VIRTUS
REAL ESTATE CAPITAL

U.S. Real Estate
Outlook 2021

EVEN IN THIS UNPRECEDENTED YEAR, SOME FAMILIAR PREDICTIONS ABOUND

There is a famous quote by the novelist William Gibson that "the future is already here; it just isn't very evenly distributed." 2020 has highlighted another facet in the unevenness of the future—this time in the pace of its arrival, for 2020 was a year in which the future arrived all at once. Just as the longest bull market in history ended abruptly in 1Q20 from a largely unexpected vector, so too have myriad facets of normal life been upended into new forms of commerce and behavior that were supposed to stay in emerging trend presentations or science fiction for at least a few more years.

Of course, some aspects of the past are more stubborn than others. In the last few years that Virtus has published an annual outlook, our message has been consistent: we have expected changing economic conditions to cause greater dispersion in performance and valuation among commercial real estate sectors. Specifically, we have predicted that certain alternative property types such as medical office, workforce housing, and others would benefit due to future demographic tailwinds, as well as needs-based demand patterns that are hard to replace. As such, these assets have historically been more resilient in both performance and valuation during recessions. Meanwhile, "basic food groups" like retail and office would slowly lose their shine, being both more sensitive to economic shifts, as well as easier to replace with emerging technology.

Although the world has been inextricably altered by the current black swan event of all black swans, we remain committed to our existing sectors as being more resilient to both the pandemic's economic distress and the preexisting threat of digital disruption that the pandemic has accelerated. In short, the overall conclusions guiding firm-wide strategy at Virtus have remained quite consistent through the year—what has changed is chiefly questions of timing, relative value, and market sentiment. Nonetheless, such "details" can make or break an investment portfolio, so without further ado, we will give a sense of how our consistent investment paradigm will apply itself to the uncertainty and likely distress of 2021:

EXECUTIVE SUMMARY

- Despite toppy valuations leading up to 2020 and the shake-up across different real estate asset classes due to the pandemic, it seems likely that real estate will not only retain its primacy as an asset class, but it may even increase in favor in the ensuing low growth and low yield environment likely to come, as investors seek the yield, inflation hedge, and appreciation offered by commercial real estate.

- The Biden administration represents a return to government behavior that can be expected and planned around, *whether it ultimately* enacts beneficial legislation. It will likely shape up as a moderate, centrist administration due to its internal composition and staunch Republican opposition.

- Despite the system being awash in significantly more liquidity than during the Global Financial Crisis ("GFC"), the real estate market is much larger and more segmented with more market players than in the past, so there may be increased areas of dislocation. **Widening differentials in performance across property types AND within property types will lead to clearer winners and losers.** The fundamental health and long-term demand for differing property sectors will drive valuations more going forward compared to only capital flows that have ruled the day for the recent protracted bull market.

- Most traditional lenders who survived the GFC learned their lessons well about adherence to the well-established "4 C's of Credit." During and after the COVID-induced pandemic, **the quality of the borrower, the asset, and the market is and will be increasingly paramount to lenders.**

- **As a result, there will be opportunities for distressed acquisitions in both conventional and alternative property types.** The crucial difference is that conventional asset distress increasingly comes from weakening demand or disruptions to conventional real estate (as in the case of e-commerce, disintermediated vacation rental platforms, and work from home trends). However, alternative property type distress generally comes from temporarily oversupplied markets and inexperienced new entrants. **Tenancy demand is rarely an issue in the Virtus property types, but new supply, aggressive capital structures, and especially operational missteps can often lead to distressed buying opportunities even in resilient asset classes.** As such, the trajectory of opportunistic plays in conventional versus distressed sectors will be different.

- Past recessions were characterized by a protracted, broadly ignored build-up of distress (as in both the dotcom bubble and the GFC housing debt bubble) followed by a rapid cleanup and recovery. Many pundits seem to be applying this past pattern to the current situation, with some even suggesting that the economic "bargains" will soon be behind us. **However, the COVID-19 pandemic has introduced a novel and opposite pattern: immediate onset of a bust / shutdown, followed by a protracted period of at least reduced growth and potential contraction with ongoing distress.** This de facto "war of attrition" affects small businesses more than large, publicly-traded ones, so public equities analysts should not guide an investor's perception of the economic landscape, or for that matter, the broader commercial real estate investment opportunity.

- Moreover, "Main Street" indicators, such as employment growth, labor force participation, and other economic activity, are showing emerging jobs erosion and lowered economic health among typical households, which were already savings strapped and facing declining buying power, especially in housing. These types of economic distress tend to be much more protracted, as chronic unemployment post-GFC recently illustrated. Whether or not a "double-dip recession" is in the works, **talk of a rapid and broad "V-shaped" recovery looks less likely than the "K-shaped" outcome currently in progress.**

- The "dematerialization" of commerce makes it increasingly difficult to compare current economic activity to the past. Many mainstays of commercial real estate, from major regional malls to large business-oriented hotels, have essentially gone dark. Even if other forms of consumption pick up some of the pace, the protracted quarantine has disrupted the consistent flow of data necessary to conduct financial analysis. **This dematerialization trend has permanently altered commerce patterns in huge commercial real estate mainstays like retail and hospitality. Office will likely follow with increased distress over 2021 and beyond. Even industrial may prove a victim of its own success with skyrocketing valuations and a pile-on of unsophisticated entrants to a low barrier space.**

- The supposed "niche" property types Virtus holds—education, workforce housing, healthcare, and storage—will generally fare better than the basic food groups. All real estate is facing digital disruption, but certain sectors are far more resistant: Amazon can disrupt brick and mortar retail demand, but there is no alternative to a physical home. Indeed, **the pandemic to date has largely proven out the needs-based nature of Virtus asset classes,** which have largely thrived while former mainstays of American life succumb to new lifestyle, labor, and trade patterns.

