infrastructure spending throughout January; and geopolitical saber rattling spooked the market for several weeks.

Still, our baseline forecasts are calling for a 4.1% growth rate for US real GDP in 2022, which in general will translate for another positive and very busy year for multifamily and CRE.

II. Multifamily and CRE Throughout 2021

Multifamily posted many records throughout 2021 – such was the strength of its recovery post-COVID. Asking and effective rent growths of 11.9% and 12.5% (respectively) for 2021 represent the strongest rent growth figures on record since REIS began tracking multifamily data in 1980. The national vacancy rate hit 4.7% by the end of the fourth quarter – below the pre-COVID levels of 4.8% from the end of 2019.

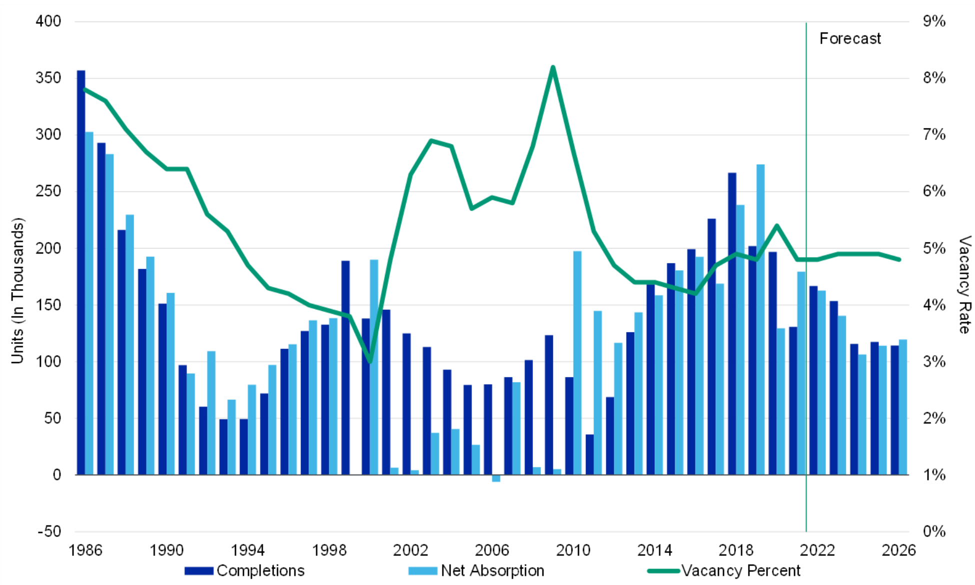
Figure 4 Multifamily Quarterly Performance Metrics

Year	Qtr	Asking Rent	Percent Change	Effective Rent	Percent Change	Vacancy Rate
2014	4	$1,193	0.8%	$1,146	0.8%	4.4%
2015	1	$1,205	1.0%	$1,159	1.1%	4.3%
2015	2	$1,226	1.8%	$1,179	1.8%	4.3%
2015	3	$1,249	1.8%	$1,200	1.8%	4.3%
2015	4	$1,262	1.1%	$1,213	1.1%	4.3%
2016	1	$1,274	0.9%	$1,223	0.9%	4.3%
2016	2	$1,291	1.4%	$1,240	1.4%	4.2%
2016	3	$1,308	1.3%	$1,255	1.2%	4.2%
2016	4	$1,313	0.4%	$1,260	0.4%	4.2%
2017	1	$1,325	0.9%	$1,268	0.6%	4.4%
2017	2	$1,345	1.6%	$1,285	1.3%	4.4%
2017	3	$1,364	1.4%	$1,301	1.3%	4.5%
2017	4	$1,373	0.7%	$1,309	0.6%	4.7%
2018	1	$1,390	1.2%	$1,324	1.1%	4.7%
2018	2	$1,411	1.5%	$1,344	1.5%	4.7%
2018	3	$1,431	1.4%	$1,362	1.4%	4.8%
2018	4	$1,446	1.0%	$1,375	1.0%	4.8%
2019	1	$1,455	0.6%	$1,383	0.6%	4.7%
2019	2	$1,475	1.4%	$1,403	1.4%	4.6%
2019	3	$1,489	1.0%	$1,417	1.0%	4.6%
2019	4	$1,497	0.5%	$1,425	0.5%	4.8%
2020	1	$1,503	0.4%	$1,431	0.5%	4.8%
2020	2	$1,498	-0.3%	$1,427	-0.3%	4.9%
2020	3	$1,476	-1.5%	$1,405	-1.5%	5.1%
2020	4	$1,461	-1.0%	$1,390	-1.1%	5.3%
2021	1	$1,459	-0.1%	$1,389	-0.1%	5.4%
2021	2	$1,476	1.1%	$1,406	1.2%	5.4%
2021	3	$1,590	7.7%	$1,520	8.1%	4.8%
2021	**4**	**$1,635**	**2.9%**	**$1,564**	**2.9%**	**4.7%**

Quarterly asking and effective rent growths did ‘slow down’ in the fourth quarter, both coming in at 2.9%. But that is only relative to the record-setting figures from the third quarter. Without the third quarter’s blowout numbers, fourth quarter asking and effective rent growth figures would have set a new record, a full 50 basis points higher than the prior record from the third quarter of 2001.

We are expecting a mild uptick in deliveries throughout 2022, but supply chain and labor market issues still plague the construction industry. We do not expect supply growth in multifamily to ramp up so much that it will derail performance metrics. Our current forecasts call for vacancies to remain flat, but given how strong overall demand for housing is expected to be, it should be no surprise if national apartment vacancies ticked downwards to the low 4s or even breach the 3s.

