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EMERGING TRENDS IN REAL ESTATE®

Emerging Trends in Real Estate® 2023

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Emerging Trends in Real Estate®

2023

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Notice to Readers

Emerging Trends in Real Estate® is a trends and forecast publication now in its 44th edition, and is one of the most highly regarded and widely read forecast reports in the real estate industry. *Emerging Trends in Real Estate® 2023*, undertaken jointly by PwC and the Urban Land Institute, provides an outlook on real estate investment and development trends, real estate finance and capital markets, property sectors, metropolitan areas, and other real estate issues throughout the United States and Canada.

Emerging Trends in Real Estate® 2023 reflects the views of individuals who completed surveys or were interviewed as a part of the research process for this report. The views expressed herein, including all comments appearing in quotes, are obtained exclusively from these surveys and interviews and do not express the opinions of either PwC or ULI. Interviewees and survey participants represent a wide range of industry experts, including investors, fund managers, developers, property companies, lenders, brokers, advisers, and consultants. ULI and PwC researchers personally interviewed 617 individuals, and survey responses were received from more than 1,450 individuals, whose company affiliations are broken down below:

Private property owner or commercial/multifamily real estate developer:	35%
Real estate advisory, service firm, or asset manager:	21%
Private-equity real estate investor:	11%
Bank or other lender:	7%
Construction/construction services/architecture firm:	7%
Homebuilder or residential land developer:	6%
Investment manager/adviser:	5%
REIT or publicly listed real estate property company:	3%
Private REIT or nontraded real estate property company:	2%
Other entity:	2%

Throughout this publication, the views of interviewees and/or survey respondents have been presented as direct quotations from the participant without name-specific attribution to any particular participant. A list of the interview participants in this year's study who chose to be identified appears at the end of this report, but it should be noted that all interviewees are given the option to remain anonymous regarding their participation. In several cases, quotes contained herein were obtained from interviewees who are not listed in the back of this report. Readers are cautioned not to attempt to attribute any quote to a specific individual or company.

To all who helped, the Institute and PwC extend sincere thanks for sharing valuable time and expertise. Without the involvement of these many individuals, this report would not have been possible.

Taking the Long View

"The short-term risks are real, and I'm not making light of any of them. But if you have the long view, I don't think it's time to panic."

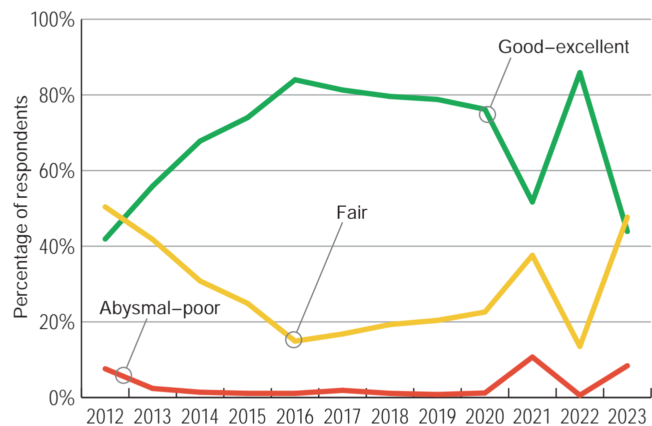
Interest rates are rising, economic clouds are darkening, and real estate deal flows are sinking because buyers and sellers cannot agree on pricing. But for all that, most commercial real estate professionals we interviewed for this year's *Emerging Trends* remain reasonably upbeat about longer-term prospects. Not everyone is as sanguine as the CEO of an investment management firm who provided our opening quote, and there certainly are some troubling risks ahead for the industry. But the consensus mood seems to be one of cautious optimism that we will ride out any near-term slump and be well positioned for another period of sustained growth and strong returns.

It makes sense that real estate experts would take the long view given the nature of real estate assets: buildings take a long time to conceive and develop. Even simply acquiring one typically takes more time (and effort) than buying just about any other type of financial asset, and they are usually held for longer durations. Still, the willingness of so many people in the industry to look beyond some of the cyclical headwinds is striking. Says the head of advisory services for a commercial real estate (CRE) analytics firm, "The recession—if we go into one—will obviously impact some markets worse than others, but it's just like anything else. We'll look back in 10 years, and the prices that seem astronomical today will seem like a bargain 10 years from now."

An Economic Rorschach Test

By one popular rule of thumb, the U.S. economy entered a recession in the first half of 2022, having sustained two straight quarters of (modestly) declining gross domestic product (GDP). But if we were in a recession at the time of writing, it would be a most peculiar one. For one thing, gross national income—the income side of the national accounts ledger that is supposed to square with GDP—has been positive over this same period, suggesting flaws in how we measure economic output. And other economic metrics certainly do not indicate a downturn:

Exhibit 1-1 Firm Pro tability Prospects for 2023

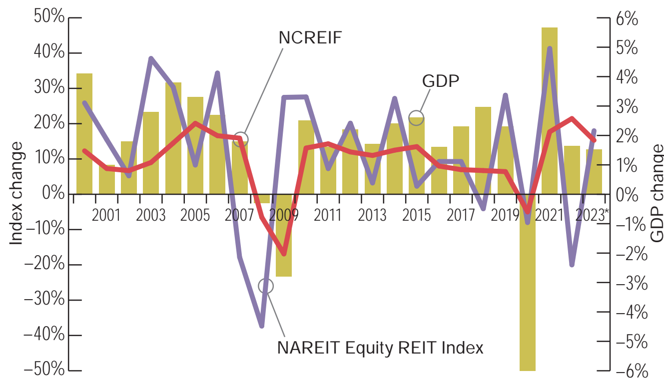


Source: *Emerging Trends in Real Estate* surveys.

- Jobs are still growing strongly while unemployment claims are at their lowest levels since the 1960s;
- Home prices and rents are at record levels and are still rising; and
- Consumer spending—which accounts for two-thirds of the economy—has been at least mildly positive every month this year (through July 2022).

This duality likely explains why the National Bureau of Economic Research—the official arbiter of business cycles—has not yet called this period a recession. That is not to suggest that all is copacetic with the economy. Key barometers like the business outlook indices compiled by the Institute for Supply Management have been trending downward since mid-2021,

Exhibit 1-2 **U.S. Real Estate Returns and Economic Growth**



Sources: NCREIF, NAREIT, Bureau of Economic Analysis/U.S. Department of Commerce, PwC Investor Survey.

*NCREIF/NAREIT and GDP projections for 2022 and 2023 are based on the PwC Investor Survey.

even if they are not technically in the recession range. Declines in consumer confidence over the last year have been even sharper. All of these positive and negative factors together paint a kind of a Rorschach test, where observers can draw their own conclusions as to the strength of the economy.

The End of the Beginning

But there is one issue on which our interviewees agree: "The existential risk for the real estate economy right now is that Fed action in response to persistent inflation will tip us into a recession," says a senior partner with a leading advisory firm. But can the Federal Reserve Bank tame inflation without breaking the economy? Moderating inflation rates this summer led many to believe that the worst was over and that the Fed could soon ease up its contractionary monetary policy. Indeed, the consensus of experts we interviewed this summer was that the Fed would cease tightening by the end of 2022 and start cutting rates again in mid-2023.

That sentiment now appears optimistic. "Inflation is going to be a little stickier than people think," said an investment banking executive we interviewed during the summer, whose views turned out to be more prescient. Sentiment started changing in late August when Fed Chairman Jerome Powell gave his annual speech to fellow central bankers affirming the Fed view that inflation is not nearly under control, jolting markets. Any remaining doubt about that was quashed by the official Fed commentary accompanying their September rate announcement projecting that rates would keep rising through 2023. As Winston Churchill famously cautioned after the British army won a critical WWII battle, the victory marked "not the end, not even the beginning of the end, but, possibly, the end of the beginning."

Higher for Longer

With interest rates headed "higher for longer," the risk of a deeper, full-fledged recession is rising, according to a growing consensus of economists. In an August 2022 survey by the National Association of Business Economics, only a quarter of economists were even "somewhat" confident that the Fed could bring down inflation to its target range without causing a recession. Worrying signs out of Europe in early autumn and expectations of soaring heating bills this coming winter add to the gloomy global economic outlook.

These conditions would be problematic for property markets: slowing or falling economic growth dampens tenant demand, while higher interest rates raise the cost of developing or acquiring properties. Both factors would cut returns and reduce values. Indeed, rising interest rates and uncertainty over future market conditions are already killing deals since sellers have not been ready to capitulate to buyers' growing demands for price concessions, as we discuss in our capital markets trend.

New Horizons

Still, not all recessions are alike, and most economists, as well as *Emerging Trends* interviewees, expect any recession to be relatively short and shallow. Reflecting the view of several CRE leaders we interviewed, a senior executive with a global development and investment firm said, "My gut says we're going to have a recession, but it's going to be relatively mild compared to some of the more severe recessions we've had. I don't see anything like the 2008 economic downturn going on."

One leading CRE economist went so far as to say, "I think we're going into what I would say is a healthy down cycle. It's a cleansing, Schumpeterian idea that every so often, economies—property markets included—need to cleanse, and it washes out bad ideas, it washes out unrealistic unsustainable values."

That reset presents new opportunities, even as it introduces uncertainty. Says the CEO of a development company, "I think this is a moment in time. And when I look back historically, and I did not act in these moments in time, I've always regretted it."

The 10 emerging trends that we expect for 2023 and beyond follow:

1. Normalizing

Property market fundamentals are "normalizing" as some markets weaken due to diminishing pandemic tailwinds and the potential for a cyclical economic downturn.

Some property sectors may cool, including residential and industrial, while others may heat up to historical average levels, such as hotels and retail.

Returns and prices of most assets are declining as cap rates rise and transaction volumes fall from record levels, while rent gains for others are merely moderating as demand returns to a more sustainable pace.

Defying just about every prediction voiced during the terrifying and uncertain days of the COVID lockdown that began in March 2020, U.S. commercial property markets actually embarked on a remarkable run, with some of the strongest returns, rent growth, and price appreciation rates ever recorded.

Not every property type, however: hotels endured their worst and most sustained downturn in memory, while offices suffered an unprecedented and significant cut in usage of space. And not every market: some of the nation's strongest gateway markets, like New York City and San Francisco, experienced sharp outflows of residents, businesses, and tenants of all types. But overall and across much of the United States, property markets far outperformed expectations and historical norms.

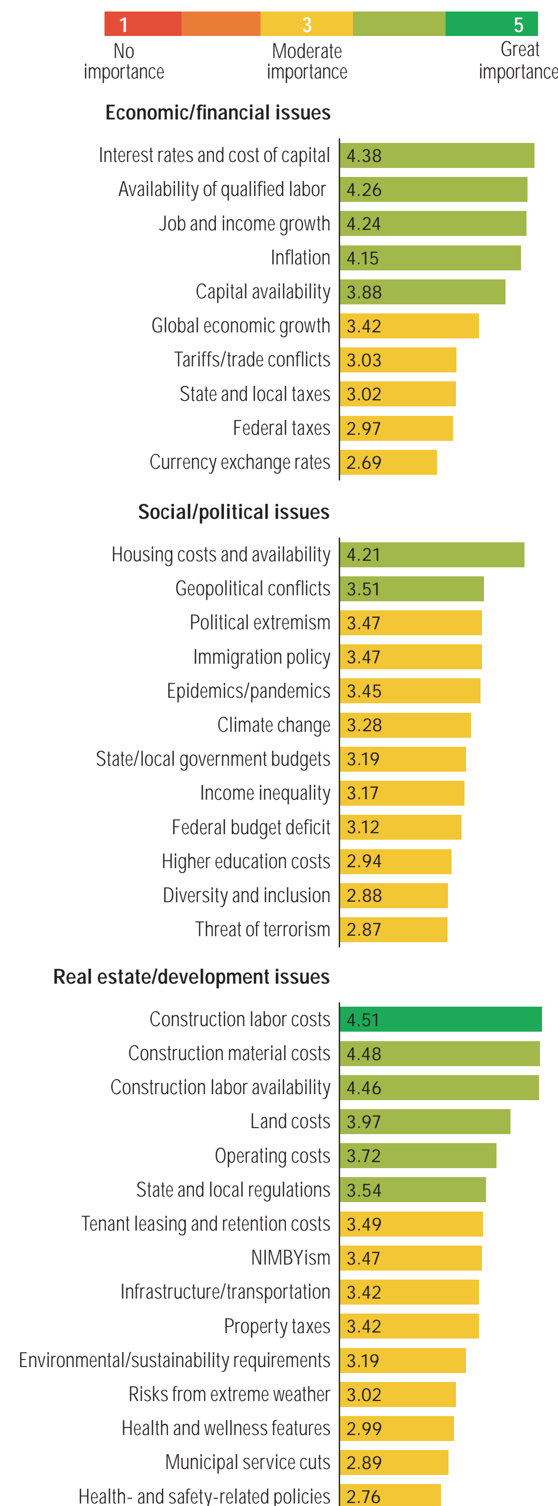
And now, more than two years on, property investors and managers are learning anew that whopping growth and profits eventually fall back to earth—a "reversion to the mean," to use finance jargon, or simply "normalizing," as numerous industry experts we interviewed put it. Some looming market adjustments will be cyclical due to the weakening economic conditions that most economists and real estate professionals expect, while others represent more of a return to normalcy after all the pandemic-fueled market distortions.

These market reversions will take several forms: prices of most assets are declining as cap rates rise and transaction volumes fall from record levels, while rent gains for others are merely moderating as demand returns to more sustainable levels. Perhaps the biggest surprise is that these reversals of fortune are hitting favored property sectors like multifamily and industrial. That does not necessarily mean the market corrections will be painful. In many cases, recent losses in property value will only trim already healthy gains. But many indicators suggest that the (really) good times may be over, at least for a while.

Housing Set to Cool

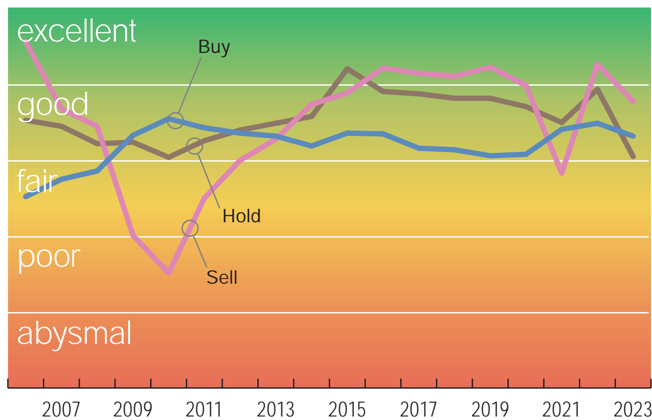
A finance executive with one national homebuilder told us, "We're still selling. It's just not at the pace that it was selling before [the last two years], which was a pace that you don't typically see. So, the markets are more normalizing." Indeed, home

Exhibit 1-3 **Importance of Issues for Real Estate in 2023**



Source: *Emerging Trends in Real Estate 2023* survey.

Exhibit 1-4 **Emerging Trends Barometer 2023**



Source: *Emerging Trends in Real Estate* surveys.
Note: Based on U.S. respondents only.

sales—both new and existing—had an extraordinary 12-year run since bottoming out in the summer of 2010 until the Fed started hiking interest rates in the spring of 2022.

But it's not just home sales that are slowing. Virtually all aspects of the housing market—both for-sale and rental—have been decelerating. New home prices peaked in April 2022, while prices of existing homes likely peaked in June after appreciation started to slow with the rise in mortgage rates. Meanwhile, apartment rents have continued to push ever higher, but the pace has been moderating in recent months. Construction starts also have slowed. The National Association of Home Builders housing market index has fallen for eight straight months through August 2022 to its lowest level since May 2020.

This is not to say that we're in a housing recession—far from it. Homes are still selling at a healthy rate by historical levels, and home prices remain near record levels. And while multifamily vacancies are at their lowest level in four decades and rents continue to log new records every month, the rates of increase have been slowing and are expected to decelerate further, according to many experts we interviewed. "Maybe you don't see the 10 percent–plus rent growth in multifamily markets," says the head of one institutional investment advisory firm. "They should come back to more of a long-term historical average of 3 percent to 4 percent, and maybe offset some of the unaffordability in the country."

Indeed, housing markets may be partly victims of their own success as record prices and rents mean fewer households can afford to buy homes or rent apartments, particularly with mortgage interest rates and housing-related expenses like utilities rising sharply—a topic we explore in "Too Much for Too Many," our trend on housing affordability.

The "Amazon Pause"

The white-hot industrial market also seems set to cool after several years of unprecedented demand growth and rent gains that have pushed rents far above prior records. Growth in e-commerce is slowing and giving back some of the market share it captured from physical retailers during the pandemic. Amazon, the largest warehouse user in the United States, has delayed occupying numerous completed projects, trying to sublet many, as it slows its physical growth—what some are calling the "Amazon pause." Other major retailers also have been cutting back their distribution expansion plans.

To be sure, the industrial sector still enjoys record-low vacancy rates, as demand for high-quality, well-located logistics facilities has been running ahead of the market's ability to supply them. And investors are not ready to abandon industrial or multifamily, both of which still reign at the top of the heap in the *Emerging Trends* survey. Still, the ratings are a bit less exuberant than last year, and these high-riding sectors do not look quite as invulnerable as they had in recent years.

But even recognizing that industrial demand could ease at all from its torrid growth is a change—still robust, but a bit closer to historical patterns. The head of one investment management firm says, "While we still believe in the fundamentals over the long term, there's still cycles within the business and therefore you could potentially see some oversupply in the industrial market over a short period of time."

Reversion UP to the Mean, Too

While some sectors will be trending down in some fashion, others will be reverting *up* to more normal levels. Property fundamentals have been improving for the battered hotel sector, especially hotels serving leisure travelers, and there seems to be a growing consensus that the beleaguered retail sector has been oversold in recent years. Says the head of advisory services for a real estate firm, "I think we've had a little bit of a reset now where if you survived to this point in retail, the future probably looks pretty good for you."

The "Sugar Rush" Is Over

Property investment returns are primed for a reset. Earnings have been unusually robust during the two years since COVID-19 hit, driven by strong property fundamentals and intense investor demand—as well as ultra-cheap debt and the federal government's three rounds of stimulus spending. Total returns

for the institutional-quality real estate in the NCREIF Property Index (NPI) soared to over 20 percent in the four quarters through mid-2022, almost three times the 20-year average.

But returns will be coming down. The 43 economists and analysts surveyed in October 2022 by ULI's Center for Real Estate Economics and Capital Markets expect total returns to drop to 3.8 percent in 2023, and recover to a moderate 7 percent in 2024. That is to say, more normal returns.

That outlook tracks with the collective wisdom of respondents to this year's *Emerging Trends* survey. More than half believe that capitalization rates are heading up next year and returns are coming down, primarily due to rising "interest rates and cost of capital," which was the top economic concern voiced in our survey. After more than a decade of "lower for longer," the Fed is finally normalizing interest rates closer to historical levels. Those rising interest rates are already driving up debt costs and thus the costs to acquire and develop property, reducing leveraged returns.

At the same time, the federal government is done with providing stimulus, indirectly reducing tenant demand for space. Unlike in the Global Financial Crisis (GFC) and during the pandemic, "nobody's coming to the rescue, and now we got to take our medicine, and here it comes," says the head of research for an investment management firm. Thus, the government is turning off both the monetary and fiscal spigots that had been supporting commercial real estate and the economy overall.

The head of a development company summarized it like this: "I feel like we've been on a little bit of a sugar high with this stimulus and cheap debt. There's going to be a slowdown. There's got to be this normalization. So, what does that mean? I think it's going to be a little bouncy; it's going to be a little bit turbulent. But then we bottom out, and we start back into growth."

2. … Still, We've Changed Some

> The pandemic forced structural shifts in how and where we live, work, and recreate in ways that seem destinated to endure.
>
> Online spending is receding from its pandemic peaks but is not likely to revert to pre-pandemic levels. Business travel is unlikely to recover to pre-COVID levels for at least several years, meaning business hotels, fine dining, and conference facilities will continue to face challenges.
>
> The greatest changes may be in how and where we work. The impact on office use and leasing is still evolving, and a significant share of the existing stock may need to be repositioned to remain competitive.

Even as property markets begin to "normalize" in many ways after some of the disruptions of the past few years, we won't be resuming our former lives in some key respects. The pandemic forced structural shifts in how and where we live, work, and recreate in ways that seem destinated to endure at least at some level, even if less extreme than our behaviors during the peak of COVID.

Many activities have already returned to pre-pandemic levels, of course, especially those involving socializing. Americans are back to attending concerts and sporting events, and leisure travelers, at least, have returned to the nation's roads and airways. Meanwhile, we are obviously tired of exercising and cooking alone at home, so gym memberships have returned to historical levels while restaurant sales are back above groceries, as they had been since 2015 until COVID shut down dining establishments.

Yet many other activities—and how we use space—seem unlikely to return to the old ways. The pandemic changed us. Says a director of an investment management firm, "People are looking to achieve their lifestyle choices more quickly. They're less focused on their employer and more focused on their personal lifestyle. And that is changing how apartments are being viewed, how single-family residential is being viewed, how office is being utilized, and where corporations are heading."

In-Store versus Online Shopping

Much of our spending shifted online during the pandemic. The e-commerce share of retail sales (excluding auto-related sales) shot up from 13 percent in 2019 to a peak of 20 percent during the initial national lockdown. That drained a lot of spending from physical retailers and squeezed the nation's shopping centers.

The online share inevitably waned as the economy reopened and more consumers felt comfortable shopping in stores again. But don't expect online spending to drop down to pre-pandemic levels, say many experts we interviewed. While shoppers initially resorted to e-commerce due to safety concerns or simply because the stores were not even open—did we really live through that?—they still shop online today because of its other benefits, including greater convenience, selection, and price advantages. Thus, the share we spend online remains highly elevated at just under 18 percent, nearly five percentage points above the rate before COVID.

Where will it go from here? The fate of shopping centers and physical retailers hangs on the answer, with downstream impacts on warehouses and logistics. The retail property sector fared far better during and since the pandemic than anyone could have expected, benefiting from both direct government assistance to retailers and the stimulus payments to households, who could keep spending, even if out of work.

Those gains could moderate or even reverse if the online shopping share endures, however, as consumers shift some spending back from goods to nonretail services they avoided during the pandemic, like travel and entertainment. As one real estate investment trust (REIT) analyst notes, "There's still very healthy growth in e-commerce, but it's no longer the lofty expectations we used to have at the height of the pandemic."

With growth in online spending slowing, physical retailers will have an opportunity to regain some lost market share, especially those that can "bridge the gap between e-commerce and bricks and sticks. They survived very well in the pandemic and will probably continue to do well," says one investment consultant. Other winners will be the resourceful retailers that can provide consumers with compelling shopping experiences. But the permanent shift to greater online spending ultimately means that fewer shopping centers and retail space can survive.

Business Travel versus Video Meetings

The old Buggles song has it that "Video Killed the Radio Star." And indeed, radio began to fade as television ascended in popularity. Now, in a different era, video meetings just might kill—or at least greatly reduce—overnight business travel. According to the U.S. Travel Association (USTA), domestic business travel spending was 56 percent lower in 2021 than in 2019, while leisure travel was actually up modestly. Excluding the impact of inflation on spending shows that travel trips fell even more, since the number of meetings and events dropped by almost 80 percent.

A summer 2022 study conducted by Tourism Economics for USTA forecasts that U.S. business travel in 2022 will get back to only 73 percent of 2019 levels and will not return to pre-pandemic levels through at least 2026. Firms are restricting travel to save on costs, and employees are reluctant to travel anyway. Of greater importance, they have less need to travel since clients are often unwilling to interact in person, and many industry conferences have either been canceled or moved online. But perhaps the core issue is that after working from home for so long, we have learned to conduct business remotely, facilitated by improved meeting technology.

Business travel will continue to recover over time, but few expect levels to attain prior levels soon. The USTA study shows business travel flattening in 2023 short of pre-COVID levels. The greatest real estate impacts will be on business hotels, fine dining, and conference facilities. But office demand also could suffer as firms have less need to lease space to accommodate client visits.

Work from Home versus Return to the Office

No dynamic touches more property sectors and markets than how many of us will finally relocate from our home office back to the company workplace and how often. Two-plus years after the onset of COVID, most of us are still not back in the office nearly as often as in the "before times." Various sources suggest that less than half of office workers actually come into an office on a given day, at least in major markets.

That level may finally increase meaningfully this fall, as some leading tech firms and investment banks issued ultimatums for their employees to return to the office more often after Labor Day. As this publication goes to press in late September 2022, it is too soon to know whether this time will prove more successful than similar prior deadlines that passed with little apparent impact.

But will workers return? As the senior leader of a development company said, "Everyone's still in a fact-finding mode." The contours of the decision are by now familiar: employer demands for control and building culture, the need for mentoring and collaboration, and workers' "fear of missing out" will translate into more in-office work over time. But those factors will be weighed against the potential to save on occupancy costs and especially worker demands for more locational flexibility. As we continue to hear, "There's just been a shift in consumer behavior. Most people don't want to commute into the office five days a week," in the words of one senior investment adviser.

