

Inside Real Estate

ANNUAL STRATEGY OUTLOOK FOR 2022

**COVID-19 propels real estate
into the future**

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Key themes

Global outlook: Slowing growth but a world in better health. We expect the global economy to grow at a slower pace in 2022 as fiscal and monetary tailwinds fade. Inflation, supply chains, and central banking policies will be key for investors in an environment where pandemic-induced changes and disruptions continue to reverberate.

Inflation: Persistent or transient? We believe inflation is likely to remain elevated in 2022 and recommend investors be open-minded on the impact to their portfolio construction and rebalancing needs. Once supply chain bottlenecks and labor pressures ease, we expect inflation to moderate.

Monetary policy will be in the crosshairs. Central banks have indicated that the clock is ticking down on extraordinary monetary policies in response to COVID-19. Given the uncertainty around inflation, policy shifts will be challenging to execute and there will be significant pressure on central banks to get policy “just right”.

Change induced by the pandemic is creating investment opportunities. Our investment strategy identifies key themes and strategic drivers that have been strengthened by the pandemic. Niche, or non-traditional sectors, that remained particularly resilient are one of the most significant investment opportunities emerging from the pandemic.

Office demand has weakened and may rebalance the sector. Lower-quality or poorly located offices in urban markets are clearly disrupted and need to be treated with caution. Investors need to enhance their opportunity set to markets that offer a compelling mix of lifestyle, talent, and demographics while focusing on high-quality assets that are positioned to meet the evolving environmental, social, and governance (ESG) needs of tenants.

Housing is one of our best bets in a shifting milieu of migration, demographics, and income. This is creating significant opportunities across a continuum ranging from manufactured housing to single-family home rentals. The housing sector represents a deep set of investment opportunities across a wide range of incomes and geographies.

Shopping survived and so will retail. The epitaph for retail has been written extensively and huge challenges undoubtedly remain. While discounters, essential retailers, and convenience retail in the U.S. and Europe have remained solid investments through the pandemic, power centers and lifestyle-oriented retail in non-brochure markets could offer interesting opportunities.

Industrial to keep on trucking. Supply chain disruptions and higher costs notwithstanding, tenant and investor demand for industrial/logistics has been turbocharged by the pandemic. We see little end in sight for industrial's expansion, though core prices signal some caution.

Leisure returns with a vengeance. Pent-up demand for leisure travel has exploded in the past six months, helping recover leisure-driven hotel occupancy. However, business reluctance to embrace travel means luxury, full-service, and gateway markets remain challenged.

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Brave new world



INSIDE REAL ESTATE:

COVID-19 propels real estate into the future

Lockdowns and fear, induced by the world's first pandemic in a hundred years, are beginning to fade in conjunction with unprecedented leaps in human ingenuity and endeavor. Rapid advances in science and technology enabled the fastest approval and rollout of new vaccines in history. Consensus estimates peg global vaccination to reach 70% of the population by the end of 2022. Our outlook on global growth is therefore considerably brighter than it was twelve months ago and are confident that vaccination levels will be high enough to prevent a return to the shutdowns that crippled the global economy in 2020.

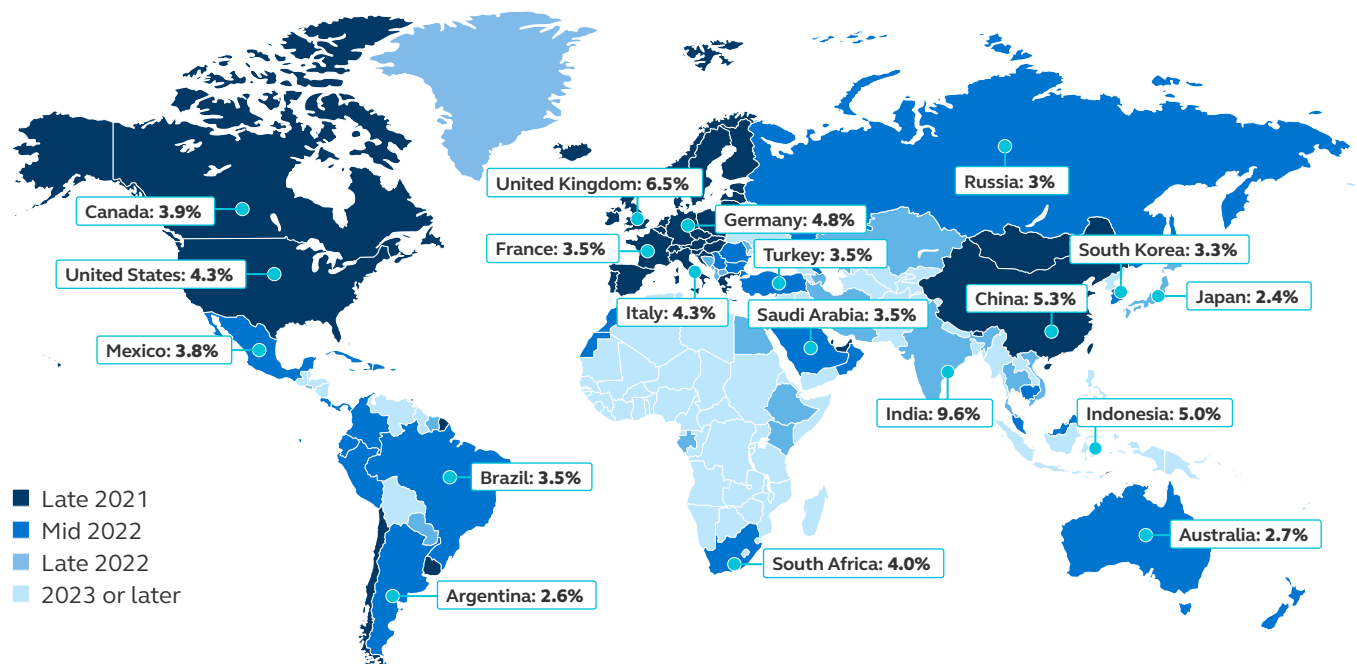
As we head towards a new status quo, real estate investors will need to grapple with some profound unknowns the pandemic has created. Decades of human behavior has been turned on its head, and it is increasingly clear that many pre-pandemic norms are history. Human behavior has changed, and a new era of how we work, live, and play lies ahead. Many of these changes were already occurring and were identified in our annual strategy outlook for 2019 focused on “DIGITAL” themes (demographics, infrastructure, globalization, and innovation & technology), which we believed would drive investment performance into the future. Three years later these themes are even more prevalent and some have been turbocharged by the pandemic. In many ways, the commercial real estate market has seen the future and it looks reassuringly familiar yet startlingly different, with a rapidly broadening opportunity set that spans well beyond the traditional property sectors.

“ We stand now at the turning point between two eras. Behind us is a past to which we can never return ... ”

Arthur C. Clarke

EXHIBIT 1: Herd “resiliency” will pave the path to normality

Expectation for countries to reach vaccination for 60% or more of their population*



Source: Economist Intelligence Unit, Moody's Analytics, Principal Real Estate Investors, October 2021

* Country labels indicate 2022 GDP Growth Forecast

Base case: Goldilocks but with two bears looming

Our base case for the global economy assumes ongoing growth and an expansion of the recovery into developing countries. The collapse of global demand, which we foresaw in our outlook last year, was met with an unprecedented and forceful response by policymakers. So, while the crisis was different this time, the policy response that followed took a page out of the central banks' approach to the 2008 Global Financial Crisis (GFC). What took the response further was the unprecedented fiscal support, in scope and size. In many developed nations, generous direct transfers from governments to households occurred at near record pace. The strength and speed of policy, along with rapid vaccination, allowed the global economy to reopen and recover quickly from a very deep, yet short recession.

Our base case for the global economy assumes ongoing growth and an expansion of the recovery into developing countries.

Consequently, 2021 turned out to be the year of recovery and our outlook on the world economy for 2022 is one of growth, albeit at a slower pace. Absent a new growth impulse (e.g., emergency stimulus, vaccines, reopening), we see growth stabilizing at pre-pandemic levels. However, we do expect growth to be spread broadly across major regions, with the U.S. no longer outperforming significantly. This will be driven by the increased pace of vaccination in developing markets, pivoting growth to these countries in 2022. Indeed, the rapid spread of vaccine coverage in 2022 will have a very significant causal effect on growth. As such, economic growth will be tied to vaccine penetration, with slower countries lagging the broader recovery.

Apart from vaccinations, two major issues that will determine the path of the global economy will be inflation and monetary policy. Last year we noted that there was plenty of ammunition for inflation hawks and doves to press their case. As 2021 unfolded, inflation hawks, who have been very voluble on rising price risks, appear to have won the battle, although it is unclear if they will win the war. Investors have been focused on the Fed's language of "transitory" to describe the current elevated inflation level in the U.S., yet it is more important to understand how the Fed will respond over the next twelve months since its implicit target of 2% inflation has been met and exceeded.



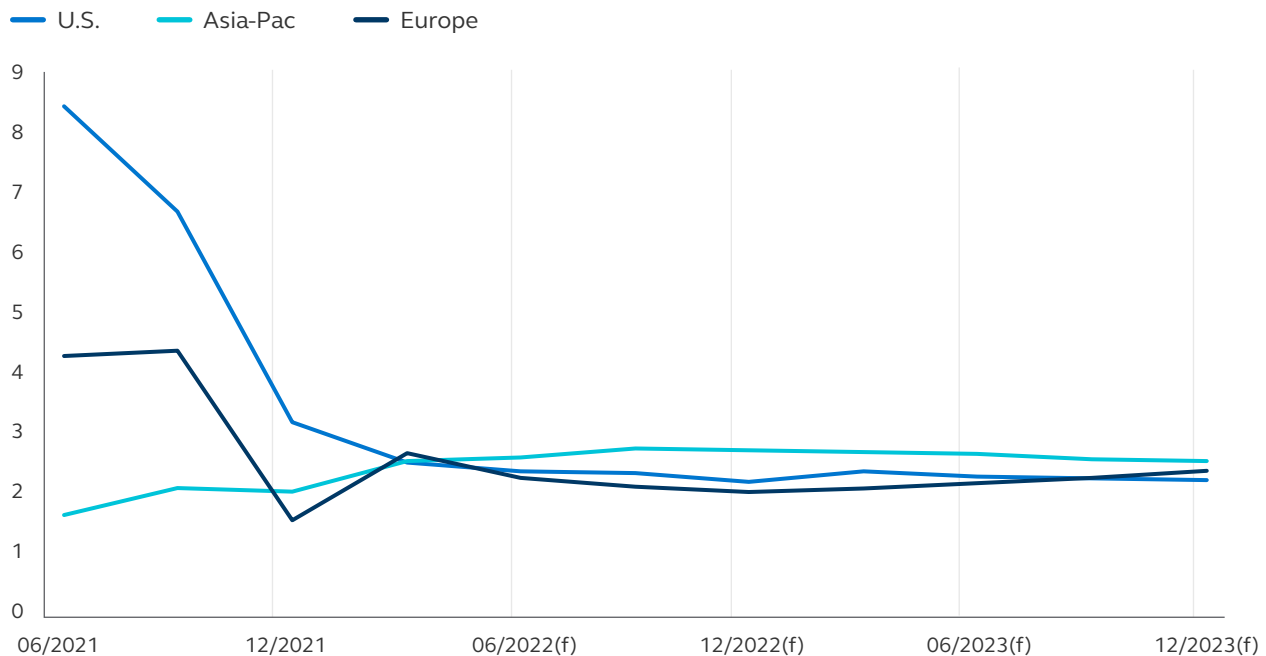
Inflation readings to remain elevated into 2022

Under our base case, we think that price increases in the U.S. may remain substantially above the Fed's goal over the next six to twelve months and transitory factors will likely begin to moderate or reverse in the second half of 2022, alongside easing pressure on the supply chain. Wage growth and the U.S. dollar are potential wildcards with both cyclical components (stimulus and low real rates, respectively) as well as structural elements (weaker labor force participation, an enduring labor market skills mismatch, and inflated fiscal deficits) adding a moderate level of uncertainty to our forecast. Moreover, the effects of an expansive infrastructure bill, as well as the transition costs for environmental, social, and governance (ESG) initiatives, do not appear adequately factored into inflation calculations longer-term.

The inflation outlook in Europe is also challenging with supply chain shortages deeply impacting manufacturing capabilities. A winter of much higher energy prices could also put significant upward pressure on inflation, placing the European Central Bank (ECB) in a difficult quandary. As a result, the global outlook for inflation remains complex with various crosscurrents and limited visibility. We do, however, anticipate some of the elevated price points will ebb alongside recovery in the supply chain and inflation will tick down in the second half of 2022 (Exhibit 2).