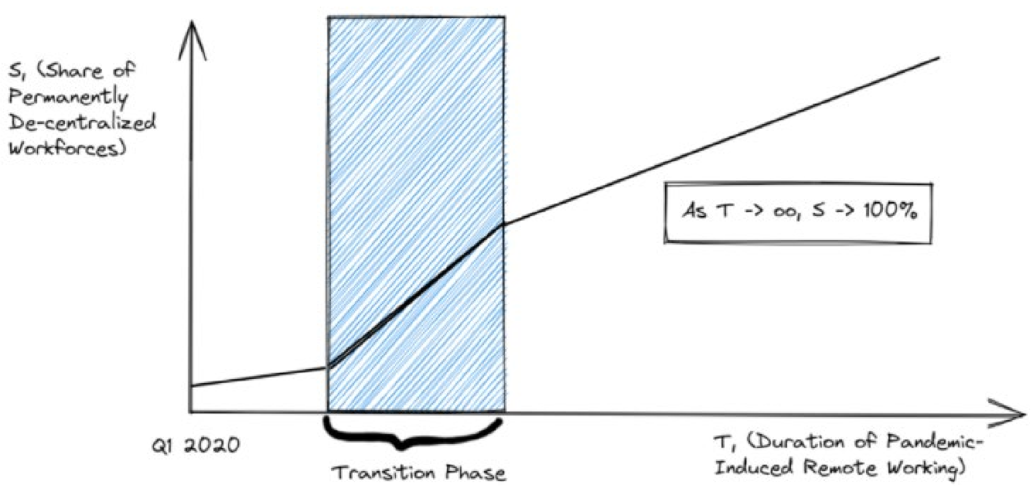
Figure 5 Multifamily Construction, Absorption, and Vacancies



The outlook is decidedly less sanguine for the office market, with vacancies rising 30 basis points throughout 2021 to end the year at 18.1%. Still, that is below what appears to be the cyclical high of 18.5% recorded in the middle of last year. Asking and effective rent growths at the national level also have been flat to slightly positive in the latter half of 2021.

The big unknown continues to be how tenants will respond to changing trends in physical occupancy, brought about by the rise of remote working options because of pandemic-related lockdowns. Companies have continued to delay returning to the office, most recently because of Omicron spikes. As this chart depicted in Figure 6 speculates: the longer we delay a full return to the office, the higher the chances that parts of our workforce will become permanently decentralized.

Figure 6 Effect of Infinitely Delayed 'Return to Office'



As such, our office vacancy forecasts remain elevated (above 18%) for the next couple of years. We have, however, walked back from our most dire predictions (at least for the near-term) of how bad rent declines will be; we did not record much of a rent decline (at least in terms of asking rents) throughout 2020 and 2021.

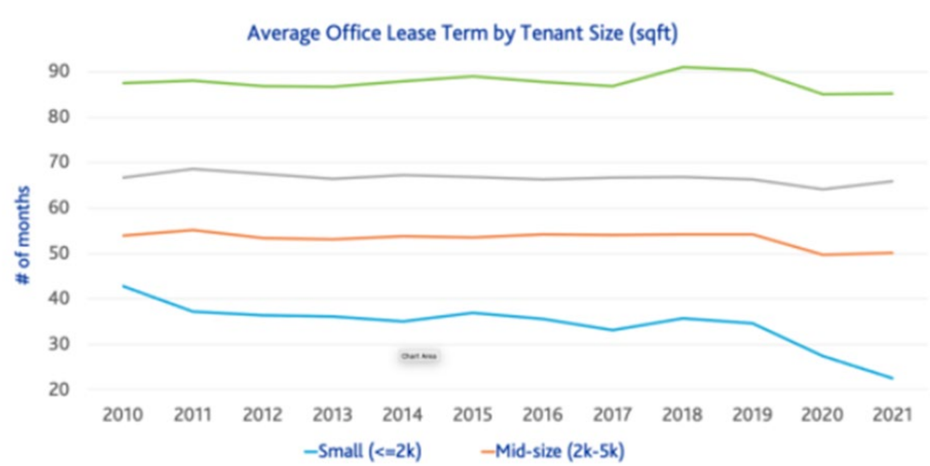
Figure 7 Office Performance Metrics – History and Forecasts

Year	Net Absorption	Asking Rent	Percent Change	Effective Rent	Percent Change	Vacancy Rate
2012	15.4	$28.60	2.1%	$23.09	2.3%	17.2%
2013	25.1	$29.32	2.5%	$23.69	2.6%	17.0%
2014	29.3	$30.25	3.2%	$24.45	3.2%	16.9%
2015	38.0	$31.28	3.4%	$25.32	3.6%	16.5%
2016	29.1	$32.00	2.3%	$25.95	2.5%	16.3%
2017	23.4	$32.57	1.8%	$26.42	1.8%	16.4%
2018	24.1	$33.46	2.7%	$27.14	2.7%	16.7%
2019	39.5	$34.35	2.7%	$27.90	2.8%	16.8%
2020	-6.6	$34.52	0.5%	$27.74	-0.6%	17.8%
2021	8.2	$34.46	-0.2%	$27.52	-0.8%	18.1%
2022	**34.4**	**$34.54**	**0.2%**	**$27.61**	**0.3%**	**18.2%**
2023	**30.2**	**$35.07**	**1.5%**	**$28.17**	**2.0%**	**18.1%**
2024	**33.2**	**$35.66**	**1.7%**	**$28.84**	**2.4%**	**17.8%**
2025	**36.8**	**$36.30**	**1.8%**	**$29.54**	**2.4%**	**17.5%**
2026	**38.0**	**$36.98**	**1.9%**	**$30.28**	**2.5%**	**17.1%**

With that said, it is likely that the effect of COVID-19 on the office sector will be an odyssey, not an outright exodus.[3] Time will tell how tenants will behave in the long run, and whether or not employees will return en masse to fill up offices once again.

What we do know, in the short run, is that a lot of smaller tenants are signing shorter leases. Almost one-third of leases signed in 2021 had terms of one year or less. Smaller tenants are more sensitive to real estate costs, so they are understandably reluctant to sign up for longer commitments, if there is continuing uncertainty of where their workforce prefers to be.

Figure 8 Average Office Lease Term by Tenant Size (in SF)



[3] A term paraphrased from a paper written by Kevin Fagan et. al. in July 2020: "The Future of Office Will Be An Odyssey Not Exodus, with Uneven Credit Implications." Moody's Investor Service, available upon request.