WHATEVER YOUR FEELINGS ON THE NEW PRESIDENTIAL ADMINISTRATION, IT IS A RARE KNOWN ENTITY AMID UNCERTAINTY

As the dustup surrounding the transition clears, we get further clarity on the nature of the Biden administration, which has now consolidated a Senate lead after the Georgia special election. Conventional wisdom is that a Biden presidency involves a return to "normalcy" or the "status quo." What exactly that means in a year like 2021 is unclear—perhaps merely that we can expect a more familiar institutional response to both novel problems like the pandemic, as well as longtime challenges, such as America's place in an increasingly complex global economy. Whether or not a Biden administration will offer the "right" responses, most market indicators seem pleased at a more predictable administration. Even many moderate conservatives seem content to take a familiar oppositional role against the Biden tax plan, instead of navigating the unique ideological terrain a Trump regime presented.

At Virtus, we are not immune to such drives. In fact, the Virtus mandate revolves around finding areas where dependability reigns even during the most chaotic macroclimates. And indeed, we expect the next few years will be full of surprises and economic shocks—but with fewer such challenges for the demographically driven sectors and markets we have been active within. While most macro trends will continue no matter who is in the Oval Office, we lay out additional predictions of trends we believe become more likely under a Biden administration:

- Real estate benefiting from expanded healthcare should stay—unlike either a Trump second term or a more leftist DNC candidacy, the Biden administration is least likely to further change the current landscape of American healthcare delivery—both its private incumbent firms and the newer Affordable Care Act provisions. This means the existing momentum of healthcare trends should largely continue increasing the share of outpatient care delivery, as well as regulatory shifts toward value-based reimbursement rather than the old fee-for-service model.

- Government tenanted buildings should breathe easier—one of the places where the Trump administration showed its teeth was organizational upheavals of federal bodies such as the EPA, as well as the Departments of Education, Energy, and the Interior. While Trump's foreign policy is a more complicated matter, the incoming Biden administration has signaled a re-re-organization in many departments. This should return those departments to their previous plans and budgets.

- Major urban infrastructure should also fare well—whether in a suburban renaissance sparked by quarantine or by favorable basis on urban assets temporarily out of vogue. This is because the DNC is increasingly the party of major metros in constituent locations. DNC candidates did better in both suburban and urban locations within major MSAs compared to the last election, while doing worse among supposed core constituencies (notably both African American and Hispanic Americans) outside major metros. There will likely be an expansion (or at least continuance) of federal policies designed to help renter households in high-cost metros—whether in the form of direct cash transfers or other housing subsidies.

- The possibility of significant tax code changes decreases, especially those with greater differentiation in upper-income tax rates. The full extent of the Biden tax plan clearly depends on where Democrats prioritize conflict with a thin majority, but Virtus believes smaller changes to the tax rate are more likely than a significant increase to the corporate tax rate—the key point responsible for the vast majority of "negative" impacts projected by non-partisan think tanks. There are various projections on the overall impact of the incoming administration's tax proposals, but most agree that the corporate tax rate hike would have the most significant adverse effects. The Tax Foundation's General Equilibrium model projects the full Biden plan to cause a 1.6% decline in GDP, with an equivalent of over 500,000 jobs lost and nearly a 4% reduction in the capital stock. However, a full 72% of this decline is directly attributable to corporate tax changes, rather than income tax adjustments. Virtus believes the full onslaught of proposed corporate tax revisions is unlikely, both due to the administration's increasingly moderate composition in cabinet appointments, as well as the resilience of GOP opposition when acting as a minority party. In short, Virtus believes the next four years will have plenty of political conflict, but it will occur across a narrower Overton window and be guided by more institutional voices.

Figure 1: Assessment of Biden Tax Plan

Plan Item	Long Run GDP Impact
Social Security payroll tax hike on earnings above $400 k	-0.18%
Raise long-term capital gains and qualified dividends tax rate to 39.6% on income above $1 million	-0.02%
Restore estate and gift taxes	-0.15%
Limit itemized deductions at 28% of value for incomes above $400 k	-0.09%
Raise corporate income tax to 28%	**-0.97%**
15% corporate minimum book tax	-0.21%
Total	**-1.62%**

Source: Tax Foundation General Equilibrium Model. "Details and Analysis of President-elect Joe Biden's Tax Proposals"

- The heaviest potential impacts from the Biden administration to commercial real estate at large would be the following:

  A) an end to like-kind exchanges (i.e., 1031s)

  B) a lowering to $3.5 million of the protection on estate taxes, and

  C) a capital gains rate equal to the ordinary rate for persons earning over $1 million

> Both “A” and “C” could certainly be detrimental to commercial real estate demand, but the probability of achieving both is unlikely, especially as much higher profile issues take up political air. Even in the unlikely scenario where capital gains are converted to ordinary income rates for the highest earners – this could actually push wealthy investors toward real estate and away from stocks and other asset classes to pursue greater income combined with appreciation and an inflation hedge.

In sum, while a Biden administration may be less accommodative to mainline real estate investors than a Trump regime, most notable Trump innovations like Opportunity Zones have not been impactful to the Virtus model. We are not adamantly opposed to an environment that makes it *harder* to “extend and pretend” or deploy excess dry powder into markets that cannot support it. In short, just like higher barriers can benefit physical real estate markets, so too can they benefit more thoughtful investors in capital markets.