EXHIBIT 2: Inflationary headwinds should abate in 2022

Annualized CPI inflation forecast | %



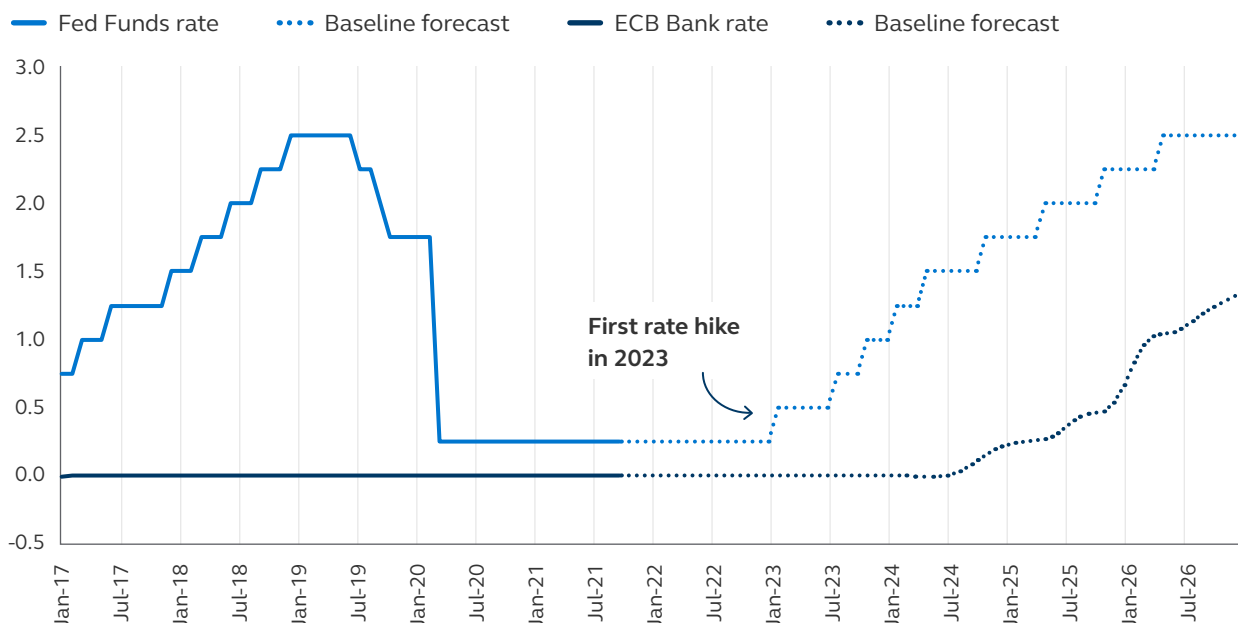
Source: Moody's Analytics, October 2021

Central bank parachutes start to wind down

The \$8.1 trillion question that investors are asking is when will central banks start reducing their extraordinarily accommodative monetary policies. Inflation and asset prices seem to indicate that the pivot away from loose monetary policy is beginning. Among developed markets, Norway's central bank was the first to tighten. At its September meeting, the Fed gave a clear signal that it is preparing to reduce its bond purchase program by the end of 2021. The Fed also signaled that rate normalization would begin in 2023, with three rate hikes penciled in during the following twelve months. Guidance from the dot plot suggests that rates will reach previous levels in the long-term and our internal forecasts estimate we will reach this point in mid-2026 (Exhibit 3).

EXHIBIT 3: Rate normalization on the horizon

Federal Funds rate | %



Source: Moody's Analytics, Principal Real Estate Investors, October 2021

The ECB's policy path appears relatively dovish when compared with the U.S., although the recent announcement to incrementally ease its Pandemic Emergency Purchase Programme (PEPP) (modestly lower pace of purchases) may be deemed hawkish. However, it appears reasonable given the ECB's commitment to maintaining easy financial conditions. The ECB has also set a high bar with room for added flexibility in defining its policy goals—a three-pronged inflation assessment comprised of:

1. The expectation of achieving its 2% inflation goal in less than eighteen months
2. That inflation can stay at or above 2% over the next three years
3. That the fundamental factors driving such inflation are deemed "durable."

Policy is likely to gain clarity after the ECB's December meeting in which it is expected to provide more specific guidance regarding phasing out PEPP and the enhanced Asset Purchase Programme (APP). It is becoming clear that monetary policy may be less of a tailwind to risk assets going forward.



UPSIDE SCENARIO: Goldilocks on steroids

Our upside scenario envisions that global economic growth runs hotter by assuming a deeper and faster vaccine penetration, which boosts global consumer sentiment and an increased willingness to spend. Developing economies also see a quicker path to normalization including easing of global travel restrictions, increased business activity, and a faster return to office for corporate occupiers. This will allow consumption to accelerate sharply while developed economies reap the benefits of a rebounding labor market. Export growth in the Asia Pacific region, particularly China, remains strong as demand from the U.S. and Europe exceeds expectations. U.S. economic growth accelerates in late 2021 as vaccinations reach levels that kick-start discretionary spending, including leisure travel. In this goldilocks scenario, central banks maintain a measured pace of monetary tightening allowing growth to remain robust. Risk assets reap the benefits of this “best of both worlds” scenario of strong growth and a reasonably accommodative policy environment.



DOWNSIDE SCENARIO: Whiffs of stagflation

Under our downside scenario, the current growth impulse is challenged by a slower global vaccination rollout, which includes additional vaccine boosters needed to combat new virus variants. In this scenario, lagging global vaccine penetration is accompanied by persistent supply-side cost pressure—driven by additional disruptions from the pandemic. In addition to pressure from supply-side inflation, consumption across economies slows as consumers grow cautious about the extended pandemic. Although a supply-side shock is bad for economic activity and the labor market, it will also force inflation in the U.S. to remain elevated, putting the Fed in the uncomfortable position of letting inflation run hot or raise rates early. The Fed can control the monthly pace of inflation eventually, but the experience is unpleasant and ends the U.S. business cycle earlier than in the baseline and upside scenario. Additional monetary easing and fiscal support may compensate for the decline in external and internal demand but not enough to lift growth higher.

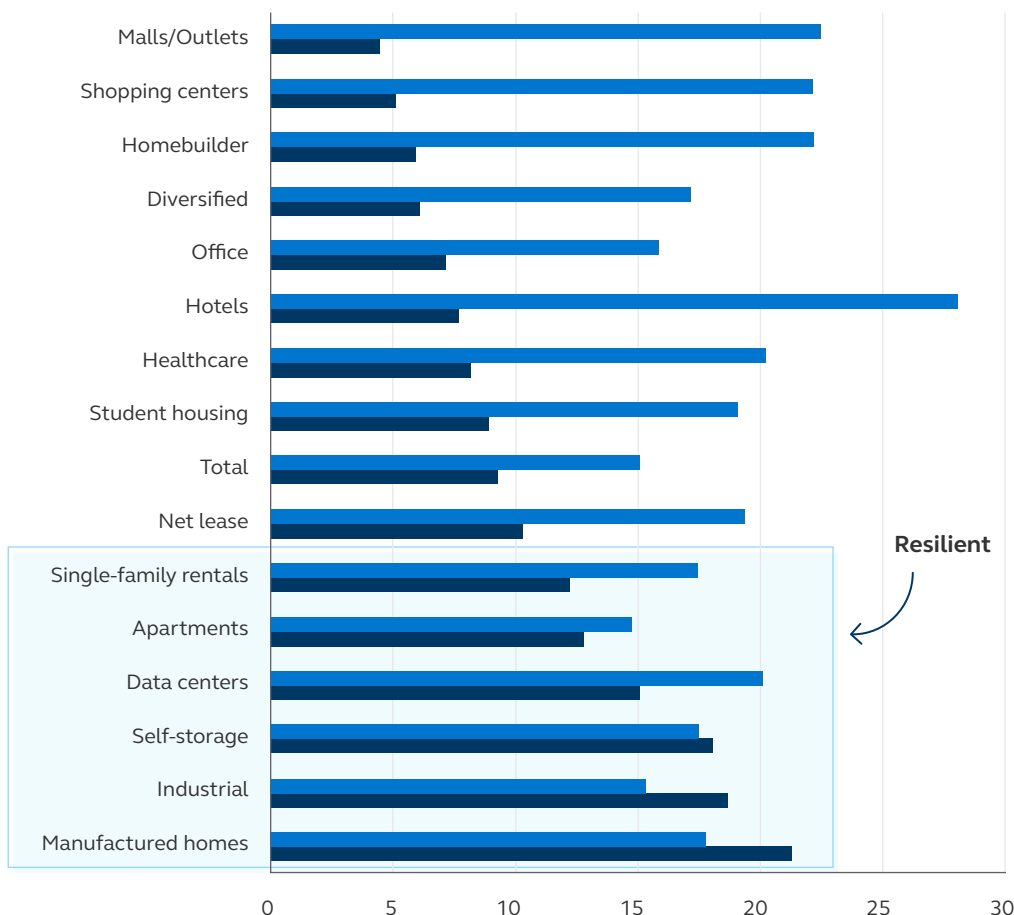
A thematic approach to real estate investment opportunities

Investment opportunities are constantly shifting and evolving as secular demand generates tailwinds for different industries and sectors. This has been increasingly apparent in the real estate industry, which has seen a prolific rise in non-traditional sectors alongside demand driven by secular tailwinds such as e-commerce, demographic shifts, and migration patterns. New opportunities, such as data centers, senior housing, and single-family rentals, are actively gaining market share because they grow directly alongside these trends. For long-term investors, this presents a strong value proposition as well, since many of these secular trends are poised to remain in place, becoming structural as lifestyles and demographics adjust. As listed markets show, these non-traditional property types have exhibited resilience and growth through the pandemic and represent some of the most significant investment opportunities to have emerged in the past decade (Exhibit 4).

EXHIBIT 4: Non-traditional property types in the public markets have been resilient*
10-year historical total return and volatility of select listed sectors | %

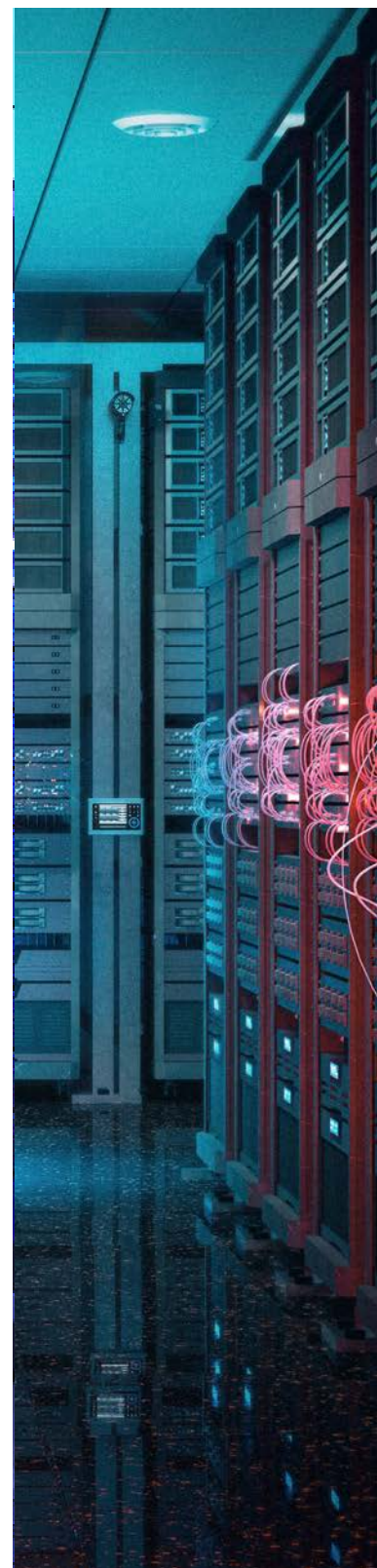
■ Standard deviation

■ Annualized 10-year return



Source: FTSE EPRA NAREIT Developed Index, October 2021

*Global returns through 09/30/2021



In the following section, we highlight the major themes which are affecting both traditional and non-traditional property types for investors. Although many of these themes may have been structurally underway, the pandemic acted as a catalyst and has illustrated the urgency for investors to act quickly amid shifting demand. We believe that forward-looking investors will be able to incorporate many of these themes into their 2022 investment strategies and reap the benefits over the long term as these themes continue to drive growth in various sectors.

