VIRTUS
REAL ESTATE CAPITAL

U.S. Real Estate
Outlook 2020

The Future Is Here —
Connectivity, Technology & Affordability

EXECUTIVE SUMMARY

Although commercial real estate will start 2020 in a climate much like that of 2019, the new decade likely marks a change in vectors from the euphoric experience we've had over the last decade. No doubt, our short-term view will sound quite familiar, except with more of everything. There is generally more investment volume, there is more dry powder seeking deals, and there will be more uncertainty in the economic outlook. Of course, as things inevitably evolve from this environment to whatever comes next, there will be greater dispersion in outcomes. Backward-looking strategies will falter, and forward-looking ones will prosper. Our annual market outlooks are generally a good occasion for Virtus to remind readers that our property types themselves were chosen as more cycle resilient sectors that benefit from demand drivers not correlated to the economic climate. Despite being surprised by the continued performance of certain "Basic Food Group" categories, we believe this remains as true as it ever has been. We also believe the current moment invites managers to focus on prevailing trends that stay true across property types, impacting both Basic Food Groups, and alternative property sectors. The current year should reward investors who keep the following in mind:

- **Commercial Real Estate Investment Performance Will Experience Greater Dispersion.** No doubt, virtually all investors have benefited from the rising tide coming off the Great Financial Crisis ("GFC"), the longest expansion any of us have seen in our lifetimes. As we move into the next decade, it's unlikely this rising tide persists. We have already seen meaningful dispersion in performance between these asset classes where Office and Retail have materially underperformed Multifamily and Industrial. As a whole, Basic Food Group assets have underperformed the more niche or cycle resilient segments of Healthcare, Education, Workforce Housing, and Self-Storage. Dispersion in asset class performance will continue its advance in the new decade, along with individual market and submarket performance. That is to say, there will be a decoupling of returns, with certain strategies offering far better outcomes than others. This will be exacerbated by the fact that there has been an increase in the number of new investors coming to the space, as well as a move for even seasoned institutional investors to disintermediate and accept making investment decisions from afar with smaller teams of professionals managing larger portfolios of assets. Although this offers the short-term benefit of reduced costs, it increases the risk investors are taking on, as we head into a less friendly investment environment.

- **Affordability is a Crucial Success Metric Across All Asset Classes.** Projections of property fundamentals remain more art than science, but you will be hard-pressed to find any experienced investors who believe the next few years of space absorption and rent growth will exceed the prior decade. Thus, strategies based around passive

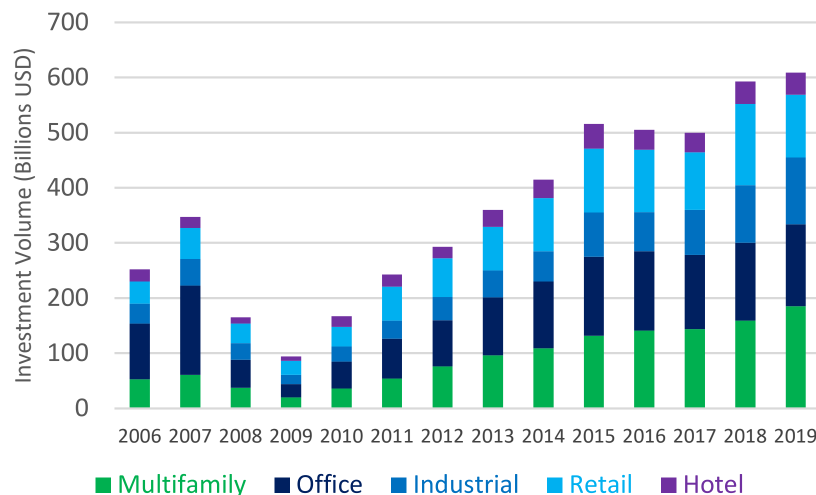
income growth and capital appreciation are less likely to appease investors. Instead, opportunities that focus on providing value to consumers at their current price points (vs what will justify lofty acquisition values or construction costs). The most obvious example here is Luxury Multifamily vs Workforce Housing, but analogous situations exist across the entire real estate landscape, especially those catering to residential tenants.