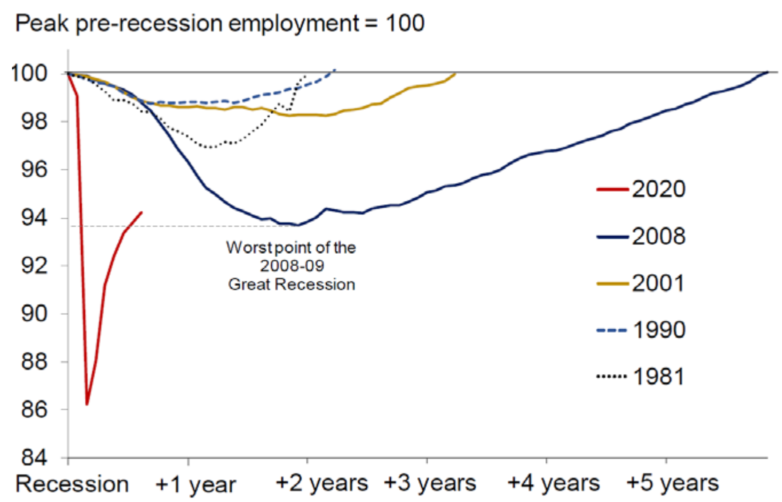
THE PANDEMIC WILL LAST AFTER VACCINES AND HAVE PROTRACTED ECONOMIC EFFECTS

While COVID-19 news briefly took second place to the 2020 election, the resurgent wave of infections (and mutations) is back in the limelight, as Western nations grapple with the renewed risk of insufficient ICU hospital bed capacity, not to mention the lingering economic freeze. The COVID-19 vaccines are great news, but vaccinations will be slower and more unevenly distributed than expected. Bill Gates (who predicted a pandemic of this type as the next economic stumbling block in his now-famous 2015 TED Talk) noted it might be 2022 before things feel fully normal. Again, this economic crisis is the opposite of the lead-up and bust pattern that has produced rapid V-shaped recoveries in the past. During this entire lockdown, businesses that cannot thrive in this altered setting will vanish or see an erosion of fiscal health. While there will undoubtedly be some degree of rebound or renaissance once the pandemic is truly behind us, the economy that emerges may be smaller, less dynamic, and shallower in terms of consumer confidence or buying power.

Moreover, the pandemic’s protracted length will likely ensure that many emergent changes, especially related to the “dematerialization of commerce,” have accelerated. Even older and “stickier” consumers have been forced to adapt to many new life patterns, either in e-commerce or navigating Zoom meetings. All of this has coalesced such that trends that once seemed “emergent” as panel topics at investment conferences have become mainstay features of the pandemic.

The extent of this tumult has fostered one of the more divided collective views on the nation's economic trajectory in recent memory. Large publicly-traded firms in certain sectors (especially high-profile tech firms connected to e-commerce) have seen rising revenues and soaring stock prices. At the same time, the nation experienced a GDP and employment cliff that completely upended the Y-axis of economic graphs stretching back decades. Moreover, the recent "hiring frenzy" many analysts speak of has two major problems. First, it is slowing down in nominal terms, well before recovering to 2019 levels of aggregate employment.

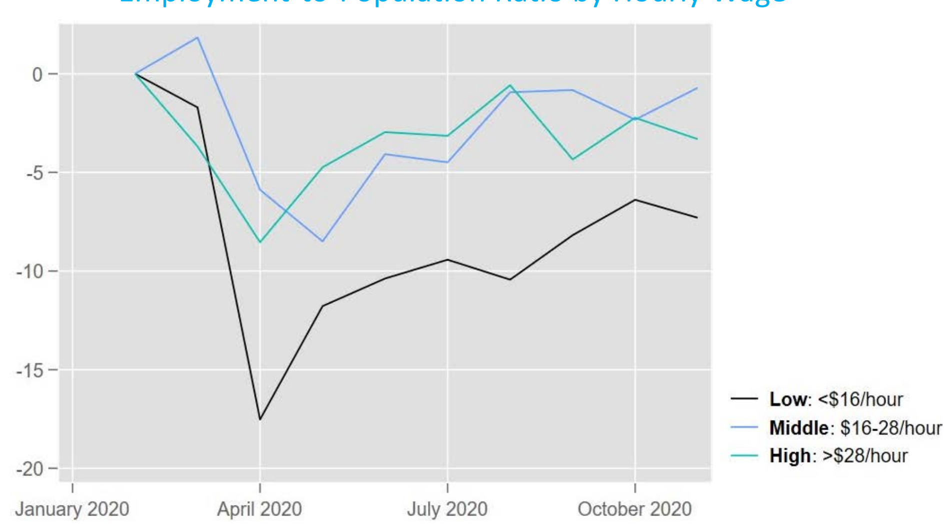
Figure 2: Post-Recession Employment Recovery



Source: Bureau of Labor Statistics Data Analyzed by Oxford Economics and Haver Analytics

Figure 3: K-Shaped Recovery in Incomes

Employment-to-Population Ratio by Hourly Wage

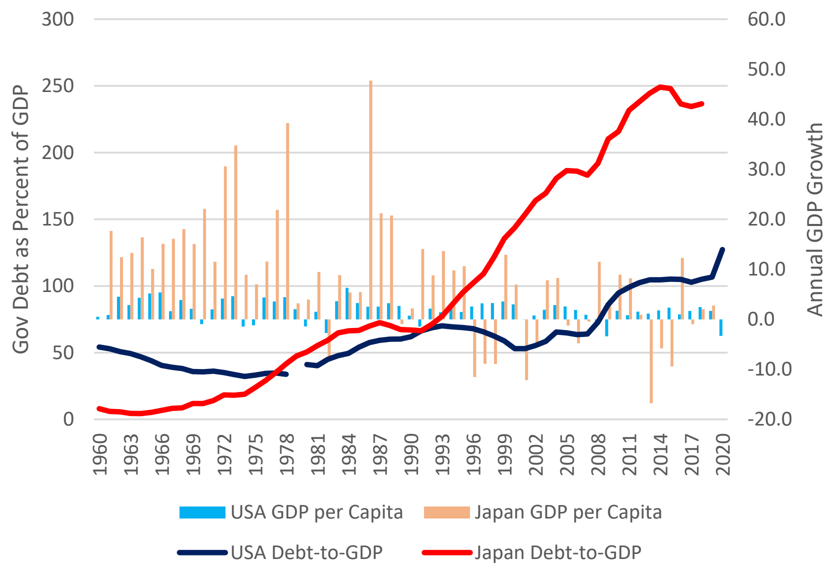


Source: Current Population Survey Data analyzed by Ernie Tedeschi, Evercore

Second, the existing "declines" in unemployment are just as attributable to massive exits from the labor pool as they are on hiring. Such exits are anything but a positive sign, and they portend significant economic distress among consumers that is not readily apparent in the current environment of stimulus.