Will we ever go back to the office again? Shifting landscape offers opportunities and pitfalls

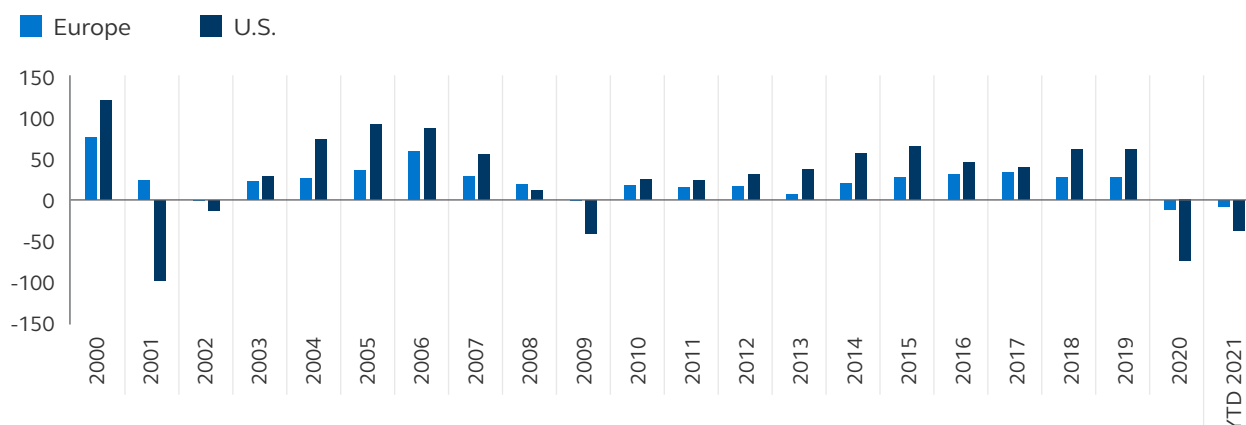
The past decade has seen the demographic profile of developed economies become older, richer, and slower alongside the growth of both income and wealth inequality. In the U.S., and to a lesser extent Europe, households and labor have been moving away from expensive metros to more affordable cities, which offer a better quality of life. Patterns of office demand have also shifted as smaller cities have been able to attract more talent to their labor pools. When the pandemic struck in March 2020, it shifted the existing patterns of work and life, particularly for those in the professional and business service industries where technology enabled work from any location with sufficient broadband access. This led most office workers to spend the balance of 2020 working from home as the pandemic swept across the globe. Though it was not surprising that we could work from home, it was the effectiveness, swiftness, and scale that was remarkable.

“Commuting to office (for) work is obsolete”

Peter Drucker,
WSJ 1989

At the time this is being written, it has been almost two years between the start of the work-from-home period. In-person office work is still conducted with hybrid scheduling, leading occupancy rates to range between 20% and 30%. In short, far more space is being occupied and paid for than is being used, as evidenced by current U.S. demand data. U.S. office net absorption has declined by 110 msf since the start of the pandemic, the largest drop since the 2001 technology bubble, which greatly exceeds the fallout from the GFC (see Exhibit 5). While the drop has not been as significant in Europe, demand still saw unprecedented decline in comparison to prior recessions.

EXHIBIT 5: Office demand remains challenged
Europe and U.S. net absorption | msf



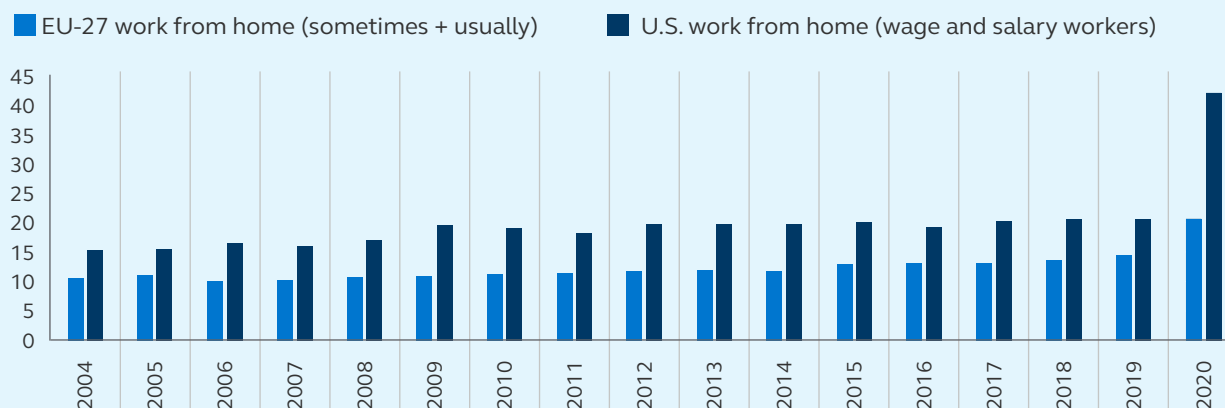
Source: CBRE EA, CBRE ERIX, Q2 2021
European net absorption represents the sum of Vienna, Brussels, Prague, Copenhagen, Paris, Berlin, Frankfurt, Munich, Dublin, Amsterdam, Warsaw, Barcelona, Madrid, London - City, London - West End.

Remote working is not new; its scale over the past 18 months is unprecedented

Declining office usage is not new, as evidenced by the secular decline in net absorption across previous decades. The share of remote workers was already rising prior to the pandemic. In fact, between 2004 and 2019 the share of employed persons working from home (WFH) in some capacity increased from 10.6% in Europe to 14.4%, while the share in the U.S. increased from 15.3% to 20.5%. The increase in remote working has also coincided with decreases in office demand per worker. We anticipate this trend to increase over the course of the next decade given the rapid adoption in

WFH during the pandemic. In 2020 for example, the share of U.S. workers who worked remotely doubled, while the share in Europe increased by over 40% (see Exhibit 6). We estimate that a reduction of roughly one to one and a half days working remotely for all workers will reduce the effective need for office space by corporate occupiers by between 15% and 20% over the next decade. This decline will not impact all office space equally, however, with high-class and well-located office space remaining more resilient to demand loss.

EXHIBIT 6: Office demand remains challenged Employed persons working from home | %



Source: Moody's Analytics, BLS American Time-Use Survey, Eurostat; Principal Real Estate Investors, 2021
EU-27: The 27 member countries of the European Union

The way forward for office is not the old “normal”

This crisis is far different and the path back to normalization will require a creative approach to office investment strategies. Once workers return, the difficult work for occupiers and investors will begin, such as sorting out seating plans, determining appropriate safety measures, and ultimately defining go-forward metrics on occupancy needs and hybrid working plans. Until this is done, the global office outlook will remain murky and demand somewhat inconsistent across regions and industries.

What has become clear is that some office workers in the U.S. and Europe are not going back to the office on a permanent basis, as defined by four to five days in the office per week. Rather, most occupiers are looking at adopting a hybrid approach that mandates certain days in the office with the balance of the work week slated for flexible or remote working. While this will undoubtedly have a negative impact on office demand—at least marginally—it is an extension of an already existing trend that has seen increasing numbers of workers in both the U.S. and Europe work from home in greater numbers over the past two decades, as seen above.

So where should investors look for office opportunities?

Swirling crosscurrents of changing demand and leasing footprints layered with shifting demographics makes it tricky for investors to assess office opportunities. Historically, investors have used the sector to efficiently deploy capital and access high-quality tenants. Given our view on the shift in population, combined with work from home and quality of life desires, we think investors should pivot toward markets and office subsectors that are better aligned with our DIGITAL strategies, which take advantage of current economic and social tailwinds.

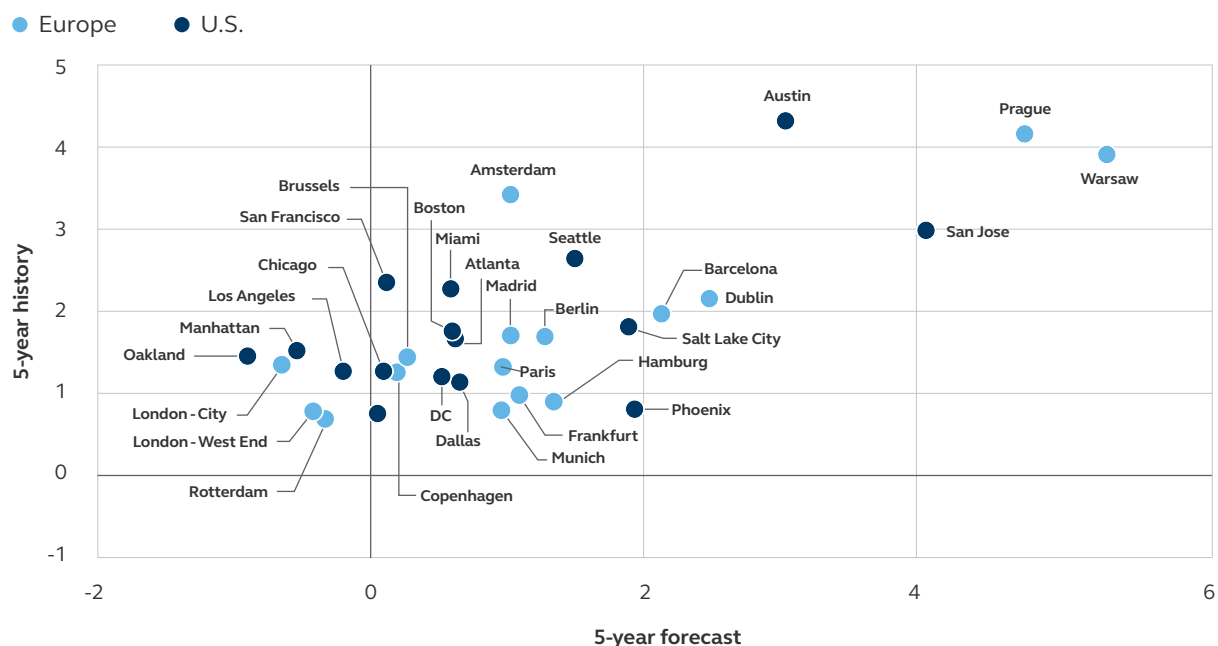
Focus on smaller, growth markets with attractive cost of living

Our office investment strategy takes advantage of structural shifts along with pandemic-induced changes to identify investors with a path forward. Until we have greater clarity on how much of the current demographic shift is cyclical, we suggest investors be tactically underweight gateway cities and coastal markets, which are higher density and require public transportation for daily commutes. Migration data prior to the pandemic had suggested that larger metro areas such as New York, San Francisco, and Chicago were on the edge of slower population growth because of outward migration.

We suggest higher growth markets and those with a focus on suburban nodes around an urban center that have shown far more durability during the pandemic and will likely benefit from demographic trends. For example, in the U.S., the pandemic jumpstarted the out-migration from center cities by Millennials who had been slower to leave and purchase single-family homes or seek larger, more affordable housing options. In Europe, we have also seen a similar shift towards smaller markets, particularly as affordability concerns rise in larger cities.

EXHIBIT 7: Demand has begun to shift towards smaller secondary markets

Office net absorption: U.S. and Europe | Average annual percentage change in occupied stock, %



Source: CBRE EA, CBRE ERIX, Principal Real Estate Investors, Q2 2021

Pursue non-traditional property types in office

While regional capital allocations in the U.S. will focus more on the sunbelt and west coast markets, globally there will also be a rotation toward alternatives within the office sector. If there is a silver-lining to the pandemic, it is the growing focus on biotech and medical sciences that responded in record time to shifts in demand. Globally, population continues to age and, even absent the pandemic, reliance on technology and life sciences is perhaps one of the most important and sustainable structural drivers of growth for commercial real estate. For office this means refocusing or adding life sciences and lab/flex offices, as well as medical offices, to take advantage of structural economic and demographic shifts. Our suggested tactical opportunities are identified in the matrix below.

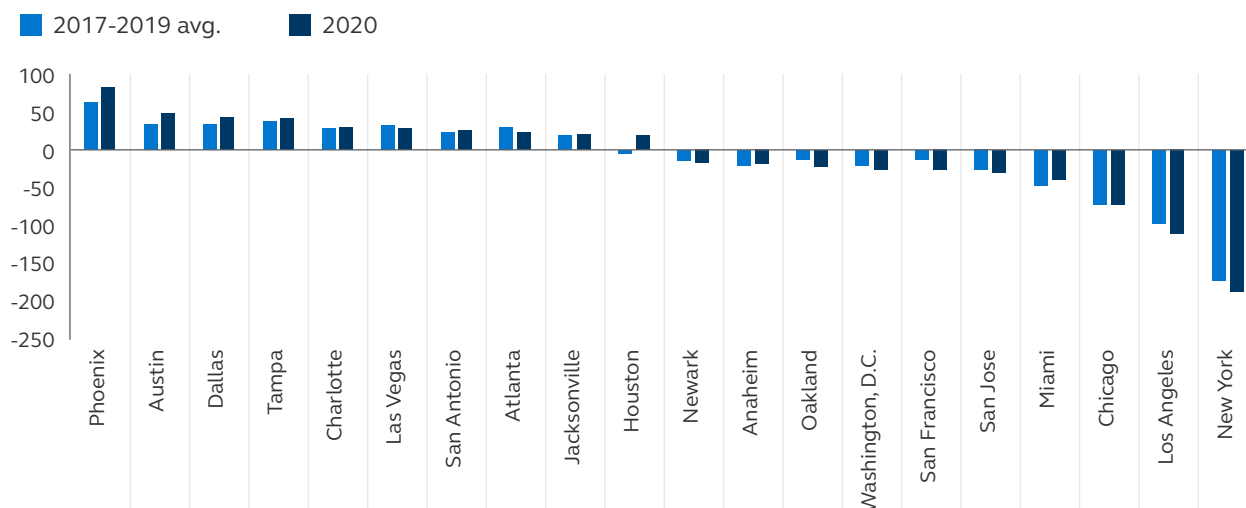
Opportunity	U.S.	Europe	Comment
Gateway/Core/CBD	↘	→	Avoid U.S. on strategic basis, look for tactical opportunities based on pricing and location. Europe may provide more stable CBD fundamentals given labor market dynamics and smaller developed suburban office infrastructure.
Suburban/Regional	↗	↗	Pricing will be a primary challenge, but may offer attractive yields in the near-term. Higher demand relative to higher density locations.
Secondary high growth	↑	↑	Demographic growth will drive demand as migration from core coastal markets continues on a secular basis. Favorable yields relative to larger markets.
Life sciences	↑	↑	Strong pricing and bidding on deals but structural drivers will remain favorable in both U.S. and Europe.
Medical office	↗	↗	Strong strategic outlook based on aging populations in the U.S. and Europe.

↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

Housing is one of our best bets in a shifting milieu of migration, demographics, and income

The residential sector has emerged as a deep and broad opportunity set engendered by changes in migration and work patterns. In the U.S., a steady shift out of gateway markets with a high cost of living was already underway. Europe had also seen some regional shifts, with smaller markets looking attractive based on affordability. COVID-19 was unique in that it forced millions of workers into remote positions on a full-time basis, a first for many. The “new normal” of increased flexibility, for both workers and employers, has generated both uncertainty and opportunity by changing the calculus of where individuals could live and work. During 2020, some workers—particularly in high cost of living metro areas—relocated to more affordable or warm-weather regions while working remotely. In the U.S. specifically, there was also a continuation of prior migration trends from higher-cost coastal cities like San Francisco, New York, and Chicago into lower-cost sunbelt cities (Exhibit 8).

EXHIBIT 8: The pandemic accelerated migration out of gateway markets
U.S. domestic net migration | ths



Source: U.S. Census Bureau, October 2021

Headlines touting the imminent death of urban, gateway markets have caught the attention of investors but there is (a) not enough data to support claims of a permanent mass migration and, (b) evidence that some of the migration to smaller cities was already well underway way before the onset of the pandemic. The important question for investors to consider is—what has driven the movement of households and what opportunities does it offer?

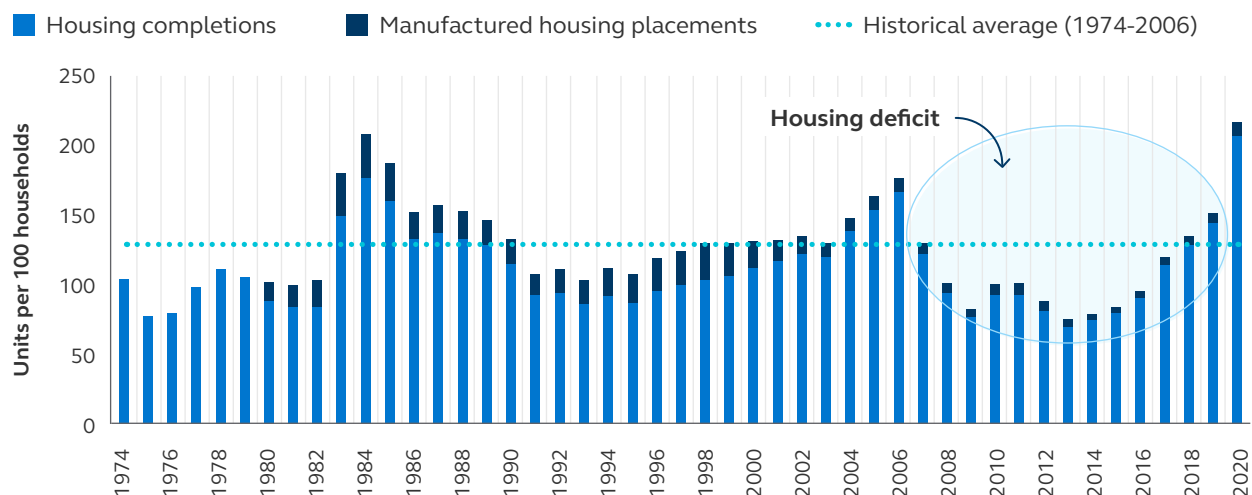
At the heart of the shifting patterns of household movement are quality of life concerns, which are often linked to affordability. A lack of supply, combined with elevated prices, has put home ownership out of reach for a vast majority of middle-income households. Renting has also become a challenge in some global cities where household incomes have slipped after decades of constrained wage growth. At the same time, demographic shifts continue unabated, with older Baby Boomers retiring and Millennials coming of age to form households, generating demand for suburban units that offer more space, better schools, and a higher quality of life. The pandemic provided a perfect catalyst in accelerating this shift, particularly since younger generations are comfortable leveraging technology and working from home.

The important question for investors to consider is—what has driven the movement of households and what opportunities does it offer?

Europe and the U.S. face an acute shortage of affordable housing

A lack of new housing development is one of the most pressing issues and is directly affecting both home prices and rents. As Exhibit 9 shows, housing completions in the U.S. since the GFC have been well below historical norms, which has averaged 130 units per 100 new households formed. This historical average is also roughly the benchmark to meet new demand while also replacing older, functionally obsolete units. As such, the slow pace of housing construction since the GFC has left the U.S. housing market undersupplied by nearly 1.7 million units.¹ Although new development alongside delayed household formation appears to have brought the supply of new housing units above its historical trend for the moment, a shortfall continues to persist.

¹ Assumes a replacement rate of 1.3 units for every new household since 2007.

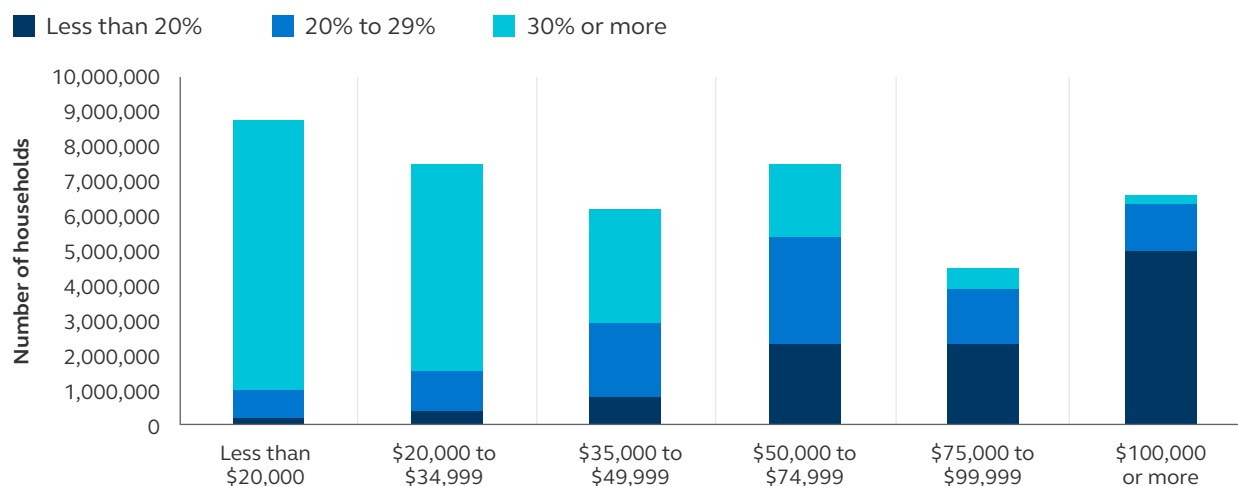
EXHIBIT 9: New household units have been undersupplied since the GFC***Housing completions and placements per 100 households**

Source: Moody's Analytics, U.S. Census Bureau, September 2021

*New household formation is a 3-month historical moving average.

Wage stagnation and rising inequality has made housing more unaffordable

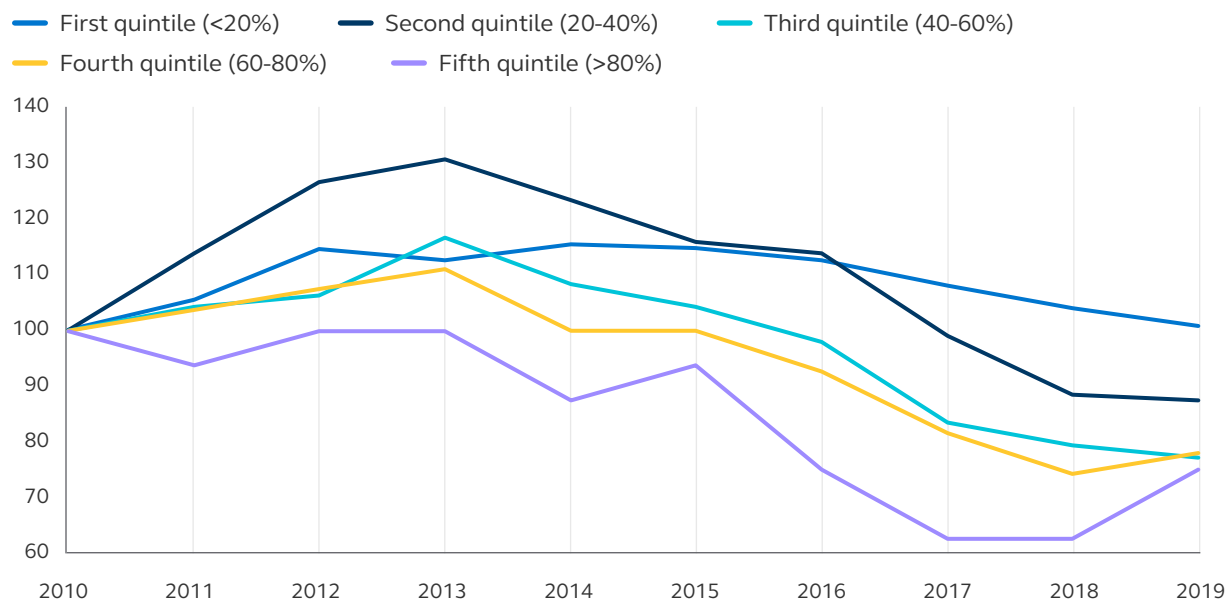
Underwhelming wage growth has made renting and home ownership particularly challenging in gateway markets. In fact, many U.S. households earning less than \$75k annually are burdened by current rents (Exhibit 10). When viewing this from the lens of an investor, it remains supportive of middle-income strategies which target households within 80% to 120% of an area's median household income as a primary target with moderate revenue growth between 3% and 4% on an annual basis. This middle-income approach also sidesteps the luxury housing segment, which has seen heightened supply concentrated in gateway markets.

EXHIBIT 10: Households earning less than \$75k tend to be heavily burdened by rent**Rent as a percent of household income by income levels**

Source: U.S. Census Bureau, ACS, 2019

Europe has also seen rising income inequality for decades where lower-income households remain severely burdened with the cost of housing. The housing overburden rate, a measure of household affordability which views the portion of the population spending more than 40% of their income on housing, is one measure for this. As seen in Exhibit 11, those in the bottom quintile with the lowest income levels were severely burdened by the cost of housing. While highest-income levels have fared better, the housing burden rate overall has remained high in Europe despite being a key issue for many nations.

EXHIBIT 11: Despite progress, Europe's housing burden remains high for low-income households*
Change in housing cost overburden rates by income quintiles | Index: 2010 = 100



Source: Eurostat, September 2021

* Household income is broken out by quintile groups, which is the ratio of total income received by 20% of the population. The first quintile represents the lowest income group and fifth represents the highest.