- **Technology Will Disrupt Management Practices.** Real estate is a slow sector technologically, but change is nonetheless persistent, and 2020 will see an increasing impact. Smart buildings are changing the potential for both awareness and control of onsite issues that couldn't be viewed centrally in the past. Institutional investors are increasingly concerned with managers' abilities to justify their performance and operations in the context of Environmental, Social, and Governance, or Triple Bottom Line success metrics. Construction tech is finally beginning to disrupt higher barrier markets for both labor and fabrication best practices. Both the sharing economy (Airbnb, Sonder), and new forms of transit (Car-to-Go, Bus Rapid Transit) are reshaping neighborhoods for greater built space efficiency. All these shifts will be opportunities for diligent managers and challenges for stragglers.

- **Global Investor Sentiment Will Move Markets Rapidly.** The presence of yield-hungry overseas investors has flushed the domestic real estate scene with major capital inflows, propping up valuations across the board. However, increasing signs point toward possible distress in both the Eurozone and China, and the exit of this capital would force owners to assess legacy assets and business lines more closely. We believe this scrutiny will not benefit many Basic Food Group types that have benefited from existing investor perception. The prospect of a more "Japan-like" long-term stagnant growth scenario, versus a conventional recession, would have an even greater effect in rebalancing investor perceptions.

THE 2020 MARKET OUTLOOK

The last few years in commercial real estate have had a common pattern: the industry starts the year, noting that this could be the one that stops the music, and then ends it with historically high annual transaction volume and price growth. Preliminary figures suggest that 2019 was no different, with annual transaction volume across all commercial real estate classes above $600 billion and last year's sum. This shouldn't be surprising, with record amounts of dry powder across both equity funds and debt providers. Fundamentals and investor appetite within property types are also in a similar place; the sectors in favor last year remain so because not much has changed in the underlying properties. Multifamily retained its central role in the hierarchy of commercial real estate asset classes; Industrial remains the hot new topic; Office and Retail face headwinds; and alternative asset classes continue to increase in demand among generalist investors. Indeed, when comparing ourselves against last year's outlook piece, most of our specific expectations are similar—evidence of the "holding pattern" nature of the current market.



Source: Costar Analytics, "2019Q4 State of the US CRE Capital Markets"

That said, as this environment becomes more familiar, we become cognizant of common factors across property types that will become even more important during difficult times. While the current environment remains stubborn, so too do the challenges awaiting investors over the horizon—especially those considering less liquid real assets. Which strategies will hold water during times when liquidity is scarcer, and economic growth flattens or declines? How do managers respond to the prospect of either a conventional recession or else a long-term stagnant growth "Japan-like" scenario?

Some of our answers will be very familiar: the Virtus mandate was specifically designed around property types we believe to be cycle resilient, benefiting from demographic demand in both up and downtimes. Over the last several years in these more resilient property segments, we have found that the historical relationship between risk and return has become less linear. That is to say, certain risk profiles no longer offer the returns they once did. For example, in this mature market cycle with plenty of investors chasing value-add returns, most traditional value-add deals offer lower returns than they have historically, despite having every bit as much as the same level of historical risk. Whereas lower risk core plus opportunities and/or preferred equity or mezzanine investments in a safer part of the capital structure generally offer a more attractive risk-adjusted return. So does the other end of the risk spectrum, which is comprised of distressed turnarounds (there are always distressed opportunities in niche segments, even in mature markets) and ground-up opportunities, where one can still find pockets of growth and attractive relative returns.

Further, market selection favors safe harbor gateway markets and compelling growth markets that offer better forward potential or materially more attractive cap rate premiums. That said, we have also found it helpful to look at broader and more qualitative forces shifting our forward strategy. We believe that affordability, global investor sentiment, and technological shifts will focus our efforts on shaping the existing Virtus mandate for the future.