For now, tight labor markets ensure that employees have the upper hand in these negotiations and will resist employer desires to have workers return to the office. But that could change if unemployment rises in a downturn. Says the head of real estate at one investment bank, "I don't think we'll know the outcome of office until we're through a recession and the power dynamics between employee and employer change. But we do know there's definitely going to be less office demand."

One guess, which seems to reflect the collective wisdom of experts we interviewed, is that "probably somewhere between 10 and 20 percent of the stock needs to be removed or repurposed, leaving the 80 percent that really does a better job of delivering what tenants want," according to the head of research

at one asset management firm. But there is still considerable difference of opinion: a "jump ball—everybody's just guessing," says one investor. Whatever the ultimate figure, there is little doubt that a meaningful portion of today's office stock will be rendered redundant and available to be redeveloped—a topic we discuss in the "Finding a Higher Purpose" trend.

Also uncertain is how to design the space to best facilitate the kinds of collaborative work expected to dominate office work in the future, which likely will vary across firms and industries and take years to define. Another critical challenge is accommodating worker preferences for individual workspaces if most people come into the office on the same three days to be with their colleagues. Flex space might be the answer for many companies as they try to figure out their space needs.

So far, the impacts on office markets have been relatively muted during this prolonged discovery period. Firms have held onto their offices either as a precaution in case they need the space in the future or because they could not break their lease. Thus, the level of *physical* office occupancy (i.e., the share of workers actually coming into the office) is considerably less than standard *economic* occupancy metrics (the percentage of office space that is leased) as firms figure out what to do.

Tenants cannot afford to keep that empty space indefinitely, however, so office landlords should not be lulled into complacency by the relatively benign vacancy levels. More firms are downsizing or not renewing their expiring leases, so vacancy rates are still slowly rising, in contrast to every other major property sector. Plus, tenants are dumping unused offices by trying to sublet the space until their leases expire. Brokers report that a record level of office space is available for sublease, and more is hitting the market every quarter. Much of this space will eventually turn into outright vacancies as leases turn, unless firms eventually reverse course.

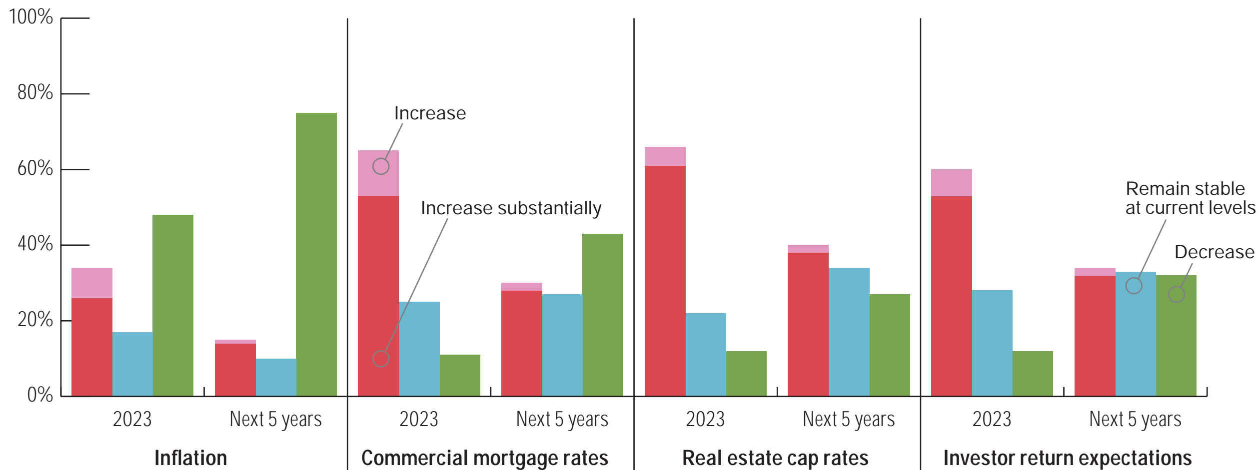
But no one we interviewed expects a mass departure from office buildings. Even under the most pessimistic scenarios, most knowledge work will occur in company offices, which, after all, were designed to facilitate this high-value work. But it will take more time for firms to figure out how much space they will need, how it should be configured, and where it should be located. As summarized by one economist, "Mixing Greek mythology and biblical references, it's probably really more of an Odyssey as opposed to an Exodus." The search for a post-pandemic "new normal" will continue.

3. Capital Moving to the Sidelines—or to Other Assets

After a robust first half of 2022, real estate property transactions began declining, primarily because buyers and sellers cannot agree on pricing due to heightened market uncertainty.

Rising debt costs and restrictive underwriting standards are also limiting transaction volumes.

Exhibit 1-5 **Anticipated Changes in Commercial Mortgage Rates, In ation, Cap Rates, and Expected Returns, Next Five Years**



Source: *Emerging Trends in Real Estate 2023* survey.
Note: Based on U.S. respondents only.

> The denominator effect may force some institutional investors to reduce their CRE exposure, but any negative impact could be limited by the growing market share held by nontraded REITs, high-net-worth investors, and other noninstitutional investors.

One of our key themes last year was "Everyone Wants In," reflecting the deep and wide investor demand for just about every type of real estate, except central business district (CBD) office and regional malls. Sales volumes jumped to over $800 billion in 2021, according to MSCI Real Assets—almost double the depressed total in the first pandemic year of 2020 and nearly one-third more than the prior $600 billion record reached in 2019. The surge continued into 2022, with sales volumes in the first half of the year up 38 percent over the same period last year, as even the sharp rise in interest rates did little to dampen transaction volumes.

But these recent volumes do not tell the whole story—and the story they do tell may be misleading as to where property markets seem to be heading. Discussions with numerous participants from all corners of the industry confirm that many investors have moved to the sidelines—or to other types of assets like equities and bonds. Indeed, the recent surge may well reflect a last gasp to get deals done before the expected increase in interest rates.

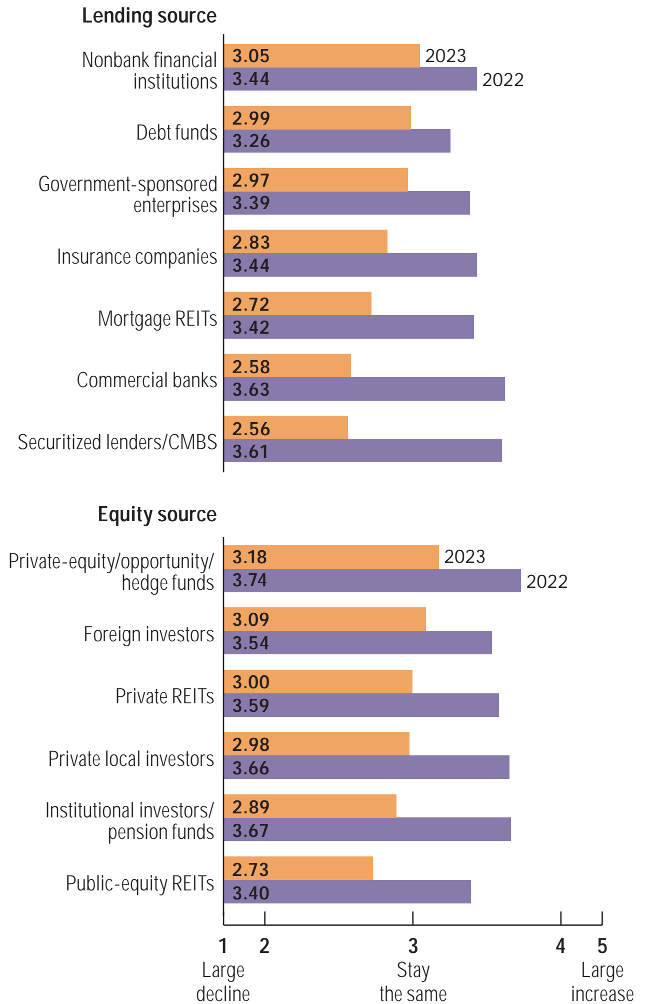
Fewer Investors

Fewer investors and lenders will be providing capital for assets, according to this year's *Emerging Trends* survey: expectations of availability declined for every one of the 13 equity and debt capital sources. Over the past decade, CRE markets benefited from a substantial capital inflow as alternative investment classes have gained wider acceptance and real estate offered compelling risk-adjusted returns.

Now, some of those inflows look to reverse. Investor interest is still healthy, but not what it was. "Instead of seven or 10 competing offers for sale, there's now two or three, which I think that's normal," says the head of an investment firm. "That's normalizing, too."

Several forces look to restrict investor demand, starting with the lower expected returns discussed in our "Normalizing" trend. Rising interest rates are making acquisition and construction debt more expensive, just when operating incomes seem destined to slide as the economy weakens in the forecasted downturn. Indeed, the prospect of lower income and higher costs is breaking deals, as buyers either seek price breaks or pull out altogether.

Exhibit 1-6 **Availability of Capital for Real Estate, 2023 versus 2022**



Source: *Emerging Trends in Real Estate* surveys.
Note: Based on U.S. respondents only.

Says the regional leader of one global firm, "Cap rates have gapped out as interest rates went up. And suddenly, things didn't pencil, and that generated broken deals. The cost of financing for real estate and everything else went up dramatically. And so everything has to be repriced, everything has to be reset."

Also limiting investor demand: debt is getting more difficult to obtain, and the *Emerging Trends* survey expects underwriting standards to get even more rigorous. As the partner in one leading advisory firm explains, "This is one of those 'cash is king' situations where borrowing costs are higher, and if you're an all-cash buyer, those probably represent a disproportionate share of the people in the market today."

Meanwhile, the same interest rate increases that reduce leveraged returns and thus demand for real estate also make bonds and other interest-bearing investments more compelling. As the head of real estate banking at one investment bank explains, "Rising bond yields are going to mean that real estate and other alternatives are all going to be facing less availability of capital and some outflows."

And while interest rates are increasing, equity and bond prices have been falling, triggering the "denominator effect" for some institutional investors with asset allocations that must remain in balance. The denominator effect can be magnified because CRE values in a portfolio are generally appraisal-based, which tend to be backward-looking.

However, the impact on CRE portfolios may not be severe this time. Many institutional investors have been under-allocated in CRE, so they will not need to rebalance by selling real estate assets. Furthermore, a rising share of CRE investors is not governed by fixed asset allocations, including public REITs, private investment firms, and high-net-worth individuals, and especially nontraded REITs, which have grown to be among the leading investors in CRE, with an asset value of almost $300 billion in 2021. In sum, capital availability should decline in the near term, though the denominator effect may not force sales as much as in typical downturns.

Uncertainty = Hesitancy

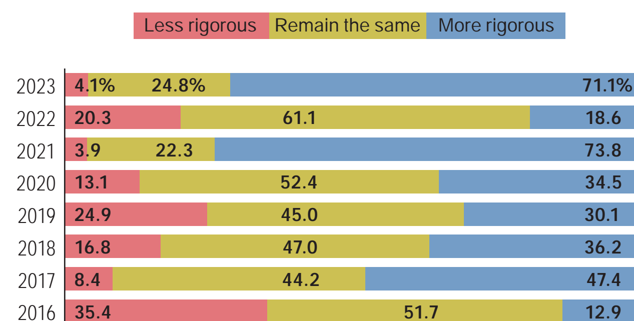
Perhaps the biggest headwind to getting deals done now is uncertainty over where prices will settle. Reflecting the views of many experts we interviewed, one senior investment banker says, "Transactions are being done at cap rates that are anywhere from 25 to 75 basis points wider than they were—but there is not any conviction that these are the right levels." That translates into a 5 to 15 percent drop in values so far, with more to come. But there are too few assets trading now to know for sure.

Buyers are concerned about overpaying. Says one banker: "Now is not the time to be a hero—meaning, it's not the time to go out and be aggressive on buying something. It's not the time to be aggressive on borrowing." On the other hand, sellers don't want to sell their assets short and then see them retraded at higher prices once the markets improve and few suffer from the financial distress that forces them to. It all translates into fewer deals. One senior adviser to institutional investors said, "It's pencils down in investment committee. We can't get an acquisition or disposition approved in investment committee at this time."

The fundamental issue for many investors is how long the Fed will keep raising rates. Many people we consulted in the summer believed that the Fed will finish hiking by the end of 2022 and could start lowering again by mid-2023. However, Chairman Powell's comments at the end of August led more observers to believe that relief will not come until at least 2024 and seemed to precipitate a sharp market selloff. But everyone agrees that deal volumes will not return until market players better understand the Fed's playbook—which, in turn, hinges on when inflation can be tamed. As the U.S. head of real estate at one investment bank explained, "That's going to create more clarity, and then some of the volatility comes down, and that's the opportunity to start buying."

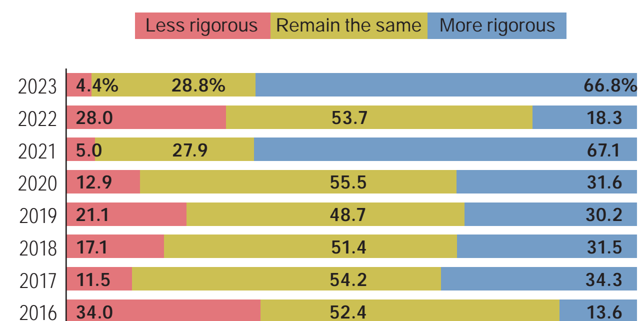
Deal flow will also require investors to recognize that pricing expectations have changed. Says one portfolio manager who wants to put money out now, "I just don't know that sellers have capitulated enough to recognize the new environment."

Exhibit 1-7 **Debt Underwriting Standards Forecast for the United States**



Source: *Emerging Trends in Real Estate* surveys.
Note: Based on U.S. respondents only.

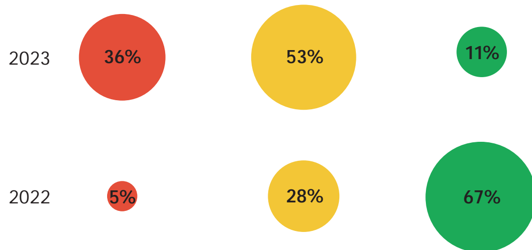
Exhibit 1-8 **Equity Underwriting Standards Forecast for the United States**



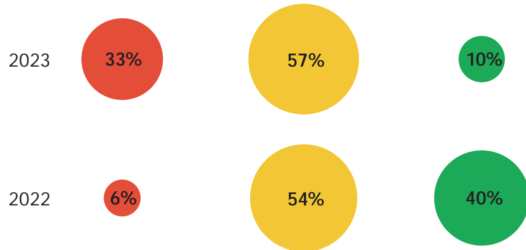
Source: *Emerging Trends in Real Estate* surveys.
Note: Based on U.S. respondents only.

Exhibit 1-9 **Real Estate Capital Market Balance Forecast, 2023 versus 2022**

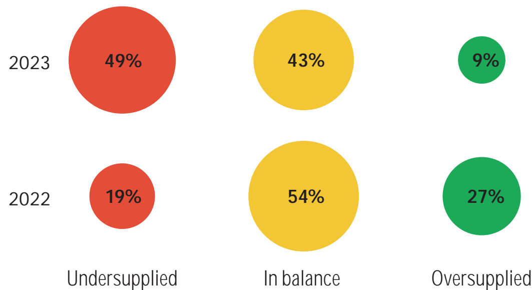
Debt capital for acquisitions



Debt capital for refinancing



Debt capital for development/redevelopment



Source: *Emerging Trends in Real Estate* surveys.

Note: Based on U.S. respondents only.

More a Lull Than a Crash

If transaction volumes do fall, few real estate people expect a crash or liquidity crunch in property markets. Notably, there are few signs of distress. Balance sheets are generally strong, leverage is low, and values have not fallen very far, so few assets are underwater with their debt. Moreover, replacement financing is generally still available for those who need it, if at a higher price and with tighter underwriting. Many investors and developers are willing to look beyond the short-term turbulence to focus on longer-term opportunities, a theme we introduced in our opening overview. Thus, there are few examples of motivated sellers in the market.

At the beginning of COVID, several firms set up opportunistic funds anticipating all the distress that ultimately never came. Most of those funds eventually just went away or changed their focus. Investors waiting for distressed deals in the coming years may be similarly disappointed.

The research head of one investment management firm says, "A lot of bids have gone away, highly leveraged bids have gone away, but there's still a lot of depth to the capital markets. A lot of the nontraded REITs have plenty of money. There's still high net worth. The strength of the U.S. dollar, while it's going up, also confirms that foreigners like to own U.S. dollar assets. So, there's plenty of liquidity."

A pension fund portfolio manager adds, "We have pulled back on some things. We're more selective, and things have to be more compelling. You have to take a closer look, resharpen your pencils." But deals will get done. Concludes one adviser, "If deals underwrite and make sense, there is capital that is both eager and available."

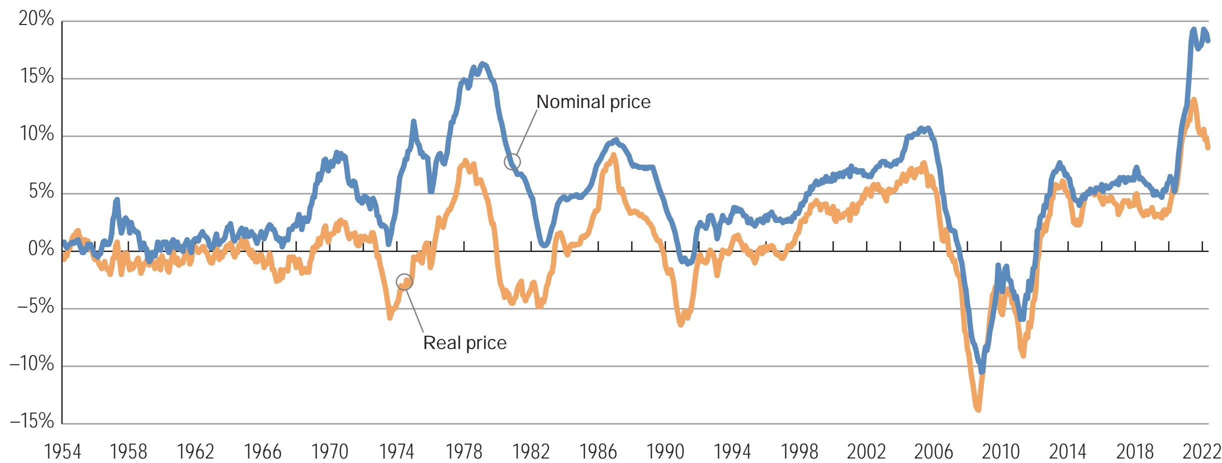
4. Too Much for Too Many

> Housing affordability has fallen to its lowest level in over 30 years. Prices and rents have soared relative to incomes. Spiraling mortgage rates have pushed the homeownership bar further out of reach for a growing share of households.
>
> The chronic undersupply of housing is the result of government policies that limit new supply or increase construction costs and is exacerbated by a labor shortage, as well as NIMBYism.
>
> Simply constructing more housing may be the most obvious and effective solution, but is far from easy to achieve.

Housing is too expensive. It has been that way for too long—for too many people neither for-sale nor rental housing is affordable—but prices and rents have soared even further out of reach over the course of the past year. And even if we experience an economic downturn, as many economists expect, it is not projected to provide significant relief.

It starts with record home prices. The U.S. median existing-home price jumped by over 18 percent in 2021 alone—the largest increase on record going back to the early 1950s—and then tacked on a further 15 percent through mid-2022. Combined with rapidly rising mortgage rates, housing affordability has fallen to its lowest level in over 30 years relative to incomes, according to the National Association of Realtors.

Exhibit 1-10 **Median Price of Existing Single-Family Homes, Nominal versus Real Prices, 1954–2022**



Source: DQYDJ.com based on data from the National Association of Realtors, Robert Shiller, and the Federal Housing Finance Agency; compiled by Nelson Economics.

Though prices began to fall modestly in the summer, as we discuss in the "Normalizing" trend, prices are still near record levels nationally.

The rise in mortgage rates alone has had a significant impact. John Burns Real Estate Consulting calculated that the number of U.S. households that could afford a $400,000 mortgage—about the mortgage amount required to purchase the median-priced home with a 5 percent downpayment—dropped by 16.5 million due to rising interest rates, just in the first half of 2022.

That hurts. But the fundamental issue is the overall chronic undersupply of housing, especially at affordable price points. The challenges are hardly new. Restrictive zoning and building codes block or limit new supply, while NIMBYism delays and curbs approvals of even as-of-right projects. Affordable housing developers complain that increasingly complex deals now require more underwriting from more capital sources. One developer says, "The average deal for us used to take 90 days to close, and now it's over six months."

Some experts we interviewed believe that the rise of single-family rentals (SFRs) also contributes to declining affordability of for-sale housing. Proponents argue that SFRs extend the opportunity to live in a single-family house to those who cannot afford to buy or just don't want to, while generally expanding the supply of rental housing. But critics point out that "institutional capital is driving up prices in the resale market," in the words of one housing adviser, by outbidding owner/occupant homebuyers for existing homes.

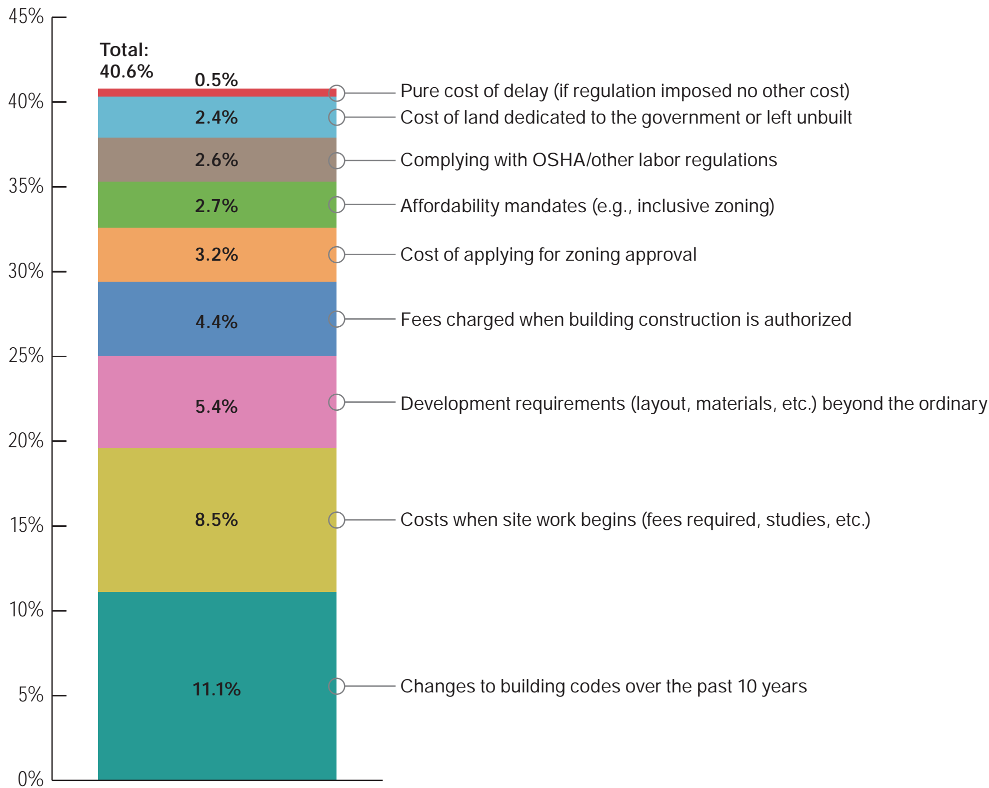
One reason: existing tax laws are stacked against the individual homebuyer. Explains one academic, "Investors are allowed to not only deduct everything, but also they can depreciate the unit. They also have access to lower cost of capital." In sum, institutional buyers assembling "horizontal apartment" portfolios can afford to pay more to be the high bidder for homes. And they do. Investors account for one in five homebuyers, up by a third compared with before the pandemic.

Another supply constraint is homebuilders' cautious construction pacing, a vestige of the last recession. Explains the director of an investment institute who developed housing earlier in his career, "A lot of the homebuilders, when the Great Recession happened, were stuck with inventory, said, 'We're not doing that again. We're going to build 10 new units, and as they sell, we'll start the next one, etc.'"

And then labor shortages are compounding the problems. "The construction sector as a whole hasn't returned to the peak we saw prior to the Great Recession. We saw a lot of that labor leave the sector for something maybe perceived more stable," says the economist for a housing advisory firm.

All these factors are conspiring to limit housing construction far below population growth. In fact, the number of single-family housing starts in the last decade (2010–2019) relative to household formations was the lowest since the government began tracking these trends and half as much or less than in preceding decades, despite the consistent increase in deliveries since bottoming in 2010. And now both permits and housing starts have been trending down again in 2022. Plunging homebuilder

Exhibit 1-11 **Average Cost of Regulation as a Percentage of Total Multifamily Development Cost**



Sources: National Association of Home Builders; National Multifamily Housing Council.

confidence suggests that that decline will likely continue until the interest rate environment turns more favorable.