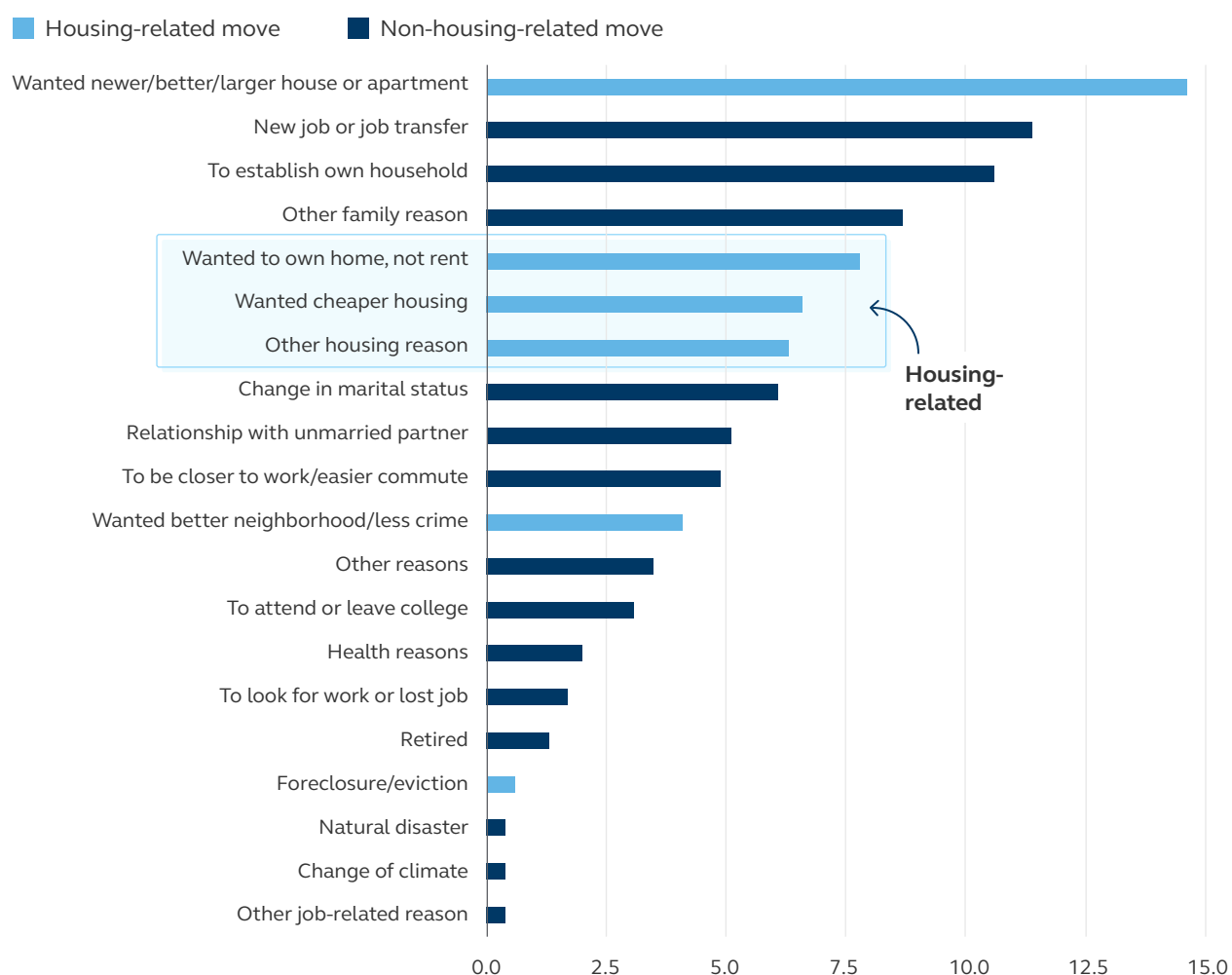


Cost of living, lifestyle change accelerated by the pandemic

If there is one thing that has become clear over the past decade, it is that housing affordability, given its sizable share of a household's budget, can significantly impact future wealth. As a result, households are relocating to suburban locations or even smaller, regional markets with relatively inexpensive rental options. In the U.S., data shows that housing is a key element in migration. Households largely prioritize affordability or an upgrade to their quality or size of housing. Exhibit 12 below highlights the importance that renters place on these issues. This trend has increased over the past two decades and could even grow in prominence alongside remote work trends, which are allowing more geographic freedom for households.

EXHIBIT 12: Housing and affordability are the driving force behind a lot of moves

Reason for moving | % of total movers (2019-2020)



Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, September 2021

Affordability, demographics, and technology offer investors a broad continuum of housing investment strategies

The housing sector offers the clearest examples of opportunities across a broad continuum, fueled by the intersection of demographic shifts and income trends. Affordability and a desire for better quality of life are key drivers of housing demand brought into sharp focus by the pandemic. For investors, the opportunity set is significantly greater than traditional multifamily given the multifaceted demand drivers at play. Housing investments broadly range from manufactured housing to upscale single-family rentals, encapsulating a wide spectrum of investments across incomes. This wide variance highlights the vast size of this sector and spotlights the array of investment opportunities that can be availed across different risk and return spectrums.

Opportunity	U.S.	Europe	Comment
Urban multifamily	↘	↘	Challenged valuations and oversaturation of luxury rentals due to recent elevated supply.
Suburban multifamily	↑	↗	Demographic trends remain supportive as Millennials begin to form households and transition. Affordability in this segment will allow for future rental growth.
Single-family rental/ Build-to-rent	↑	↑	Millennial household formation drives growth but also uplifted by rising needs for space. Home offices, workout rooms, and gardens are now seeing greater demand.
Senior housing	↗	↑	Affordability is limited across the segment and some markets have seen high supply. Aging demographics will support future demand.
Student housing	→	→	Heightened investor interest has kept supply high at major universities. This has kept margins tight but there remain significantly different outcomes by university. Declining international students has also negatively impacted near-term demand.
Manufactured housing	↑	↑	Supply constraints remain and the segment still sees robust demand.

↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

Shopping survived and so will retail

Emerging as a niche concept 15 years ago, e-commerce has become mainstream quickly, ushering in a tectonic change in human consumption behavior that is now a structural part of global economies. E-commerce has become deeply ingrained in our day-to-day lives, completely altering the behavior of shopping. Some markets, especially in Europe, that have been slow to embrace e-commerce have had a quick lesson through the pandemic as retailers were forced to close as part of pandemic-mitigation strategies. Laggards to e-commerce are either becoming swift adapters or being pushed out of the sector altogether. E-commerce's penetration across the value chain has triggered a life and death battle for survival among brick and mortar retailers, particularly in the U.S., where over-supply has been exacerbated by an abundance of product and a lack of physical demand.

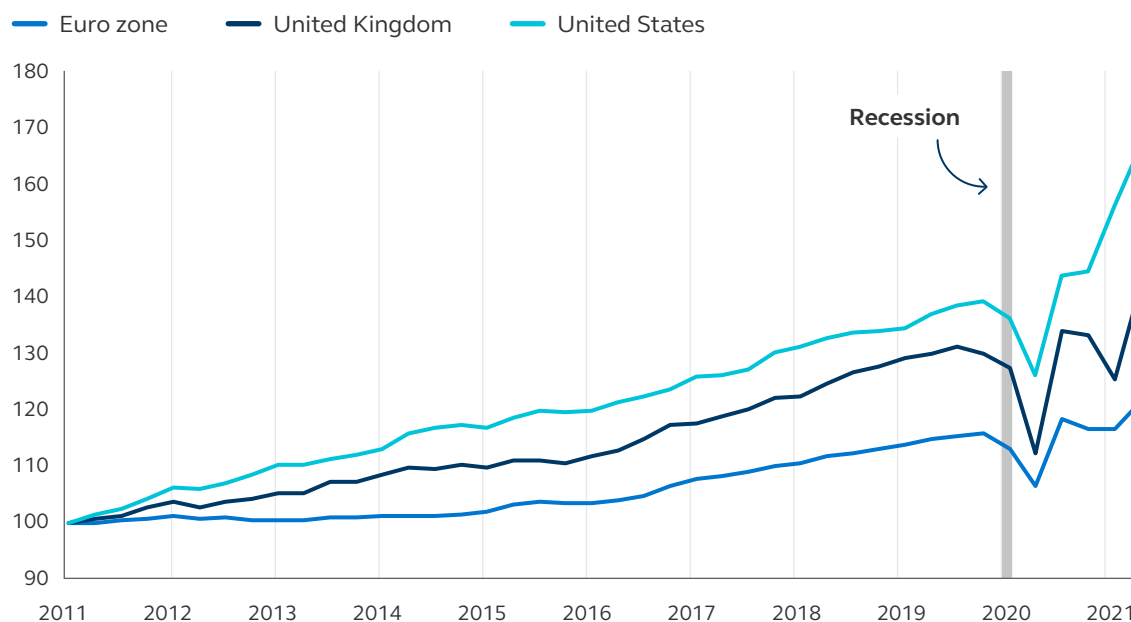
Retail could have collapsed but fiscal spending saved the day

The onset of the pandemic and the complete lockdown of economies imperiled retailers and landlords alike and, amid a spate of bankruptcies, the death of retail was foretold several times. A year and a half later brick and mortar merchants are not only still here, but they are also expanding for the first time since 2015. Recognizing the need to support the labor market, massive fiscal responses were enacted globally, resulting in the direct transfer of funds from governments to millions of households and businesses. This fiscal transfer, which is still ongoing in some countries, provided the lifeline to millions of people and the retail sector.

As shown in Exhibit 13, retail spending across Europe and the U.S. returned to its pre-crisis peak in less than one year—an astounding turnaround given the depth of the recession and a testament to the effectiveness of fiscal stimulus when confronting economic crises. Instead of dying—as was predicted by some pundits—retail survived. For investors, however, the retail sector is one where the intersection of changing consumer preferences, technology, and income all come together to create a more complex environment for investors to navigate.

EXHIBIT 13: Robust fiscal stimulus resulted in a strong consumer rebound

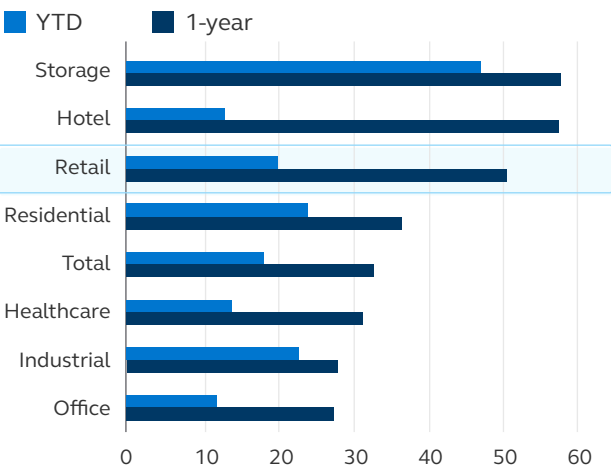
Retail sales | Index: 2011 Q1 = 100



Source: Moody's Analytics, Eurostat, U.K. Office for National Statistics, U.S. Census Bureau, Q2 2021.

Though European retailers were in far better shape heading into the pandemic due to a more focused approach to rightsizing, U.S. brick and mortar operators have seen a resurgence in activity that may be, at least partially, a testament to shopping as an innately human activity. Year-to-date, store openings in the U.S.—as measured by both the number of stores and square footage—have eclipsed closings much to the surprise of even the most seasoned retail investors. Though the sector continues to face numerous challenges across its many varied formats, the storm clouds that threatened the sector in 2020 have partially lifted to reveal a modestly expanded opportunity set for investors. Certainly, the listed markets seem to suggest that retail has found a bottom (Exhibit 14).

EXHIBIT 14: Public markets heating up for retail
Global (developed) REIT returns | %



Source: Moody's Analytics; Dow Jones/S&P REIT Index, September 2021



A bar-belled investment approach captures structural and tactical trends

The retail investment landscape will echo many of the structural themes that have become so important across society, such as convenience, necessity, and value. In the U.S., the distribution of income and the thinning of the middle class is another consideration which has led to the decline of several retailers in favor of value-oriented brick and mortar retailers and e-commerce sellers.

Demographics is another important consideration for both retail sales and the positioning of shopping centers. Though Baby Boomers are no longer the largest generational cohort, their spending power holds considerable sway over the consumer landscape. Intertemporal spending patterns also suggest that, though they are now net spenders rather than net savers, their basket of consumption expenditures is also much different than younger generations and requires greater flexibility. This could dictate re-tenanting shopping centers with a mix of value and necessity retail along with healthcare services and medical offices.

On the other end of the demographic spectrum, Millennials are increasing their rate of household formation and many are buying their first homes, which will lead to increased aggregate spending. The question, however, is how this will be split between e-commerce and brick and mortar. Given the many crosscurrents that retail faces, it is perhaps one of the more challenging sectors within which to identify new investment strategies.

For investors, retail offers a highly selective opportunity set

While structural trends are clearly key to investing in this sector, an overlay of valuation metrics does offer some interesting opportunities in markets where there has been some price discovery. Starting at the very top end of the quality chain, select class “A” malls and grocery-anchored centers have remained strong and can provide core investors with access to high quality cash flows. Moving up the risk-curve, power centers, and lifestyle centers, as well as larger outdoor shopping centers, in Europe and the U.S. are of some interest for both value-add debt and equity investors. Mixed-use development, anchored by residential communities with favorable demographic trends, can also provide investors with interesting options to add retail into their portfolios.

Opportunity	U.S.	Europe	Comment
A+ Regional/ Super regional malls	↗	→	High risk/high reward. Institutional grade, class A product can provide strong cash flows for investors, but with significant risks presented by shifts in the retail landscape. High costs of ownership need to be taken into account.
B rated regional malls	↓	↓	Sharp disparity between class A and everything else. This segment is prime for further disruption and value declines. Few opportunities here outside of repositioning.
Grocery-anchored/ Convenience/ DIY centers/ Discounters	↑	↑	Well-positioned centers with focus on grocer and value-oriented retail remains attractive, but pricing is reflective of strength. Convenience retail continues to draw foot traffic and remain resilient in Europe.
Power centers	→	→	Well-positioned centers with a focus on housing and value-related retail offer select opportunities, but pricing for these centers remains a challenge. Weaker centers remain a target for e-commerce penetration and will require re-tenanting.
Lifestyle centers	→	↗	Focus on outdoor shopping centers with a mix of experience focused retail. Opportunities are thin and need to be vetted carefully for proper tenant mix and priced appropriately.
Mixed-use	↗	↗	Opportunity to develop and manage residential communities with retail embedded in walkable format.