This dislocation in economic trajectories has sparked references to a "K-Shaped" recovery likely familiar to readers, as seen in Figure 2. Less widely acknowledged is how this dislocation feeds into existing trends of income divergence. Figure 3 shows this uneven recovery by income group, and it is nearly as stark as the difference between Amazon and your local mall. In short, proponents of a rapid "V-shaped" recovery are pointing to industry consolidation and calling it growth—a classic example of mistaking the map for the territory. As such, the eventual fate of the economy in aggregate is an increasingly crowded alphabet soup of possible "letters"—from the U-shaped recovery (a slower "V") in optimistic plans to the "W-shaped" double-dip recession. A final scenario is that temporary rallies in large equities obscure a protracted decline in overall growth, and a "Japan-like" path unfolds for the economy to languish in low rates and returns for years to come.

Figure 4: Total Government Debt and GDP Growth

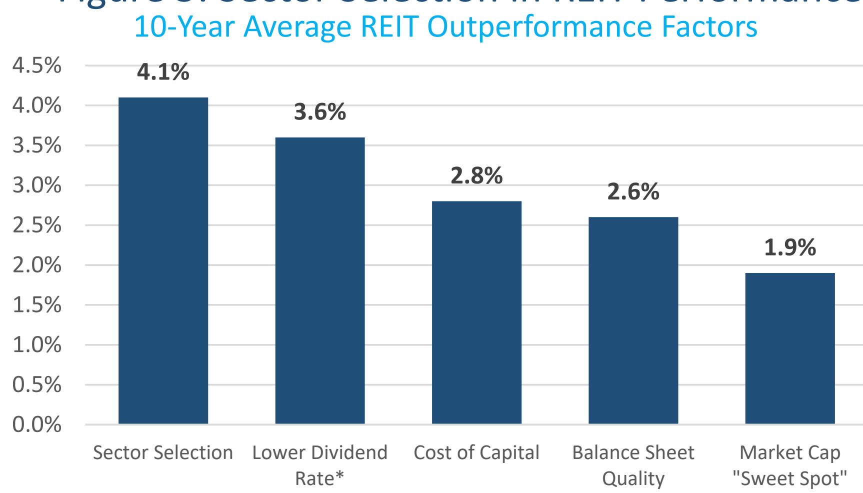


Source: IMF DataMapper for Japan Historical GDP, St Louis Federal Reserve for Federal

Similarly, the impact on real estate sectors has been massive already, but existing data does not yet tell the full story. Over the course of the year, Virtus published several updates, covering both its portfolio and the broader commercial real estate landscape. Even generalist readers are probably familiar with the implosion of both retail and hospitality assets, both of which were already facing increasing stress from digital alternatives (Amazon and Airbnb, respectively). In 2019, even active retail investors viewed the sector as one of slow attrition and finding "pockets" of outperformance—often in destination malls that are currently shuttered and have lower rent payment rates than typical shopping centers. After less than one year of the pandemic, that attitude has largely segued into one where opportunistic reposition of dark properties may be the best course for many retail assets. By contrast, more needs-based asset classes like multifamily housing and healthcare real estate have seen higher, more consistent payout ratios. This was especially true at the start of the pandemic, but as performance has stabilized, it remains true—especially in rent deferrals, which have been substantially lower in housing, healthcare, and industrial properties than either retail or hospitality. However, one year is a brief period in commercial real estate terms, especially in longer lease sectors like office.

Finally, as we lead into summaries of individual sectors, it is interesting to note that a study of REIT returns conducted by Hoya Capital and The REIT Forum (which can access far more granular data than private equity real estate) found that sector selection was by far the most important predictive indicator of investment performance over the past ten years. The fact that this was true even in a historic bull market that lifted all public equities with unprecedented liquidity is striking. As economic shifts begin to deflate sectors held up by little more than existing investment momentum, we expect this diversion in sector fates to become even more stark.

Figure 5: Sector Selection in REIT Performance



Source: REIT statements analyzed by Hoya Capital and The REIT forum, from "Most REIT Investors Buy Trash," SeekingAlpha. December 2020
*REITs in the lowest third of total dividend rates outperform. Virtus believes this is another factor in sector selection, as lower total dividends are found in high growth sectors where REITs are constantly deploying capital.

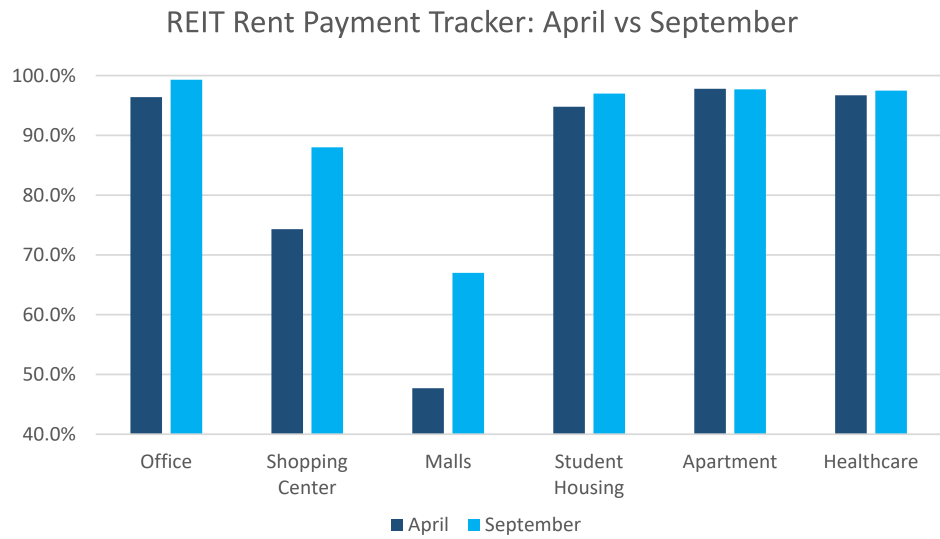
WHAT IT MEANS FOR COMMERCIAL REAL ESTATE

We believe these factors all coalesce into significant and lasting changes in perceptions of existing real estate sectors, with commensurate changes in ideal portfolio composition. Over the last few years, the global decline in yields has compressed an unprecedented amount of dry powder into American commercial real estate. As such, markets have grown complacent to the stampede of capital seeking deployment, with the result that sectors like retail and office have taken (arguably) outsized share of portfolios for the simple reason that they always have. However, optimists forget that valuations still depend on fundamentals, which are eroding for most property types—some faster than others. This relative erosion must hit valuations at some point, and if the current environment has taught us anything, it is that the future can arrive rapidly.