And the homes that do get built are expensive, particularly since the pandemic. Construction costs shot up due to supply chain disruptions and are still worrisome. As one housing industry adviser notes, "There's a stress index about global supply chains, and those stress indices are all indicating that they're moderating, but they're still at very high levels." Finally, high permitting fees and utility charges and large minimum lot sizes push developers to build more expensive homes.

Renters Priced Out of the Homebuying Market

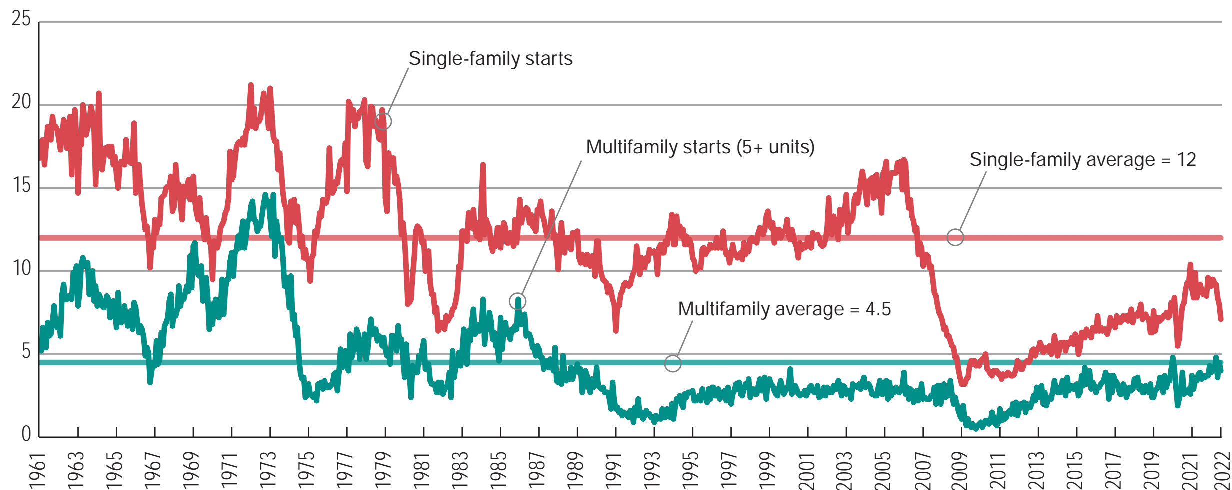
With a growing share of households priced out of the for-sale market, demand for rental units is far outstripping new supply. Though population growth slowed sharply during the pandemic, demand is also rising from the many young adults eager to start their own households after moving back in with their parents during COVID. Further boosting demand is the increasing number of younger adults choosing to live alone, according to a report from economists at the Fed, perhaps a reaction to lockdown claustrophobia.

The multifamily sector has responded with an unprecedented increase in new supply. "We've built more multifamily housing units over the last 10 years than we had in any other time since 1980," notes an adviser to institutional investors. But it is still far less than needed. Vacancies have fallen to their lowest levels ever while rents are rising faster than ever—even faster than home prices. And though not a formal part of the affordability calculations, other housing-related costs like utilities and maintenance are also rising faster than incomes, further constraining the ability of households to afford basic shelter.

Moving to More Affordable

Recent slowdowns in rent growth and home price appreciation, noted in our "Normalizing" trend, have done little to increase affordability. So how to address this? Millions of people have taken matters into their own hands. As an executive with one developer notes, "A lot of people are moving to markets where

Exhibit 1-12 **U.S. Housing Starts per 1,000 Households, 1961–2022**



Sources: U.S. Census Bureau and U.S. Department of Housing and Urban Development; compiled by Nelson Economics.
Note: 2022 gures are through July.

they can go buy a house and it's a little more affordable." That solved the issue for many early movers, but prices and rents have been rising much faster in many of these "Zoom towns," reducing their affordability, a topic we take up in our trend "Rewards—and Growing Pains—in the Sun Belt." So far, migration from the highest-priced markets has not been enough to actually reduce housing costs in those markets, though costs generally are rising more slowly there.

Demographics and the slowing economy could also help ease the housing imbalance. The nation's population is growing at its slowest pace ever, thanks to both low birth and immigration rates. And fewer buyers are on the hunt for homes now due to affordability and concerns about possible job losses in a recession. "The good news is that it is an opportunity for homebuilders and land developers to do a little catch-up. They've been running behind for two years, and they may actually welcome a little respite to finish the homes that they have sold," thinks a senior adviser to many homebuilders.

But these favorable trends alone will not be nearly enough to solve the affordability quandary. What else would help? As we outlined in previous editions of *Emerging Trends*—when housing was less expensive than it is now—there are no easy fixes, but several obvious policy options would help: notably, lowering the many obstacles to housing construction, decreasing rising regulatory costs (stemming from fees and changes to building codes), and expediting approvals.

Technology can play a bigger role in actually delivering homes by helping bring innovation and cost efficiencies to a sector that has been notoriously slow to change. Most notable are different approaches to prefabricated and modular housing in which much or all of the house is built in a factory and then assembled on the homesite. These methods can dramatically reduce the need for labor and shrink production times at more affordable costs. Promising innovations are also arising from the nascent single-family build-to-rent sector, which is learning how to scale construction and design to reduce costs and development time, as explained in our single-family sector overview found in chapter 2.

Government could also expand affordable housing production. Unfortunately, Congress dropped the affordable housing components of the proposed Build Back Better Act from what became the Bipartisan Infrastructure Law, meaning that no additional federal help is on the way. But many state and local governments are stepping into the breach, as we discuss in our final trend on regulation.

In the end, perhaps the most effective solution is the most obvious: we must construct more housing that is affordable to more people. As the former homebuilder we quoted earlier puts it, what is needed is "a new way of getting housing out there and get it built more affordably."

5. Give Me Quality, Give Me Niche

Investment demand for commercial real estate assets is still healthy, if more tentative, as discussed in "Capital Moving to the Sidelines—or to Other Assets." But real estate capital markets are also becoming more bifurcated between the favored and the scorned as investors, lenders, and developers turn more selective than they have been in recent years. What assets will find love—and capital—in the coming years?

Investors and developers seem to be preferring three distinct types of opportunities:

- The security of major product types with the strongest demand fundamentals, notably industrial and multifamily housing, which essentially tie for top investment ratings in this year's *Emerging Trends* survey;
- Best-quality assets in sectors undergoing significant demand disruption, especially retail and office; and
- Narrowly targeted subsectors (like student housing) and newer "niche" asset types (like single-family rentals).

There is much less appetite now for riskier opportunistic investments. Our survey also confirms continuing strong interest in Sun Belt markets, though the rankings are moderately tighter than last year, as we show in our markets review in chapter 3.

Hot or Not?

The dominant capital market trend is the increasing divergence of demand among different property types and then within property types, particularly office. As investors get more selective, they increasingly choose safer sectors with the most compelling market fundamentals. Tenant demand continues to outpace the market's capacity to add new supply in both the residential and industrial sectors, which therefore draw the greatest interest from capital markets. Retail and office, by contrast, find much less support.

We repeatedly heard some version of that story in interviews with industry leaders. But that big picture does not fully capture the range of market currents. Tenant and investor demand for apartments and warehouses is deep at all price points and almost every market, but the story is more nuanced for office and retail. Demand for well-located, top-quality office and retail space is as strong as ever, but tenants, and thus investors, are losing interest in lower-quality buildings and shopping centers.

Exhibit 1-13 **Share of All CRE Transactions, by Major Property Sector, 1H 22 and Change from 1H 21**

Sector	Share of 1H 22 sales	Change from 1H 21
Apartments	43.7%	+3.6%
Hotel	6.3%	–2.4%
Industrial	21.1%	–0.8%
Office	16.3%	–3.3%
Retail	12.6%	+2.8%

Source: MSCI Real Assets; compiled by Nelson Economics.

Bifurcation and the Flight to Quality

The bifurcated demand that started a decade ago in the retail sector and expanded over time has now spread to the hotel and office sectors. However, the dynamics are different for each sector. The retail bifurcation was driven primarily by years of overbuilding combined with the sector's failure to update or demolish obsolete centers and then compounded by the growing competitive pressures from e-commerce. The tenant market could not support all the existing centers, causing a divide between the best-located centers with the best retailers and everything else. Investors have followed suit.

A similar divergence is taking place in the hotel sector but through a very different dynamic. Here, the divide is being driven by the contrast between the broad post-COVID recovery in the leisure market and the much slower and incomplete business market recovery. Thus, resorts and destination hotels are commanding record revenue while many convention and business hotels languish.

And then there is office, where tenants are increasingly choosing newer, more modern buildings and abandoning everything else, especially pre-1990 buildings. Unfortunately, for current owners, the office sector experienced its greatest construction boom in the 1980s. Now, many of those assets are becoming functionally obsolete, unwanted by tenants or investors.

Says a senior leader of a global development firm, "If it's old class B office, I'd be worried because that's the kind of space that companies will ultimately shed to move into new space." But not just any new space. The top tier of space—which industry experts say accounts for only about 20 percent of all office stock—is distinguished by several key modern design features. These include the following:

- High ceilings and floor-to-ceiling window lines that allow for abundant natural light;
- Sustainable design that minimizes or even zeros out the building's carbon footprint; and
- Premium health and safety features, such as efficient HVAC systems with rapid air-refresh rates.

The U.S. head of real estate banking for another major investment firm sees office building quality more as a competitive advantage in the war for talent. "Major companies, especially their headquarters space, think of that as synonymous with their brand. And so if they want to attract talent, they want to be at a modern, sustainable building."

"Those rents continue to hold up really well," says the head of a real estate investment bank. "And everything else continues to be really, really tough. So it's going to be 'trophy and trauma' in the business." It is almost hard to overstate how much that older office product has fallen out of favor. A global portfolio manager of an investment management firm explains that "office, especially value-add office, has kind of become toxic. The debt funds were the primary lender to value-add, especially opportunistic office. That's completely dried up."

As with failing retail centers, many of these older office assets will need to be either upgraded or converted, as discussed in our next trend on repurposing obsolete buildings. The biggest challenge is the enormous cost of renovating a 40-year-old building to the health and safety and sustainability features and modern design standards offered by the top-tier properties.

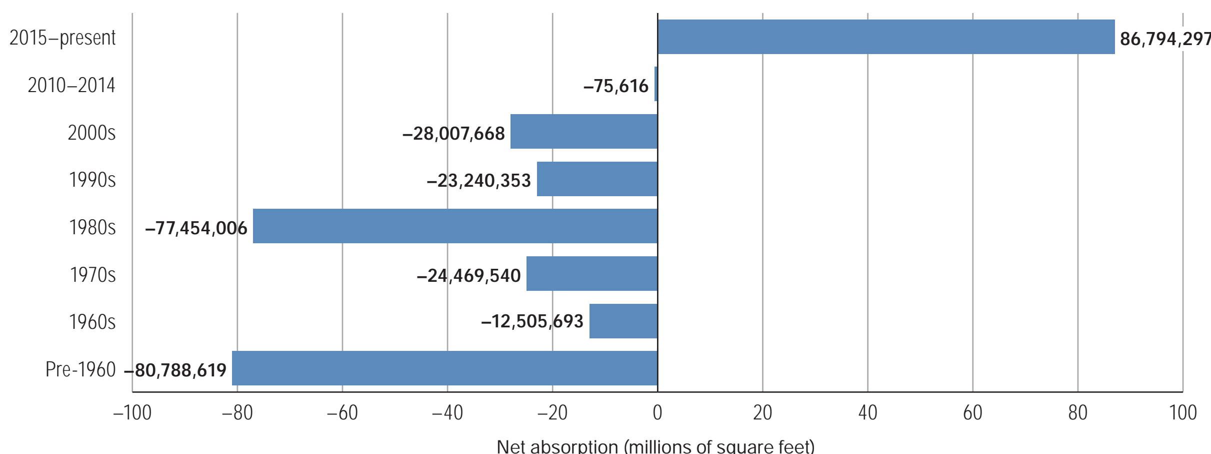
Mainstreaming of Niche Property Types

In last year's *Emerging Trends*, we documented the growing interest by institutional investors in nontraditional CRE product types. This year's survey and interviews reveal an even stronger interest in niche products. Niche property types occupy five of the top-rated six slots for "investment prospects," as shown in chapter 2, including the two top subsectors, workforce housing (market-rate housing affordable to middle-income households) and data centers.

This shift partly reflects investor expectations that cyclical trends will reduce returns in 2022 and 2023, intensifying the eternal search for yield. That search will favor some of these smaller product types that generally command higher cap rates and returns relative to the traditional product types. Why? Exits are less certain because these assets tend to be more thinly traded. Moreover, there is less reliable operating data, and these products often require more specialized management, raising the risks for investors lacking experience in these sectors.

The significance of these factors is likely to recede as more investors enter these sectors. That potential looks to get a boost from an unlikely, if wonky, source: NCRIEF's Property Index (NPI). Pension funds, investment advisers, and other institutional players often construct their portfolios to match the NPI mix, a phenomenon known as "benchmark hugging." The NPI includes only the five major product types—apartments, hotels, industrial, office, and retail—and a select few subtypes, like flex space and research and development (R&D) under industrial. In a revolutionary move for the often-plodding institutional investor world, NCREIF plans to promote a new, expanded "NPI Plus" with all product subtypes as its headline benchmark. This subtle

Exhibit 1-14 **Net Office Absorption since COVID Onset (April 2020–June 2022) by Building Age**



Source: JLL Research. ©2022 Jones Lang LaSalle IP Inc. All rights reserved.

change will effectively give investors more latitude to pursue less traditional asset types.

This change comes at a propitious time in the investment cycle as investors seek assets better positioned to outperform during more volatile market conditions. These include some of the more established subtypes like medical office, self-storage, and student and senior housing with strong demographic tailwinds supporting rising demand. There also are newer subtypes with growing interest, like cold storage warehouse, life-sciences office, and single-family rentals, generally benefiting from favorable demand shifts. And still others don't fit neatly into traditional CRE categories, like media (e.g., movie studios, sound stages, and recording studios), cell towers, and data centers, but all benefit from solid demand.

Some investors introduce niche products to add diversification to their portfolios. Says a senior adviser to institutional investors, "I like, within certain traditional segments, playing off the niche a little bit. Medical office is an interesting offset to traditional office exposure in a portfolio. And you have the same thing happening with other major property types like industrial with cold storage and data centers."

In summary, real estate investors are viewing calendar year 2022 as a transitional year requiring changes in near-term investment tactics. Some capital has moved to the sidelines until there is greater clarity on pricing and future market conditions. But investors still actively seeking opportunities are generally seeking the safety of top-quality assets or sectors most likely to ride out expected headwinds due to strong demographic support or other favorable demand fundamentals.

6. Finding a Higher Purpose

> Long-term demographic trends and more recent structural demand shifts have rendered countless existing buildings and properties either redundant or obsolete. Many of these buildings may ultimately need to be repurposed or upgraded to meet new market requirements.
>
> Key repositioning targets are concentrated among retail, office, and older industrial structures and sites. Promising opportunities include residential units and newer or better-located industrial stock, as well opportunities to "retrofit for the future."
>
> These conversions are often much easier to envision than to execute, however, often requiring specialized expertise and substantial investment to execute. The value loss that owners may need to recognize in order to justify the transformative investment could be the greatest barrier to project feasibility.

We have too much retail space and too many office buildings, and not enough residential units or modern industrial space. That is the inescapable conclusion from our many discussions with leaders across the industry, as summarized in the preceding pages. There also is not enough developable land on which to build all the housing and warehouses where needed. Hmmm, maybe there's something to that.

The Importance of Older Buildings

In her classic 1961 urban planning treatise, *The Death and Life of Great American Cities*, Jane Jacobs elucidates the critical ingredients for a diverse, vibrant city. Among them is one rule that may seem puzzling at first: "The district must mingle buildings that vary in age and condition, including a good proportion of old ones." Why the need for old buildings? Why not all new?

"If a city area has only new buildings, the enterprises that can exist there are automatically limited to those that can support the high costs of new construction." How boring and monotonous that would be. Jacobs points to all the small local businesses that occupy these older structures that give the neighborhood its diversity and vitality.

Although Jacobs doesn't say it precisely, there is another crucial observation regarding the importance of older buildings: so many of them find new life with uses different from their original function. Walk around the bustling old port districts of Montreal or Boston or Portland, Maine, and you will find hundreds of former warehouses that have been repurposed into upscale hotels, cool offices, hip restaurants, and distinctive retail spaces.

Conversions are hardly limited to old warehouse districts. Every vibrant downtown is filled with buildings of varying types and vintages that have been converted into new uses. Often the conversions go "upstream," as lower-value land uses like warehouses convert into higher-value uses like office or retail. But the direction is often reversed, with old offices converting into artist space or storage.

Lemonade from Lemons

Demographic trends and structural demand shifts magnified by the pandemic have rendered countless existing buildings either redundant (no tenant demand for the current use or at the location) or obsolete (unable to lease in its current condition and/or configuration). But many—though not all—of these can be either repurposed or upgraded to meet new market standards. The many opportunities include the following:

Converting older offices to residential uses, or upgrading them into modern offices, where feasible and supported by the market;

Repurposing excess retail space for other uses (including fulfillment, service office, and residential) or improving with mixed use (especially residential, office, and hospitality); and

Scraping buildings to create development land where conversion is not feasible, or where density can be increased, to site new housing.

These conversions are often much easier to envision than to execute, however. The notion of converting obsolete malls into fulfillment centers, for example, has been a point of interest by both people inside and outside the real estate industry. But the case for these conversions can be easy to exaggerate. Nearby residents don't relish sharing local roads with big-rig trucks serving these logistics facilities, while local governments resist losing retail sales tax revenue and jobs. And everyone laments losing what had been a community gathering place.

But the greatest barrier to land use conversions is the value loss that owners must recognize in order to justify transformative investment and make projects feasible. Malls, for example, often command the highest values per square foot of any property type and warehouses among the lowest: converting a mall into a warehouse may require an enormous value writedown.

It is possible to convert malls to uses with higher values than warehouses. For example, the Austin Community College converted Highland Mall into a mixed-use campus, while Amazon purchased the former Lord & Taylor flagship store in Manhattan, aiming to convert the building into offices, though those plans have since been frozen as Amazon reevaluates its space needs. An even more likely step for failing malls is to convert just the most problematic portions. For example, at York Galleria in York, Pennsylvania, a former Sears was converted into a casino and then a vacant Bon-Ton department store into a self-storage facility.

What's Next for Office?

Perhaps the biggest challenge confronting urban landlords and city leaders is what to do with all that older office space that increasingly looks redundant, obsolete, or both.

"One of the major problems we have in the office market right now is we've got a bunch of pre-1980 buildings that are functionally obsolete, and we don't know what we do with them," says the global head of research for an investment management firm. The instinct of many owners will be to upgrade in order to attract new tenants. But that approach can be expensive, with the payoff highly uncertain. Owners of one older high-rise in Boston invested $300 million to convert the 1 million-square-foot concrete building into a sleek glass-lined tower. Some major leases have been signed, but significant blocks remain available.

Not every older building would require such extensive improvements to compete for tenants, of course, but even funding tenant improvements may be too risky in this highly competitive market. A senior executive with one CRE investment firm believes, "There's going to be a lot of distress. Even in a great market, if their debt is coming due, they're going to be hard pressed to refinance that building, particularly if that building needs the capital to fit out space, get new building amenities, all the things that are required as table stakes today in leasing office space."

Says one real estate investment banking executive, "It's all going to be triggered by when major leases roll or debt matures or there's some debt extension test that comes up. Some of those buildings will come back to the lenders, but others may be candidates for conversion to other uses."

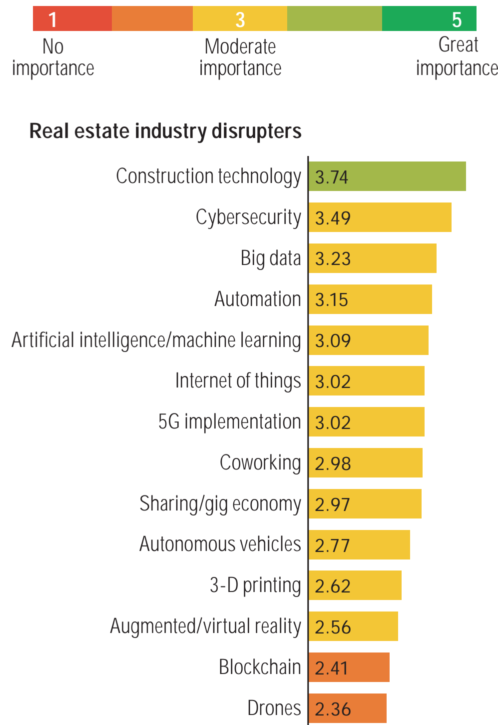
One affordable housing developer is optimistic about the potential for more housing. "Anybody who's sitting in city hall with a homelessness problem, which is pretty much everybody, needs to start thinking about how to take some of these office buildings and repurpose them into all flavors of residential, including some homeless shelters."

But as with the aforementioned mall conversions, that would require a tremendous value decline to make such projects feasible, among other hurdles. That capitulation could be painful and really has yet to begin. Half of the industry people surveyed for *Emerging Trends* believe that central-city offices are overpriced. But at some point, owners may have no alternative to a serious writedown if office tenant demand keeps falling.

Moving from Here to There

Discussions with experienced practitioners for the upcoming ULI report, *Behind the Facade: The Feasibility of Converting Commercial Real Estate to Multifamily*, suggest several lessons that can increase the odds of successful conversions. First is the understanding that there is no cookie-cutter building to convert, particularly when converting commercial real estate to multifamily use. Not only is each experience different, but developers of successful conversions expect that each subsequent one will be different. Because of the unknowns when taking off a facade and walls and bringing it down to the concrete, interviewees stressed the need for an experienced and nimble team that can

Exhibit 1-15 **Importance of Disrupters for Real Estate in 2023**



Source: *Emerging Trends in Real Estate 2023* survey.

adjust in real time. As one developer summed it up: "You go with the flow of what the building is telling you it wants to do or can do and then merge that with your financials."

Second, two perceived stumbling blocks of office conversions to multifamily—large floor plates and office buildings that are not fully vacant—may not be the universal impediments once thought. They have been successfully addressed enough times to suggest that there are options to pursue, at least in some cases. The former by innovative configurations, often by providing bedrooms without direct natural light, use of internal space for amenities, or creating a lightwell. The latter typically by the expected departure of a main tenant but then lease termination negotiations with the remaining tenants. Of course, the financial viability of these solutions—and the full conversion process itself—depends on the strength of the multifamily market in the particular location.

A growing number of developers are honing the skills required to understand which buildings are most amenable to transformation at a feasible price point and to undertake the complexities of conversions. Conversions to residential units have become a mainstream development option, and perhaps even a specialized niche sector. And institutional and private capital are finding investment opportunities in this area.

Retro tting for the Future

The obstacles to converting from one property type to another are varied and daunting. Many owners will rise to the challenge, but such undertakings are often not practical—either too expensive or just too difficult. But the need to "retrofit for the future," as one real estate adviser points out, provides another set of opportunities that may be more limited in scope but ultimately broader in scale. Owners and managers of real estate will need to enhance the resilience of their assets against potential climate change impacts or otherwise decarbonize their assets as increasingly demanded by tenants, investors, and regulators, as we discuss in greater detail below.

But whether a full-scale conversion to another land use or a more limited retrofit to higher building standards, there is a compelling sustainability reason for these projects beyond their potential financial feasibility. It has been said that "the greenest building is one that is already built." Simply, it is far more sustainable for the planet to reuse existing buildings than to build new ones. Reason enough to encourage landowners to consider what reuse options exist before demolishing buildings to make way for new construction.

7. Rewards—and Growing Pains—in the Sun Belt

> Despite their continued popularity among residents, employers, tenants, and investors, some Sun Belt markets are experiencing growing pains. "Big city" problems are coming to these markets known for their affordability and quality of life after years of continuous economic and population growth.
>
> These destination markets typically offer lower tax rates and lighter regulatory burdens than many gateway markets, heightening their appeal to many businesses. Conversely, some of these attractive characteristics may limit their capacity to accommodate continued massive population inflows.
>
> These markets will remain popular for both business and residential in-migration but could see the pace of both occur at more moderate levels.

Everyone still likes the hot Sun Belt markets. Almost all the *Emerging Trends* "magnet" markets that shone most brightly in our last report—the large Super Sun Belt metro areas and the fastest-growing Supernovas—still shine luminously in the

CRE galaxy, as we detail in the "Markets to Watch" chapter. But another year of hypergrowth has brought growing pains and has slightly dimmed the outlook for some star markets, as indicated by this year's survey.

All this growth is bringing big-city problems to some smaller, vibrant markets that *Emerging Trends* once described all-inclusively as 18-hour cities. Such problems include those that affect the quality of life (like congestion) and standard of living (like declining housing affordability). These side effects to unfettered growth bring to mind the old joke about the hot restaurant that is so popular that no one wants to go there anymore. The Sun Belt markets are still strong population and business magnets, but they may now draw fewer and different people as their appeal changes.