AFFORDABILITY

Virtus believes affordability across all property segments, but especially residential segments will be paramount as a rare avenue to growth in the current environment, where many strategies are either exhausted or overpriced. Last year we began a series of white papers discussing affordability in Workforce Housing, which fills a crucial "missing middle" of quality, accessible rental product that has been lost over decades of poor urban policy combined with a geometric increase in construction costs. Not only does this strategy offer social value, but it has also expanded the scope of institutionally attractive Multifamily product. This is particularly compelling at a time when passive rent growth seems increasingly uncertain, and most straightforward value-add deals in major markets have often traded multiple times. Many managers who initially viewed Workforce Housing as either "lower quality Multifamily" or a social impact angle have belatedly come around as the strategy's performance has come into focus.

The concept of affordability hardly stops here. Senior Living development has historically been hyper-focused on affluent private pay product, and the development boom of the last five years has been no different. Meanwhile, there are millions of Baby Boomers with little savings approaching retirement age and needing new solutions for their next phase

of life. This constitutes a vast untapped market for newer, more efficient models. Similarly, the general healthcare real estate landscape is in flux, with both new delivery models and reimbursement methods shifting the landscape of outpatient care. The intense regulatory uncertainty around federal healthcare means cost-effectiveness is a paramount success indicator for most new policy and delivery strategies. Any prudent healthcare real estate investment strategy of the future should center around healthcare providers who will continue to adopt a more efficient outcomes-based model, rather than the historical fee for service model.

Further, the affordability of Student Housing will become a higher priority as students, and their parents question the ROI offered by a college education, especially with decades of skyrocketing tuition and attendance costs, far outpacing price growth or inflation in virtually every other sector. No doubt, high quality universities and/or low cost public universities continue to attract students by the millions, but colleges and universities who don't offer a compelling value proposition have struggled and will continue to struggle in the years to come. As such, the "arms race" of building an endless supply of luxury Student Housing product with ever increasing amenities and higher rental rates will fall out of favor, especially in low ROI college settings. To be successful, one must be highly focused on which university markets will prevail in the future, and which product will be in demand, particularly with an eye toward affordability for most students. As such, a passive strategy in Student Housing will struggle to benefit from the previous demographic tailwinds and demand inelasticity witnessed over the last two decades.

In short, affordability is central to the trajectory of the largest and most needs-based sectors in the economy today — housing and healthcare—both in making sure existing business models stay attuned to consumer needs and opening new frontiers for the existing Virtus mandate.

TECHNOLOGICAL UPHEAVAL

Real estate has historically been one of the slowest moving and least innovative sectors, especially compared to areas like consumer tech or even healthcare. This is changing rapidly. Smart buildings are providing better awareness of building performance and security. Environmental performance becomes more crucial for both the financial bottom line, as well as the Triple Bottom Line, that investors increasingly concerned with Environmental, Social, and Governance ("ESG") success metrics value. Even construction sciences are finally seeing some exciting forward innovations that may make development (especially tight urban infill development) easier. Finally, technological shifts in areas like transit will reshape the density and movement patterns in cities. It would take the rest of this piece to cover each topic

satisfactorily, and Virtus will publish a few white papers on areas of key focus through the year, but the central theme is that technology will increase the number of factors managers can and MUST know about their assets in order to outperform.

GLOBAL CONNECTIVITY

If the current market seems long in the tooth, so too are the various issues (i.e., interest rates, political instability, Brexit, etc.) that have threatened to end the recovery. If anything, we now face an even longer list of possible contenders to end the good times: Deutsche Bank and Eurozone distress, Chinese debt, trade wars, and lately even the increased possibility of literal wars. Environments like this can force even thoughtful investors into a complacent risk-agnostic mindset when they have spent years reading about impending collapse while markets continue buzzing along merrily. But the persistence of these issues hardly means they lose their power to reshape the landscape—in fact, the opposite is true. Further, global connectivity is increasingly direct in influencing and in some cases driving commercial real estate markets: offshore investors have been a key force in propping up domestic property markets. Their presence is generally felt most acutely in gateway markets and core Basic Food Group assets, but Virtus has seen their transformative impact on valuations and appetite even in the shallower waters of Student Housing and Senior Living.

