





Emerging Trends in Real Estate® 2024

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Notice to Readers

Emerging Trends in Real Estate® is a trends and forecast publication now in its 45th edition, and is one of the most highly regarded and widely read forecast reports in the real estate industry. Emerging Trends in Real Estate® 2024, 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® 2024 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 quotation marks, 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 about 600 individuals, and survey responses were received from almost 1,260 individuals, whose company affiliations are broken down as follows:

Private property owner or commercial/multifamily real estate developer:	37%
Real estate advisory, service firm, or asset manager:	19%
Private-equity real estate investor:	12%
Homebuilder or residential land developer:	6%
Bank or other lender:	5%
Construction/construction services/architecture firm:	4%
Investment manager/adviser:	4%
REIT or publicly listed real estate property company:	2%
Private REIT or nontraded real estate property company:	2%
Other entity:	7%

Throughout this publication, the views of interviewees and/or survey respondents have been presented as direct quotations from the participant without namespecific 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.



Emerging Trends in Canadian Real Estate

"The greatest uncertainty creates the greatest opportunity."

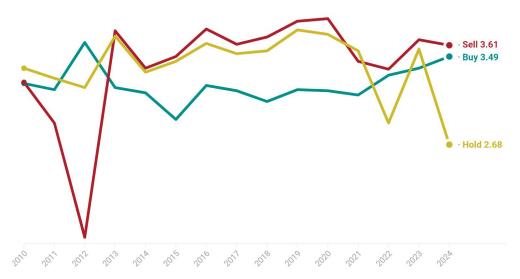
The preceding quotation from one of the real estate industry players interviewed this year reflects much of the sentiment heard about the uncertain outlook for 2024.

Many of the issues—such as rising costs, labor shortages, and the related impacts on affordability in the housing market—have been challenging the real estate industry for some time. But this year, there was evidence of the continued deepening of more recent trends—such as higher interest rates and more expensive and increasingly scarce capital—that are creating more difficulties for many real estate companies. While those interviewed early on were somewhat more optimistic about the sector's outlook given the Bank of Canada's pause on raising interest rates for much of the spring, those interviewed after the bank began tightening monetary policy tended to have a different view.

Recent trends have led many interviewees to believe interest rates will continue to be higher for longer than expected, with real estate development, investment, and transaction activity likely to remain soft into 2024. And, unlike in previous years, interviewees are approaching all asset classes, even the most favored sectors such as industrial property and residential categories including rental and student housing, with a fair amount of caution. It is notable that interviewees are generally

Emerging Trends Barometer 2024

1-Abysmal 2-Poor 3-Fair 4-Good 5-Excellent



Source: Emerging Trends in Real Estate surveys

very confident about overall demand for real estate, with many pointing to Canada's immigration-fueled population growth as a source of long-term strength for the industry. But meeting that demand is another question, as the various pressures facing the industry hold back development of new supply in many areas of the market.

Still, even these broader trends and the overall outlook call for nuance. A key issue tracked in recent years regarding retail and office real estate is a growing distinction—or bifurcation—of assets within the various asset classes. This trend can now be seen moving beyond distinctions between, for example, class A and B office properties to extend to other areas of the market, such as the industrial and multifamily segments. In essence, Canadian real estate has become more differentiated, with investors and developers needing to be more selective and pay closer attention to exactly how they will create value by optimizing their assets and portfolios, even when pursuing best bets in the industrial and multifamily sectors.

This year's report explores how Canadian companies can prepare for what is to come in 2024. Topics discussed include key trends, such as moves to shore up liquidity and the growth of debt funds, that are emerging as companies look for ways to navigate market pressures. The report will also look at how industry players are approaching environmental, social, and governance (ESG) matters and the emergence of new technologies, as well as ideas and solutions to address the growing and very serious housing affordability issues in Canada.

Costs, Deals, and Capital Markets:

Emerging Growth Opportunities versus "the Years of the Great Staring Contest"

"Money is available, but to few people on fewer things."

One issue raised with interviewees this year was whether the environment of price discovery that emerged in 2023 would continue in 2024. This was a very notable trend in last year's report that reflected a wide gap in valuation expectations between buyers and sellers of real estate assets as rising interest rates began to increase financing costs and put a damper on deal activity.