CRE researchers Kevin Fagan and Xiaodi Li explore this phenomenon further in a recently published blog post[4] - and one significant conclusion they've found is how there appears to be evidence that cap rate spreads have been widening for office properties. We will discuss more of this in Section IV when we touch upon CRE capital market issues.

For retail, we are seeing signs of recovery from both neighborhood and community shopping centers as well as malls. Vacancies still remain elevated – at 10.3% for neighborhood and community shopping centers, and 11.2% for malls.

Figure 9 Neighborhood and Community Center Performance Metrics

Year	Qtr	Net Absorption	Asking Rent	Percent Change	Effective Rent	Percent Change	Vacancy Rate
2014	4	4.8	$19.70	0.5%	$17.17	0.6%	10.2%
2015	1	3.6	$19.80	0.5%	$17.27	0.6%	10.1%
2015	2	2.5	$19.90	0.5%	$17.36	0.5%	10.1%
2015	3	3.7	$20.01	0.6%	$17.46	0.6%	10.0%
2015	4	2.6	$20.11	0.5%	$17.55	0.5%	10.0%
2016	1	3.1	$20.22	0.5%	$17.66	0.6%	9.9%
2016	2	4.0	$20.30	0.4%	$17.73	0.4%	9.8%
2016	3	1.1	$20.39	0.4%	$17.81	0.5%	9.9%
2016	4	4.5	$20.48	0.4%	$17.90	0.5%	9.9%
2017	1	3.0	$20.56	0.4%	$17.98	0.4%	9.9%
2017	2	1.2	$20.66	0.5%	$18.06	0.4%	10.0%
2017	3	2.2	$20.76	0.5%	$18.16	0.6%	10.0%
2017	4	3.3	$20.88	0.6%	$18.27	0.6%	10.0%
2018	1	1.0	$20.97	0.4%	$18.36	0.5%	10.0%
2018	2	-4.0	$21.03	0.3%	$18.41	0.3%	10.2%
2018	3	2.7	$21.13	0.5%	$18.49	0.4%	10.2%
2018	4	1.5	$21.22	0.4%	$18.57	0.4%	10.2%
2019	1	17.2	$21.34	0.6%	$18.68	0.6%	10.2%
2019	2	2.7	$21.42	0.4%	$18.76	0.4%	10.2%
2019	3	2.4	$21.48	0.3%	$18.82	0.3%	10.2%
2019	4	0.6	$21.50	0.1%	$18.84	0.1%	10.2%
2020	1	1.4	$21.54	0.2%	$18.87	0.2%	10.2%
2020	2	-0.5	$21.44	-0.5%	$18.75	-0.6%	10.2%
2020	3	-2.3	$21.40	-0.2%	$18.69	-0.3%	10.4%
2020	4	-1.6	$21.34	-0.3%	$18.60	-0.5%	10.5%
2021	1	-0.6	$21.31	-0.1%	$18.57	-0.2%	10.6%
2021	2	1.0	$21.33	0.1%	$18.59	0.1%	10.5%
2021	3	4.5	$21.36	0.1%	$18.64	0.3%	10.4%
2021	**4**	**1.3**	**$21.36**	**0.0%**	**$18.66**	**0.1%**	**10.3%**

But note (in Figure 10) that even mall asking rents are up 0.5% for the year; asking and effective rents for neighborhood and community centers were either flat or increased marginally (between 0.1% and 0.3%) in the latter two quarters of 2021.

[4] https://cre.moodysanalytics.com/insights/cre-news/the-big-short-of-office-leases/

Figure 10 Mall Performance Statistics

Year	Quarter	Asking Rent	Percent Change	Vacancy Rate
2011	Y	$38.92	0.3%	9.2%
2012	Y	$39.31	1.0%	8.6%
2013	Y	$39.95	1.6%	7.9%
2014	Y	$40.66	1.8%	8.0%
2015	Y	$41.54	2.2%	7.8%
2016	Y	$42.38	2.0%	7.8%
2017	Y	$43.00	1.5%	8.3%
2018	Y	$43.35	0.8%	9.0%
2019	Y	$43.84	1.1%	9.7%
2020	Y	$43.05	-1.8%	10.5%
2021	**Y**	**$43.26**	**0.5%**	**11.2%**

The hotel market, on the other hand, took a hit from Omicron fears in the latter half of the year. In particular, occupancies were knocked down by a full 890 basis points, from 59.8% to 50.9%, in the fourth quarter alone. That's down from a 2021 high of 64.0% in the second quarter.