Becoming a 24-Hour City

Though still ranked among the highest of all markets, some high-flying Sun Belt metros declined in ratings this year. Housing is more expensive, traffic is getting worse, longtime residents are getting frustrated, and even some newcomers are finding the proverbial grass to be not quite as green as they envisioned.

In focus groups with local market experts conducted by ULI district councils across the United States, participants from the Supernovas and some other Sun Belt markets were likelier than members from metro areas with more sluggish economies to cite issues like living costs, housing affordability, and infrastructure quality as being a regional disadvantage. These issues were most frequently mentioned as problems in some of the booming markets, like Austin and Nashville.

Describing the growing pains in her market, a focus group participant commented, "Nashville is like a teenager. We have grown too quickly and haven't decided what we want to be when we grow up." Like some other Sun Belt markets, this former "18-Hour City" has graduated to a full-fledged 24-hour metropolis, but the regional infrastructure has strained to keep pace.

Too Much, Too Soon

The pandemic supercharged interregional migration patterns to leading Sun Belt and lifestyle metro areas, as well as intraregional migrations from CBDs to suburbs. Some of this migration was destined to reverse eventually. Some households left their inner-city apartments for safer environs until the pandemic was better understood and brought under control. Some young adults moved back in with their parents until their jobs reopened or their old neighborhood revived. Many of these migrants have moved back to their old places.

But beyond these temporary moves, the pandemic accelerated more permanent migration. Some workers were freed to move wherever they wanted by flexible work arrangements that became more commonplace during the pandemic. Many left expensive coastal markets in search of more affordable "lifestyle" markets that offer what they perceive to be more favorable amenities or superior economic opportunities. A ULI focus group participant from Salt Lake City said, "Quality of life and affordability have been great draws to the market. Sustained high growth will test these factors long-term."

These migrations certainly caught the attention of investors and developers. Many of these lifestyle markets jumped to the top of the *Emerging Trends* rankings. A senior executive with one development firm said, "We are fans of certain 'lifestyle markets.' We think they were already on a very good growth trajectory for work/life balance, and then the jobs have come in a big way. They were already doing right, and then the COVID tailwinds really accelerated the growth."

However, there are signs that the pace of this migration may ease—even as developer interest and investments are still gaining momentum—risking oversupplied markets. While job growth and income growth in these markets far outdistance national trends, home prices and rents are growing even faster, compromising the affordability that helped made them draw migrants in the first place. Inflation rates in Phoenix, Atlanta, Tampa, and other popular Sun Belt metro areas are among the highest in the country, partly due to surging housing costs, which make up a significant portion of the inflation calculation.

What happened? For some markets, it was just too much, too soon. Population in the markets we identified last year as either "Supernova" or "Super Sun Belt" grew by an average of over 5 percent since 2019, almost four times faster than the rest of the nation, primarily due to rapid net in-migration. For some metro areas, that was just more than they could handle. Homebuilding has been rapid but not enough to keep up with demand.

Tax Burdens versus Quality of Life

At the same time, one appeal of these destination markets is their lower tax rates and perceived lighter regulatory burden. But more relaxed taxation and regulation come at a cost, as evidenced by the challenges of accommodating massive population inflows.

Of course, every fast-growing city that successfully morphs into a major metropolis inevitably experiences growing pains along the way. A key issue confronting the current generation of hypergrowth markets is whether they will invest in the infrastructure and regional planning needed to facilitate growth while maintaining the qualities that led to their appeal.

One ULI focus group participant in Austin said, "The disadvantages of housing affordability, lack of mobility due to inadequate infrastructure, and property taxes will likely negatively impact our market in the coming years." Similarly, a Boise representative offered that "the rapid increases in cost of living that we've seen in the region have hindered some of the advantages the area had for attracting new residents and businesses."

The Impacts on Migration and Development Opportunities

It is too soon to know which way these sometimes-opposing winds will blow, but growth is moderating in some of these Sun Belt markets. Population growth is forecast to be slower in four of the five Supernova markets over the next five years than in the years since COVID hit, and brokers already report housing price cuts and broken deals in cities like Boise, Denver, and Salt Lake City.

For many participants in the CRE community, any slowdown would compound concerns about looming oversupply of both residential and commercial real estate. The head of an institutional investment advisory firm says they are "paying much closer attention to supply in traditionally unconstrained markets," especially Dallas, Atlanta, Austin, and Phoenix. "We are probably relatively less attracted to the growth markets despite their fundamentals, relative to where we were last year. These were the hot markets, but we're a little concerned about what it looks like going forward."

But don't count out these markets just yet. In-migration to these markets will continue, if at a slower pace going forward, and will continue to attract a disproportionate share of the investment capital. And any "oversupply" of homes could help ease housing affordability concerns.

Concludes the head of research for an investment management firm, "We've always been about growth markets because we've always believed that population and employment growth are keys to success. And they can also cover up a lot of mistakes. So those markets are still a major focus."

8. Smarter, Fairer Cities through Infrastructure Spending

Infrastructure spending is back among the top trends in *Emerging Trends*, but this time on a more hopeful note.

New federal infrastructure spending provides the opportunity to replace and expand critical urban infrastructure to rebuild cities and spur new development—and address historical inequities.

After years of uncoordinated local efforts, the new national programs may provide the leadership needed to transform the built environment.

The title of the final trend in the 2020 edition of *Emerging Trends* captured the sorry record of federal leadership in funding critically needed infrastructure: "Washington Fumbles; States and Cities Pick Up the Ball." Noting that "decaying infrastructure is a national problem needing a national solution," our report predicted that progress "will likely be more influenced by action at the state and local levels."

At least seven "infrastructure weeks" came and went between 2017 and 2019 without any tangible movement in Washington, after which infrastructure completely fell off the agenda. In the meantime, state and local governments took the initiative with efforts destined to be more piecemeal and less coordinated than a comprehensive national program.

Three years later, the federal government finally stepped up with the Bipartisan Infrastructure Law enacted in November 2021. This $1 trillion bill provides $550 billion in new spending over five years and eclipses the $305 billion infrastructure bill that President Obama signed into law at the end of 2015. This program will be supplemented by additional infrastructure programs in the Inflation Reduction Act of 2022, as discussed in the following "Climate Change's Growing Impact on Real Estate" trend on resilience.

The main infrastructure bill encompasses a broad range of activities focused chiefly on transportation—including bridges and roads, rail and transit, ports and airports—but also provides funding for broadband internet, power, environmental remediation, and resilience, among other programs. The Inflation Reduction Act adds spending for combating climate change and building energy security.

While every program promises to touch some part of the built environment, several stand out as having especially significant impacts for cities and the potential to advance economic and environmental justice by investing in traditionally underserved communities.

Reconnecting Communities by Capping Divisive Highways

Of particular note is the "Reconnecting Communities Pilot," which provides $1 billion "for projects that remove barriers to opportunity caused by legacy infrastructure." Many highway projects (and urban renewal programs) of the 1950s and 1960s bulldozed through Black neighborhoods and other communities of color, dividing previously thriving places, displacing thousands, and destroying generational wealth. The Reconnecting Communities Pilot program will provide "dedicated funding for

planning, design, demolition, and reconstruction of street grids, parks, or other infrastructure" to reconnect these bifurcated communities. An additional $3 billion was included within the Inflation Reduction Act of 2022 furthering this initiative.

A growing "cap-and-cover" movement is already underway, but work by ULI and others show that there is a lot of work to be done and injustices to reverse. The Rondo neighborhood of St. Paul, Minnesota, is one glaring example. As explained in ULI's Restorative Development: Infrastructure and Land Use Exchange forum held in February 2022, Rondo was a vibrant African American community with a thriving business district before Interstate 94 was constructed through the heart of the neighborhood. According to a leader of the reconnect effort, the community then lost 61 percent of its population and almost half of its homeownership between 1950 and 1980. As he concludes: "That's a pretty devastating gutting of a community."

Minnesota plans to cover part of the highway and build a new 24-acre neighborhood on top of it, including parks and other cultural amenities, in addition to affordable housing and a new business corridor. St. Paul already has received a $1.4 million grant to "develop a comprehensive transportation plan for the Rondo neighborhood to address safety, equity, and quality of life concerns."

The Reconnecting Communities Pilot program may help this project and other similar ones move forward:

> The Texas Department of Transportation is building a deck above a sunken portion of I-10 separating downtown and uptown El Paso to create, as described in the federal grant application, "amenities such as green space, public gathering space, and entertainment venues."
>
> A community group called Loving the Bronx supports capping the Cross-Bronx Expressway, which runs through dense neighborhoods in the South Bronx, with the goals of improving local air quality and providing new land for development projects.
>
> In Seattle, Lid-5 activists are advocating for the city government to cover and add green space over I-5.
>
> Reconnect Austin is pushing the city of Austin to bury I-35 through the urban core of Austin and dedicate the new land as public space and developable land.
>
> Many projects of note are either in the works or being actively discussed, including those in Syracuse, New York; Richmond, Virginia; and Houston.

Expanding Broadband Access

Another program from the Bipartisan Infrastructure Law with significant potential impact on communities and the CRE industry is the $65 billion to expand broadband access to the 30 million Americans living in areas without broadband infrastructure. Recognizing the relatively high cost of service in the United States, the program also seeks to "lower prices for internet service and help close the digital divide, so that more Americans can afford internet access."

The importance of this initiative was anticipated in ULI's 2021 report *Broadband and Real Estate: Understanding the Opportunity*: "Availability of widespread, high-speed broadband networks already has a wide variety of benefits to the real estate industry, communities, and individuals. . . . Increasing mobility opportunities can present potential value that real estate owners and managers can harness for their buildings. Such opportunities include repurposed or reduced parking facilities, denser projects, and higher rates of return."

Expanding broadband access to underserved communities is also critical to increasing opportunities for employees in more communities to work from home, as we discussed in our "… Still, We've Changed Some" trend above.

Transportation Infrastructure

We noted in a prior trend that many hypergrowth markets have been unable to keep up with building critical infrastructure, particularly that which is related to transportation. The infrastructure funding bill will provide almost $600 billion in transportation funding. More than half of that will be allocated to the highway system, the largest such investment since the Interstate Highway System began construction in the 1950s.

The Institute's 2021 report *Prioritizing Effective Infrastructure-Led Development: A ULI Infrastructure Framework* highlighted the need to invest in public transportation: "Increasing access to jobs, economic opportunities, social interactions, and mobility is essential. Public transportation provides the regional framework for compact, people-centric urban development, enables significant real estate and value creation opportunities, and mitigates climate change." The new infrastructure funds more than $90 billion to modernize transit, improve accessibility, and continue existing transit programs.

Finally, the infrastructure bill provides critical funding for building environmental resilience and expanding water availability, as will be discussed in the following trend.

9. Climate Change's Growing Impact on Real Estate

> The CRE sector has an important role to play in mitigating climate change. But with climate risks growing, the real estate industry must proactively address the impacts of climate change on assets.
>
> Climate change may alter the dynamics of where people want to live and invest. In addition to the discomfort and health risks of living in ever-hotter climates, energy costs rise with temperatures, as do the risks of power outages as more strain is placed on power grids. Extended drought conditions may limit new development because authorities may limit new hookups.
>
> Many investors rely on insurance rather than capital improvements to protect their investments, but changing investor sentiment toward climate risks may force more affirmative changes.

The earth is getting hotter. The latest global climate report from the National Oceanic and Atmospheric Administration (NOAA) found that July 2022 "marked the 451st-consecutive month with temperatures above the 20th-century average. And the five warmest Julys on record have all occurred since 2016."

As a result, extreme weather and climate events are becoming more frequent and more severe. NOAA's National Centers for Environmental Information calculates that the annual number of billion-dollar events (inflation-adjusted) in the United States has been increasing rapidly in recent decades, rising from about three per year in the 1980s to over 20 in the 2020s. More disturbing is the increase in severe summer storms, excluding climate events like drought, flooding, and wildfires. The number of billion-dollar severe storms has jumped from less than one per year in the 1980s to 12 in this decade—a 15-fold increase in less than 40 years and trending further upward.

Just in the recent summer of 2022, we experienced five "once-in-a-1,000-year storms" in Dallas, Death Valley, central and southern Illinois, Kentucky, and St. Louis, which recorded the most intense rainfall in the city's history. These storms demonstrate that buildings and infrastructure are poorly equipped to withstand the changing climate—much less what might be coming.

There is still a political divide in the country about what is to blame for climate change, and what, if anything, to do about it. But there is now growing agreement about its prevalence. Fully two-thirds of Americans surveyed by the Pew Research Center in 2021 believe that extreme weather events across the United States occur more often than in the past. Close to half say that it is hitting close to home as their community has recently experienced severe weather like floods and intense storms (43 percent) or long periods of unusually hot weather (42 percent).

Last year in these pages, we highlighted the role of commercial real estate in accelerating—or potentially mitigating—climate change, in a trend we called "Climate Risks Are on Us." Despite recent calls by some CRE leaders that we should deemphasize ESG issues now as we grapple with growing economic threats, many in our industry are continuing to answer society's call to do even more to reduce our carbon footprint. But with climate risks climbing still further, this year we highlight climate's impact on us as owners, managers, and users of real property—and how our industry can proactively address the impacts of climate change on our assets.

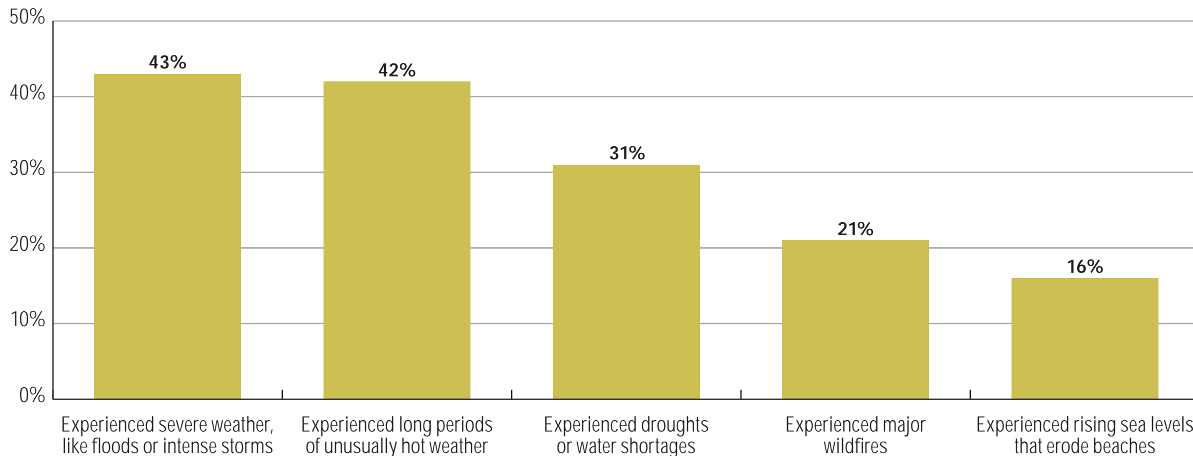
Hotter, More Expensive Summers

Several themes stand out. First, climate change may alter the dynamics of where we want to live. The hottest metro areas may soon face declining demand—and potentially an exodus—due to unbearable weather, even as households continue to migrate from colder climates to warmer metro areas overall. Large swathes of Texas and the U.S. Southwest have endured 100-degree highs almost every day this summer, with nighttime temperatures frequently not dipping below 80 degrees. And it's not confined to just the Southwest. "Heat domes" have settled over the Pacific Northwest during the past two summers, bringing heatwaves unprecedented in their length and intensity.

The built environment intensifies climate change as buildings and roads absorb and retain heat. This "heat island effect" raises not only daytime peaks but especially nighttime temperatures, which can be hazardous to humans if they cannot cool down at night. Sun Belt cities like Phoenix and Dallas are working with CRE owners to reduce heat islands by expanding the tree canopy, adding reflective coatings or vegetation to roofs, and using cool pavements to reduce the heat absorption of asphalt streets and concrete sidewalks. These approaches are important and necessary but may ultimately prove inadequate to the challenge if climate change keeps ratcheting up temperatures as expected.

Beyond the discomfort and health risks of living in ever-hotter climates, energy costs rise with temperatures, as do the risks of power outages as more strain is placed on power grids. A less obvious cost: higher temperatures and ultraviolet exposure can increase building maintenance costs. Extreme weather worsened by climate change is even exacerbating inflation as

Exhibit 1-16 **Percentage of U.S. Adults Who Say Their Community Has Experienced Weather- and Climate-Related Events in the Past 12 Months**



Source: Pew Research Center, published August 12, 2022.

Note: Based on survey conducted May 2-8, 2022. Respondents who did not give an answer are not shown.

drought and floods reduce U.S. crop yields and close factories in China as droughts force authorities to ration power. Other impacts—and strategies for addressing water scarcity—are highlighted in ULI's 2022 report *Water Wise: Strategies for Drought-Resilient Development*.

Water and Power

The combination of rising temperatures and drought—often related—may soon limit where we can build. Drought throughout much of the Southwest is prompting water authorities to cut allocations to several states as water levels in rivers and lakes fall to multidecade lows. Declining water availability could require reductions in new hookups and compromise hydroelectric power sources. States may be forced to choose between growing cities and agricultural areas. Some of the fastest-growing markets in the country—and investor favorites—are located in areas of the Sun Belt that already suffer from alarming water shortages. We are already seeing the first instances of cities pausing all new development because of drought in some western states.

Building Resilience

Climate-related programs in the Inflation Reduction Act of 2022 aim to reduce greenhouse gas emissions and could eventually begin to reverse or at least slow climate change. But improvement will come slowly, and forecasts expect temperatures to keep rising and weather to become more extreme for the foreseeable future. So how are we to adapt?

The Bipartisan Infrastructure Law highlighted in the preceding "Smarter, Fairer Cities through Infrastructure Spending" trend contains major programs specifically designed to improve the resilience of physical and natural systems. These include funding for water efficiency and drought resilience projects in eight western states and programs to increase the resilience of transportation systems. The infrastructure law also provides funding to homeowners for energy efficiency upgrades through the Department of Energy's weatherization assistance program.

Though none of these programs offers direct assistance to owners of commercial real estate, there is plenty of motivation for the CRE sector to act on its own, given the enormous potential impacts of unchecked climate change. But it can be a "hard, slow sell" to convince owners and asset managers to undertake even cost-effective physical improvements that would protect their buildings, admits the principal in a CRE investment firm specializing in improving building resilience. Because extreme weather events occur so infrequently in any one location, "the odds are low that anything will happen on your watch, especially if you're managing or holding the asset for only a few years." Thus, asset managers, who typically rotate every few years, often prefer to protect their buildings through insurance rather than upgrading them to withstand the extreme weather better but likely would be more expensive in the short term.

That calculus could change if insurance costs are allowed to rise to reflect the full risks of climate change. In many high-risk areas, insurance is subsidized, or insurers are limited in what

they can charge, creating a "moral hazard" that encourages owners to locate in risky regions and not undertake sensible physical improvements. "I would prefer that they bear the price of that amenity and location fully, and they don't," says one academic. "But I think we're moving in that direction. When the insurance costs reflect the reality, and when the mortgage risks reflect the reality, the market will start to work."

That would be a step forward but not the total solution. In ULI's 2022 report *Enhancing Resilience through Neighborhood-Scale Strategies*, the global head of ESG strategy for an investment management firm explained that insurance is not a substitute for building resilience: "Now investors understand the need to model climate risk over a longer period of time. Insurance can protect us against damage loss but not demographic or investor sentiment changes."

It's a race against time—and climate change.

10. Action through Regulation?

Pressures for greater ESG disclosure by real estate owners and investors are intensifying due to efforts both from industry groups like NCREIF and PREA and from government regulation by the SEC.

As shelter costs increasingly strain household budgets, state and local governments are resorting to regulation to address affordability, including various types of rent control and vacancy taxes.

While building owners and developers benefit from various government incentives, the industry faces an increasingly challenging set of environmental and economic regulations. Will certain regulations end up being counterproductive?

Preceding trends highlighted several areas where private markets have been slow to fix mounting problems that the property sector has played a central role in creating, notably climate change and housing affordability. Industry groups are calling for collective voluntary action, which is a start. But, if the growing number of regulations being considered at the federal, state, and local levels is any indication, governments are getting impatient about the limited progress.

ESG Disclosures

Pressures for greater ESG disclosure by real estate owners and investors are intensifying. In October 2021, the two primary industry groups for institutional investors—the National Council of Real Estate Investment Fiduciaries (NCREIF) and the Pension Real Estate Association (PREA)—jointly released their ESG *Principles of Reporting for Private Real Estate* handbook for reporting ESG factors, as well as diversity, equity, and inclusion (DEI), for private real estate investment managers.

The handbook emphasizes that "[t]he principles presented . . . are best practices only and should not be considered requirements in order to claim compliance with the Reporting Standards" (of how member firms report their performance and portfolios to their clients and the industry). Nonetheless, these principles likely will be widely adopted by institutional investors, given NCREIF's and PREA's influence in their respective communities. The NCREIF/PREA guidance joins a growing list of standards and tools being developed to help investors and regulators in their quest to accelerate decarbonization in the built environment and promote broader ESG adoption by the private sector.

Moreover, the impact of this greater disclosure could be felt more widely throughout the real estate industry due to the market size of pension funds and other institutional investors. "Some of our clients really resist adapting the ESG protocols, but I think the capital demands it," notes one senior adviser to institutional funds.

As investors increasingly demand newer, greener, and more energy-efficient buildings, particularly offices—as noted in our "Give Me Quality, Give Me Niche" trend—older "brown" buildings will see their values discounted, and their owners have trouble selling them. As the head of U.S. real estate for a global private-equity firm explains, "You can't sell the building to a major core fund, you can't sell the building to [major insurance firms] or other major players if the building is not sustainable. The REITs won't buy your building."

Even if investor demand increasingly pushes the market to more sustainable buildings, some investors believe that a downturn might slow progress for a while. Says a senior leader of one global development firm, "That's going to keep marching on, there's no doubt about it. And it needs to. But in the near term, I think it's definitely going to be overshadowed by the economic reality of the U.S."

Owners may not have a choice, especially in markets implementing their climate action plans. Buildings in several leading markets will need to achieve energy efficiency targets and greenhouse gas emission limits as early as 2024 or face significant fines. The climate impact of buildings will likely become more transparent across the United States if the Securities and Exchange Commission (SEC) has its way. The SEC proposed

new ESG disclosure regulations in May 2022. The amendments to rules and reporting forms aim "to promote consistent, comparable, and reliable information for investors concerning funds' and advisers' incorporation of . . . ESG factors." In simple terms: greater disclosure and transparency, as well as enhanced consistency in reporting that go beyond what industry self-regulation calls for. This would include reporting on greenhouse gas emissions and the portfolio's carbon footprint, as well as the climate risks an owner or investor may have in their real estate portfolio.

Not all investors are covered, but as with the NCREIF/PREA reporting principles, the SEC regulations could have broader impact given the market size of the entities that are specifically covered. The proposed changes would apply to "registered investment advisers, advisers exempt from registration, registered investment companies, and business development companies." These would include REITs, with additional reporting requirements for funds specializing in ESG investing, such as green building funds. Indeed, the SEC and European Union regulators are already launching investigations into companies accused of misrepresenting their environmental impacts in funds claimed to be "green."

Still, these are only draft regulations. Indeed, some question whether the SEC has the authority to implement these rules, especially given the recent U.S. Supreme Court decision regarding the EPA's authority to regulate climate change. Regardless, few doubt that more regulation is coming, including at the local level. Several investors we interviewed expressed concern about being able to comply with New York City's new Local Law 97, which mandates that "most buildings over 25,000 square feet will be required to meet new energy efficiency and greenhouse gas emissions limits by 2024."

To be fair, building owners and developers may also leverage a host of new incentives from federal, state, and local governments, including billions of dollars in the Inflation Reduction Act, to help buildings hit these aggressive climate goals. But these "carrots" only underscore that the industry faces an increasingly challenging set of environmental regulations.

ESG Disclosures So Far

A recent survey conducted by RCLCO shows both the progress and potential for greater industry participation. As of June 2022, 38 percent of real estate companies report having policies in place to integrate ESG considerations into the investment process. But adoption varies widely by type of firm, with generally much higher levels from public companies (61 percent) and institutional investors (55 percent) than private companies (23 percent).

ESG disclosure will be costly, requiring not only capital improvements in buildings to reduce carbon impacts but also the systems to measure them and the staff to comply with the proliferation of reporting requirements. Those costs could favor larger, better-capitalized investors, leading to more industry consolidation. Concludes one senior investment banker, "It's clear there's going to have to be far more disclosure around carbon footprints and related issues, which is going to inure to the benefit of larger, more established REITs and market participants who can meet that disclosure obligation and have the resources to address the carbon offsets or other measures."

Regulation to Address Housing Affordability and Blight

Rent control. "Regulation is something that should be top of mind for a lot of property owners. And we're starting to see significantly more rent control laws being passed at the local and municipal levels. That does have trickle-down impacts to individual property owners." That warning comes from the head of advisory services for a real estate data analytics firm.