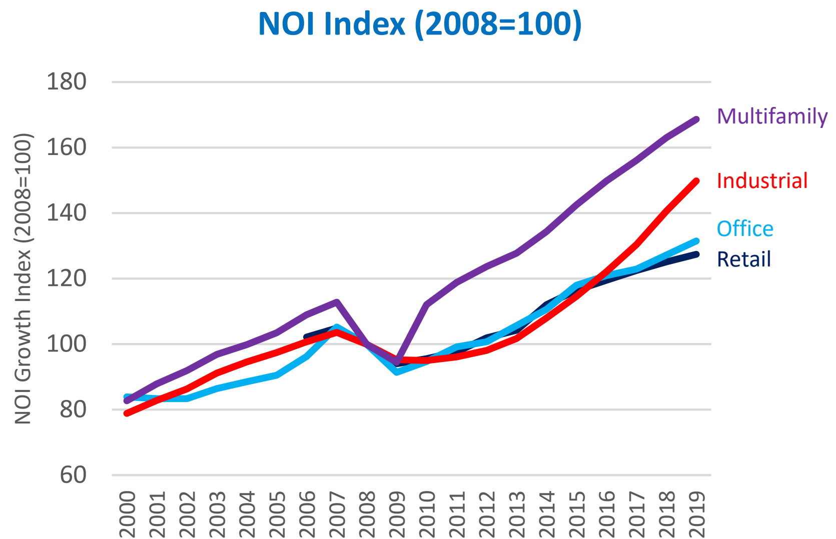
The other big question is how exactly a downturn would play out, both macroeconomically and within domestic property markets. There is general consensus that both property and corporate banking leverage (domestically, at least) are at safer levels and thus more resilient than in 2007 so that any conventional downturn would have a more controlled impact than the GFC. However, the other possibility is that economies gradually stagnate as quantitative easing loses its ability to shore up financial growth, thus illuminating the much slower pace of real growth in domestic product. In both scenarios, forward growth expectations decline, along with capital appreciation in real estate and likely many business plans that have extended the current climate into forward years.

This latter scenario should prevent investors from a sanguine “buy the dip and back to usual” outlook. Indeed, the prospect of “new normal” stagnant growth makes it doubly essential to pay closer attention to what property types, markets, or deal profiles will benefit from longer-term demographic, social, and economic trends that persist through cycles. At this level, we believe the contrast between conventional property types and alternative properties becomes more obvious and compelling.

OUTLOOK ON THE BASIC FOOD GROUPS

Both the "Main & Main" Office and high-end destination Retail "experiences" are doing well, but outside those prime (and highly valued) opportunities, there are significant headwinds in the Basic Food Groups beyond housing. We expect these challenges will become more obvious if passive capital appreciation declines enough such that investors need to look harder at legacy assets in portfolios or new acquisitions.

- Retail is obvious in its challenges; 2019 was another year with significant store closures and retailer bankruptcies. While a strong holiday season prompted optimism around consumer sentiment, it is worth remembering how overbuilt the USA's retail stock is, with roughly ten times the per capita real estate space as Europe. Even individual retail deals that still make sense must contend with that environment, which will only get tougher each year as e-commerce improves the scale of its already vast product offerings. Even the presumed safe harbor of grocer-anchored retail is being called into question, both as on-demand groceries take greater hold and as supporting retailers who typically fill out a retail center and rely heavily on the grocery store traffic may be quite disappointed with reduced foot traffic.



Source: Costar Analytics, "Data Export Accessed 1Q2020"

- Office purports tailwinds based on strong jobs figures, but the reality is patchier. Most new jobs created have been non office-using gig economy work or things like healthcare support, and recent figures also discount the growth in non-employed people outside the labor force. Then, one considers trends like open plans with

much denser seating arrangements, global outsourcing, and increased support for telecommuting. WeWork's fall from grace is illustrative here: it promised to unlock a groundswell of office demand but could only find it by using unrecognized performance metrics. The economic expansion has not translated into commensurate physical demand for office space outside prime Class "A" sites for major tech firms. This reality will become even starker when we enter a down environment.