Figure 11 Hotel Performance Metrics

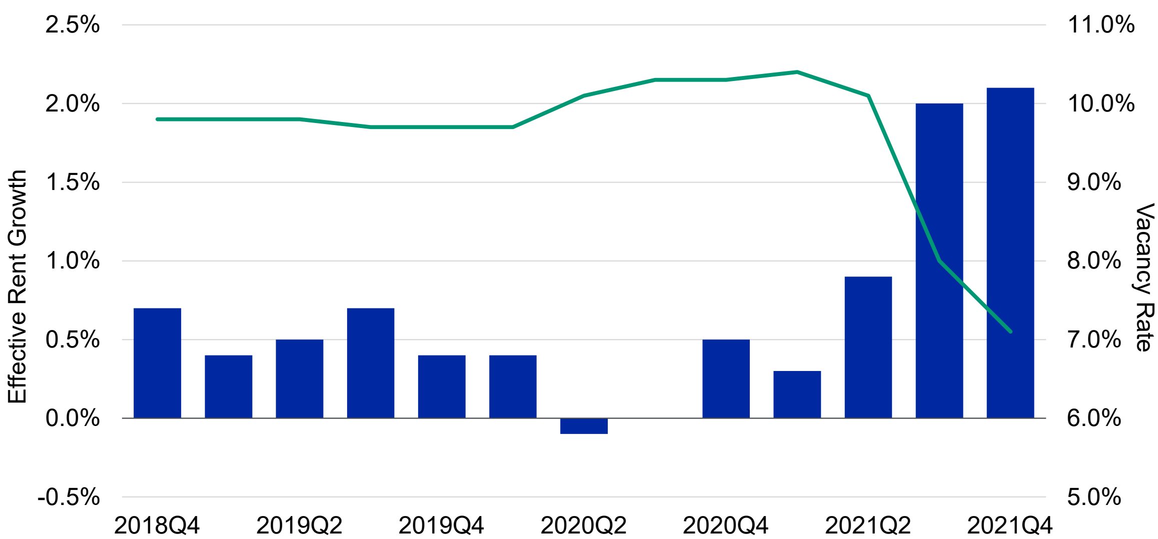
Year	Qtr	ADR	Percent Change	Occupancy Rate	PCT PT Change	RevPAR	Percent Change
2017	1	$122	-0.3%	66.0%	1.2%	$80	1.6%
2017	2	$123	0.9%	65.3%	-0.7%	$80	-0.1%
2017	3	$124	0.7%	66.7%	1.4%	$82	2.8%
2017	4	$125	1.4%	65.4%	-1.3%	$82	-0.6%
2018	1	$127	1.0%	65.6%	0.2%	$83	1.3%
2018	2	$127	0.2%	65.7%	0.1%	$83	0.3%
2018	3	$127	0.3%	64.0%	-1.7%	$81	-2.3%
2018	4	$127	-0.4%	65.5%	1.5%	$83	2.0%
2019	1	$127	0.6%	65.2%	-0.3%	$83	0.2%
2019	2	$128	0.1%	65.3%	0.1%	$83	0.3%
2019	3	$127	-0.4%	65.1%	-0.2%	$83	-0.7%
2019	4	$128	0.8%	66.0%	0.9%	$85	2.2%
2020	1	$106	-17.3%	36.7%	-29.3%	$39	-54.0%
2020	2	$88	-16.9%	38.4%	1.7%	$34	-13.1%
2020	3	$93	5.9%	45.4%	7.0%	$42	25.2%
2020	4	$86	-7.5%	34.6%	-10.8%	$30	-29.5%
2021	1	$100	16.4%	52.1%	17.5%	$52	75.2%
2021	2	$123	22.1%	64.0%	11.9%	$78	50.0%
2021	3	$126	2.9%	59.8%	-4.2%	$75	-3.9%
2021	4	$129	1.9%	50.9%	-8.9%	$65	-13.2%
2022	**1**	**$125**	**-3.1%**	**53.3%**	**2.4%**	**$66**	**1.5%**
2022	**2**	**$124**	**-0.1%**	**55.6%**	**2.3%**	**$69**	**4.2%**
2022	**3**	**$125**	**0.8%**	**57.7%**	**2.1%**	**$72**	**4.6%**
2022	**4**	**$127**	**1.2%**	**59.6%**	**1.9%**	**$76**	**4.5%**

However, market-by-market performance was decidedly mixed. One interesting fact is that the lower tier was hit worse than the upper tier this time – perhaps upper tier hotels have done a better job convincing visitors that they're safe. Fifty-seven out of 69 lower tier markets saw declines in occupancy in the fourth quarter, while only 51 out of 69 upper tier markets registered declines. Some markets weathered Omicron well, even showing occupancies and ADRs rising throughout the period - such as New York City, Los Angeles, and drivable beach destination markets.

As we saw in Figures 2 and 3, however, travel may be picking up if we've seen the peak of Omicron-driven cases. The world has had two years to learn how to cope with the pandemic, and though the immediate future may remain volatile for hotel properties, it at least seems highly unlikely that the hospitality industry will once again need to deal with wide-scale international lockdowns comparable to early 2020.

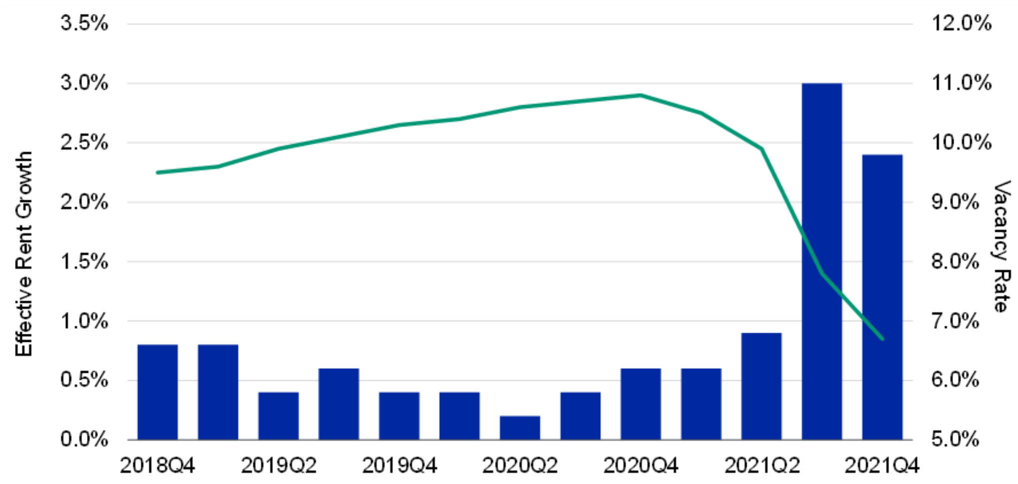
The industrial sector, on the other hand, allows us to end our discussion of multifamily and commercial real estate on a high note. Flex/R&D vacancies fell by 20 basis points in the fourth quarter, ending 2021 at a very tight 7.1% - that is down 330 basis points from the start of the year. Effective rents rose by over 4.0% throughout the latter half of 2021.

Figure 12 Flex/R&D Vacancies & Effective Rent Growth



Warehouse/distribution performance metrics were equally – if not more – impressive. National vacancies were down to 6.7% by the end of the fourth quarter, a massive drop from nearly 11% at the start of 2021. Effective rents rose by over 5% in the latter half of 2021, rising by 2.4% in the fourth quarter alone.