Most interviewees believed overall uncertainty about asset prices would remain a key factor in holding back transactions for the time being, while those deals that do proceed will likely be smaller as large investors pull back from the market and the amount of capital available for real estate declines. Interviewees also spoke of added barriers to closing deals as market challenges lead some buyers to renegotiate prices they

had previously agreed to pay. One interviewee summed up much of the industry sentiment in their description of the business environment now and in the year ahead: "2023, 2024—the years of the great staring contest."

Those hoping for bargains to emerge in this environment may be disappointed. Interviewees tended to believe that opportunistic or distressed deals would remain hard to find given that many sellers do not have to transact if bids are not meeting their expectations. Even so, some interviewees pointed to examples of the types of sellers who will likely need to transact, such as owners of poorly performing office properties and investment funds that are winding down and must liquidate their assets.

A Multitude of Challenges for Canadian Real Estate

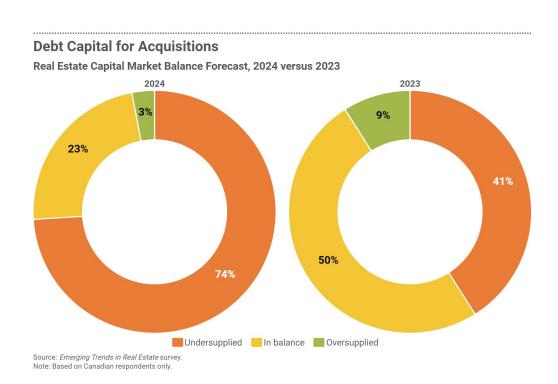
Evidence of the challenging environment for deals can also be found in PwC's 2023 Global CEO Survey. According to the survey, 56 percent of real estate CEOs said they had either already delayed deals or were considering doing so in response to economic challenges and volatility. This was significantly higher than the findings for all CEOs, 37 percent of whom had either delayed deals or were considering doing so.

The issues facing real estate companies have only continued to grow since then, with industry players expecting little relief on interest rates as they look ahead to 2024. For some companies, the result has been negative leverage as borrowing rates exceed yields on their investments. This challenge is compounded by uncertainty about whether investors can count on asset values going up. In struggling asset classes such as offices, interviewees note difficulties securing refinancing because banks are unwilling to renew mortgages without additional equity infusions for some of these properties. "We're starting to see cracks that we didn't see before," said one interviewee, citing the challenges faced by those feeling the biggest impacts of current market trends. "Everyone is keeping a brave face on."

The Bank of Canada's monetary policies are not the only factors putting a damper on Canadian real estate activity. In the wake of worries about the impacts of bank failures in the United States earlier in 2023, Canadian banks have faced tighter regulatory requirements on their capital reserves. This has led to more restrictive lending conditions, reduced availability of debt financing, and even higher borrowing costs for Canadian real estate companies. At a time when investors can get relatively good risk-adjusted returns elsewhere—by, for example, putting their money into guaranteed investment certificates—the attraction of real estate as an asset class has declined, which further reduces the amount of capital available.

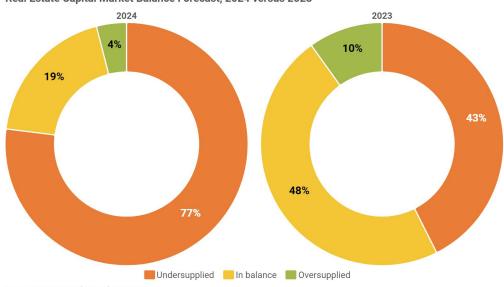
Equity Capital for Investing Real Estate Capital Market Balance Forecast, 2024 versus 2023 2023 16% 34% 57% **27**% 39% Undersupplied In balance Oversupplied

Source: Emerging Trends in Real Estate survey. Note: Based on Canadian respondents only.