- **Traditional Multifamily** has undoubtedly experienced a material decline in revenue by recent historical standards, but relative to other basic food group sectors, it has demonstrated its historic relative resilience. That relative resilience combined with cheap, long-term debt offered by Fannie Mae and Freddie Mac (and others) has actually led to stable, and in some cases, increasing valuations during the pandemic, despite decreased revenue in 2020 and potential economic headwinds influencing future demand.

- **Retail and Hospitality** are widely distressed and have been experiencing similar vectors, but there are likely still challenges ahead for these permanently altered sectors. There may be some retail bargains for highly risk tolerant and deep pocketed investors who can stomach dark periods and possible asset repositioning, but this is not an honest picture of most real estate investors. Further, any relative rebounds that occur after the sector has been decimated may look like economic growth, but the larger picture is one where e-commerce gains that might have played out over the next five years have been baked into today by necessity; this will not change except in small pockets of “experience” retail. In fact, currently healthy pockets, like grocery-anchored retail, are likely to face the same disruption Amazon has already brought to more durable consumer goods. In hospitality, there will likely be a rebound of leisure travel after widespread vaccination, with the back half of 2021 experiencing an onslaught of “revenge travel.” However, over time it will be hamstrung by fewer economically healthy households than in 2019. In addition, virtual meetings will replace a good deal of business travel due to their time and cost efficiency, except for the most high stakes cases where air travel and time is negligible compared to the rewards—especially when the entire nation has already spent the last few months getting acclimated to web meetings. In sum, both sectors raise the key question of “how cheap is cheap enough” to justify deployment when these sectors may be permanently altered. Transaction volume has remained historically low, and so far, lenders have been relatively patient. But this is changing, and it will be interesting to see where valuations shakeout during 2021 and whether pricing differences in these sectors may be worth considering in the face of historically high valuations in industrial and multifamily.

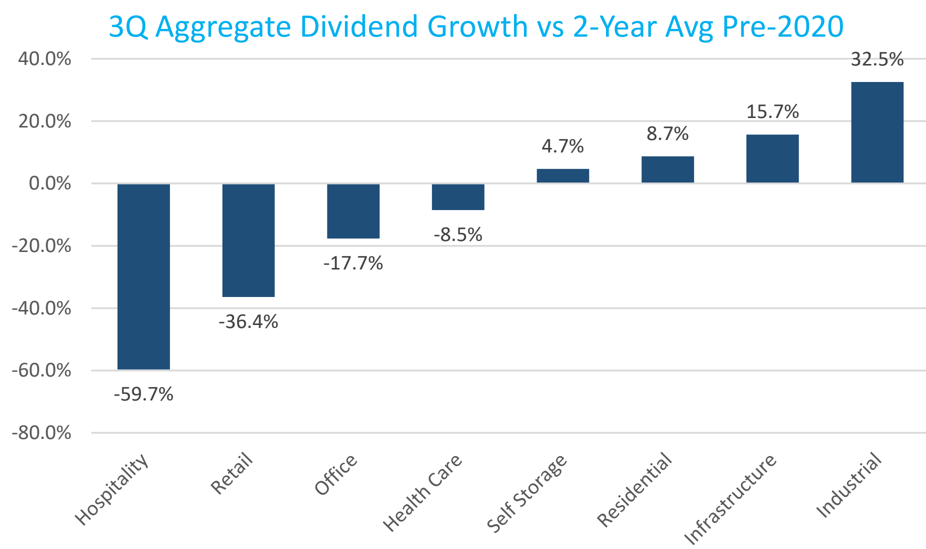
Figure 6: REIT Rent Payments Across 2020



Source: REIT statements analyzed by Hoya Capital, "REIT Earnings Preview: Who Paid The Rent?"

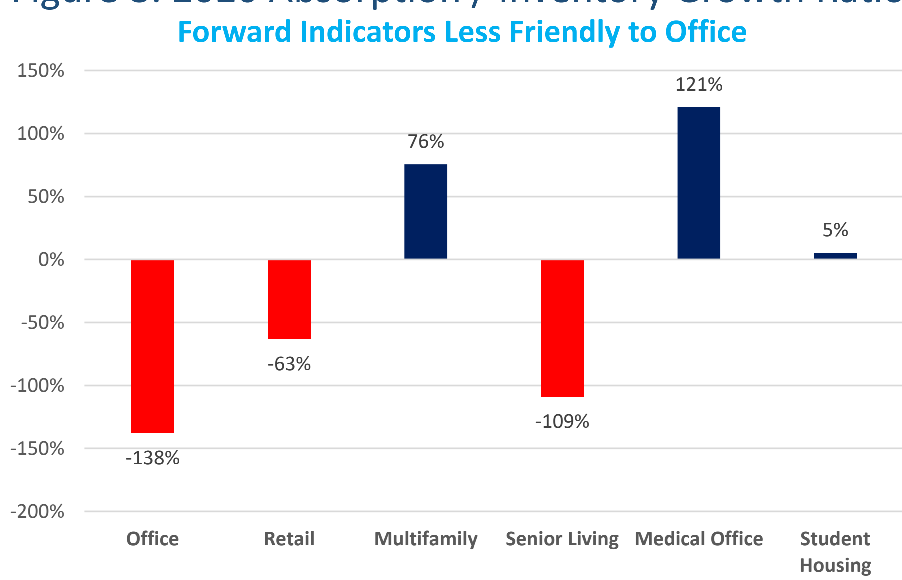
- **Office** definitely represents the greatest degree of disagreement in opinion as to the future health of the sector. Thus far, it has had a better showing among the largest conventional sectors, but we believe this is more a product of lagged and skewed data than a realistic view. The long length and upstream corporate nature of office leases mean they have been slower to show their softness. However, office will likely see a significant rebalancing in both demand and price as the effects of business conferencing take their toll. While the "Zooming" of America may not decimate office like it has retail and hospitality, even a 15-20% decline in demand would be disastrous for many lower quality office markets and would likely affect pricing in Class-A spaces occupied by tech and FIRE (financial, insurance, and real estate) tenants. Finally, it is worth remembering that REIT portfolios overrepresent the kind of large, deep pocketed firms that have weathered the pandemic better than small businesses; however, the entire office sector's fundamentals rest on the holistic health of all tenants. In short, REIT rent payment ratios do not tell the full story, but leading indicators like dividend changes do. And in this sense, office REITs are clearly expecting diminished growth. As office REITs begin to show softness, investors should consider the pervasive stress among lower profile tenants lurking beneath the surface of REIT portfolios.