Figure 13 Warehouse/Distribution Vacancies & Effective Rent Growth



It therefore comes as no surprise that among the core five property types, industrial subsectors like Flex/R&D and warehouse/distribution boast the strongest rent growth forecasts for the immediate five-year forecast horizon.

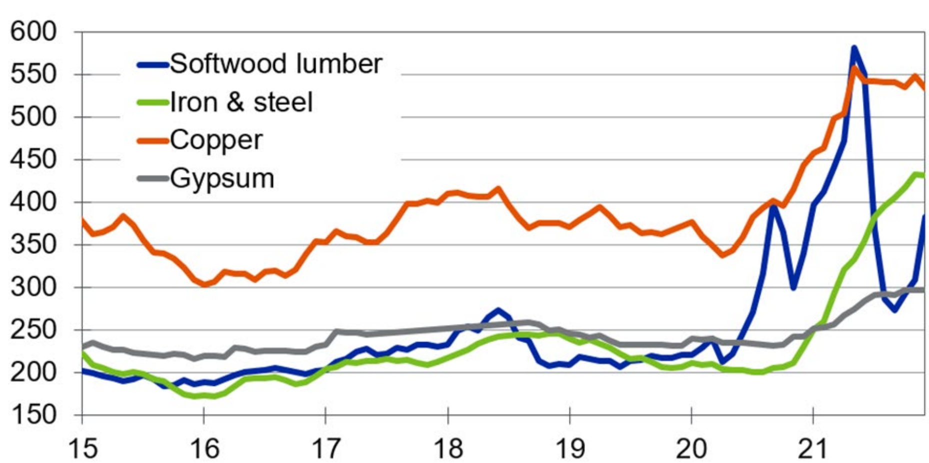
III. The US Housing Sector

Given the closely intertwined nature of the residential and commercial sectors, this section provides an update on US housing market trends.

Home price gains have slowed slightly, but still remain strong. November's Case-Shiller national composite home price index came in at 18.8% on a year ago basis, down slightly from nearly 20% gains over the summer. Demand continues to outpace supply, which is severely constrained. Still - at the national level there is little sign of out of control speculation.

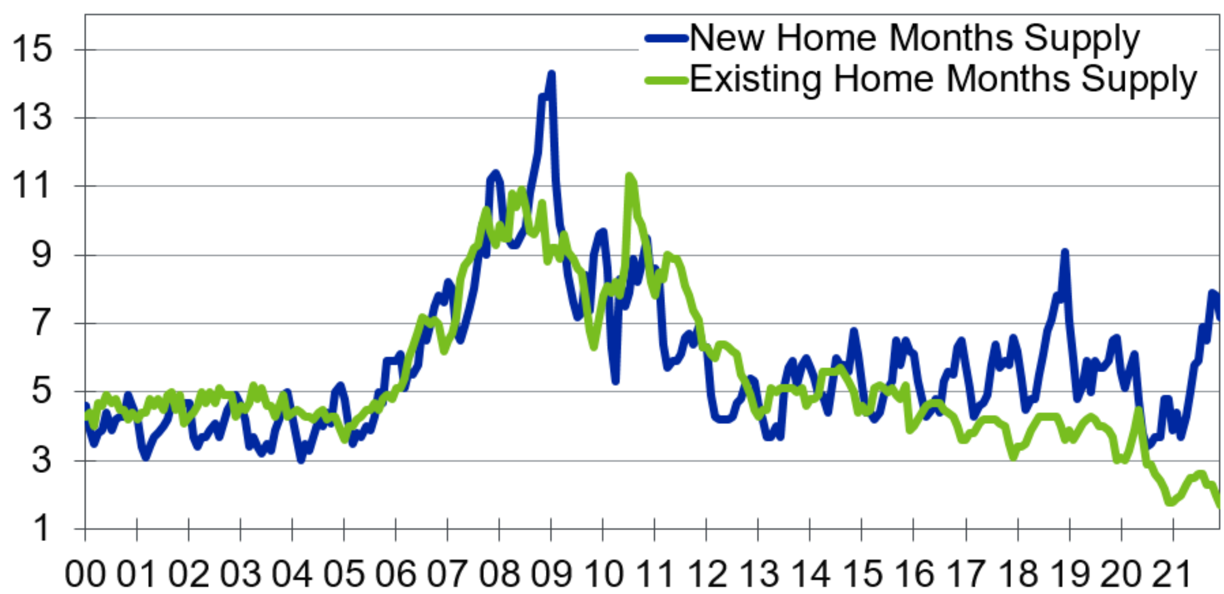
Home builders are facing labor constraints, and supply bottlenecks that have led to construction material costs rising. The price of lumber has been volatile over the last year. Prices are rising again, though they remain below last year's highs.

Figure 14 Lumber Prices Rise Again
Producer Price Index, 1982 = 100. Non-seasonally adjusted.



Overall inventory remains extremely low, which is helping to keep builders optimistic despite the above headwinds. The January NAHB/Wells Fargo housing market index coming down only 1 point from December at 83. New home inventory is down slightly from recent months to 7.2 months supply of new home sales available and existing homes for sale reached an all-time low of only 1.7 months supply of single-family homes available on the market.

Figure 15 Home Supply Remains Tight
Months Supply of Housing at Current Sales Rate