Debt Capital for Refinancing

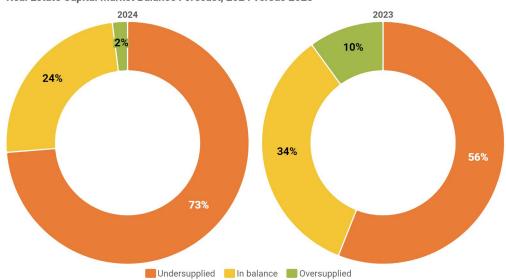
Real Estate Capital Market Balance Forecast, 2024 versus 2023



Source: *Emerging Trends in Real Estate* survey. Note: Based on Canadian respondents only.

Debt Capital for Development/Redevelopment

Real Estate Capital Market Balance Forecast, 2024 versus 2023



Source: Emerging Trends in Real Estate survey. Note: Based on Canadian respondents only.

Productivity Challenges Adding to Cost and Labor Pressures Facing the Industry

Interest rates and capital availability are not the only things creating challenges for Canadian real estate players. Amid high inflation and supply chains that, in some cases, continue to falter, costs for some key materials have continued to rise.

While some interviewees said cost increases for certain construction materials had softened, many noted they continue to face pressures on this front.

Further evidence can be seen in recent Statistics Canada data on construction costs. On a year-over-year basis, residential construction costs for 11 Canadian census metropolitan areas were up 7.5 percent in the second guarter of 2023. For nonresidential construction, the increase was slightly lower, at 7 percent. The report identified concrete as one of the key materials increasing costs, while skilled labor rates and shortages are creating additional challenges for the industry.

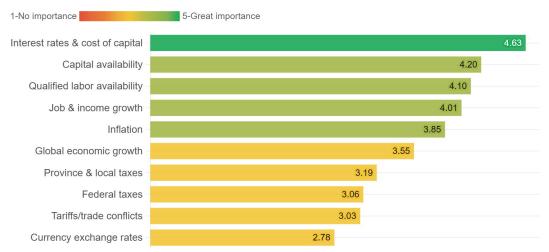
Labor and skills shortages were clearly on the agenda of real estate executives who participated in PwC's 2023 Global CEO Survey. The survey found 61 percent of real estate CEOs believe labor shortages will affect profitability to a significant

extent over the next 10 years. While the Emerging Trends in Real Estate® reports have been tracking trends in labor and skills shortages for some time, this year's interviews showed a growing concern about two related issues: productivity and quality of the work. Several interviewees noted productivity has generally gone down while instances of work defects have increased, both of which cause further challenges and cost pressures for development projects.

Recent research from the Canadian Imperial Bank of Commerce (CIBC) economics team suggests labor challenges will continue to grow given an aging construction workforce and a lower retirement age compared with other areas of the economy. The CIBC report, released in June 2023, estimated at least 300,000 construction workers will retire over the next decade. The report also highlighted a lag in bringing in new workers to replace retirees as the number of apprentices falls. Although the Canadian government has made changes to increase the number of skilled tradespeople coming to Canada through the immigration system, the CIBC report noted a need to do more. The percentage of new immigrants who work in construction is very low and has fallen during the past decade, the report found.

Economic/Financial Issues in 2024

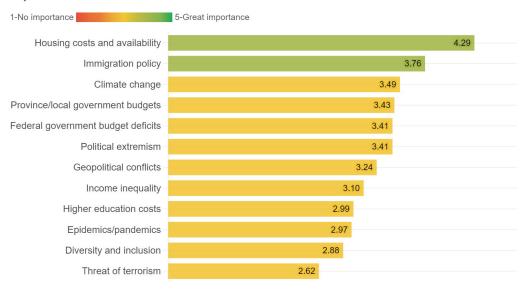




Source: Emerging Trends in Real Estate 2024 survey. Note: Based on Canadian respondents only.

Social/political Issues in 2024

Importance of Issues for Real Estate

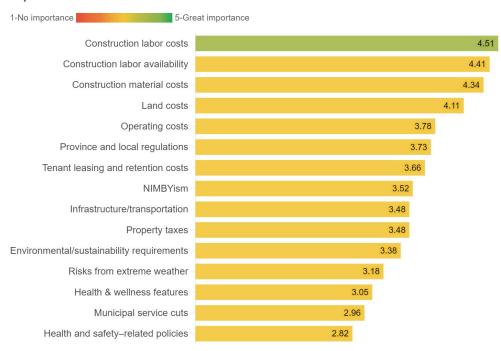


Source: Emerging Trends in Real Estate 2024 survey.