As shelter costs increasingly strain household budgets, some state and local governments are resorting to regulation to address affordability. This takes two primary forms: limits on how much landlords can increase rents and imposing costs on owners who keep units empty. At present, only California and Oregon, plus the District of Columbia, have statewide rent control, although about 25 municipalities in California impose their own laws. Four other states—Maine, Maryland, New Jersey, and New York—allow some or all local governments to enact local own regulations but have no statewide law. Most other states either expressly preempt rent control or limit home rules that would allow it.

That could soon change, however. As of spring 2022, at least 17 states were considering some form of rent control legislation, according to National Multifamily Housing Council tracking. The states span all regions of the country and both political parties, demonstrating the breadth of frustration with rising rents. Several of these initiatives already failed to pass before the legislatures adjourned for the session. But the volume and range of these proposals show just how widespread the concerns are, and some of these initiatives could be revived if rents do not cool soon.

In addition, many cities are considering enacting their own rent laws. In November 2021, voters in St. Paul, Minnesota, passed what some call the strictest rent control in the United States, limiting annual rent increases to 3 percent with no adjustment

for inflation, no exemption for new properties, no allowances for capital expenditures, and no vacancy decontrol for move-outs. Cities in both Massachusetts (Boston) and Florida (Miami and Tampa) are considering either new laws or emergency declarations. However, both states prohibit local rent control, and both governors opposed relaxing state control, reducing the likelihood of ever being enacted.

Vacancy taxes. Vacancy taxes can take various forms, but the goal is to increase the effective supply of housing by imposing costs on landlords who keep housing units vacant. Another goal, which can also be applied to commercial property, is to address blight by encouraging property owners to put their buildings to productive use. For example, Washington, D.C., imposes a tax on vacant buildings of $5 per $100 of assessed value, while "blighted" properties are taxed at $10 per $100 of value.

Vancouver, British Columbia, is believed to be the first city in North America to impose a vacancy tax, enacted in 2017 to combat widespread pied-à-terre ownership. While the tax did raise funds for affordable housing initiatives, skeptics point out that the tax apparently did not cause empty condominiums to be converted into active rental units.

Oakland, California, enacted a flat vacant property tax of $6,000 tax on houses and nonresidential properties and $3,000 on condominium units "in use less than fifty days in a calendar year." Berkeley and San Francisco are considering adopting versions, while several other cities have considered them in recent years

Inclusive and Equitable Growth: The Emergence of Impact Investing within Institutional Real Estate

In recent years, institutional investors and corporations have announced billions of dollars' worth of capital commitments targeted at addressing socioeconomic inequity, particularly with respect to bridging the racial wealth gap. At the same time, there are very few announcements detailing if and how those commitments have been met.

It appears that many of these corporations and investors are struggling with how, where, and with whom to deploy that capital; industry leaders have not yet coalesced around solutions to address inequity that are innovative, replicable, *and* scalable.

The 1977 Community Reinvestment Act initiated a wave of investment targeted at meeting some of the basic needs of low- and moderate-income communities. The passage of the act was an important step aimed at reversing years of intentional disinvestment caused by practices such as redlining and blockbusting.

In my view, it was a recognition that capital should be deliberately directed to address the needs of low-income individuals: all members of society deserve to be affordably housed, have enough food to eat, and have access to employment that allows them to address at least their most basic needs. It is critical that society continue to support its most vulnerable.

It is now equally critical, however, that new capital deployment strategies be developed to support much more than simple sufficiency; they need to be tailored toward more equitable societal outcomes and the economic mobility that is required to achieve them. Scalable solutions must be created that allow more people to thrive, not just survive.

The distribution of that prosperity within America has become increasingly inequitable, and socioeconomic mobility has become less and less attainable for Americans in the lower and middle classes. Research from McKinsey found that, despite the longest economic expansion in U.S. history through much of the 2010s, the Gini index (a measure that represents the income inequality or the wealth inequality within a nation or group) reached 0.485 in 2018—the most inequitable level of income distribution recorded in the United States since the Census Bureau began tracking the metric in 1947, and the highest level of income inequality among Group of Seven countries. In terms of wealth inequality, the top 1 percent of Americans hold nearly 40 percent of the nation's net worth as of 2019, the highest on record since the Federal Reserve began collecting survey data in 1989.

Research from Opportunity Insights comparing children's household incomes at age 30 to those of their parents at the same age shows that absolute mobility has declined precipitously. Ninety percent of people born in the 1940s out-earned

but either rejected them or not yet voted on them. Most are in California (such as San Diego, Long Beach, West Hollywood, and Los Angeles), but the list also includes Honolulu and New York City.

San Francisco also enacted a commercial vacancy tax on vacant retail stores in 2020 but suspended implementation for almost two years due to the COVID-19 pandemic. The measure finally took effect in 2022 for commercial space vacant for more than 182 days in a calendar year. The tax equates to an average annual levy of $6,250 for a typical store with a width of 25 feet, rising to $25,000 by year three. Local press accounts find that the tax is very unpopular with landlords, who also complain about the city's slow and expensive permitting process, but it is too soon to gauge the program's effectiveness.

It is unclear how many local or state governments will follow these early adopters, but more are sure to follow, particularly if housing affordability does not improve.

Several industry leaders we interviewed noted that Washington's divided political climate was unlikely to yield any significant changes to the essential tax structures and accounting regulations that govern commercial real estate. However, both federal and local governments seem more willing to push the industry to address social issues related to its core function, especially climate change and housing affordability.

their parents by age 30, while only 50 percent of people born in the 1980s did the same. The decrease in absolute mobility has affected people in all socioeconomic classes, with lower-income Americans being affected most acutely.

A generational wealth gap has emerged. Wealth is now increasingly held in fewer hands, with millennials and Black Americans disproportionately affected by this rising inequality. According to research from the St. Louis Federal Reserve Bank. in 2016, older Americans had more than 12 times as much wealth as younger families, up from 7.5 times the wealth of younger families in 1989. The top 10 percent of families ranked by household wealth owned 77 percent of America's wealth in 2016, while the bottom 50 percent owned only 1 percent. White families owned 89 percent of America's wealth in 2016, while Black and Hispanic families owned about 3 percent each.

Millennials now represent the largest segment of the U.S. workforce—paradoxically its most diverse, most educated, and yet least financially stable cohort. Their ascendance as talent and, increasingly, leadership within the workforce will likely lead to a heightened focus on finding solutions to these disparities. Their voices have been amplified by social media, and they are increasingly holding corporations, investors, and governments more accountable for mitigating negative externalities that have been imposed on society.

Many recognize certain risks that come with wealth and income disparity; growth potential may be disrupted by social unrest and political instability that often accompany inequality as those on the bottom see less opportunity available to them.

A more promising, evolving school of thought—impact investing—shifts focus away from simply limiting downside toward creating upside. While the definition of *impact* will vary by investor, this deliberately inclusive form of capitalism focuses on unlocking the potential of people and places that have been historically overlooked and underserved. Looking through a dual lens of purpose and profit, measurable impact and equitable outcomes are central to this investment strategy. This stands in stark contrast to how investors have often viewed social responsibility in the past—as a tangential and philanthropic "nice to have," but not a "must-have."

Increased transparency has contributed to the evolution of impact investing. The increases in both regulatorily mandated and stakeholder-driven environmental, social, and governance (ESG) disclosures for public companies and pension funds have required that investors spend more time considering their negative and positive impacts on society and demanding that their investment managers do the same.

Analyses of ESG-related key performance indicators alongside their returns can now disabuse people of the notion that purpose-driven investing must equate with concessionary returns. Research now suggests that a company's improvement on material industry-specific ESG measures is predictive of significant future financial outperformance relative to its competitive set.

Continued next page.

Furthermore, big data and social media also are helping shed light on strategies that may contribute to more equitable outcomes. For real estate investors, there now is a better understanding of the characteristics of places that are correlated with higher rates of upward mobility. Among the most notable, Harvard Think Tank Opportunity Insights has used anonymized census data, tax records, and most recently Facebook data to analyze the characteristics of "high opportunity neighborhoods." They found a direct link between economic connectedness (one form of social capital) and higher levels of socioeconomic mobility for lower-income individuals. It is important to highlight that the research found that simple coexistence did not correlate with mobility; the correlation was with true connectedness (i.e., meaningful, ongoing interactions and friendships) across socioeconomic class lines. The built environment can fundamentally support or, conversely, limit that sense of connectedness.

A sustainable and scalable solution for bridging wealth gaps through increased social mobility will require increased participation from the private sector, in tandem with the cooperation of the public and social sectors. Recognizing that government funding is often inflexible, inefficient to obtain, and insufficient, it is critical that state, local, and federal governments continue to focus on lowering the cost of capital for private investments in low- and moderate-income communities. Institutional investors will likely need to be further incentivized to increase their allocations outside the major metropolitan areas that have traditionally been the primary beneficiaries of institutional capital flows.

Public policy that deconcentrates poverty, reduces barriers to the creation of affordable and attainable housing, and incentivizes the development of mixed-income neighborhoods with deliberate infusions of social capital warrants additional consideration. The Economic Opportunity Coalition (EOC) recently announced by Vice President Kamala Harris's office is a positive step toward coalescing the public and private sectors to deploy billions of dollars' worth of investment into underserved communities. Notably, the EOC "has committed more than $3 billion of investments into CDFIs [community development financial institutions] and MDIs [minority depository institutions], including $250 million in long-term, low-interest debt and over $70 million in grants to CDFIs and MDIs."

The social sector will continue to play a leading role as well, particularly as more foundations and endowments broaden the scope of their charitable and investment mandates. As reported by Barron's, some have even shifted from strictly granting plus or minus 5 percent of annual spending to models in which they allocate increasingly larger percentages of their assets under management with managers from diverse backgrounds and/or with strategies that are focused on bridging wealth and gender gaps.

Impact investing can increasingly be informed by data-driven, evidence-based approaches as a result of the growth of big data and social science research, but it will need to be complemented by qualitative input from local, community-based stakeholders who will be essential in co-creating sustainable solutions to reducing inequity. The importance of intentional co-creation cannot be emphasized enough given that only 1 percent of real estate assets under management are deployed by minority-led real estate firms and only 2 percent of real estate development companies are led by African Americans. Those investors who may be best positioned to co-create sustainable solutions are still typically unable to access the capital necessary to scale those solutions. It matters where capital is deployed, how it is deployed, and with whom it is deployed.

A new generation of impact investors within the real estate industry is innovating holistic approaches to addressing inequity. Their impact frameworks and investment strategies reinforce one another. Investments of financial capital in low- and moderate-income neighborhoods complemented by people-focused investments empower individuals to realize their potential and, in so doing, further contribute to society.

And beyond the moral imperative for investing in social and human capital lies a clear economic rationale. These investors are using data to demonstrate that supporting the financial, physical, and mental well-being of their tenants enhances their ability to deliver market-rate, risk-adjusted returns. Consciously inclusive capitalism has the potential to turn vicious cycles of disinvestment that leave many people behind into virtuous cycles of inclusive growth that create a larger pie for all. Mission-driven, data-informed innovators are leading the way to a future when we can all do well by doing good.

—Onay Payne is the managing director of real estate, Lafayette Square Holding Company, LLC.

The Opportunities and Challenges of Climate Risk Analytics

It is clear that real estate investors and developers can no longer avoid risk related to climate change; in 2021 alone, the U.S. National Oceanic and Atmospheric Administration identified 18 separate billion-dollar disasters in the United States. Many of these types of events—and the material risk they pose to the real estate industry—are unavoidable in the near term, irrespective of the emissions scenario. As extreme weather events continue to grow in frequency and intensity, the real estate industry must protect the long-term value of their assets.

Climate risk is typically categorized into two types: physical risks and transition risks. While both are critical to address, acute (e.g., floods and hurricanes) and chronic (e.g., sea-level rise) physical risks present a special concern for the real estate industry given the geographically stationary nature of most assets.

An array of climate analytics data, software, and consulting services has emerged in response to the changing climate and the attendant shifts in policy frameworks, regulatory environment, and growth in investor focus on environmental, social, and governance (ESG) issues. These data providers offer a wider range of commercialized science applications designed to help institutional real estate managers identify, measure, and describe physical risk at the asset and portfolio scales. While these tools offer an opportunity to evaluate current and future physical risk; the process by which investors integrate the information into investment decisions is currently opaque.

The Challenge of Climate Risk Analytics

Differences in climate risk analytics providers' input data and methodology for estimating risk can make it difficult to compare results of analyses. For instance, within their product offerings, these firms often create summary metrics that aggregate the risk of multiple individual hazards. When aggregated, the weighting factors and hazards included vary by provider. Likewise, when calculating risk, providers may or may not include government, municipal, or asset-level risk mitigation considerations.

Some providers, in addition to determining the likelihood of physical risk to assets, also calculate value-at-risk (VaR) to assets, where VaR represents the expected financial loss stemming from an event. Providers that offer a VaR measure tend to introduce further variation in outputs. This is due to the differences in how providers source the "value" of VaR.

Variations across Providers among Overall Physical Risk

Asset	State	Vendor A	Vendor B	Vendor C
A	CA	High	Very low	Low
B	DC	Medium	Very low	Low
C	FL	Low	Medium	Very low
D	IL	Medium	Very low	High
E	NY	Very high	Low	Medium
F	TX	Medium	Very low	Low
G	VA	Medium	Very low	None

This figure from an institutional real estate manager depicts a set of aggregate risk scores generated by three different climate risk analytics providers (vendors A, B, and C) for assets (A to G), demonstrating the challenge of translating complex climate science into business decisions.

Considerations might include market value, the assumed percentage change in value, capital repair estimates, replacement cost, assumed business interruption loss, or assumed mitigation costs. Indirect considerations, such as ownership structure, structure of the capital stack, lease considerations, and insured amount, may or may not be factored in.

Needless to say, it is easy to see why a wide variation in prediction patterns is prevalent across providers.

Improving Decision-Making with Climate Risk Analytics

To overcome these challenges of variability between climate risk analytics providers' outputs, it is necessary for institutional real estate managers to carefully articulate their use case needs—specifically regarding valuation and value-at-risk. The climate risk analytics provider community can, in turn, benefit from sharing more about their approaches and the strengths and limits of models and physical risk data. To the extent that these conversations can be continuous and earnest, they will help guide both industries forward.

For more information on how to choose, use, and better understand climate risk analytics, visit ULI's Knowledge Finder site.

—ULI Urban Resilience Program

Emerging Proptech Developments

The 2022 Mid-Year Global PropTech Confidence Index shows that confidence in proptech, as an industry, is at an all-time low for both investors and founders. This latest sentiment level is an abrupt departure from record-high confidence levels in 2021, following years of unprecedented growth in the industry, and is in keeping with 2022's broader sentiment shift in the capital markets.

Investor confidence has declined considerably, measuring 5.8 out of 10, down from 9.3 in midyear 2021, the lowest level since we began the index in 2016. According to KBW PropTech Pulse, proptech firms' enterprise value-to-sales multiples were down 40 percent for incumbents and 75 percent for new entrants since the market's fourth quarter 2021 peak. Transaction volume in the late-stage venture market has declined as some of the most active investors during the recent bull run—nontraditional and crossover investors—exited or meaningfully slowed their deal pace amid well-publicized losses and continued market volatility.

Doom and gloom aside, there are favorable tailwinds for proptech. Commercial adoption of software and hardware technology is at an all-time high and overall revenue for enterprise software continues to grow quickly. As real estate owners, operators, and developers struggle with increasingly challenging environments of their own, many believe that technology can provide an opportunity for revenue generation and cost savings.

The real estate recession during the Global Financial Crisis of 2007–2010 saw some of the fastest growth rates for revenue of property management software systems as the recession forced chief financial officers to embrace technology as a means to drive efficiency. It is possible that this trend will only accelerate during the current environment, as technological efficiency compounds over time. In fact, many startups have experienced record levels of revenue growth and margin expansion in the second and third quarters of 2022 despite the challenging financing environment.

Only time will tell how long it will take for confidence to rebound; and while these metrics reflect the current mood of the industry, they by no means indicate an industry beyond repair. This economy—record-low unemployment, runaway inflation, an inverted yield curve, and strong customer sentiment included—presents the opportunity to adapt and share best practices across asset types, sectors, and geographies. It encourages founders to move toward greater capital efficiency and gives investors a new lens on how to make meaningful investments.

As the real estate market continues to evolve, technology will play an increasingly important role. In this section, we will cover five emerging trends that are fueling new growth and innovation in the proptech industry moving into 2023:

1. Investor and Regulatory Pressures Driving Increased Focus on ESG Solutions

The global recognition of the climate crisis has led to over 70 countries setting net zero commitments as well as proposing and passing key legislation to meet these targets. In addition to environmental pressures, a number of prominent social equity movements have catalyzed a shift towards the public and private sectors including nonfinancial-related disclosures, such as emissions and diversity data, into their reporting. Firms are actively searching for an effective way to collect and share data related to their pursuit. The real estate industry is no exception to these shifting pressures, and it faces heavy scrutiny as a significant negative contributor to the environment.

An initial step for real estate companies with ESG targets is to establish a baseline and measurement framework to map any future improvements against. A selection of relevant benchmarks include asset- and portfolio-level energy, water, and waste data. Several companies have emerged as potential leading solutions for reporting on such real estate ESG data. After data collection is completed, real estate owners and/or operators can take action to decarbonize individual assets or entire portfolios. This solution set is deemed "climate tech" and has a critical part to play in decarbonizing the global economy since buildings account for about 33 percent of global CO_2 emissions, based on a report from the IEA. Energy and HVAC optimization, water and waste management, and renewable energy sources help address emissions throughout the building life cycle.

2. Increased Adoption of New Construction Technology Solutions

The construction industry is facing a series of intertwined pressures—a worsening shortage of skilled labor, volatile material prices, evolving contracting structures—that are

As proptech internationalizes, local solutions emerge, often adapting models pioneered in more mature markets, and established solutions expand more quickly into new geographies. As this happens with greater frequency, best practices for cross-border expansion surface. The top four drivers of cross-border business success include the following: 1) establishing a local presence (people and office); 2) building a local ecosystem (network of "influencers"), whether that be a champion customer, investors, and/or local brokers and advisers; 3) tailoring the business model, including performing a cost/benefit analysis for the new region, assessing local competitors, and developing a region-specific go-to-market plan; and 4) localizing the product including user interface, workflows, language, currency, data sovereignty, and security, to name a few.

—Maureen Waters, founder of Metaprop

Metaverse Poised to Help Shape the Future of Real Estate

Business leaders are closely monitoring the potential impact on the real estate industry of the metaverse—a digital platform that may profoundly change how businesses and consumers interact with products, services and each other. Metaverse properties, like any other type of real estate, can be bought, sold, purchased and leased. This could open up real estate investing to a new pool of investors.

Real-world activities such as conferences, trade shows, exhibitions, weddings, sporting events, and other social gatherings could all be enhanced with the metaverse. Thus far, no one is predicting that the metaverse will replace brick-and-mortar properties, but the platform could, down the road, affect how people interact with physical locations.

One of the biggest areas that the metaverse could affect is the workplace. The metaverse can enhance collaboration, complement the physical office, and improve the overall workplace experience at a time when more workers are demanding flexible work arrangements. The metaverse could also be useful in helping firms build their employees' professional skills at a time when everyone is hunting for employees.

Like any new technology, the metaverse has potential risks of which companies should be wary. Among them are data privacy and cybersecurity risks. As firms pursue applications, they should conduct a thorough assessment of their organizations' vulnerabilities to the metaverse and how to manage them. For example, metaverse real estate buyers and sellers are unlicensed virtual brokers and property managers who are not required to obtain real estate licenses. Companies will need to vet potential partners and work with someone they trust as they outline a long-term plan.

—PwC

Property Type Outlook

"We don't see signi cant sales of assets taking place, but we do see a lot more choosiness, pickiness, selectivity when it comes to new opportunities."

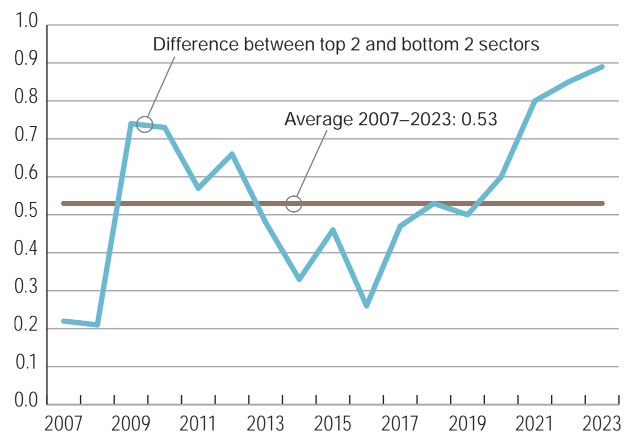
Real estate capital markets are still open for business. Investors are still buying, lenders are still lending, and no one seems to be panicking just yet. But everyone is being more careful about which deals they do until there is more market clarity.

Reflecting the more cautious mood, the average rating for all property types together in our *Emerging Trends* survey fell more this year than in any year since the GFC. But that overall trend masks diverse underlying dynamics. Though the rating fell for 15 of the 25 property subsectors, they rose for the other 10, so sectoral preferences are moving in different directions, even if the general mood is less exuberant this year.

In this environment of economic and market uncertainty, investors seek properties with the strongest operating performance while shunning weaker sectors viewed as riskier. This flight to safety is shown in the nearby graph, as "investment prospect" ratings for the top two major property sectors have been separating from those for the bottom two sectors, meaning that investors are more selective. The trend for "development prospects" shows a comparable widening spread. In fact, the gap between the preferred sectors and shunned sectors is wider now than it has been for at least 15 years, which suggests that investors perceive a narrowing range of compelling market opportunities.

The industrial/distribution sector has again come out on top of the major property types this year, followed closely by multifamily housing. These two property sectors have ranked at or near the top of the *Emerging Trends* surveys almost every year going back to before the global financial crisis of 2008–2009, but the margin of preference for them over other property sectors has been increasing steadily for six straight years.

Exhibit 2-1 **Rating Spread between *Emerging Trends* Top Two and Bottom Two Property Types, 2007–2023**



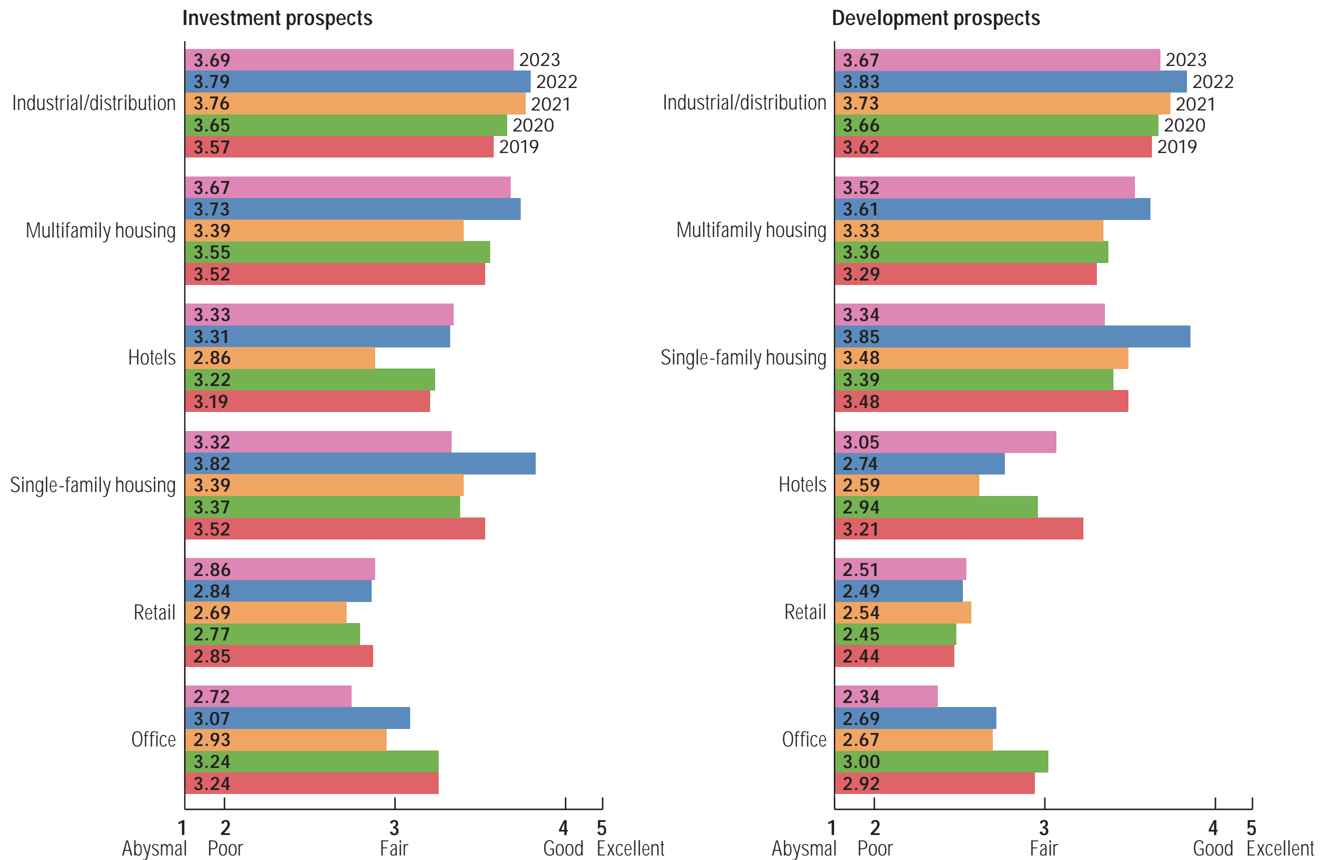
Source: *Emerging Trends in Real Estate* annual surveys; compiled by Nelson Economics.