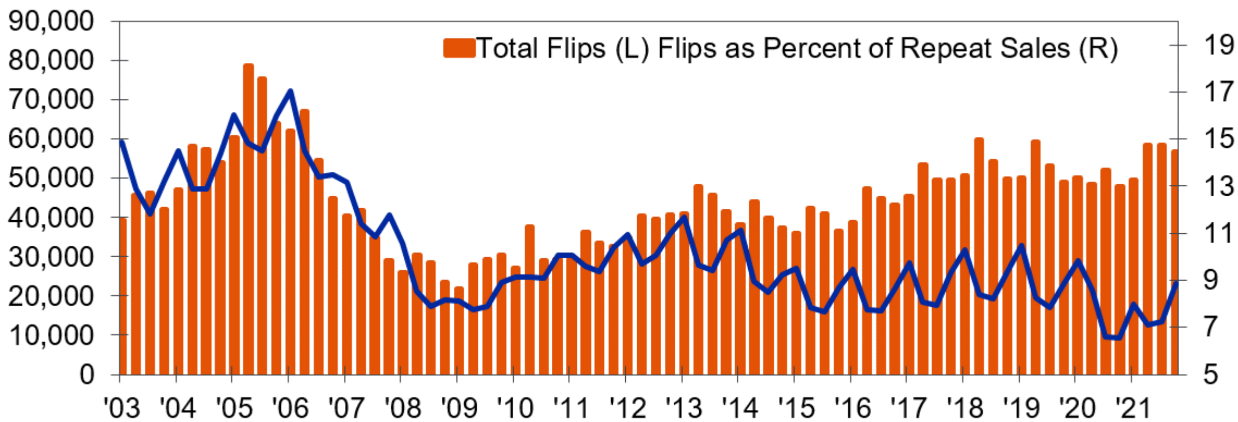
With such limited supply and such large price gains, many are worried about runaway speculation that could create another housing bubble. Speculation is marked by purchases being made with the expectation of reselling the underlying asset at a profit, and not due to the underlying value of the asset.

It should be noted that during the housing bubble preceding the Great Recession, speculation manifested in increased housing flips and new home construction: neither has reached the levels preceding the great recession.

Technically speaking, "housing flips" occur when a purchaser buys a home, often performs cosmetic repairs, and then sells the house for profit. The defining characteristic of these purchases is that homes are not bought for housing, but instead as an asset and quickly resold within one year of purchase.

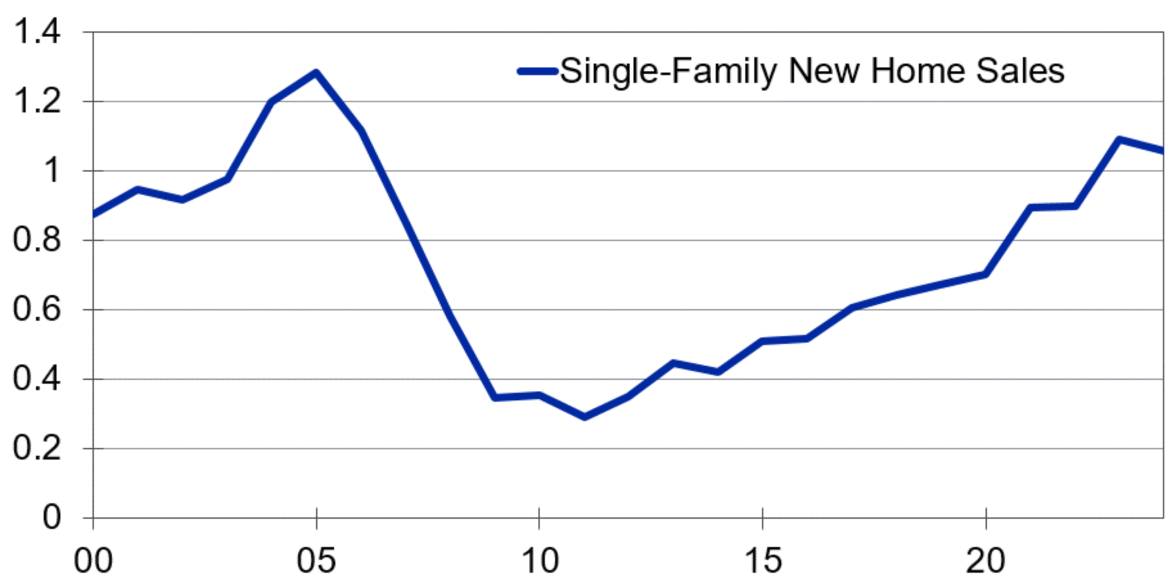
The house flipping market today is very different than it was during the housing bubble. The total number of homes flipped peaked in the second quarter of 2005, when approximately 78,500 homes were quickly resold. In the fourth quarter of 2021, that number was only about 57,000. As a percentage of repeat sales (homes that have sold more than once) home flips are still recovering from recent lows. In the fourth quarter of 2021, the percentage of repeat sales that were flips was just under 9%. This is both below pre-pandemic levels as a percentage of repeat sales and a fraction of the 17% seen at the peak of this metric in the first quarter of 2006.

Figure 16 Home Flips Edge Up, but Remain Low
Total Number of Home Flips (L), % of Total Sales (R)



New home sales plummeted during the Great Recession and stayed anemic for much of the last decade. During the beginning of the pandemic they picked up, but slowed back down due supply chain bottlenecks and labor shortages.

Figure 17 New Home Sales Continue to Rise



While new home sales are starting to approach the levels they were during the housing bubble, we expect that will peak well below the high set in 2005. Further, unlike 2005 supply has not been able to meet demand. With construction having been so low over the last decade, we are still in a deep hole.[5]

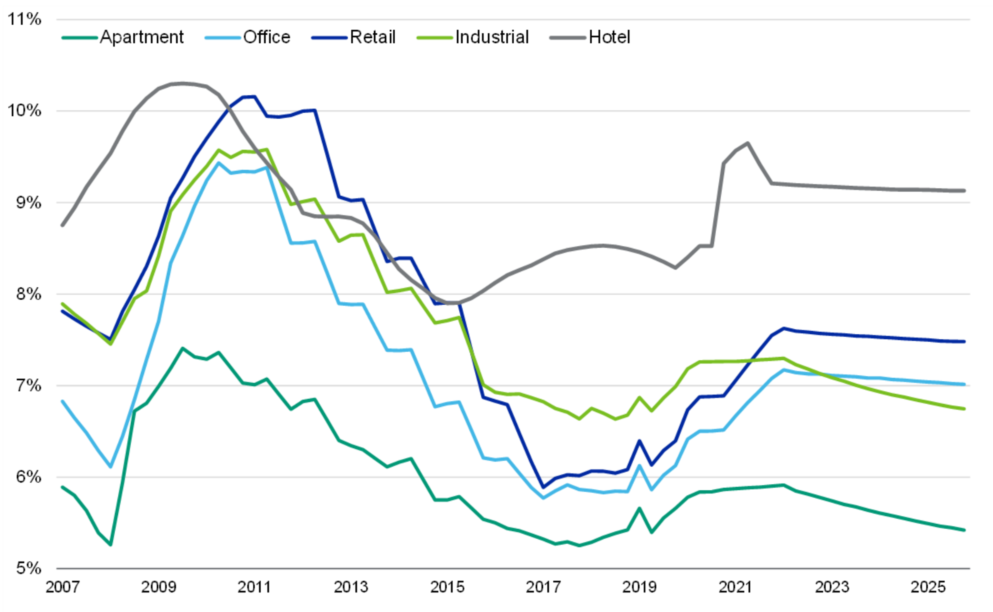
[5] This paper provides specifics around the shortage of housing afflicting the US: https://www.moodysanalytics.com/-/media/article/2021/overcoming-the-nations-housing-supply-shortage.pdf