Figure 7: Dividend Growth by Sector



Source: NAREIT T-Tracker, 3Q2020 data release via nareit.com. Aggregate dividend change defined as 3Q2020 total sector dividend growth versus trailing 2-year average before 2020.

Figure 8: 2020 Absorption / Inventory Growth Ratio



Source: CoStar Analytics 4Q 2020 Data Release for Office, Retail, Multifamily, and Student Housing. Senior Living data sourced from NICMAP Data Service. MOB data from Revista

- **Industrial** looks healthy in current fundamentals, and it has undoubtedly broken from the general trend of retreating investors, as both prices and volume skyrocket. The sector has seen a 32% price increase in 2020 alone. While current fundamentals are indeed healthy, it is a different question whether they deserve such soaring valuations given the low barriers and relative simplicity of developing commodity industrial space. These traits, combined with the vast geographic competitive range industrial assets face, may take the shine off individual investments, even if the sector itself continues to thrive due to e-commerce. Such waves of new entrants generally mean poorly conceived investments that can swamp markets and derail prior business plans among more experienced incumbents. Finally, it is worth remembering that industrial has historically been a hyper cyclical asset class. It even took longer to recover after the GFC than either office or retail.

NICHE PROPERTY SECTORS ARE BETTER POSITIONED TO THRIVE

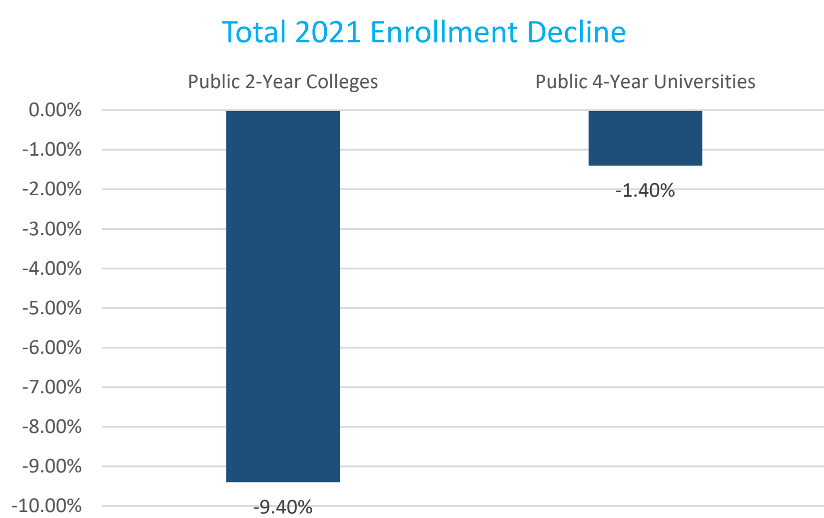
Familiar readers should know Virtus expects better performance in the alternative asset type in which it has specialized. This derives from both more robust and resilient demand, as needs-based property types have retained their primacy during the lockdown and are harder to replace with non-physical technologies. Even in areas that have experienced overheating in either development or valuations, the pandemic's cooling down provides a helpful rebalancing of new supply, giving experienced investors time to reevaluate markets and make distressed plays.

- **Workforce Housing:** The multifamily sector is vast—encompassing luxury rentals, "workforce housing" affordable to middle income renters, as well as varying forms of subsidized low-income housing. All these subsectors are responding to the pandemic in different ways: higher priced apartments in central business districts ("CBD"), which were facing new supply pressures even before the pandemic, have seen declining rents. Many deals that were priced to perfection in 2019 will likely face completely upended business plans. Meanwhile, on the other end of the renter income spectrum, economically fraught households are increasingly at risk of eviction or household deformation and consolidation. In the middle of the pack stands "workforce housing," which is much more insulated from new supply competition by its price point. This part of the multifamily sector has historically been more resilient in maintaining rate during downturns while at the same time growing rapidly during expansions due to constrained inventory. Rent rolls are also heavy with first responders and other essential workers, who face increasing and excessive housing burdens, especially in municipalities where zoning and other policy have led to anemic rates of rental housing growth compared to population growth. The Virtus workforce portfolio has performed quite well during the pandemic, with a 400 bps increase in total occupancy, as well as increased renewals (as fewer workforce tenants are purchasing homes in this environment, another difference from the luxury housing subsector). The firm has accomplished this by focusing on workforce tenants as well as more resilient metros. Such markets (encompassing stable metros like Indianapolis and higher growth ones like Dallas-Fort Worth or Atlanta) have seen less overall rate declines than places like New York or the Bay Area. In fact, rental rates in Indianapolis (a less intuitive Virtus target market for years now) have *grown* over the year, while San Francisco CBD rents saw a 14% decline. This is the difference that focusing on fundamentals, and relative value can offer investors—even across the same sector.