Note: Based on "Investment Prospects." Includes industrial/distribution, multifamily housing, hotel, office, and retail for all years, plus single-family housing from 2016 onward.

On the other hand, office and retail remain out of favor with survey respondents. Office actually displaced retail as the lowest-ranked property sector this year. Retail had registered the lowest ranking of any property type for over a decade but seems to have at least stabilized, while the future for the office sector is uncertain at best.

In between these two extremes are the hotel and single-family housing sectors in a virtual tie, though their fortunes have reversed in the last year. Interest in hotels rose more over the last year than any other major property type as tourists—if not business travelers—returned to the roads and airways. By contrast, prospects fell for housing as rising mortgage rates have cooled buyer interest in new homes.

Exhibit 2-2 **Prospects for Major Commercial Property Types, 2019–2023**



Source: *Emerging Trends in Real Estate* surveys.

Note: Based on U.S. respondents only.

Beyond the major property types, 2023 may be known as the year that "niche" property types came into their own. Five of the six highest-rated property subtypes would be considered niche, led by workforce housing and data centers, as well as life-sciences facilities, medical office, and single-family rental housing. These sectors generally command greater returns than traditional product types due to higher cap rates. But investors also value the strong demographic tailwinds supporting these niche sectors at a time of expectations of cyclical market challenges.

Multifamily: A Bumpy Ride and a Bumper Crop

Demographics: A four-generation surge of household formation and housing preference will buoy fundamental apartment demand through and beyond 2030.

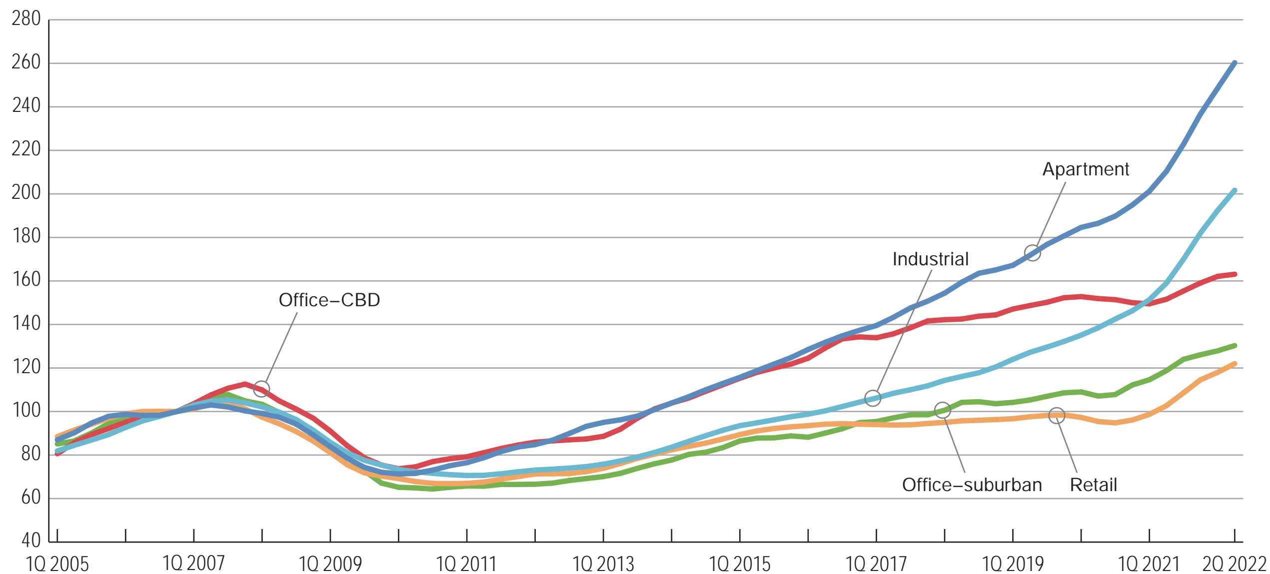
Technology impact: Exponential advances in technology, data, and artificial intelligence capability and applications will have impacts on building-cycle, property operations and management, and resident experience cost-versus-value models.

Capital liquidity: A post-pandemic-era flight to safety will continue to divert yield-seeking capital into residential rental real estate vehicles.

Policy constraint: Policymakers' ever more restrictive land use barriers will spread sharper supply-versus-demand mismatches to more cities, straining market-based solutions and sculpting evolving geographies as people seek refuge from high-cost locales.

In its broadest sense, a housing shortage in the United States describes a lack of sufficient access to income-matched apart-

Exhibit 2-3 **Commercial Property Price Index, by Sector**



Source: RCA CPPI, MSCI Real Assets.

Note: 100 = December 2006.

ment rental housing. Today, with more than one out of three of America's 44 million renter households earning less than $36,000 a year, roughly every other rental household puts more than 30 percent of their earnings toward rent. And one out of every four households spends 50 percent or more of their wages on housing. Those percentages reflect divides that deepen because not enough new apartment units are coming online.

A present that is polarized grows more so over time. For market-rate property investors, developers, owners, and managers, what lies ahead is the brightest beacon of prosperity. But for those who live and reside below the cutline of wherewithal and social mobility, the future of apartment rentals holds more questions than answers.

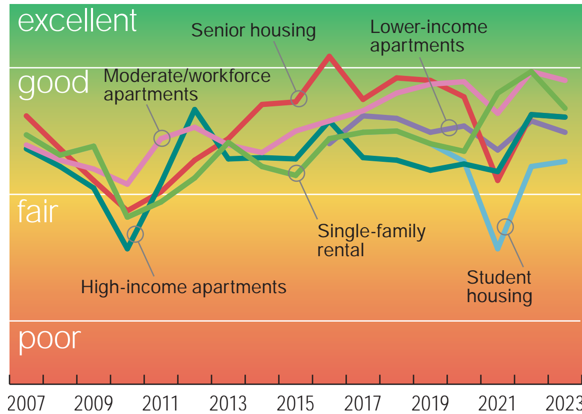
With 1.3 million new U.S. households projected each year through 2035, apartment industry trade groups—the National Multifamily Housing Council (NMHC) and the National Apartment Association—calculate that the United States needs 4.3 million newly built apartments between now and then. That level of new development would work out to 331,000 new multifamily rental units annually. This would expand the existing apartment rental stock in the United States by more than 20 percent in just over a decade. What makes this goal plausible are two strong tailwinds: household demographics and an unprecedented global embrace of apartment development by the investment community.

Still, the throes of land use policy drag on development. But beyond local policy barriers, tugging housing to its future, are a trio of macro forces—work/life balance, an urgency to stall the climate effects of global warming, and an array of technologies—in business management, livability, and construction.

Can this darling of real estate asset classes sustain its hold on global investment inflows, unleash construction's modern manufacturing era, turn the tide on local political will, and win over the hearts, minds, and pocketbooks of consumer households to pull off such a feat? If you had to guess today—with residential rental vacancies at historical lows of 6.2 percent and occupancy rates and median asking rents for vacant units at historical highs—the answer would be a cautious "yes."

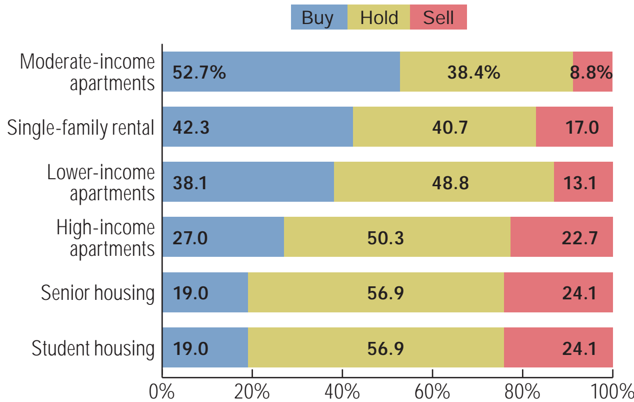
However, a gigantic hurdle stands in the way of telling fleeting trends apart from ones that will last: the pandemic and its aftermath. During that two-year span—depending on whether the data source is a private one like Apartments.com or Zillow or a public-sector one like the U.S. Bureau of Labor Statistics—rent

Exhibit 2-4 **Apartment Investment Prospect Trends**

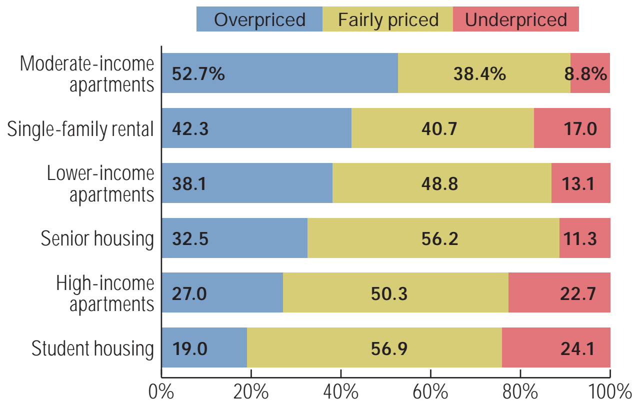


Source: *Emerging Trends in Real Estate* surveys.

Apartment Buy/Hold/Sell Recommendations



Opinion of Current Apartment Pricing



Source: *Emerging Trends in Real Estate 2023* survey.

Note: Based on U.S. respondents only.

growth spiraled upward nationally in ranges from just under 10 percent to just shy of 25 percent.

The Pandemic: This Time Is Different

With the pandemic and the cascade of economic and social policies it set off, five macro apartment industry tailwinds reached gale-force levels:

> One, there was a preexisting multigenerational avalanche of both rent-by-choice and rent-by-necessity demand for multifamily rental units.
>
> Two, demand gathered speed and sweep as people sought larger living spaces to balance remote work and household life, and more outdoor living options.
>
> Three, constrained construction of new supply, and a price run-up on the single-family for-sale front, spilled over into expanded apartment demand.
>
> Four, construction capacity to add new supply stalled as COVID aftershocks played out.
>
> Lastly, compounding the effects of these four dramatic imbalances came the rocket fuel of a global capital rotation toward de-risked assets (i.e., the safe haven of U.S. residential real estate).

Outsized demand, a sudden spike in remote work mobility, constricted supply, and floods of money with nowhere better to go—a grand slam of anomalies.

The U.S. apartment property sector—providing shelter to 37 million residents in 21.3 million structures of five or more household units, and contributing $3.4 trillion annually to the U.S. economy, according to the NMHC—morphed quickly into an investment asset class pressure cooker. Inflated property valuations, compressed cap rates, and a sea change from individual owners to medium and large-sized corporate owners became a new norm seemingly overnight.

This time period veers wildly from a steady slope of otherwise well-entrenched trends across the structural demand front. Operational modernization kicked into super-fast-forward mode toward self-service, and a robust new-development pipeline at least. According to a recent Bloomberg report, "After dipping in 2020, the number of new units authorized in multifamily buildings took off, running 37 percent higher over the past 12 months [as of June 2022] than in the same period in 2018/2019." As of August, 862,000 apartments were under construction, up 25 percent from a year ago.

At the same time, COVID's aftermath sharply defined conflicting forces—which together destine virtually all of America's newly developed and built apartment communities for a financially privileged professional class. Rather than causing an expansion of rental housing stock, however, higher-income households' come-lately demand for rental neighborhoods instead served to crowd out moderate- and lower-income households in supply-constrained areas.

"It's been virtually impossible to build affordable," says the chief executive of one of the apartment industry trade groups. "You can't build ground-up affordable because of the price of land, and the regulations that govern that, and everything the NIMBY activists rule . . . it all puts a real damper on the industry's ability to produce."

In mid-2022, yet another freshly drawn inflection point—coinciding with the devastation wrought by the Russia-Ukraine war and an aggressive U.S. monetary and fiscal tightening effort to dial down inflation—quickly spread the pain of a cost-of-living crisis across America's households. In addition, it casts a new cloud of uncertainty over the near-term outlook for market-rate residential investment.

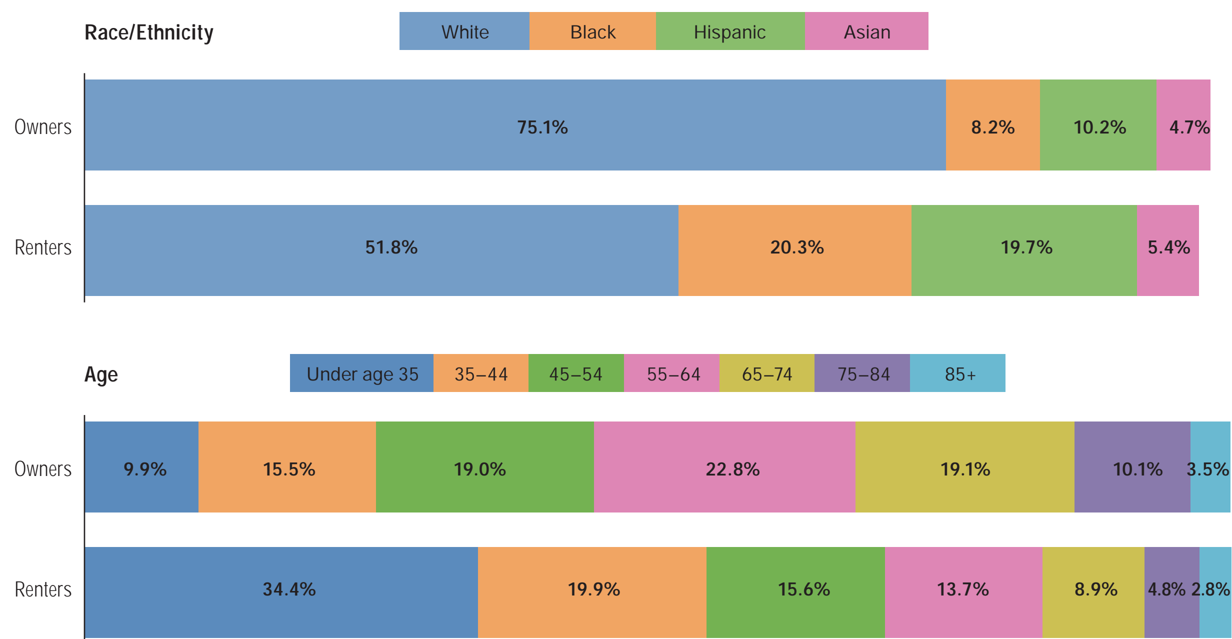
The Push and Pull of Trends: Rentership Rising

Broad-stroke household demographics point irrefutably to strong secular demand for multifamily rental apartment development. During the 2022-to-2035 stretch that lies ahead, 275 million adults —the total of all the adult-aged generational cohorts—will continue to make shelter decisions, especially as U.S. domestic migration and mobility continues at over 27 million movers (approximately 8 percent) each year. Financial factors—given that runaway costs and high mortgage interest rates will price more households out of homeownership as an option—will determine many of their decisions, as has long been the case.

What is different over the past several years has been growth in discretionary rental households, also known as rent-by-choice households. According to Harvard's Joint Center for Housing Studies (JCHS), the number of renters making at least $75,000 jumped by 48 percent over the decade ending just before the pandemic, to 11.3 million. With this increase, the share of renter households in this income group rose from 20 percent to 26 percent.

Younger, older, and more economically, racially, and culturally diverse households together will bend the economic and cultural arc of rentership upward. (American Community Survey data

Exhibit 2-5 **Owners and Renters: Select Household Characteristics**



Source: Pew Research Center analysis of U.S. Census Bureau data.

Note: Data as of 2019. Race and ethnicity categories re ect U.S. Census Bureau terminology. Black or African American adults and Asian Americans do not include Hispanics. Hispanics/Latinos are of any race.

notes that people of color represent 91 percent of total household growth between 2009 and 2019, and fully 85 percent of renter household growth in that period, according to the JCHS.)

Apartment industry leaders now recognize a blurring of behavioral lines across generations. When it comes to housing type need or preference, generational cohorts—generation Z, millennials, generation X, and empty-nester baby boomers—act more like each other than not.

"Our customer experience research shows it's more appropriate to classify people by [buying pattern] behaviors than by generational cohorts," says the CEO of one of the nation's top 20 privately held multifamily developers. "You're going to find people in gen Z and millennials and even gen Xers that have very similar behavioral components and some of that is stage of life, but not all of it is."

Consumer-driven trends—a desire for indoor/outdoor living, health and well-being features and functionality, designs for a nimble work/life balance at home, holistic home technology solutions for everything from package delivery management, to smart locks, privacy, and security systems, to self-service access to concierge and other community amenities—are becoming non-negotiable standards as technologies improve.

"Since COVID, we were able to pivot to a technology footprint for our business model that reduces reliance on people and improves the customer experience," said the CEO of a publicly traded, top-10-ranked multifamily apartment owner-developer. "So, it was an acceleration of what we've seen in other sectors to a self-service business model. The core of it is, 'How do you interact with your customer?' and if that gets disrupted or the rules of the road change, 'How quick can you adapt?'"

Capital Calculus

As COVID dynamics shifted multifamily property ownership from individual owners to business and investor enterprises, transaction volumes, multifamily loan originations, and property valuations surged. Yield-thirsty investors greenlighted a boom in new construction, with 420,000 completions estimated for 2022, up from 364,000 in 2021.

"Wall Street investment giants were raising massive amounts of capital, buying every apartment they could," says the chief executive of a top-10 multifamily real estate investment trust (REIT), speaking of the pandemic-era capital pivot into apartments. "And so, all of a sudden, they became the market themselves. When you're buying apartment portfolios at $20 [billion] or $30 billion at a clip, you're establishing what the market floor is. It was, 'We're going to buy apartments everywhere at a 3.5 or 4 capitalization rate.' They didn't differentiate one property from another."

Class A property investments align with rent-by-choice higher-income households and a swelling population of aging Americans ready to downsize and simplify. B and C value-add investments suit a growing market of younger and mid-career households stuck in the limbo of scarce supply, high prices, and high interest mortgages that will delay their becoming homeowners.

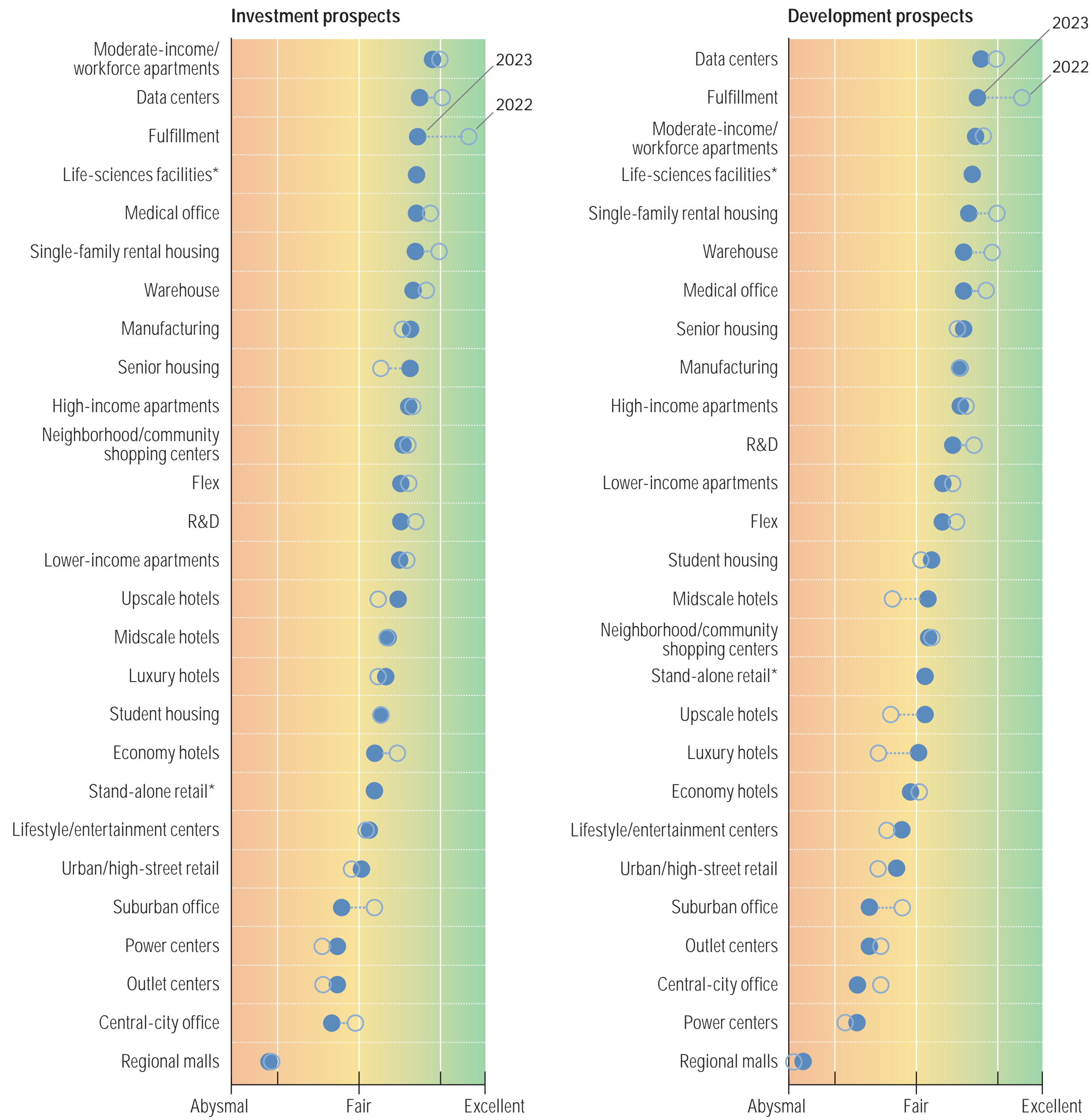
Closing a gaping, and widening, chasm in new investment and development would well serve households in the 80 to 120 percent range of area median household income levels—the wage range of many essential workers such as teachers, sanitation workers, law enforcement officers, and fire and medical first responders. Furthermore, addressing this "missing middle" household income level does not preclude the need for additions to and preservation of properties for lower-income households.

The Great Bottleneck: Local Ballot Boxes

Apartment stakeholders' number-one nemesis, blocking private-sector market solutions to deep and growing mismatches between demand and supply, is a many-headed hydra—a bevy of deep-rooted restrictive land use, permitting, and regulatory cost burdens that thwart higher-density multifamily development. On top of these longstanding challenges, a growing push for rent regulation is adding uncertainty to the market. For example, while 26 states prohibit local municipalities from implementing rent control laws, five states permit localities to enforce rent control—New York, New Jersey, California, Oregon, and Maryland—as well as Washington, D.C. Regulations being proposed throughout the country would allow landlords to boost monthly rents by no more than 2 percent to 10 percent. Arizona, Florida, Hawaii, Illinois, Kentucky, New Jersey, New York, Washington, and Massachusetts have all introduced proposals to add or expand rent control protections.

"The problem of impact fees and NIMBYism really dominates many markets and makes it too expensive to develop," the CEO of one of the nation's largest property management organizations says. "I think we're still stuck in the past. Some policymakers are not in tune. Voters who may not be well versed in these issues elect government officials who then become a huge wall to economic solutions. I don't see solutions for all this happening in my lifetime."

Exhibit 2-6 **Prospects for Commercial/Multifamily Subsectors, 2023 versus 2022**



Source: *Emerging Trends in Real Estate* surveys.

Note: Based on U.S. respondents only.

*First year in survey.

Emerging Trends in Senior Housing

Major factors influencing senior housing continue to evolve. Some trends are well known while others are developing. In 2022 and into 2023, senior housing trends include the following:

1. The growth of the sector into new product types differentiated by rate and service offerings as the sector continues to mature and evolve.
2. The articulation of a new value proposition for senior housing as the proverbial "fountain of youth" for future baby boomer residents who seek a high quality of life, wellness, longevity, and a sense of purpose.
3. The recognition that senior housing is truly part of the health care continuum.
4. The gradual recovery of occupancy from the nadir reached during COVID-19, boosted by a recent slowdown in inventory growth and strong post-pandemic demand patterns.
5. Outside exogenous factors including the national and global economies, inflation, and rising interest rates, which present new challenges for senior housing.
6. Staff recruitment and retention as well as rising expenses associated with labor shortages, insurance, food, energy, and other goods and services. Collectively, these are squeezing operator margins, investment returns, and debt issuance.
7. And, of course, U.S. demographic patterns, which are pushing greater numbers of individuals into the 75-plus cohort, creating a captive pool of potential new residents for senior housing.

These and other topics will be explored below.