Demographics will keep supply tight. Millennials are in their peak home buying years, and there has not been enough housing built for them. Tight inventories coupled strong demand has fueled this rise in house prices. There are few signs of the speculation that fed the housing bubble that preceded the Great Recession.

IV. Multifamily and CRE Capital Markets

Cap rate forecasts are expected to show general flatness to a slight decline through 2026. Spreads are not razor thin (given the low levels to which Treasury rates have drifted), and demand for multifamily and CRE as an asset class is expected to remain strong.

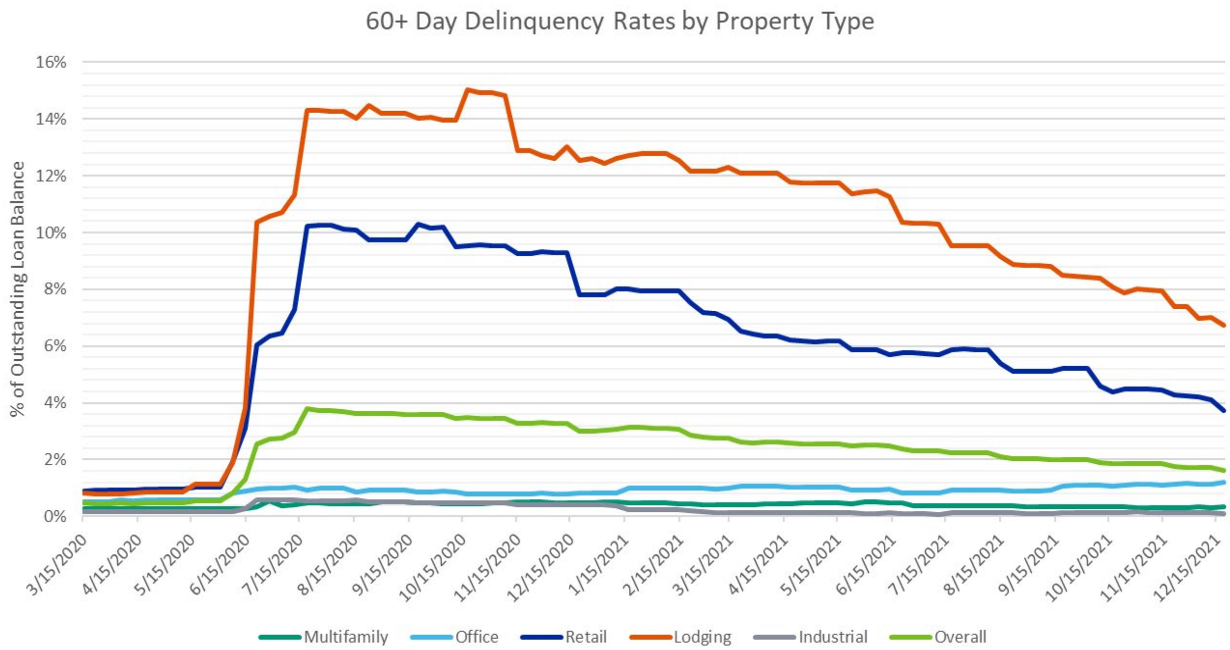
Figure 18 Cap Rate Forecasts



With that said, our updated expectations about three rate increases from the Fed this year suggests that assets that carry risk – from equities to CRE – are likely to go through a period of revaluation (and therefore volatility). The question really becomes whether a systemic increase in the cost of funds just means market players will eat lower profits in the face of great demand and greater competition – or will demand lower CRE prices to justify return requirements.

It appears that regardless of the inflationary challenges going forward, having the US economy grow in the 4 to 5% range equates to a tide that is lifting a lot of boats. It is therefore no surprise that CMBS 60-day delinquencies have been overall trending downwards – though it remains elevated in sectors like hotel that are still uniquely struggling with the lingering economic effects of COVID.

Figure 19 Economic Recovery Alleviating Defaults

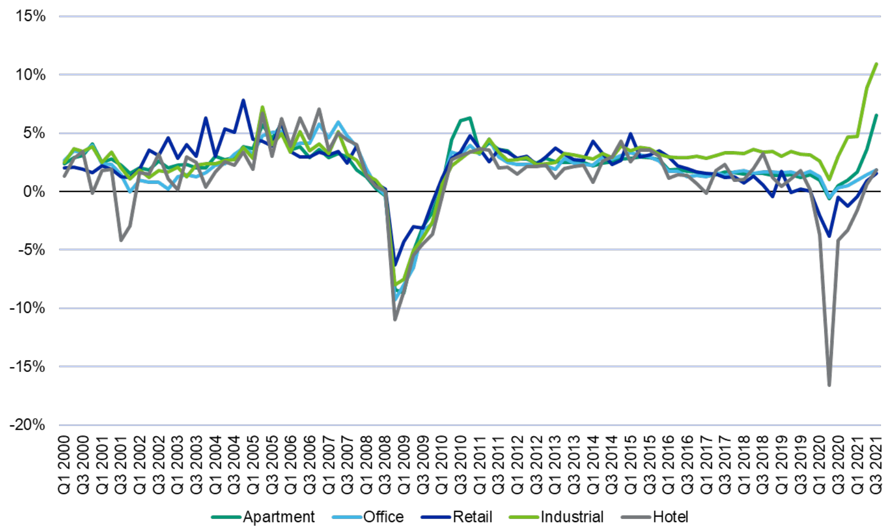


In a paper that our CRE Analytics team published last October 2021, we go into significant detail about how declining patterns in delinquency rates followed different trajectories across all lender types, including both balance sheet and securitized lenders. Aside from infusions from government support, relief plans, and the rollout of vaccinations throughout 2021, we noted how the relatively conservative behavior of CRE lenders and borrowers contributed to generally positive results – both in terms of less than expected distress during the brunt of the pandemic in 2020, as well as how quickly delinquency rates declined throughout 2021.[6]