↑ Positive
 ↗ Moderately positive
 → Neutral
 ↘ Moderately negative
 ↓ Negative

Industrial keeps on trucking

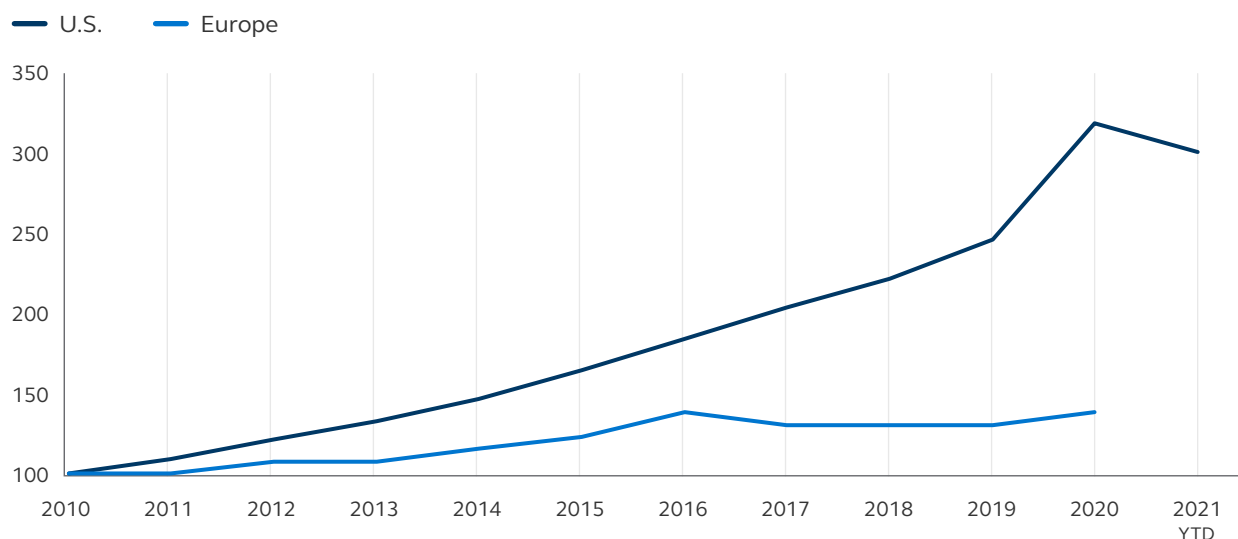
Human ability to adapt and transition is remarkable, and with technology as a powerful enabler, the transformation to a 24/7 “anywhere, anytime” consumer is near complete. A consumer or small business now has the power to fulfill consumption needs within 48 hours, a feat nearly impossible a decade ago. The relentless growth of e-commerce facilitated by massive investment in logistics have made this possible. Prior to the pandemic, e-commerce was already one of our key DIGITAL themes. Now, e-commerce and its increased sophistication (e.g., driverless delivery vehicles and potentially drones) firmly places it as one of our key structural drivers catalyzed by the pandemic. Consequently, the industrial sector continues to ride the wave of secular change driven by shifting consumption patterns, demographic change, and the adoption of new technologies. There has perhaps never been a better time to be an industrial investor—unfortunately, history tells us that periods of robust capital inflows tend to be followed by correction. Today, however, the sector is being driven not by cyclical tailwinds, but by a structural wave of e-commerce and supply chain modernization amid a boom in technology and consumer activity.

COVID-19 has made e-commerce ubiquitous

Despite obvious disruptions to the global economy and dislocations to other property sectors, such as office and retail, the pandemic accelerated e-commerce’s already rapid growth while reinvigorating the industrial sector. If we rewind to 2019, cap rates and spreads were trending well below historical norms and capital appreciation, though still positive, was starting to exhibit late-cycle mean reversion. To complicate matters, global trade flows had cooled—a fact that was evidenced in declining imports from the Asia Pacific region amid growing protectionism in the U.S. and Europe. New supply was also running hot, particularly in high-priced U.S. coastal markets in southern California and along the northeast corridor, which had started to push vacancy upward.

The onset of the pandemic saw economies shutter, with retailers and consumers shifting rapidly towards e-commerce to fulfill even the most basic purchases. Consequently, e-commerce penetration widened from plain vanilla goods to more specialized items and even groceries, which until then had been a difficult sector for online operators. In 2020, the steady growth in online sales appeared to turn into a runaway freight train in the U.S., with a surge in spending on non-store sales. In fact, e-commerce accelerated from 11% of total retail sales to 16% at its peak in 2020, averaging 14% for the year (Exhibit 15). In Europe, the increase was far less pronounced but is measured in enterprise turnover rather than spending. This is also more indicative of a much more mature and balanced retail market, which is focused on smaller footprints that cater to a more urban demographic base.

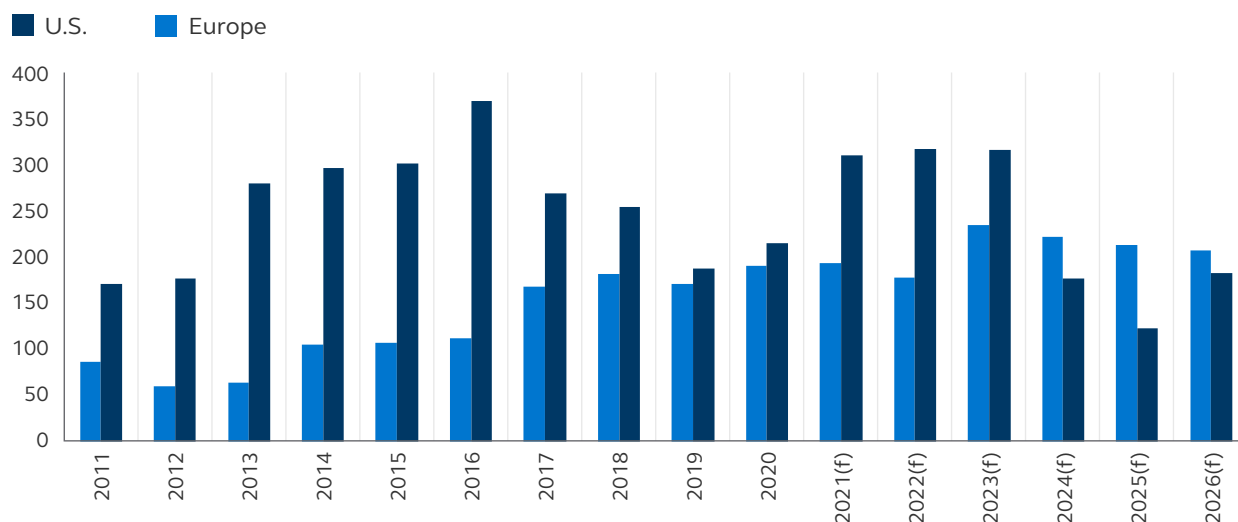
The onset of the pandemic saw economies shutter, with retailers and consumers shifting rapidly towards e-commerce to fulfill even the most basic purchases.

EXHIBIT 15: E-commerce remains a key driver of industrial demand**E-commerce as a percentage of total retail sales*** | Index: 2010 = 100

Source: U.S. Census Bureau, Eurostat, Principal Real Estate Investors, 2021. Note Europe data is released annually so 2021 YTD number is unavailable at time of writing.

*Europe, percent of turnover (enterprises with e-commerce sales of at least 1% turnover)

The surge in the industrial sector was facilitated by e-commerce which generated substantial demand for a variety of distribution facilities ranging from big box warehouses to “last mile” centers. In 2020 alone, Amazon accounted for just more than half of all new industrial leasing and roughly 15% year-to-date in 2021 in the U.S.² The outsized leasing figures are the direct result of Amazon’s strategy to increase their fulfillment capacity by rapidly expanding their warehouse holdings in mid-to-large population centers—in part to help overcome the challenge of last mile delivery. Given the structurally positive outlook for e-commerce, our view on industrial absorption is very strong (Exhibit 16).

EXHIBIT 16: Industrial absorption forecast to be robust**Industrial net absorption: U.S. and Europe*** | msf

Source: CBRE EA, CBRE ERIX, Principal Real Estate Investors, Q2 2021

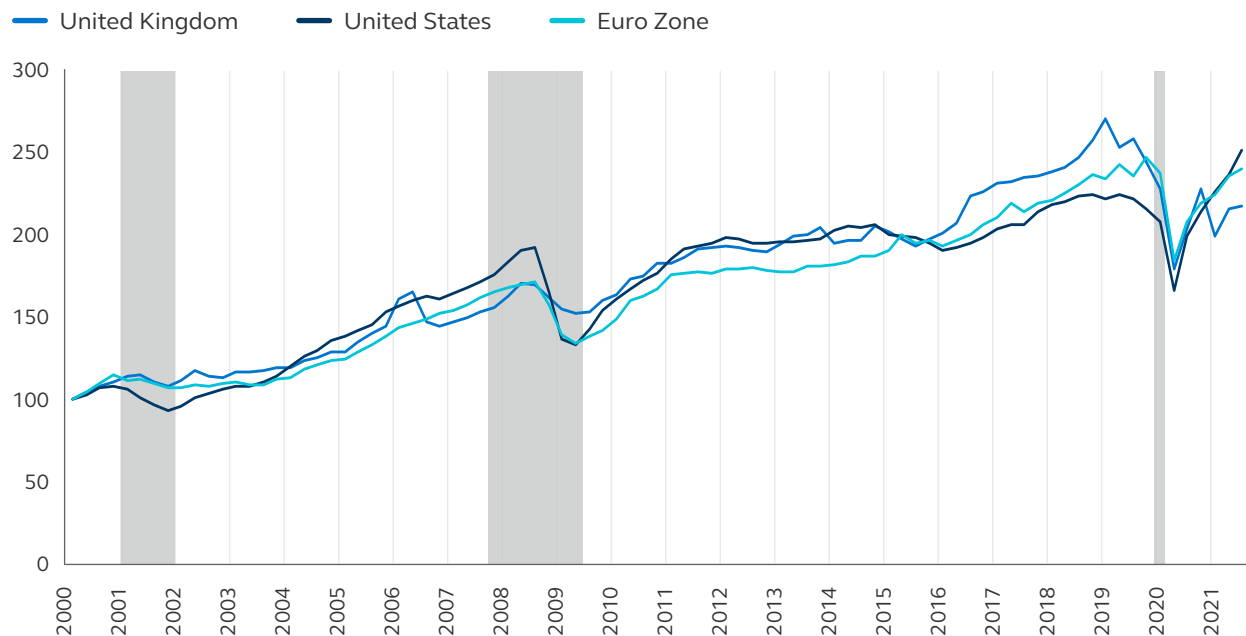
* European net absorption based on the sum of Belgium, Czechia, France, Germany, Italy, Netherlands, Poland, Spain, and the United Kingdom.

² CoStar, October 2021.

As global trade recovers, industrial demand will not just be about e-commerce

It is easy to point to e-commerce as the structural driver of the industrial sector given its potential. However, just as important to the industrial sector has been the global flow of goods which was strained prior to the pandemic. While trade tensions are likely to persist, the supply chain bottlenecks which have been a very substantial barrier to global trade should ease. The back-up of container ships outside major ports in Europe and the U.S. suggest that trade is indeed recovering rapidly and, with developed market consumption expected to stay strong, global trade volumes should also accelerate providing more demand for the industrial sector (Exhibit 17).

EXHIBIT 17: Global trade is back on track Imports of goods and services | Index: 2000 = 100



Source: Moody's Analytics, Bureau of Economic Analysis, U.K. Office for National Statistics, Eurostat, 2021
Gray shaded bars reflect economic recessions.