- Hospitality continues to perform well and attract investment, as it generally does in good times. However, hotels are even more beta sensitive than Office and Retail, and they too are being disrupted by sharing platforms, like Airbnb and HomeAway. In a down environment, the competition will be even more fierce.

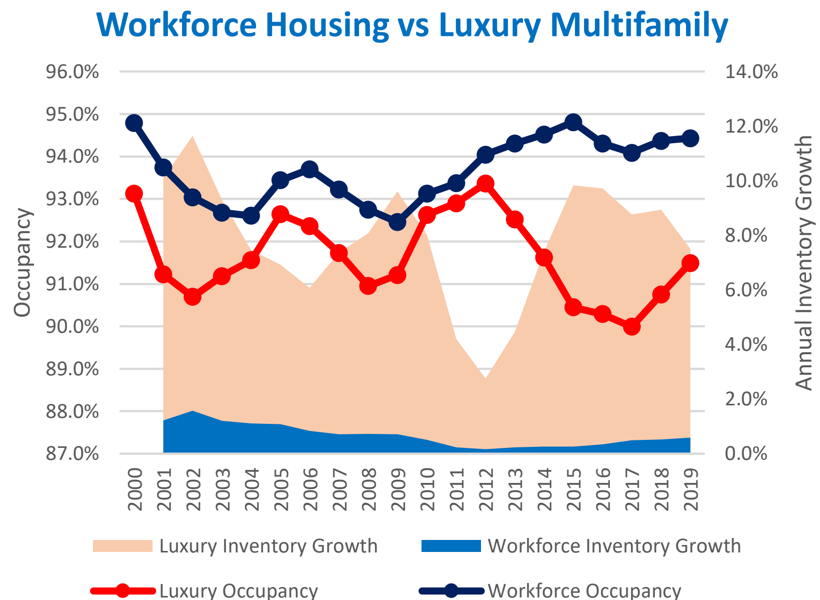
- Industrial has been the major "trending" sector, with very good reason given the strength of e-commerce. However, it has been heavily cyclical historically; as the business cycle goes, so does Industrial for good reason. Industrial fundamentals in NOI took longer to rebalance during the GFC than even Office or Retail, which should give shorter time horizon investors pause at this point. It has certainly been the darling of Basic Food Group performance and appetite for institutional investors the last couple of years, especially for the supposedly more resilient "last-mile" segment. But all-time high valuations in a commodity asset, combined with concerns over disruption in tenant demand from trade wars, may cool the recent excitement. Finally, it has few barriers and a geographically vast and complicated competitive landscape that few new entrants fully understand.

- Multifamily continued to surprise doubters, ourselves included, with a rise in both occupancy and rate growth after a small dip for more conventional product, especially in urban core areas that have seen major development of Class "A" product. Virtus still believes Workforce Housing is a more compelling opportunity than conventional Luxury Multifamily, but the resurgence of even these deals proves how constrained many urban rental housing markets remain in that rent growth still outstrips the ability to add affordable rental units where they are needed.

OUTLOOK ON VIRTUS PROPERTY TYPES

- Workforce Housing gained recognition in recent years with the dislocation in rents and occupancies between Class "A" Multifamily and less visible, older garden-style product. Indeed, when we at Virtus began in Workforce Housing years ago, some skeptical investors and operators regularly required us to provide them with the definition of "Workforce Housing." In contrast, today, the term has become quite common. Many

just assumed performance would resemble that of the rest of the Multifamily space, but history has proved otherwise. We view the space as quality affordable housing for the mass renters' market. In short, construction costs and decades of development-averse urban zoning policy have made Workforce Housing anti-competitive. The result has been a protracted housing shortage in the areas most in need, and Workforce Housing has thus outperformed on a rate growth and occupancy basis despite having more attractive cap rates than newer apartments targeting only a small fraction of the renter pool who can afford it by historical standards. We believe the central challenge for this strategy is valuations and deal flow, both of which we have sought to balance with greater emphasis on public-private partnership structures and other innovative deal profiles. Virtus will be continuing our thought leadership in this space throughout the year as we do deeper dives on facets of this highly attractive and crucial sector.