That same rising tide of rapid economic growth has lifted the boats of CRE equity returns. The NCREIF figures presented in Figure 20 below quantifies total returns from both income and appreciation. Patterns throughout 2020 through the end of 2021 suggest a pretty deep dive for hotel in particular but also a very steep rebound. But take a look at how results diverged by property type. Examine how systematic the decline in returns was back in '08-'09. Every single property type's NPI took a nose dive during the Great Recession, and then recovered.

6 'COVID-19 Update: Recent Delinquency Trends in Commercial Real Estate Loan Portfolios' by Jun Chen, Junrong Liu, and Wenjing Wang (Moody's Analytics CRE, October 2021). Available upon request.

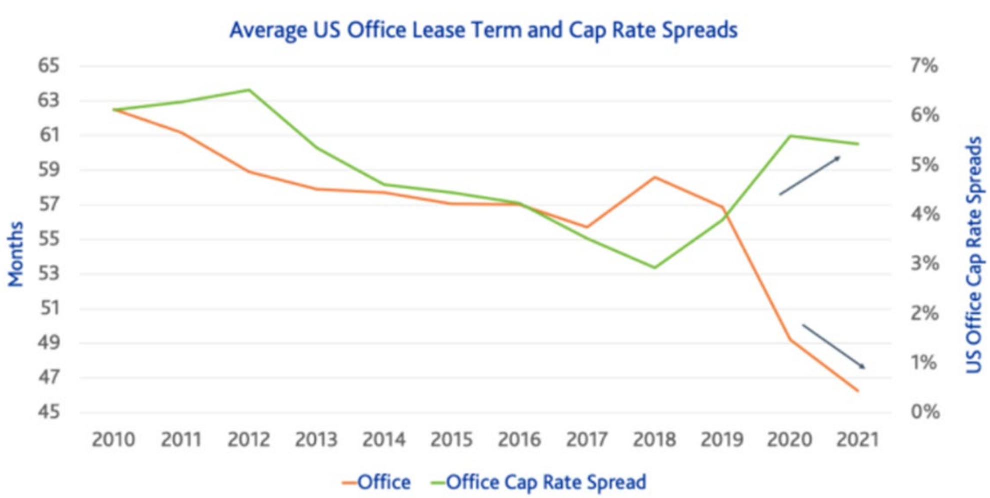
Figure 20 NCREIF Total Returns



But during the COVID-driven economic dislocations from 2020 onwards, note how the grey line representing hotels took an unprecedented dive. Retail went negative too, but apartment and even office escaped relatively unscathed while participating in the upside. For industrial (represented by the green line) – it was literally mostly all upside, since the line never really crossed zero at horizontal.

By and large, CRE investments appear to have weathered the storm very well, and even the ones that took a hit appear to be on a pretty solid footing for recovery. As discussed in Section II, however, the trajectory of performance metrics vary significantly across property types. Consider the case for office property values. Earlier, we had noted how a larger proportion of leases for office space were shortening, as smaller tenants appeared unwilling to commit to longer lease terms given where their workforce might end up settling. Shorter leases mean greater rollover risk, with potentially greater turnover costs and concession risk. That equates to higher income volatility, and as we see in Figure 21 below – it appears that capital markets may be pricing this in preemptively. The spreads for office sales relative to 10 year Treasuries have been rising.

Figure 21 Average Office Lease Terms & Office Cap Rate Spreads



Is this a short-term trend applicable only to the tumultuous years of 2020 and 2021? Or is this a portent of things to come? It is therefore critical to be able to monitor these trends closely, an endeavor dependent on reliable real-time data sources and analytics.

V. Will Real Estate Be a Hedge Against Inflation?

In the realm of 'accepted knowledge,' there is a cliché that "real estate is an inflation hedge." That likely needs to be qualified by restating it as 'some real estate could be an inflation hedge. Not all landlords are likely to be about to achieve the net revenue growth required to keep values from declining in a rising interest rate environment. Multifamily and industrial landlords may be able to pass through inflated prices to tenants, but what about owners of the types of retail properties in the crosshairs of e-commerce disruption? What about Class B offices in markets with demand in-part disintermediated by work-from-home? Or what about markets where supply growth can quickly catch up to demand (like Self Storage, for example), where existing buildings can be converted to new competitive units in just a few months?

A further pitfall to consider as we brave a new inflationary world is already very tightly priced assets. Consider multifamily: at this point in the cycle, demand outstrips supply in most markets, and short lease terms and non-sophisticated tenants make a strong case for the asset class being an inflation hedge. But, if our economic forecasts come to pass about Treasuries going up by approximately 100 basis points over the next two years, and that translates to exit cap rates, the need for NOI growth on tightly priced assets gets amplified. Consider a property valued at a 3.5% cap rate three years ago that trades 2 years from now with an exit cap of 4.5%. If NOI stayed flat over that hold period, the property would see a 22% value decline. Alternatively, the property would need a (likely unsustainable) 5.7% annual NOI growth just to keep value unchanged. Multifamily rent growths set new records in 2021 – but we aren't forecasting new records to be set in 2022.

Therefore, if prices and rates rise faster and further than expected, it will be critical for CRE market participants to monitor market and submarket trends, assess the effect on their portfolios, and make decisions about where CRE incomes and values are likely to go.

BX11257