Data centers are the infrastructure for e-commerce and trade

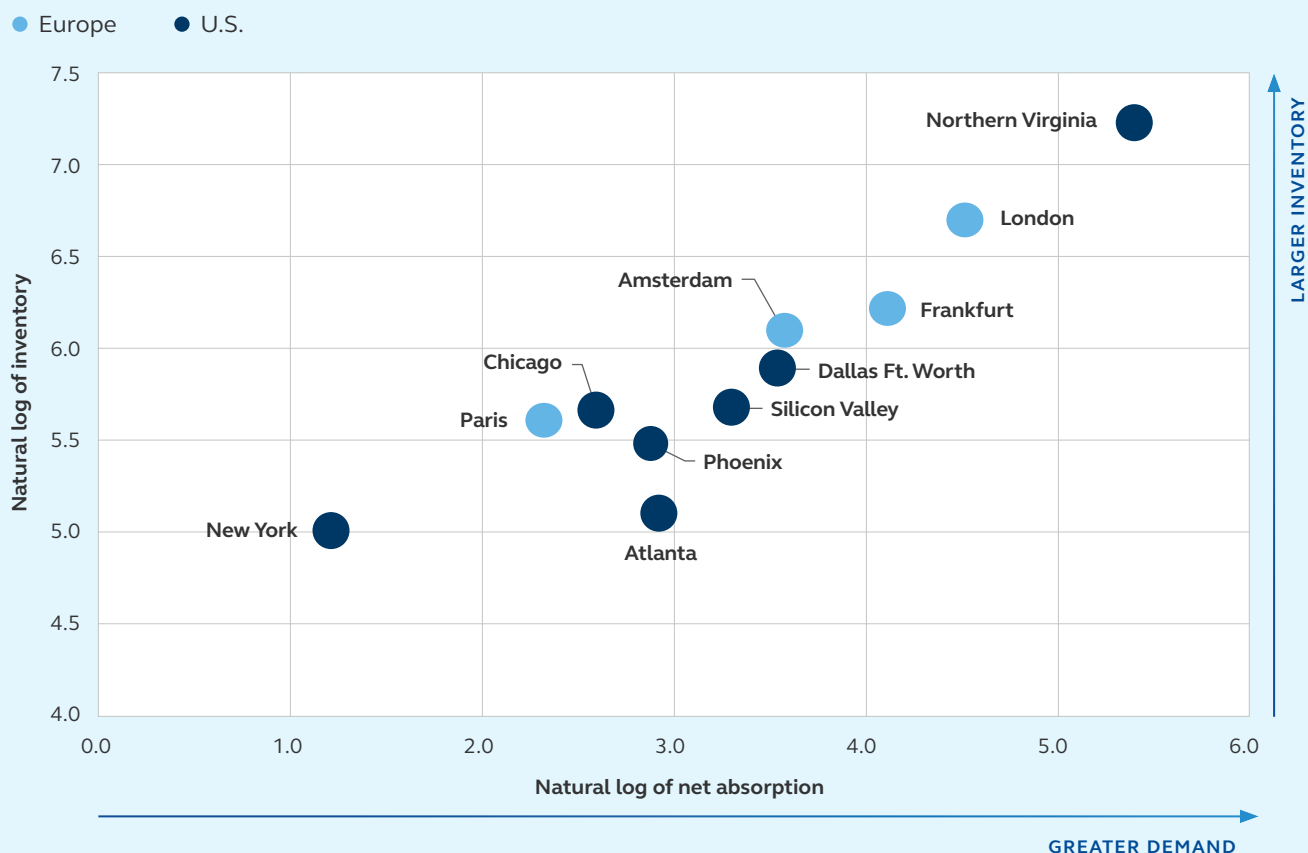
Data centers are a critical cog in the machinery of the modern economy and a centerpiece of commercial real estate, binding all property types to the new economy. Nowhere was this more apparent than in 2020 when office workers were forced to work remotely and much of the U.S. and Europe shifted to online shopping for necessities. As data centers relate to the industrial sector, they are not a pure play part of the sector as much as a catalyst for supply chain expansion, touching everything from supply chain management to driverless trucks of the future.

As the rapid adoption of technology across the globe has increased, so too has the need for data storage. In fact, 90% of all current data was created in the last two years.³ Following that growth rate, worldwide data

is expected to hit 175 zettabytes by 2025. To put the scale in perspective, if you were to store 175 zettabytes on DVDs, your stack would be long enough to circle Earth 222 times.⁴

As major hubs of the global economy, both the U.S. and Europe are leading the data revolution. Although supply in both regions has grown rapidly, it has been matched by exponential data creation and demand globally. The increased adoption of internet access at home and in public venues, smart phones, cars, and appliances continue to expand and create exponentially more data and a need to store it. As shown in Exhibit 18 below, net absorption is growing rapidly alongside the continued expansion of data storage infrastructure for the global economy.

EXHIBIT 18: Demand for data centers has been concentrated in the largest hubs
2020 wholesale primary market fundamentals



Source: CBRE North American Data Center Report 2020 H2, CBRE Europe Data Centers Report Q1 2021, Principal Real Estate Investors calculations, 2021

³ Source: Forbes, *How much data do we create everyday?* May 21, 2018

⁴ Source: Bernard Marr & Co., Content ID 1846, IDC Data Age 2025 paper, November 2018

Investors have seized on the structural industrial story

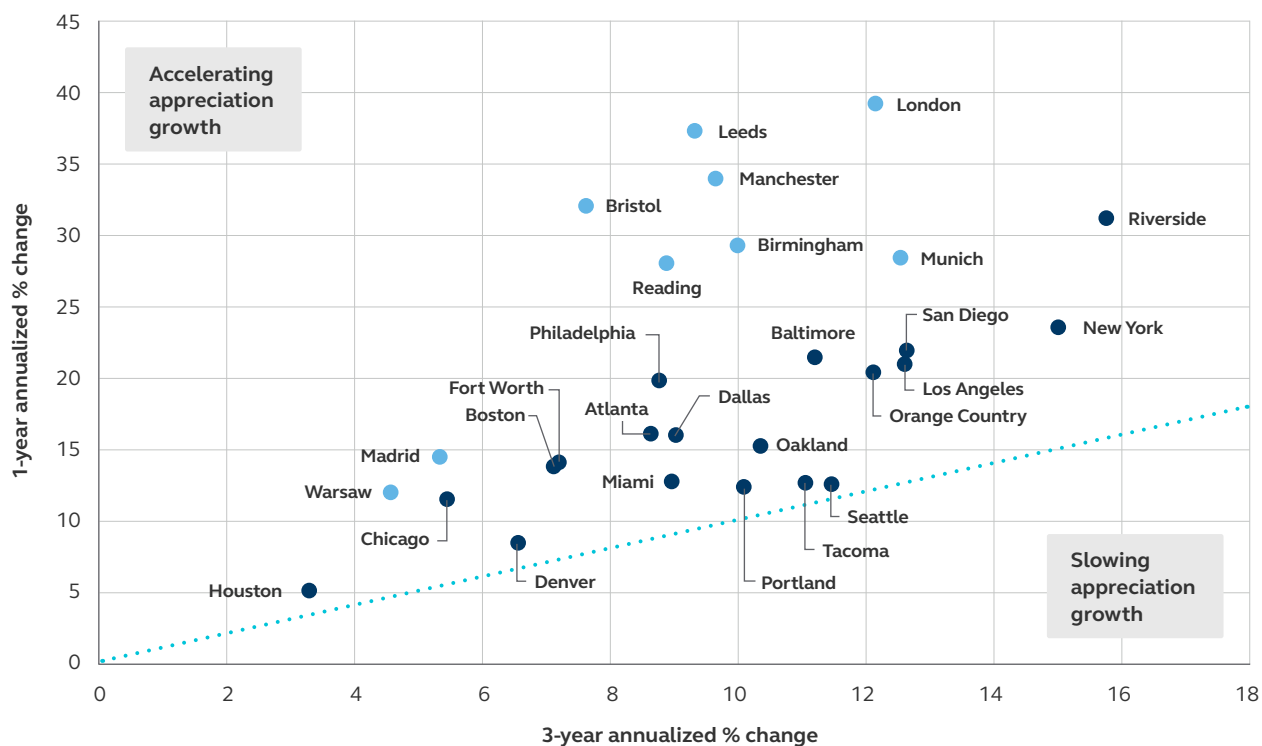
Investors have reacted with alacrity to the transformation of the industrial sector. Once pejoratively referred to as “sheds”, industrial properties are now high-tech cogs in a global supply chain tenanted by extremely sophisticated users. Therefore, investors have embraced this sector with unprecedented vigor, driving cap rates in the U.S. and Europe into the low-to-mid 3% range for core properties.

Capital appreciation is now tracking well at nearly 20% in the U.S. across markets and even higher in Europe. Low borrowing costs are also suppressing discount rates, which is translating into further yield compression. Though U.S. warehouses are trading at a premium, recent performance in European markets has been even more impressive, but may also raise a yellow caution flag as rapid price appreciation tends to attract more capital and development to the sector. To date, we don’t see signs of excess in the market as measured by new development, but it does merit monitoring over the next twelve months.

EXHIBIT 19: Industrial values make new highs in Europe

Industrial capital appreciation

● European markets ● U.S. markets



Source: MSCI-IPD, NCREIF-NPI, Principal Real Estate Investors, Q2 2021

We suggest investors stay overweight industrial but be selective in how to get there

The demand story for the industrial sector shows little sign of diminishing either from tenants or landlords and investors. As we have seen valuations reflect this keen appetite, we continue to suggest that investors lean into the sector. However, from our relative value prism, we advocate a degree of selectivity given the price level of core assets. We favor build-to-core strategies given the yield advantage offered to core, as well as the ability to tailor solutions to changing tenant requirements. Lending to the industrial sector is another one of our favored strategies.

Secondary markets, such as those that service high growth cities in-migration from larger coastal areas, will offer some relative value, but also provide a solid fundamental basis for an investment thesis. Smaller markets that have benefited from some of the demographic shifts noted earlier in this paper could offer better value relative to traditional gateway markets. But given the nature of logistics, we continue to suggest investments in key global gateway markets. We also remain favorable to global ports such as Los Angeles/Long Beach, New York/Northern New Jersey, Rotterdam, and Hamburg on a selective and tactical basis while weighing both supply and demand risks.

Opportunity	U.S.	Europe	Comment
Global entry port markets	↑	↑	Re-emergence of global trade has buoyed port markets, but has also driven pricing to new highs. Cap rate compression and high valuations could present a risk for core assets. Remains attractive as a secular investment strategy.
Warehouse logistics	↑	↑	Strong demand, particularly from e-commerce and third-party logistics (3PLs). Amazon has accounted for much of the leasing in this space since 2019 and could be a marginal risk for demand and valuations as its expansion plateaus.
Last mile/Urban infill	↑	↑	Extremely tight space markets as e-commerce demand remains high as a result of a continued push for fulfilment. Competition for assets remains high and has pushed pricing on older, smaller assets in well-located in fill locations.
Data centers	↑	↑	Tailwinds as a backbone of digital economy. Demand will continue to increase given emerging technology and data creation.
Cold storage	↑	↑	Strong secular tailwind for demand, supply well behind current demand environment.

↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative

Leisure travel is back but hotel remains disrupted

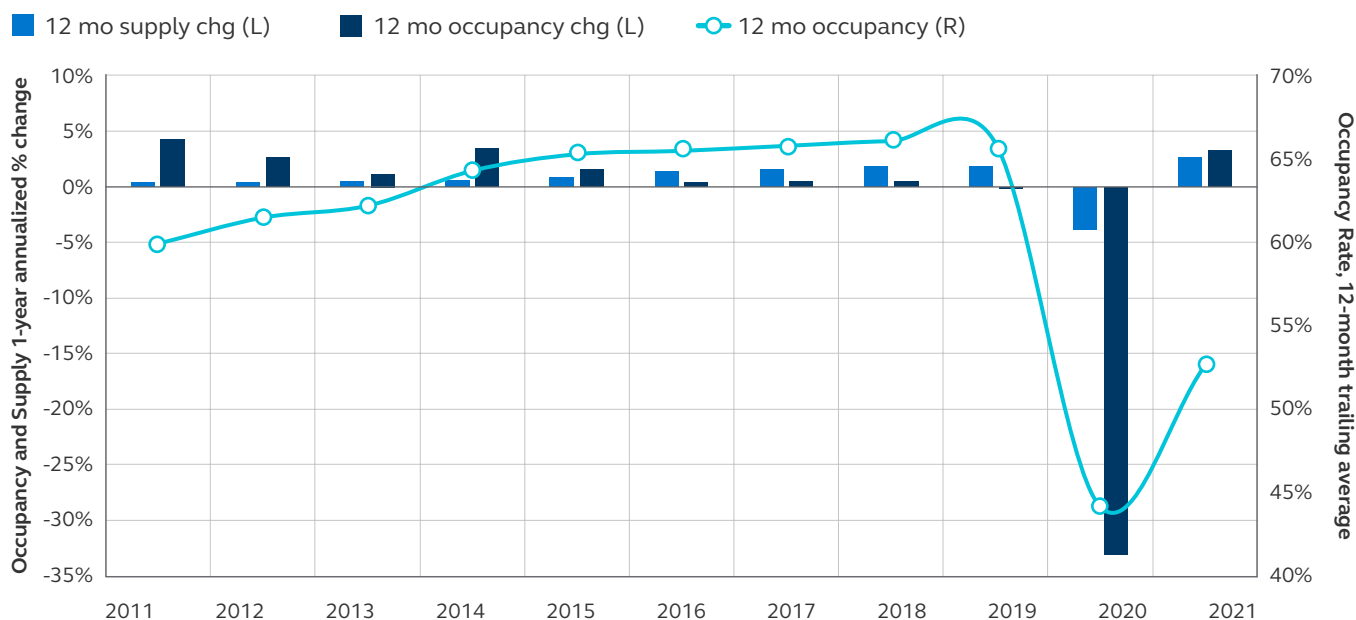
As one of the most people-centric businesses contributing to the global economy, the hotel industry found itself dealt with a coup de grace by the pandemic. Until the pace of vaccinations accelerated, hotels remained operational zombies, in some cases leading to the shuttering of iconic landmarks. Much has improved in recent months and we expect the progression in fundamentals to continue, led primarily by the return of the leisure traveler. And therein lies the immediate investment opportunity—to identify markets where leisure travel is expected to grow strongly but also where valuations are not stretched. Such opportunities are scarce and reflect the challenge of investing in an operating business in a dynamically changing environment.