Source: CoStar Analytics Data Export Accessed 1Q2020

- Medical Office benefits from massive growth from 65+ age households that consume most healthcare services. This cohort's expansion is why healthcare demand projections feature growth well above 4.0% despite regulatory unknowns and advancements in healthcare delivery models and technology. It is worth remembering that despite the extreme uncertainty in healthcare policy and reimbursement, the one constant feature is extremely robust growth in demand for services. Further, the vast increase in outpatient care has led to growth in Medical Office as both consumers, and hospital networks pull the delivery of care outward into lower cost and more convenient settings. The result

is stable cash flow from high operating margins and good credit—doctors and other healthcare service providers, in general, have far lower default rates than other tenants and significantly higher renewal rates. Medical Office requires greater regulatory and sector knowledge compared to traditional office, but for those who take the time to make informed decisions, it presents a ripe opportunity in most any environment.

- Senior Living benefits from the same demographic trends as Medical Office, except needs-based Senior Living serves a 75+ rather than a 65+ age cohort and has much higher operational barriers that keep out generalist investors. Those operational barriers are not to be taken lightly, because the industry has struggled with labor shortages combined with escalating wages. New supply concerns continue, especially in lower barrier markets that have seen increased development like Atlanta and Houston. However, even these metros have seen historic rates of absorption nearly matching the supply wave. As construction pipelines moderate and then generally freeze in a downturn, we believe the strong demand, especially in the coming years, in this sector will push superior rent growth and thus justify valuations (preliminary evidence from NICMAP also suggests occupancies may be rising in the last several years.) But again, Virtus believes the true story in Senior Living has to do with the immense potential for operators who can meaningfully expand the income cohort their product serves. The Boomer wave will disrupt this industry in myriad ways over the coming years, both shifting current strategies and defining entirely new ones.

- Student Housing has been less of the focus of Virtus in recent years, due to excess new supply and valuations outrunning fundamentals in general, much of which was fueled by investors still hanging on to the strong performance of the sector during the GFC. A few overbuilt markets have already seen distressed properties, despite the euphoric backdrop. There is also a deserved skepticism over the ROI of “just any” college degree given student debt figures, leading to an albeit modest decrease in national enrollment the last three years. It is now crucial to understand the value proposition of individual universities. However, the core of the Student Housing community seems to have realized these issues and pulled back in new starts and lending, even if pipelines are still elevated. Virtus believes this is a ripe time to assess long term attractive markets for temporarily dislocated deals built or operated by unsophisticated investors that might benefit from ownership by domain experts.

- Self-Storage has a somewhat similar issue: returns and fundamentals have been so good they prompted all-time high valuations and a development wave that threatens to swamp certain markets—chiefly lower growth and/or lower barrier markets. Urban markets with higher barriers have seen much more resilient fundamentals, and Virtus believes there

may be pockets of opportunity to stake claims to submarkets of major metros that REITs have not yet penetrated.

In short, the real estate sector left behind in 2019 is largely the same one from the previous years. We believe the smart money expects changes from certain vectors while availing itself of the opportunities that exist today. We believe that a research-driven approach that leads to a much more targeted deployment strategy with a unique awareness of the fundamentals will lead to a much more favorable outcome than making macro bets that have worked out well historically. We believe our mandate remains as well suited to the current environment as it has ever been—in part because it was well chosen based on compelling historical evidence, but also because we continually refresh it based on constant assessments of where relative value currently exists and where it is headed.

Virtus Sector Outlook 2020

Traditional Property	Overall	Valuations	Demand	Supply
Multifamily				
Office				
Retail				
Industrial				
Hospitality				

Alternative Property	Overall	Valuations	Demand	Supply
Medical Office				
Student Housing				
Senior Living				
Self-Storage				
Workforce Housing				

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ABOUT VIRTUS

Virtus Real Estate Capital, founded in 2003, brings thoughtful stewardship to the practice of real estate investment, delivering non-correlated alpha via cycle-resilient real estate. Over the last 16 years, Virtus has acquired 237 properties for a combined acquisition value of over $4.1 billion and has fully realized 176 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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