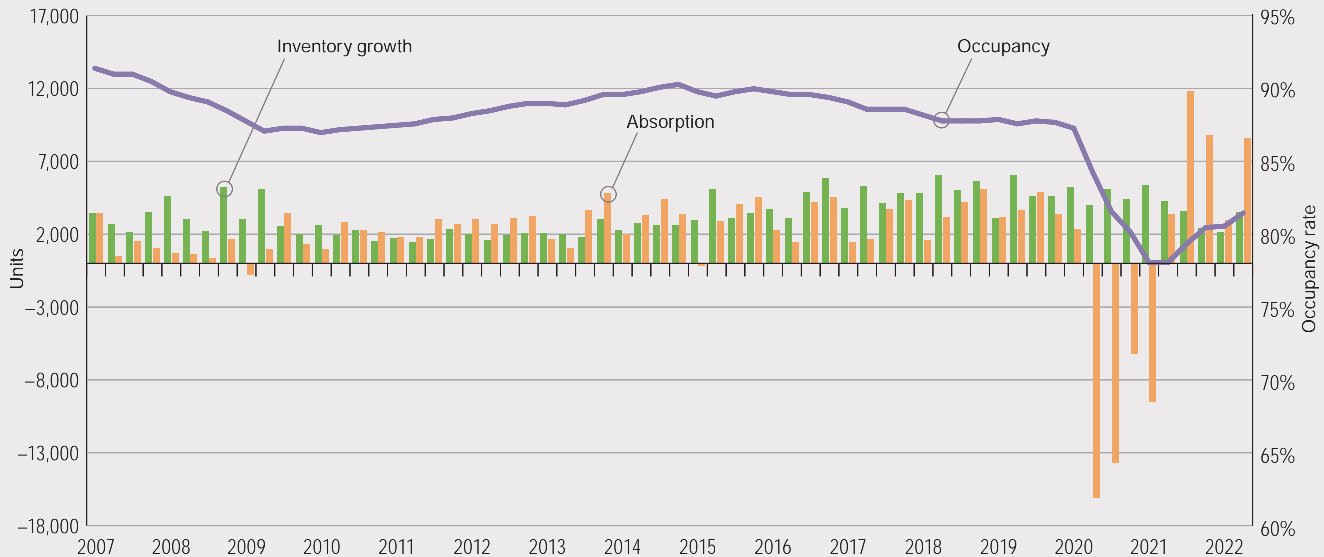
Sector maturation. It is an exciting time in the senior living industry as the sector matures and product offerings become increasingly differentiated. Much like the hotel industry, with offerings from Motel 6 to the Ritz-Carlton, operators, developers, and capital providers are increasingly segmenting the senior housing market by both price point and service offerings. "Active adult" offers amenitized rental housing for the "younger old" cohort seeking community involvement, lifestyle, purpose, and connection. The "Forgotten Middle," a term coined by the National Investment Center for Seniors Housing & Care (NIC) in its 2019 seminal study that assessed and quantified the need for more affordable housing and care options for middle-income seniors, offers care and housing options for the value-minded older adult consumer. And "ultra-luxury retirement communities" offer older adults high-end concierge lifestyle living options with wellness centers, five-star culinary options, entertainment, and A-list cultural events. And, of course, the traditional senior housing product remains, with a price point that falls between the two and offers a value proposition of security, socialization, engagement, room and board, care coordination, and lifestyle.

Wellness value proposition. Many operators increasingly recognize that senior housing provides an environment that can promote and support health and wellness, enticements to the baby boomers as they age and seek the aforementioned proverbial fountain of youth. Furthermore, the movement of many operators to incorporate wellness programs into their offerings has the ability to be a significant competitive advantage as potential residents seek communities that hold promise to improve the quality of their life through programs focused on the intellectual, physical, social, spiritual, vocational, emotional, and environmental dimensions of wellness as defined by the International Council on Active Aging.

Senior housing as part of the continuum of care. Simply stated, senior housing operators influence social determinants of health for hundreds of thousands of older Americans. Operators can help manage chronic illness and keep older adults healthy—they have 24/7 eyes on residents and can systematically monitor changes in conditions. Properly managed, this can result in fewer resident hospitalizations, reduce federal and state-level health care spending, and act as a catalyst for future business opportunities and collaborations. Further, thoughtful care intervention can provide support to the overall health care ecosystem through the support and creation of conscientious awareness and follow-through. And, once senior housing is fully recognized as part of the health care continuum, senior housing operators will be able to participate in the revenue streams associated with a capitated risk-sharing model of care.

Tailwinds for occupancy recovery. Two tailwinds support an ongoing occupancy recovery for senior housing. First, on the supply side, the number of senior housing units under construction in the second quarter of 2022 for the 31 NIC MAP Primary Markets was the fewest since 2015. And that pattern may remain in place—at least in the near term—because senior housing starts continue to linger at moderate levels and remain well below their peaks seen in the 2016–2018 period. This is because rising prices for materials and

Senior Housing Fundamentals, Primary U.S. Markets, 1Q 2007–2Q 2022



Source: NIC MAP Data Service, ©2022 National Investment Center for Seniors Housing & Care Inc. (NIC).

inflation, labor shortages in the building trade industries, and the change in Fed policy of higher interest rates are collectively affecting plans for new development; many projects increasingly do not pencil out for reasonable returns.

Second, demand is also a tailwind for an ongoing improvement in occupancy. Indeed, demand, as measured by the change in occupied inventory or net absorption, was robust in the second quarter of 2022, increasing at its strongest pace ever recorded by NIC MAP Vision except for the post-pandemic boost in demand in the last half of 2021. Since the recovery began in the second quarter of 2021, 78 percent of the units placed back on the market have been reoccupied.

As a result of these conditions, the occupancy rate for senior housing—where senior housing is defined as the combination of the majority independent living and assisted living properties—rose 0.9 percentage point during the second quarter of 2022 to 81.4 percent for the 31 NIC MAP Primary Markets. This marked the fifth consecutive quarter in which occupancy did not decline. At 81.4 percent in the second quarter, occupancy was 3.4 percentage points above its pandemic-related low of 78.0 percent recorded in the second quarter of 2021 but was 5.8 percentage points below its pre-pandemic level of 87.2 percent in the first quarter of 2020.

Outside in uencing factors. Looking ahead, several exogenous factors will influence the strength of net move-ins and demand. These include demographics (as discussed further below) as well as the following:

The broad performance of the U.S. economy,

Consumer confidence (which is very low, according to a University of Michigan survey),

The rate of inflation (the Consumer Price Index increased by 9.1 percent from year-earlier levels in June 2022, resulting in the largest increase since 1981),

Interest rates (rising as the Fed tightens monetary policy and increases the Fed funds rate),

The pace of sales for residential housing (slowing from higher mortgage interest rates),

The stock market (considered in a bear market),

Pent-up demand for senior living settings (strong through the second half of 2022),

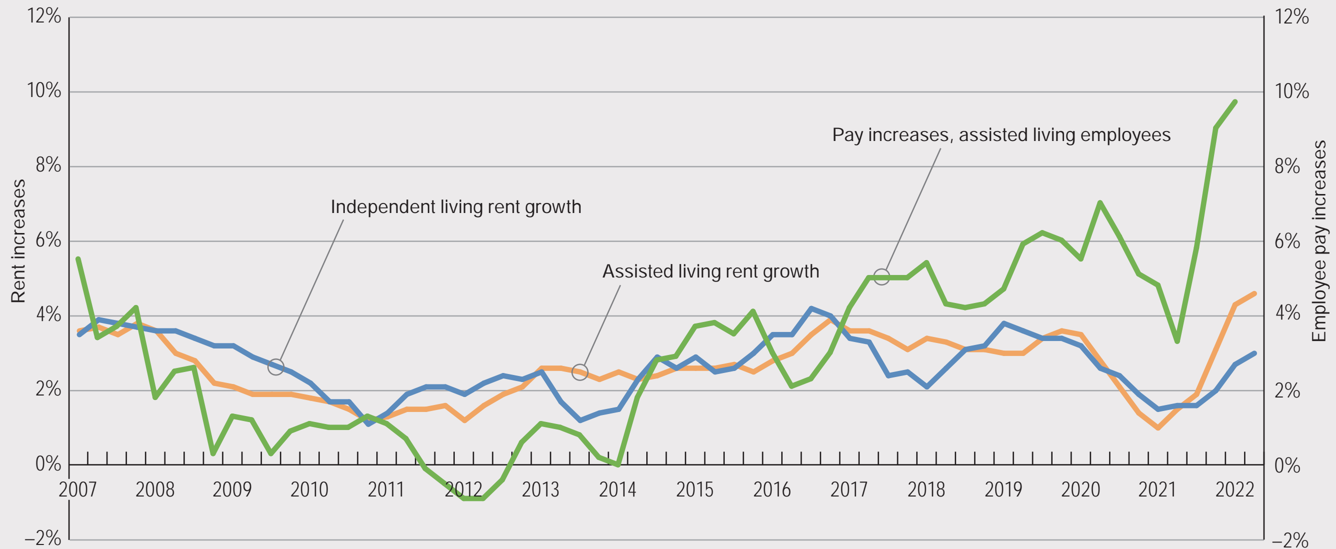
Development currently underway (moderately paced compared with history),

New competition in the form of recently opened properties since the pandemic began, and

Local market area demand and supply pressures.

Continued next page.

Senior Housing Rent Growth and Employee Pay Increases, Primary U.S. Markets, 2007–2022



Source: NIC MAP Data Service, ©2022 National Investment Center for Seniors Housing & Care Inc. (NIC).

Note: Rent growth is change in annual asking rent. For 2022, wage growth is as of rst quarter and rent growth is as of second quarter.

Staffing challenges. Of importance, labor also is a key consideration, with an increasing number of operators citing labor shortages as a potential limiting constraint on growth. In the WMRE/NIC Investor Sentiment Survey conducted in June 2022, just under half of respondents (41 percent) reported that labor shortages have caused a reduction in the number of operating units/beds in their portfolios. This is presenting challenges for operators seeking to maintain census, much less grow and expand.

Indeed, the U.S. jobless rate was low at 3.6 percent in June 2022 and was only 0.1 percentage point above the pre-pandemic level of 3.5 percent seen in February 2020. Furthermore, tight labor market conditions are pressuring wage rates up quickly, especially for workers in skilled nursing and assisted living properties.

While good for employees, low jobless rates present challenges to employers who must staff their businesses. Surveys conducted by the NIC among C-suite operators of senior housing and care properties highlight strategies to combat labor shortages and include raising wages, offering flexible work hours, higher pay frequency, improving the work environment and culture, recruitment programs comparable with those used to market to new residents, and collaboration with educational institutions.

Expenses, margins, and returns. Rising wage costs associated with temporary agency workers, overtime hours, and sick leave associated with COVID-19 have combined with dollars expended on personal protective equipment and rising insurance costs to put significant pressure on expenses. Rent growth, while rising, has not been sufficiently able to offset expense growth for many operators. As a result, net operating income has been hard to achieve for many—but certainly not for all—operators of senior housing properties.

COVID was particularly hard on the senior housing sector. Many investors had reduced their appreciation expectations for senior housing as the impact of the coronavirus weighed heavily on their view of the sector. According to NCREIF Property Index (NPI) investment return data, short-term total returns for senior housing were low at 1.08 percent in the first quarter of 2022 compared with the broader NPI, which saw total returns of 5.33 percent in the first quarter. Appreciation returns for the NPI dwarf those of senior housing, since the NPI was boosted in part by outsized returns in industrial properties (10.96 percent). The senior housing income return in the first quarter was 0.91 percent, its best showing since late 2020. This was stronger than industrial and nearly on par with apartments, and slightly less than the NPI (0.99 percent).

Nevertheless, on a longer-term basis, the 10-year return for senior housing was the strongest of the main property types

except for industrial. For this time frame, the income returns for senior housing (5.47 percent) surpassed the NPI (4.83 percent), while the appreciation return (4.49 percent) was slightly less than the NPI (4.61 percent).

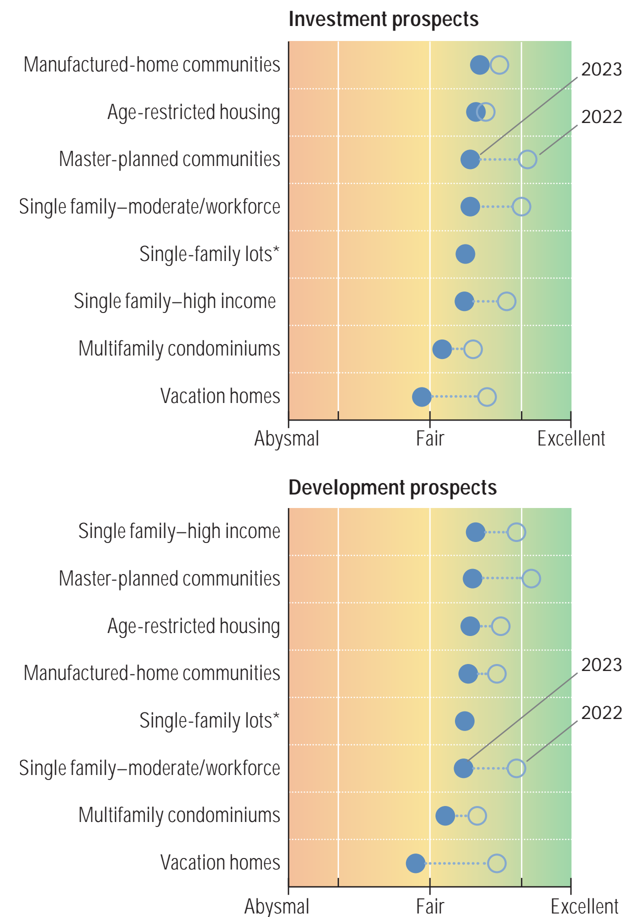
Demographics favor senior housing. The demographics supporting senior housing cannot be denied, as the number and share of older adults continue to grow. For example, the number of persons 82 and older—often the age at which a person moves into senior housing—is growing at an accelerating pace. In 2022, there were 10.6 million Americans aged 82 and older; by 2026, this figure is projected to grow to 12.3 million, and by 2030 to 14.8 million, according to the U.S. Census Bureau. Further, in the not-very-distant future, the ratio of adult children family caregivers (those aged 45 to 64) who are available to take care of aging parents (those over 80 years of age) will continue to shrink at a precipitous pace from 7:1 in 2015 to 6:1 in 2022 to 5:1 in 2026 to 4:1 in 2031 and to 3:1 in 2044.

With fewer family members and spouses available for caregiving—divorce rates are high for older adults—congregate settings will indeed get a further boost in demand. In addition, the increasing segmentation and differentiation of senior housing in serving the vast numbers of seniors in the middle-income cohort will add a large demand pool for operators to serve, as will the movement of "younger old" adults into the active adult segment. With an industry penetration rate of roughly 11 percent of U.S. households, the penetration rate does not need to increase dramatically for occupancy to rise to pre-pandemic levels.

Looking ahead, many reasons exist to be optimistic about the outlook for senior housing, but the path forward may be a bit bumpy due to the prevailing winds in the broader economy. Inventory will continue to expand, although at a reduced pace in the near term, which should act as a tailwind for occupancy improvement. And, while demand may also be affected by economic headwinds, the value proposition of senior housing—security, socialization, engagement, room and board, care coordination, and lifestyle—remains in place and ultimately should win the day by attracting new residents to senior housing properties. In addition, the movement of many operators to incorporate wellness programs into their offerings has the potential to be a significant competitive advantage as potential residents seek communities that hold promise to improve the quality and length of their lives.

—National Investment Center for Seniors Housing & Care (NIC)

Exhibit 2-7 **Prospects for Residential Property Types, 2023 versus 2022**



Source: *Emerging Trends in Real Estate* surveys.
Note: Based on U.S. respondents only.
*First year in survey.

Student Housing: Improvement in Fundamentals

For those active in the student housing sector, fall 2022's massively improved performance has shaped up to be essentially a best-case scenario. At a minimum, it has been the rebound that many had hoped for. At best, it has been something of a renaissance after two very challenging years due to the COVID-19 pandemic.

Rent Growth and Occupancy Levels Not Seen in at Least a Decade

Heading into the final month of the fall 2022 leasing season, both rent growth and occupancy sit at all-time highs. The former sits right at 6 percent—almost three times greater than the 2010s' decade norm—while the latter clocks in above 90 percent–plus. That is the earliest the sector has ever crested above that 90 percent threshold on record. By the semester's start, it is almost a foregone conclusion that the year will kick off with never-before-seen occupancy rates. With student competitive housing (in other words, nearby conventional multifamily housing properties that compete with purpose-built assets) also seeing record rent growth and occupancy rates as well, there is less pressure on purpose-built off-campus housing space than in years past.

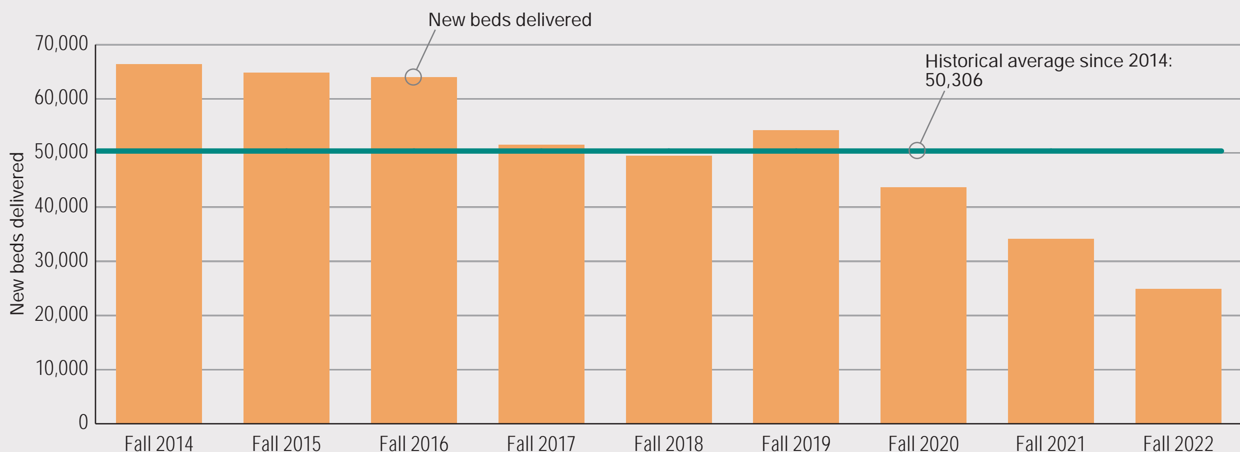
Investment from Institutional Players Solidi es Student Housing as a CRE Sector

Back in 2018, there was a big splash in the student housing space when Greystar completed its acquisition of EDR. At the time of acquisition, that left only one publicly traded real estate investment trust (REIT) in the student housing space. Yet another massive announcement followed in 2022 with Blackstone's acquisition of American Campus Communities, which closed in early August. Although the acquisition leaves no publicly traded REITs in the sector—a development that lends itself to some challenges in terms of reporting and benchmarking—the more important takeaway is that institutional capital continues to flow into the sector.

Will Fall 2022 Be a Flash-in-the-Pan Rebound, or a Positive Shift in Long-Term Expectations?

While somewhat more difficult to measure, the return to a more normal campus life for students, university employees, and industry professionals alike has been widely welcomed. After all, record leasing activity and record rent growth indirectly point to improved qualitative aspects of student life such as on-campus activities and in-person classes. Only time will tell whether the 2022 rebound is a short-lived bounce back or a resetting of baseline expectations for the coming few years. Though with supply easing and students who elected to take a gap year being reintroduced to the pipeline of prospective student renters, it is reasonable to suggest that the coming few years could see sustained performance readings.

U.S. Annual New Supply of Student Housing, Fall 2014–Fall 2022



Source: RealPage Market Analytics.

Note: Data re ect purpose-built off-campus student housing, and year-over-year production from July to July.

Construction Levels at Decade Lows

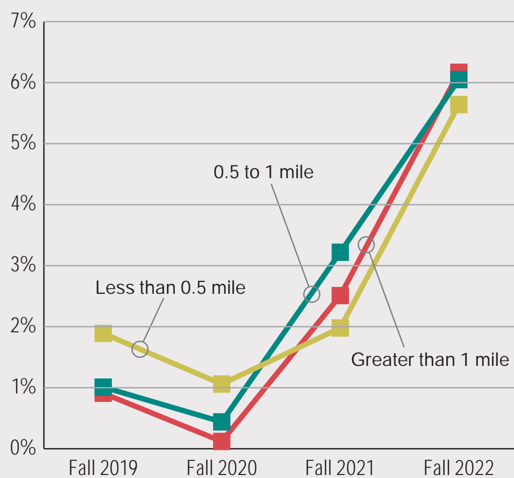
In recent years, one of the more remarkable trends in the student housing space has been the sheer consistency of national supply totals. Although campus-level construction figures are often capricious—it is not uncommon to see a huge wave of deliveries followed by years with no construction—the United States averaged roughly 50,000 new beds per year over the past few years, with relatively little deviation from year to year. But the pandemic bred a lot of uncertainty. And, as a result, fall 2022's expected delivery total (fewer than 30,000 new beds) will easily be the lowest figure in at least a decade. Not much is expected to change in 2023 either.

Despite Positive Signals, Be Aware of Headwinds and Risks

Although fall 2022 performance is a welcome sight for industry professionals, external risks and headwinds should not be discounted. For one, inflation remains at its highest level in 40 years. Although there does not appear to be a correlation between rising inflation and increasing missed payments (and eventually evictions) thus far, that does not mean that the broader inflation story should be dismissed. In addition, demographic trends such as fewer 18- to 24-year-olds moving into the collegiate ranks alongside declining total U.S. enrollment levels suggest longer-term pressure on the student space. Still, it is worth noting that the core set of major U.S. campuses—primarily large, state-funded institutions—do not seem to be seeing a decline, unlike their smaller counterparts (e.g., small liberal arts schools and some smaller private institutions).

—RealPage Inc.

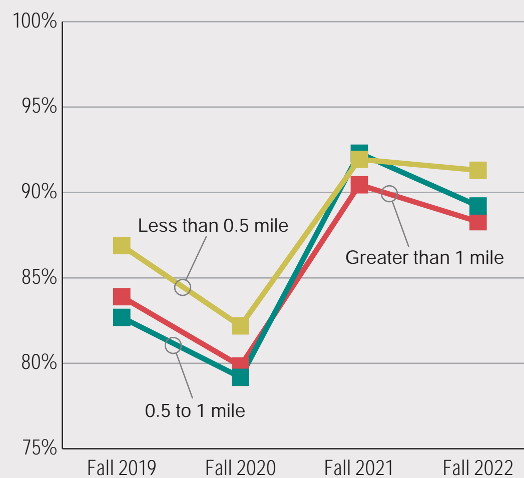
U.S. Student Housing Effective Rent Change by Distance from Campus, Fall 2019–Fall 2022



Source: RealPage Market Analytics.

Note: Data re ect purpose-built off-campus student housing. Rent change data is year-over-year from July to July.

U.S. Student Housing Pre-Lease Occupancy by Distance from Campus, Fall 2019–Fall 2022



Source: RealPage Market Analytics.

Note: Data re ect purpose-built off-campus student housing. Pre-lease occupancy data is as of July for each year.

The Future of Single-Family Housing

The early 2020s have been a transformative time for the housing industry as the pandemic caused people around the world to reevaluate both where they live and how they live. The United States experienced "the Great American Move" in which households and businesses relocated to more affordable places, often to buy or rent a home with additional space and a yard, and farther from employment centers. Builders across the country could not keep up with the new demand—and supply chain interruptions, labor shortages, and permitting delays during the COVID-19 pandemic did not help matters. As a result, home prices escalated at historic rates; the median new home price in the United States increased 22 percent since the start of 2020 and existing home prices increased 58 percent.

Today, the single-family housing industry is on the other side of the rapid run-up in demand and prices—inflation and the rapid escalation of mortgage rates have resulted in a cooldown of the for-sale housing market. Every housing metric is indicating a softening, and builders are starting to recalibrate their business plans in the face of slowing demand. As the housing market resets, we should start to witness the true impact of the pandemic on home design, location preferences, amenities, and financial preferences.

How People Live

Home offices and flex spaces are nothing new, but the desire for more functional spaces grew tremendously during the pandemic-related lockdowns. Builders have not had time to create new designs, but they are modifying current ones. The CEO of a large private homebuilder noted that consumers prefer a higher bedroom count (for offices and additional space), so in many instances he is choosing existing plans with those features. His team also puts in "reading nooks" and "drop zones" where they can, often using space taken away from larger spaces. Architects are reporting similar adjustments. Three significant trends include the following:

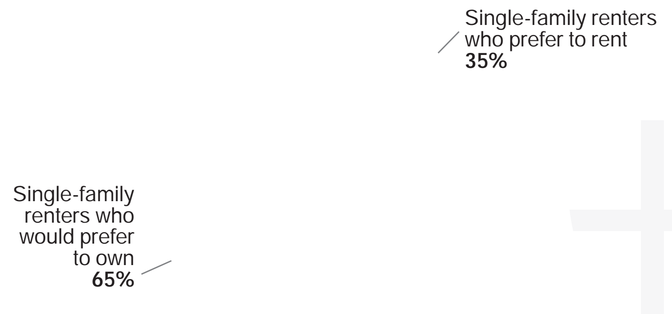
More function in the same-sized home. Spaces added include an extra bedroom and additional flex or office spaces. To fit in the extra functions, architects are taking space from typically large areas like the kitchen or dining room and "right-sizing" the home office (which does not need to take up a whole bedroom) and making additional flex spaces (like in a hallway or loft) that serve as additional work space.