We want to take vacations again

Hotel operating fundamentals have improved significantly in 2021—particularly for leisure—as travel has sprung back to life in both the U.S. and Europe with the easing of restrictions. Leisure travelers were the first to hit the road once they felt comfortable venturing from the confines of their homes for a much-needed respite from the lockdowns of early 2020. Even during the early stages of the pandemic, it was safe to travel by auto by adhering to mask and sanitation guidelines. At present, easing restrictions and vaccines have translated into a sharp bounce in leisure-oriented hotel demand in the U.S. and Europe, and we anticipate further improvement as the Delta variant surge begins to wane. In the U.S., occupancy rates have rebounded to near equilibrium rates based on three month trailing averages through the summer months but remain well below their pre-crisis levels on a twelve month trailing basis (see Exhibit 20).

EXHIBIT 20: Recovery underway, but the hotel sector faces challenges ahead

U.S. hotel supply and demand*



Source: CoStar, August 2021

*2021 data through August

Where people want to vacation matters a lot

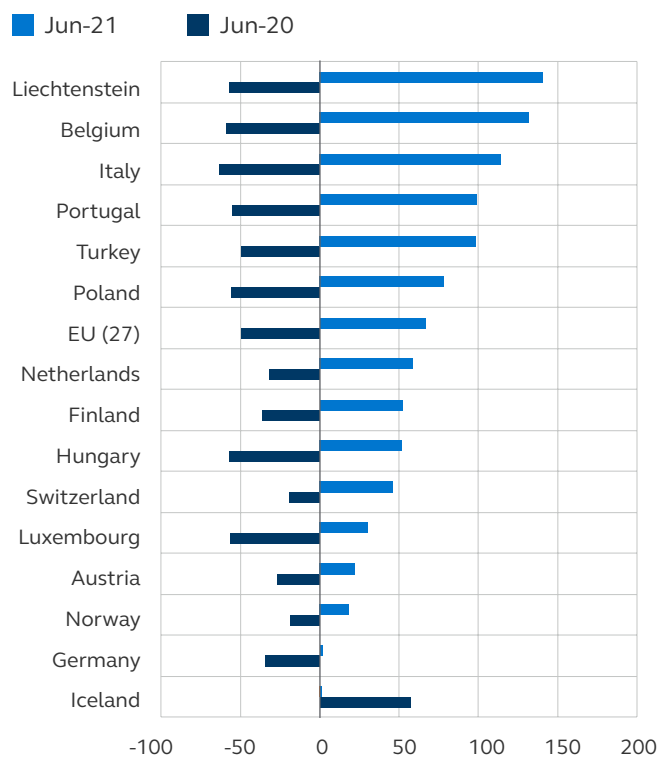
The recovery in hotels remains bifurcated, not just across formats, despite stronger economic growth and demand for travel as the gap between dense gateway cities and the sunbelt region persists. This may partially be due to the unevenness in demand between business and leisure travel. We anticipate this trend to continue at least into mid-2022.

Similar to the U.S., the European hotel outlook remains varied by region or country. For example, smaller nations with economies driven by leisure and hospitality have recorded a sharp bounce-back from 2020 (see Exhibit 21). Germany for example, which has instituted some of the most stringent restrictions during the pandemic has seen little rebound in tourism nights spent in accommodation establishments. Much like the U.S., coastal and less densely populated cities have seen the largest increases in both occupancy rates and RevPar growth, while larger urban locations continue to lag—particularly during the summer tourism season.

EXHIBIT 21: European tourists are boosting hotel occupancy

Nights spent at tourist accommodation establishments

Percent change from same period last year



Businesses reassess the value of travel

Corporations, however, adopted a much more conservative approach. Online meetings, which had become the norm during the pandemic, have continued. With office attendance remaining below 30% for most companies, it made little sense to force the issue of business travel, not to mention the potential liability associated with contracting COVID-19 during company-mandated activities. In short, the return of the businesses and conference segment appears to be a tough puzzle to solve. The increase in effectiveness of technology to efficiently hold meetings and reach out to clients created a similar secular shift and potential headwind to those facing office and retail investors. It also begged the question: why devote exorbitant budgets and countless hours on travel when a quick video chat may suffice? Although the specter of technology remains a threat, there is simply not a substitute for human interaction. Once the first domino falls and one competitor crosses the threshold, the rest may quickly follow and the sector will begin to rebalance towards a new equilibrium.

A bar-bell opportunity set lies ahead

Leisure-driven smaller markets could provide some interesting opportunities for investors though price discovery remains opaque, particularly in Europe where markets remain illiquid. In the U.S., investors may want to take advantage of depressed capital values (hotel values are 27% below 2019 levels according to NCREIF Property index) though transaction markets are very thin. Conversely, we believe providing subordinate debt to well-capitalized operators is an attractive strategy. For more opportunistic investors, dipping a toe into the gateway, business-traveler market may yet be premature but perhaps worth exploring if dislocated values become available in the debt or equity markets. Thus far, we have seen little trade in dislocated assets in either Europe or the U.S., suggesting that equity investors in the hotel sector may need to exercise patience.

Opportunity	U.S.	Europe	Comment
Global cities	→	→	Remains challenged due to lack of business demand, but increasing tourism and declining travel restrictions will benefit major gateway markets.
Business/Conference	↘	↘	There remains some uncertainty surrounding how the increased use of technology will reduce business travel—if at all. Next twelve months will remain murky until corporations resume their new normal.
Leisure - warm weather tourism	↗	↗	Leisure travel is back on track. Risks of disruption as a result of COVID-19 variants will remain a concern, but strong global economic growth will help support the sector as holiday travelers make up for lost time.

↑ Positive
 ↗ Moderately positive
 → Neutral
 ↘ Moderately negative
 ↓ Negative

Tactical opportunities

The pre-pandemic “normal” is not going to return and investors are going to face a new era of opportunities and challenges. Under our base case, the potent lifeline of hugely stimulative monetary and fiscal policy is forecast to ebb away. Given the huge significance of policy support and the still evolving impact of COVID-19 and its variants on patterns of behavior, 2022 could be a tricky terrain for investors to navigate. In this annual strategy outlook for 2022, we have identified a complex interplay of policy shifts along with changes to human patterns of behavior that will need to be navigated.

Some structural shifts underway, such as the growth of e-commerce, have been dramatically catalyzed by the pandemic. Other shifts, such as the movement away from dense, expensive gateway markets to more affordable suburbs and cities may temper over time. These changes are arguably hard to quantify since they are inherently human. But as investors, if we grasp the significance of some of these deep structural changes, and place them in context of disruption caused by the pandemic, we can seek to identify strategies that can harness these changes (see below).

Theme • Primary structural driver	Sub-sector	Tactical	Strategies of interest
Shopping • E-commerce (↓) • Over-supply (U.S.) (↓) • Skewed income distribution (→)	Class A malls (→)	Well-capitalized, strong tenants	Core debt
	Class B & C malls (↓)	Lack of pricing clarity, commodity-type tenants	
	Grocery anchored/Community centers (↗)	Strong priced/resilient credit	Core debt/Equity
	Power Centers/lifestyle centers (↗)	Evolving with upside potential	Core/Core plus debt/Value-add equity
	Mixed use retail/residential (↑)	Mixed use with retail/residential blend	Core/Core plus debt/Opportunistic equity
Working • Work from home (→) • Cost of living considerations (→) • Demographic shifts (→) • Innovation economy (↑)	CBD/major markets (→)	Migration trends/work from home/pricing	Core/Value-add debt
	Suburban/DIGITAL markets (↗)	Select markets are likely beneficiaries	Core/Value-add debt & equity, o/w REITs, CMBS
	Medical offices (↑)	Positive demographic trends	Core/Value-add debt & equity, o/w REITs, CMBS
	Life sciences (↑)	Pandemic catalyst/prevention care	Core/Value-add debt & equity, o/w REITs, CMBS
Trade and e-commerce • E-commerce (↑) • Insourcing (↑) • Innovation economy/real time data (↑) • Flow of goods/globalization (→)	Coastal/Gateway markets (→)	Fully-priced markets	Core/Core plus debt, Value-add/Opportunistic equity, o/w REITs and CMBS
	Infill markets/distribution nodes (↑)	Evolving/Under-served/growth markets	Core/Core plus debt, Value-add/Opportunistic equity, o/w REITs and CMBS
	Data centers (↑)	Long leases, adequate credit quality, attractive spreads	Core/Core plus debt, Core to opportunistic equity, o/w CMBS
	Cold storage (↑)	Attractive spreads, obsolescence, undersupplied	Core/Core plus debt, Value-add/Opportunistic equity, o/w REITs and CMBS
Housing • Affordability (↓) • Millennial household formation (↑) • Lifestyle preferences (→) • Aging demographics (↑) • Dwelling size (↓) • Skewed income distribution (→)	Urban multifamily (→)	Yet to fully price for migration trends	Core/Value-add debt
	Suburban multifamily (↑)	Positive migration and income trends	Core/Value-add debt, Core to opportunistic equity, o/w REITs, CMBS
	Single-family rental (↑)	Emerging to fill the affordability gap	Core debt/Core to opportunistic equity, o/w REITs
	Manufactured housing (↑)	Limited supply, resilient demand	Core debt/Core to opportunistic equity, o/w REITs
	Student housing (→)	High supply, disrupted demand	Core/Core plus debt/equity
	Self-storage (↑)	Resilient demand, shifting migration trends	Core/Core plus debt/equity
	Affordable housing (→)	Limited supply, resilient demand	Core debt/Core to opportunistic equity, o/w REITs
	Healthcare/senior living (→)	Rapid growth in demand	Core equity (Europe), o/w REITs
Lodging • Leisure demand (↑) • Business and conference demand (→)	Affordable/selective service/smaller markets	Pent up demand for vacation travel	Value-add/Opportunistic debt & equity
	Luxury/urban CBD/full service	Collapse in business demand/rich pricing	

Source: Principal Real Estate Investors

↑ Positive ↗ Moderately positive → Neutral ↘ Moderately negative ↓ Negative
Bold red = Disrupted **Blue** = Principal Real Estate Investors' best ideas for 2022

Innovation and technology coupled with a desire to improve the quality of life is shifting people's preferences and behavior.

Brave new world

Our outlook for investors is not the dystopian vision that Aldous Huxley wrote in *Brave New World* but is instead an acknowledgement that the real estate investment universe is different from what it was before the COVID-19 pandemic. The vast leaps in technology that enabled much of humanity to work and live in a secure environment heralds a new era of change, challenging pre-existing patterns of behavior. Structural shifts, such as the movement of people from large, expensive global markets to smaller, more affordable markets, were accelerated. Income inequality has worsened and concern for the environment has risen sharply. Innovation and technology, coupled with a desire to improve the quality of life, are shifting people's preferences and behavior. Some of these changes are likely to be permanent, while others may fade alongside new secular trends. For investors, understanding the intersection of these structural changes with shifts induced by the pandemic will provide a wide array of investment opportunities. And as a result, some sacred cows will probably need to be re-examined and new opportunities embraced. Those investors who can identify and step into this new world of opportunities will find themselves at the forefront of growth and outperformance.

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Principal Real Estate Investors is the dedicated real estate investment group within Principal Global Investors. Our real estate capabilities span the spectrum of public and private equity and debt investments. Our specialized market knowledge, dedicated and experienced teams around the globe, and extensive connections across all four real estate quadrants support our efforts to maximize opportunities and find the best relative value on behalf of our clients.

Top 10

global manager of real estate³

\$98 billion

in real estate assets under management⁴

More than

60 years

of real estate investment experience⁵

More than

\$103 billion

in real estate debt and equity transactions over the past decade

³ Managers ranked by total worldwide assets (net of leverage), as of 30 June 2021. "Largest Real Estate Managers," Pensions & Investments, 4 October 2021.

⁴ As of 30 September 2021.

⁵ Experience includes investment activities beginning in the real estate investment area of Principal Life Insurance Company and continuing through the firm to present.

Clients get many benefits from working with us, including the focused experience of each quadrant team combined with the insights and potential value added from cross-team collaboration.

Investment risks

Potential investors should be aware of the many risks inherent to owning and investing in real estate, including: adverse general and local economic conditions that can depress the value of the real estate, capital market pricing volatility, declining rental and occupancy rates, value fluctuations, lack of liquidity or illiquidity, leverage, development and lease-up risk, tenant credit issues, circumstances that can interfere with cash flows from particular commercial properties such as extended vacancies, increases in property taxes and operating expenses and casualty or condemnation losses to the real estate, and changes in zoning laws and other governmental rules, physical and environmental conditions, local, state or national regulatory requirements, and increasing property expenses, all of which can lead to a decline in the value of the real estate, a decline in the income produced by the real estate, and declines in the value or total loss in value of securities derived from investments in real estate.

Direct investments in real estate are highly illiquid and subject to industry or economic cycles resulting in downturns in demand. Accordingly, there can be no assurance that investments in real estate will be able to be sold in a timely manner and/or on favorable terms.

As a general matter, the strategy entails a high degree of risk and is suitable only for investors for whom such an investment is not a complete investment program and who fully understand and is capable of bearing the risks associated with such strategy.

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