- **Medical Office:** Outpatient medical office increasingly constitutes the front line of healthcare, especially as hospitals take on greater capacity with the next COVID-19 wave. While certain elective practices have experienced temporary shutdowns, the medical office sector at large is one of the most fundamental and crucial sectors now and into the foreseeable future, given the aging of America. In addition, this is a sector where digital disruption is less…disruptive. Telemedicine chiefly augments patient check-ups, but it cannot displace the physical space needed for more complex diagnostics or procedures. Unlike other sectors where "brick and mortar" sales are largely parallel to e-commerce, medical caregivers are integrating new technology into existing practices as ways of staying in closer contact with patients or providing simple check-ups that reduce more costly interventions when patient illnesses are caught too late. There will undoubtedly be shake-ups in future medical care delivery, as there always have. Although technology certainly will continue to reduce needs for certain portions of space, the healthcare demand swell from the "Silver Tsunami" of America offsets this decline. Nonetheless, the large font trends will continue uninterrupted: greater outpatient care delivery, more formalized reimbursement programs, and growing importance on tech adoption. For instance, despite the distant context in which this 2018 whitepaper was written (Off the Beaten Path: Finding Value in Medical Office), its general conclusions remain applicable to the current environment.

- **Student Housing and Education Real Estate:** Education real estate encompasses everything from privately owned student housing to university infrastructure, as well as school buildings for primary and early education. Most private investors have concentrated on major universities' housing needs due to their growth and historical demand resilience. Indeed, America's universities are a rare case of continued dominance despite growing global economic power elsewhere. However, this sector also contains an immense degree of bloat (in tuition costs and student debt relative to the benefit of a typical degree) that the pandemic will likely curtail. As in other sectors, COVID-19 has hastened a trend that was already in place pre-pandemic: high Return on Investment ("ROI") universities will continue to grow in demand, while low ROI universities will have to re-invent themselves or shut their doors. As such, there will be greater dispersion in performance in student housing, with clear winners and losers, both during and after the pandemic. In general, university enrollment remains very resilient and is historically countercyclical, along with the resilience of the housing stock at high ROI universities. Virtus published a whitepaper earlier in the year (Student Housing in a Post-COVID World) likening the coming situation among universities to that of large regional malls: closures of poorly performing schools will benefit demand for higher quality ones given the lumpiness of supply. This situation offers more favorable deployment opportunities for experienced investors. Indeed, we had been on the sidelines of the student housing sector for the past few years due to both overheated valuations and a growing number of markets with large supply pipelines. Since the publication, evidence of diverging enrollment patterns has been stark: Tier I, "Power 5" state schools have maintained their enrollments well within 2% of 2019 highs, but lower quality schools have seen over double-digit declines. This trend will likely continue. The increased risk perception in the sector will likely benefit both institutions and investors that have always watched sector fundamentals more than followed market sentiment.

Figure 9: 2021 Enrollment by School Type

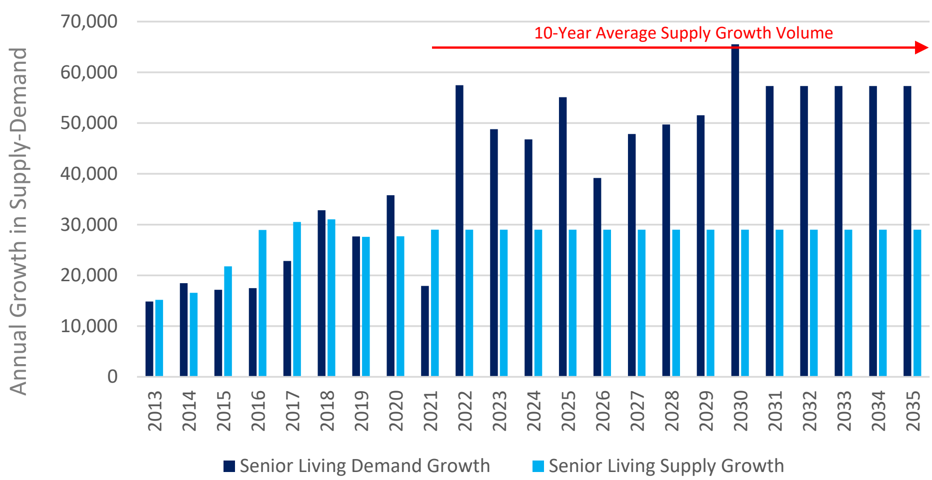


Source: CBRE analysis via National Clearinghouse Research Center

- **Senior Living:** Senior living has been more upended than most Virtus sectors during the pandemic—operators were required to implement new procedures for resident safety, and several high-profile missteps, albeit at limited locations, made recent headlines. However, most of the unfortunate stories have come from lower-quality operators in the *skilled nursing* sector than the private pay needs-based markets in which Virtus was historically active. In short, there has been immense misinformation about the sector in popular media. This has needlessly panicked senior residents and would-be residents, many of whom would be *safer* in well operated senior communities than isolated at home. On the other hand, this "headline" level distress may further contribute toward a necessary cooling down that the pandemic has brought to both capital markets and development pipelines, both of which were becoming excessive in 2019. Senior living was another sector that Virtus had underweight for its immediate deployment even before COVID-19, due to labor pressure and a temporary imbalance between current rates of construction and the present dip between the Silent and Baby Boom generation. Now that construction pipelines are essentially frozen, with many generalist investors moving to "new" trends like industrial, experienced operators will have a few years to shore up operations, perhaps make some distressed acquisitions, and prepare for the massive wave of Baby Boomers that are aging into prime senior living demand years. That projected demand swell is seen below, and most historical rates of supply growth fail to meet it. This will benefit patient investors who can contextualize the current state with its long-term fundamentals. Again, diverging outcomes within the sector will help experienced operators, while corner cutters and superficial investors take their losses elsewhere.

Figure 10: Senior Living Growth Projections

Demand Growth Accelerating as Supply Pipeline Declines



Source: NICMAP dataset for existing inventory and supply growth scenarios. Projected senior growth rates from Projected 5-Year Age Groups and Sex Composition: Main Projections Series for the United States, 2017-2060. U.S. Census Bureau. Demand penetration rate held constant at 11.1%.