Balance between public and private spaces—open great rooms are not going away. Instead, they are being paired with more private spaces like prep kitchens, drop zones, retreats, and nooks.

Outdoor spaces taking a larger share of space and homeowner spending. This often takes the form of "nodes"—small patios, decks, and balconies off the primary living areas instead of relying on one larger yard.

Despite the overwhelming desire for outdoor and indoor space, density continues to rise as a way to improve affordability. Over 62 percent of architectural designers for production builders are working on denser projects in 2022, compared with only 10 percent with lower-density projects. One of the most successful active-adult brands in the United States has reported overwhelming demand for its cottage product—1,200- to 1,400-square-foot homes—and the builder is phasing out its larger (65-foot-wide) lots. Buyers like the low maintenance and compact design of these homes.

Exhibit 2-8 **Single-Family Renters: Preference to Own or Rent**



Source: New Home Trends Institute by John Burns Real Estate Consulting LLC.
Note: Data collected in April 2022 survey of 1,160 single-family renters with a household budget for rent of over $1,000.

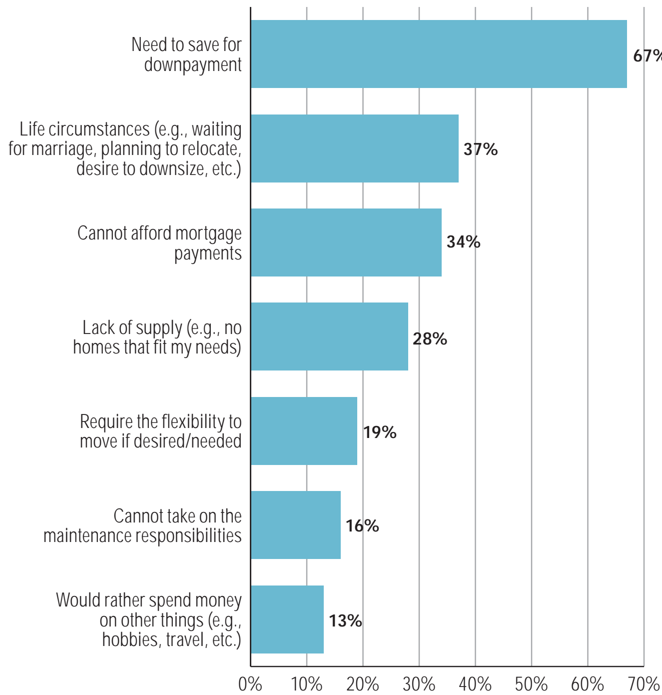
Technology also will affect the way people live, and faster than most people believe, according to the CEO of a national firm specializing in residential architecture. Homes have not changed significantly over the past few decades, and he believes there are "aspirationals"—people who value time more than money and innovation over sameness—who are waiting on the sidelines for innovation. He is focused on designing the "thoughtful home," infusing floor plans with performance capabilities that will save homeowners time, make life easier, and perhaps help homeowners live longer. Homebuilders are often willing to embrace new technology depending on the cost, but more often, buyers will choose their own technology after they purchase the home.

Where People Live

The pandemic brought massive migration across the United States as people reevaluated where they wanted to live based on cost, weather, community, and family. Builders noted the large number of Californians who moved to Florida, and also took note of apartment dwellers becoming homebuyers because they wanted yards. A large private builder in the South experienced the same and furthermore found that new in-migrants had sufficient cash for larger homes and more upgrades.

The ability to work from home accelerated the migration. According to a 2022 John Burns New Home Trends Institute (NHTI) survey, only 49 percent of workers expect to come into the office every day versus 66 percent of workers who expected to come into the office every day prior to COVID.

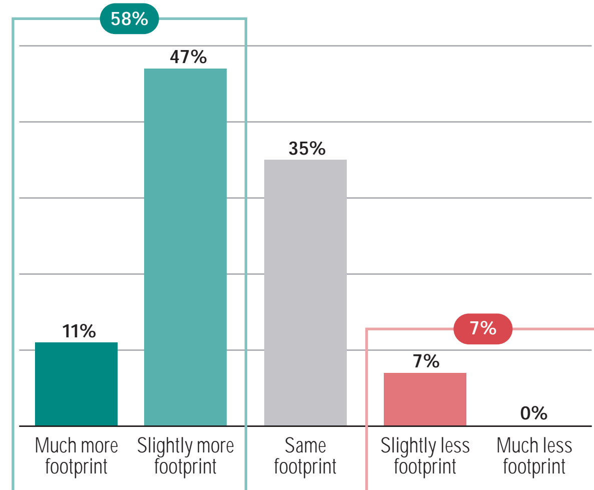
Exhibit 2-9 **Reasons Renters Continue to Rent, Based on Rental Households That Believe Homeownership Is Important**



Source: New Home Trends Institute by John Burns Real Estate Consulting LLC.

Note: Data collected in a survey of 1,347 U.S. homeowners and renters ages 18 and over with household income of over $50,000. Survey elded July 12–17, 2022.

Exhibit 2-10 **Footprint Allocated to the Home's Outdoor Space, 2021 versus 2020**



Source: 2022 Annual Survey of Architecture. conducted by the New Home Trends Institute/ John Burns Real Estate Consulting LLC and *Pro Builder*.

Buyers are also searching for the right community. With such high levels of new residents, a CEO of an amenity planning and lifestyle design company noted how amenities played a more direct role in connections. New residents want to be connected—especially via the outdoors—with their neighbors and amenity programming. Lifestyle directors can make an outsized impact in new communities. Her focus for new communities is to make outdoor spaces livable all year long, with heating and cooling elements to make residents comfortable.

Historically, affordability has played a key role in housing purchase decisions, and the rise in home prices along with higher mortgage rates has brought affordability to the forefront. Over 67 percent of households who rent cite the lack of a down payment as the biggest hurdle to homeownership. Builders have always struggled to provide affordable housing, but the rise in the cost of materials over the past two years has impeded any progress. However, some builders are starting to report lower costs—especially labor—as the market cools.

The key to improving affordability, according to the CEO of a national firm specializing in residential architecture, is lowering the cycle time for building homes. Just as Henry Ford slashed the time needed to build a Model T from 12 hours to 96 minutes through process improvements, the same innovations and improvements should be focused on housing. If we could reduce cycle times in half to build a house, builders could offer homes for less, thus improving affordability across the board.

Single-Family Rentals

The rise of the single-family rental business has huge implications for traditional builders. There are positive implications—a hedge against slower demand from consumers of for-sale housing, as many builders report that they are receiving multiple calls each day from single-family rental operators who want to contract builders to build homes. There are negative implications as well: as single-family rentals become more prevalent, they could become a competitor to traditional for-sale homes. The nascent stage of the industry makes the future hard to determine, but one ought to consider the following:

Nearly half of all master-planned communities are planning a build-for-rent section.

Thirty-five percent of single-family renters with budgets of $1,000-plus per month rent by choice.

Single-family renters with rent budgets of $1,000-plus per month prefer to rent for more flexibility, as well as for less maintenance and fewer financial responsibilities, than they would have as homeowners.

> Renters of single-family homes can have private yards, no one living above or below them, pets, and garages—the primary features that motivate people to own.

As the industry grows, the single-family rental space can serve as a "living laboratory" for reducing cycle times, according to the CEO of a national firm specializing in residential architecture. As single-family rental operators design new floor plans and build hundreds of houses at a time (with no option choices from consumers to manage), the industry can modernize and become more precise. The repetition will allow for innovation and ultimately reduced cycle times that could, in the end, solve the problem of affordability faster than expected.

So, it is possible that the housing issues raised by the pandemic could result in industry improvements that outlive it.

Industrial/Logistics: Strong Fundamentals Persist while Capital Markets Adjust

With today's supply chain volatility and red-hot inflation, it may come as a surprise that industrial rent growth in 2022 is on track to break the previous year's all-time high. Resilient consumption supported demand for logistics real estate through the first half of 2022, requiring more space to move goods quickly and hold higher inventories. The urgency to secure more space, paired with delays in supply and rising replacement costs, pushed rents to historic highs while vacancies fell to record lows. At the same time, capital market dynamics began to shift, marked by repricing and a pullback in volume.

E-Commerce Holds Strong, Despite a Return to In-Store Shopping

Consumer spending patterns returned to in-store shopping as local economies reopened, but the future of retail still relies on e-commerce. Why? Because consumers prefer the convenience and choice of shopping online. The number of people who used same- or next-day delivery held steady in 2021 during the holiday season, compared with a decrease in people who purchased goods online and picked them up in store. And e-commerce supply chains are being built to accommodate faster delivery timetables, which attracts sales because consumers appreciate the speed. More than 90 percent of consumers expect delivery in three days or fewer, and 30 percent expect same-day delivery. In addition, the COVID-19 pandemic forced many physical stores out of business, limiting the number of retail options close to home.

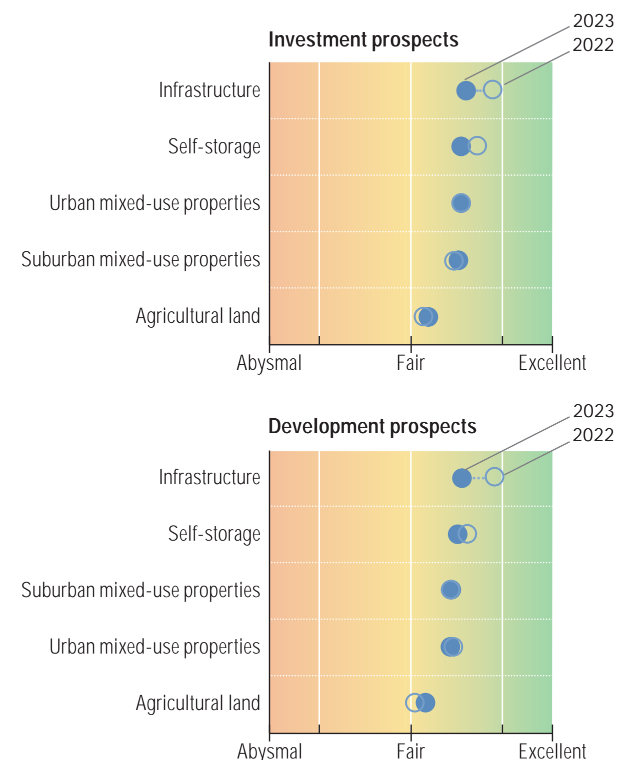
The pandemic's impact on the growth of e-commerce extends across retailer and product categories. While Amazon is now focused on supply chain optimization and less on absorbing additional space, other users are stepping up to secure additional space. E-commerce will continue to drive logistics demand for the foreseeable future with growing diversity.

Demand Still Outpaces Inventory

Given persistent stock-outs, rapidly rising prices, and unreliable supply chains, the need for higher inventories increased. Inventory growth was rapid in the six months from February through July 2022, up 9 percent on a net basis for wholesale and retail. Although inventories are up, they continue to lag sales. The July 2022 inventory-to-sales ratio for all retailers (excluding automobiles) was almost 4 percent below average 2019 levels.

While inventories are growing, they are still too low overall. The Institute for Supply Management (ISM) Manufacturing PMI and Services PMI ask about inventory levels: sentiment was below 50 until July 2022, when the services inventory sentiment tipped slightly above. Meanwhile, the Manufacturing PMI customers'

Exhibit 2-11 **Prospects for Niche and Multiuse Property Types, 2023 versus 2022**



Source: *Emerging Trends in Real Estate* surveys.
Note: Based on U.S. respondents only.

inventories remained below 50, meaning that there is still a need for higher inventories, despite substantial inventory building in recent months. This aligns with what some major retailers noted during recent earnings calls: their inventories are not yet back to pre-pandemic levels, and they are focused on carrying more product to improve customer service. The end goal is to plan for long-term capacity to shield from future supply chain disruptions. Supply chain volatility should persist, so securing inventory in response to changes in consumer behavior will continue to be a challenge. Cyclical trends will only affect the timing of this goal.

Oversupply Risk Is Low, Even as Supply Pipeline Builds

The pipeline of space under construction reached a record high of more than 620 million square feet as of the second quarter of 2022. At the same time, supply chain bottlenecks delayed deliveries. Strong demand propped up the proportion of space pre-leased on completion—at roughly 65 percent as of the second quarter of 2022, compared with a historical average closer to 40 percent, according to JLL.

For now, delays in new supply and elevated pre-leasing are keeping oversupply risk in check. Markets with high levels of construction include Dallas, Atlanta, the Inland Empire, Indianapolis, and Phoenix. As supply begins to come online, rent growth is expected to decelerate—first, in untested submarkets with elevated pipelines. Higher-barrier locations, on the other hand, may sustain higher rent growth for longer.

Construction Is Battling Supply Chain Issues

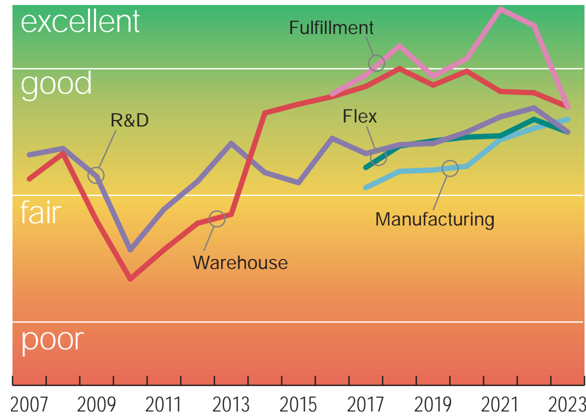
Real estate developers across the United States are confronting rising construction costs. Steel, concrete, and roofing materials contribute up to 80 percent of typical shell costs. Market price surges since the end of 2019 for these, and other major categories, caused finished construction costs to spike by 50 percent.

"Construction durations in the broader industry have increased by two to three months, on average, since 2019, due to longer material lead times and increasing contractor backlogs," according to a construction director at a large industrial owner. Advanced material procurement strategies and construction technology can resolve some ongoing construction issues. Developers are moving upstream in the value chain by leveraging direct partnerships with national material suppliers to pre-secure and prioritize long-lead building materials and mitigate material shortages where possible. Developers are also introducing modularized construction systems to expedite repeatable project elements, such as office tenant improvements and in-warehouse restrooms, which reduce on-site construction timelines. Finally, traditional means of construction execution are being improved by optimizing schedules directly with general contractors and trade partners in real time, before delays are felt.

Labor Challenges Persist

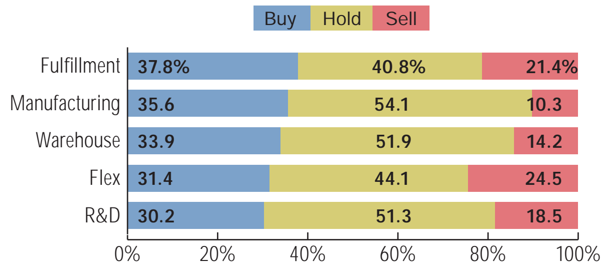
Industrial labor shortages continue to consternate users of logistics facilities. "Labor is always up amongst the top two things companies look at when they move into an area," according

Exhibit 2-12 **Industrial/Distribution Investment Prospect Trends**

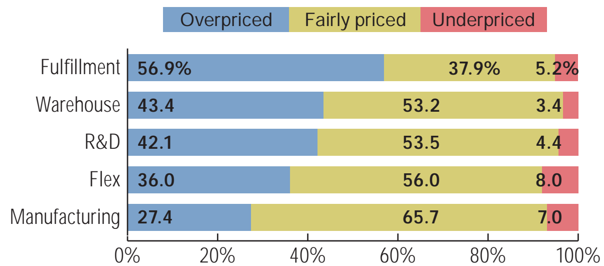


Source: *Emerging Trends in Real Estate* surveys.

Industrial/Distribution Buy/Hold/Sell Recommendations



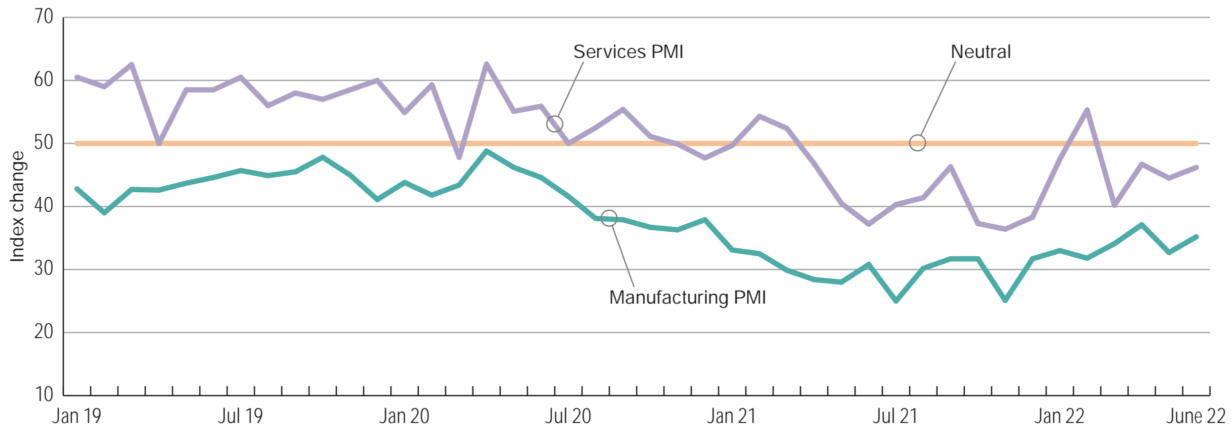
Opinion of Current Industrial Pricing



Source: *Emerging Trends in Real Estate 2023* survey.

Note: Based on U.S. respondents only.

Exhibit 2-13 **Industrial Inventory: Selected Sentiment Indexes, January 2019–June 2022**



Source: Institute for Supply Management (ISM); used with permission of ISM.

Note: PMI was formerly known as the Purchasing Managers Index. The Services PMI covers transport and communication, financial intermediaries, business and personal services, computing and IT, and hotels and restaurants.

to an expert at a commercial brokerage firm. Labor shortages intensified in rural areas because of local market overcrowding: rapid growth of logistics facilities heightened competition for an already-thin labor force.

Manufacturing relocation adds another layer of competition in smaller markets, where some companies are diversifying production locations by moving to secondary markets in the United States to offset risks with supply chain disruptions.

As labor continues to stress industrial real estate users, automation is expected to rise. Some industrial property owners and developers are using virtual-reality technology to train employees about safety and career advancement on site, and companies with robotic in-warehouse transportation are using it to solve labor shortages.

"This [technology] can save three times the walking time that a human being would need to cross through a warehouse," explains an industrial investment expert.

Automation Is Increasing Supply Chain Visibility and Efficiency

The modern economy requires technology for increasingly complex supply chain operations. In addition, supply chain disruptions increased the need for companies and governments to monitor the flow of goods. Increased scrutiny of supply chain externalities requires ways to measure metrics, such as carbon emissions and truck serial numbers. Without an infrastructure to track these statistics at scale, industrial real estate customers struggle with supply chain accountability, according to an industrial real estate investment expert. These factors are augmenting a growing field of technology focused on enhancing supply chain visibility.

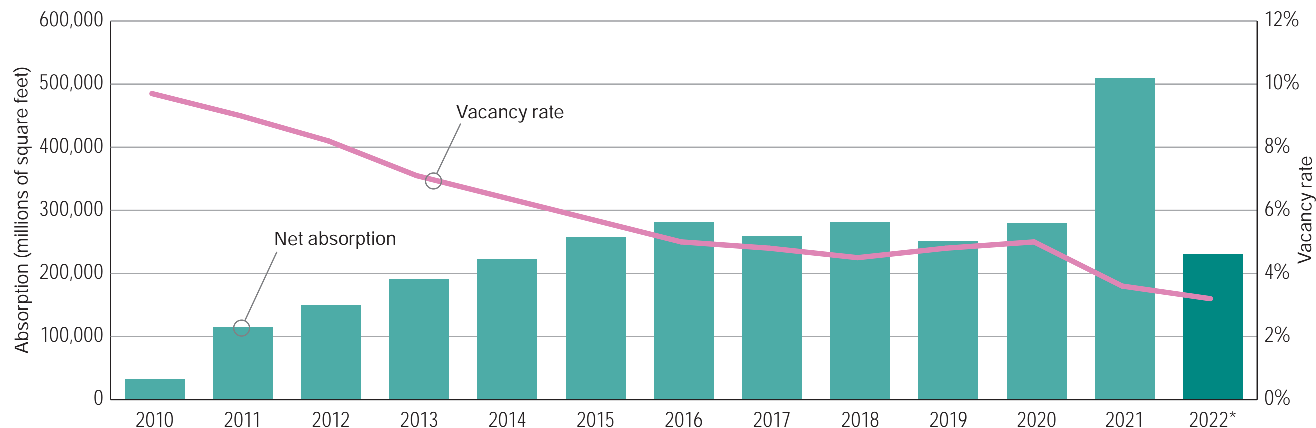
In the trucking industry, industrial real estate customers are focused on implementing autonomous trucks for middle-mile operations. Middle-mile routes—the transport between ports and warehouses—consist of stretches of open roads with limited human obstacles and pose the lowest barriers to autonomous adoption.

Industrial developers are also monitoring advancements in autonomous or remote-operated machinery with the potential to mitigate labor shortages and increase safety in some of the most injury-prone construction processes, which include heavy equipment operation, working from elevated lifts, or repetitive motions. Additional safety-related advancements that are in the startup phase and show promise include biometric and positioning sensors to monitor worker health and safety, geofencing positioned near hazards, and fall detection.

Investment Outlook: Rent Growth to Drive Future Returns

Real estate dealmaking has begun to slow as investors grow cautious and interest rates rise. Although a marked deceleration from the prior year's growth, the transaction volume for industrial warehouses increased by 11 percent year-over-year as of the second quarter of 2022, according to MSCI Real Assets. The deceleration reflects a slowing in smaller transactions. Rising financial costs and a growing spread between bid and ask prices could add hurdles to investment, thereby reducing

Exhibit 2-14 **Industrial Property Net Absorption and Vacancy Rate, 2010–2022**



Sources: CBRE, JLL, Cushman & Wake eld, Colliers, CoStar, CBRE-EA, Prologis Research.
* As of second quarter.

transaction volumes and new development in a rising interest rate environment.

Repricing is taking place across markets, with many sellers agreeing to renegotiate lower prices because of the interest rate environment. NCREIF's industrial cap rate, however, was still low at 3.3 percent for the second quarter of 2022. Cap rates could rise, but there is now more liquidity, pent-up demand, and stronger fundamentals compared with prior cycles, which should help shield against severe correction.

Even as capital market dynamics begin to shift, the return outlook for industrial is positive. Results from the *Emerging Trends* survey echo this sentiment, with respondents placing industrial/distribution at the top of the list for investment prospects for four of the last five years. A pullback in development means that rent growth could remain stronger for longer, given the strength of structural demand trends buoying future returns. According to research from MSCI Real Assets of surveyed industrial managers, in-place rents were 22 percent below spot market rents. This spread offers embedded net operating income growth for the foreseeable future.

Office: Desperately Seeking Clarity about Its Future

Into the third year of the COVID-19 pandemic, we should have clarity about the direction of the future workplace. However, what replaces the daily office grind remains murky and will not be resolved soon. Most companies are still experimenting to determine what works best for them in relation to what employees are willing to do. An industry consultant says: "We face a lot of uncertainty for the next three to five years. Everyone is still sorting this out." An executive at a large office development firm says, "I don't think anyone is at the point now where we can say with conviction, 'This is the new normal.'"

Some office-using firms have taken an extreme position, either going fully remote or hewing to the old school by requiring full-time attendance. But most have embraced a hybrid arrangement—some willingly because it is working for them and others begrudgingly to avoid a mass exodus of workers—and are experimenting with hybrid/remote work schemes and testing new amenities and designs. In the short term, hedging bets often involves reducing office space moderately, renewing leases for shorter amounts of time, and embracing flexible lease strategies such as coworking.

The sector's traditional long-term lease structures enable the extended experimental phase. Some executives hesitate to eliminate space they once acquired with pride, figuring that office space represents a small share of expenses. Others are dealing with bigger fires. "Businesses have a lot of problems now with the supply chain mess, demand shifts, geopolitical risk—office space is low on the list of issues to deal with," said one executive who advises companies on space. "We still have no idea how to manage a company where people work two to three days in the office. In many ways, it is easier to manage a workforce that is fully remote."

Continued on page 58.

Atlanta's Midtown skyline from the vantage point of Piedmont Park.

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