DISTRESS IS COMING, BUT NOT ALL DISTRESS IS EQUIVALENT

Hopefully, the above gives a sense of how Virtus expects commercial real estate to evolve, but so that there are no ambiguities, below is our scorecard for individual sectors. Rather than just provide an annual prediction like we have done in the past, given the lasting implication of the pandemic, we felt it productive to provide a one-year outlook as well as a longer range five-year outlook.

Property Type	1 Year	5 Years	Lasting Implications
Hospitality	Significant distress from substantial reduction in all travel	Leisure travel in general returns, but business travel is likely reduced	Cyclicality increases further due to secular decline in business travel
Retail	COVID-19 accelerates ecommerce takeover already in place	Much of retail space is converted to alternate uses	Overall reduction in space—experience & essentials fare better
Industrial	COVID-19 accelerates ecommerce takeover already in place	Industrial beta sensitivity reacts to economic downturn & overbuilding	Overall increase in demand, but return of historic cyclicality
Office	High quality leases to credit tenants stay solvent, but renewals decline	Occupancy and rates suffer due to materially reduced leasing volume	Reduced structural demand for physical office space
Multifamily	Headwinds for Class-C/D as payroll support rolls off and Class-A as employment and wages decrease	Class-C/D rebound dependent on functional obsolescence; Class-A tied to employment and new supply	Long-term demand from "renter nation," but more volatility likely in luxury and low-income
Workforce Housing	Short-term modest reductions in revenue as payroll support rolls off	Demand is robust especially for grey collar and reduced home ownership	WFH continues to be the most resilient segment of multifamily
Medical Office	COVID-19 volatility may increase consolidation, but demand remains	Aging populace boosts demand; tech provides better healthcare delivery	Overall demand continues, but must adapt to modern space needs
Student Housing	COVID-19 accelerates demise of low ROI universities already in place	Enrollment remains robust overall, but low ROI schools close or reinvent	Increased demand at high ROI schools and greater privatization
Self-Storage	Demand remains from household volatility, but challenges with new supply and increased default rates	Oversupply from 2016-2020 has led to more dispersion in performance with REITs likely consolidating supply	Sector is healthy but must adapt to less physical demand patterns and greater overall attention & supply
Senior Living	Collections remain high, but leasing is very slow until we have a vaccine	Labor pressure and new supply headwinds of 2017-2020 are abated	Increased demand from Boomers; material shortfall of needed units

Legend: Positive | Stable | Challenging

No doubt there will be significant distress across multiple categories of real estate, even the healthier ones—which are largely current and longtime sectors of choice for Virtus. However, our belief in the relative health of alternative asset types is not so rosy or simplistic that we expect a total lack of distress in our chosen property types. In fact, we believe distress will be the primary acquisition driver for certain sectors like senior living for the next few years. That said, not all distress is created equally. Distress from the basic food groups generally comes from a lack of tenant demand and can be exacerbated by aggressive capital stacks, new supply, and / or operational challenges in more operationally intensive asset classes, such as hospitality. However, distress in alternative property types generally *stems* from poor capital stacks or pockets of overexuberant supply, like in senior living, which can occur more easily the smaller and more niche the sector is—and rarely from demand-side problems. For instance, in 2019, the senior living sector was hit with a historic wave of supply, leading to occupancy downturns well before the COVID-19 pandemic. Absorption *also* hit historic highs over this same period—just lower in aggregate than the supply growth.

Meanwhile, conventional asset classes can see similar downturns in occupancy based on a small fractional decline of the overall growth in both supply and absorption. This distinction is crucial when liquidity dries up, or markets reset, as in the current moment. In conventional assets, where demand *headwinds* often rule, existing valuations face more than a "mean reversion" risk. In contrast, cyclical exuberance in niche assets is generally a problem only for the new entrants holding a poorly assembled deal. A mere change in basis and ownership can entirely fix the deal, and indeed such assets present opportunities for careful investors.

Thus, despite the resilience of the Virtus targeted property types, we expect there to be two phases of distress. The first one is what we are experiencing currently where the assets are not necessarily distressed, but the owner or the lender of that asset may be distressed due to liquidity constraints or challenges elsewhere in their portfolios. The second phase will lead to more of the deep distress that Virtus has seen historically during ripe buying environments, especially during the GFC. Again, these distressed assets may be found in entirely healthy markets characterized by outsized demand and economic health—just a lower overall rate of it than the most aggressive capital stacks and heedless developments have depended upon for their business plans. For more information, readers may consult our recent whitepaper on The Resilient Distressed Opportunity.

CONCLUSION

In short, we currently hold the seemingly paradoxical opinion that many investors are underestimating the degree of economic trouble the nation will face over the next few years and that there are nonetheless fruitful opportunities for sector specialists with liquidity access who can manage the risks ahead. Indeed, the level of uncertainty right now should give longer horizon investors pause. It remains an open question whether the next few years will be characterized by the drops and recoveries we have associated with business cycles or whether they will transition to a more protracted decline in which existing low rates cannot provide effective stimulus. In fact, the prospect of lower long term growth rates (the Japan-like "new normal") or the prospect of future tax changes means investors may be incentivized to deploy sooner than later if they can find niche strategies that seem viable in an environment of high uncertainty. In such moments, it is worth considering what verticals for deployment seem the most "future proof"—which are the most fundamental human needs that will be most difficult to replace with non-physical alternatives? Which types of assets are the most important to consumers with limited funds? At Virtus, the answer has been "housing, healthcare, and education" for many years. While the pandemic has already changed even how those sectors perform and will continue to do so, we believe our investment mandate's overall attractiveness has only increased relative to other sectors.

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VIRTUS REAL ESTATE CAPITAL

ABOUT VIRTUS

Virtus Real Estate Capital, founded in 2003, is a hands-on, data-driven, curious investor that delivers compelling outcomes from cycle-resilient investments for all stakeholders. Through thoughtful evolution and resilience in challenging times, Virtus has purposefully worked to foster thriving communities that empower people to live better lives. Over the last 18 years, it has acquired 245 properties for a combined acquisition value of over $4.4 billion, and has fully realized 180 property investments. With a strong and established track record, Virtus has proven to be successful in all phases of the market cycle. For more information, please visit virtusre.com.

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