Note: Based on Canadian respondents only.

Real estate/development issues in 2024

Importance of Issues for Real Estate



Source: Emerging Trends in Real Estate 2024 survey. Note: Based on Canadian respondents only.

Creativity Key to Pursuing Growth Opportunities in 2024

The result of all these pressures is that both development of and investment in Canadian real estate have become even more challenging for many interviewees.

But in an increasingly bifurcated market in which a growing divide exists between assets with more potential to deliver value and those with challenged prospects, companies that carefully plan their next moves can find the winning opportunities to pursue.

So what are interviewees doing to navigate this environment? When asked what their best bet is for 2024, one interviewee said their favored asset class is liquidity. The comment reflects the sentiments of many interviewees who said generating liquidity will be key because the strongest players will be in the best position to pursue emerging opportunistic deals as well as navigate uncertainty in the future. Opportunities to do this include selling off noncore assets and increasing or clearing lines of credit.

For investors, various forms of commercial debt, such as preferred equity and mezzanine financing, are a growing focus given the opportunity to deliver better risk-adjusted returns. This emerging trend of debt funds, which many interviewees identified as offering attractive opportunities to provide credit and liquidity to other industry players struggling to access capital and manage rising financing costs, is a moment-in-time opportunity. "Debt funds have a popularity contest every 10 years, and 2024 is their year," said one interviewee.

Real estate players are also carefully eyeing other ways to create value during these uncertain times, even as dealmaking activity, especially for larger transactions, slows. Some interviewees, for example, are looking to strategically reposition their portfolios to diversify their assets by focusing on secondary markets that are seeing high population growth and offering attractive investment and development opportunities. Other interviewees are exploring opportunities in subsectors of key asset classes, such as student and senior housing, that are benefiting from trends such as growing international enrollment at Canadian postsecondary institutions and the overall aging of Canada's population. Another growing trend is considering income-generating assets when acquirers can buy them below replacement cost and where they see opportunities to add value.

Many interviewees also stated that being agile and creative in structuring deals will be key to pursuing opportunities that emerge in the year ahead. This could mean including earnout provisions for sellers to bridge bid-ask spreads as well as vendor take-back mortgages to manage financing gaps and other challenges in closing transactions.

Harnessing Data, Digital Transformation, and Technology Trends such as Generative AI

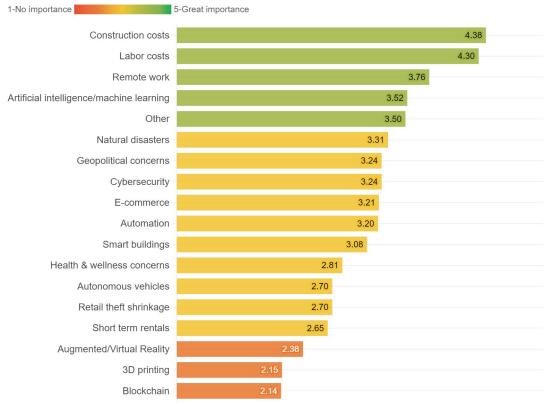
Besides repositioning their assets and portfolios, real estate companies have an opportunity to create further value in an uncertain market by accelerating investments in both their data and technology capabilities. While interviewees tended to downplay the need to look for the most groundbreaking property technology (proptech) solutions this year, there was a general feeling that further digitization remains important in an industry that has tended to lag other sectors on digital transformation.

Interviewees described a variety of ways they are embracing digital solutions that improve business performance by reducing costs or growing revenues. Some, for example, are automating financial reporting activities to save time, while others are embracing construction technologies and process changes to speed up building timelines and manage labor shortages. Interviewees also described how machine learning tools to improve and predict maintenance requirements are helping them better manage energy systems. Further investment in data analytics capabilities is also key to optimizing portfolio, investment, and forecasting decisions; better understanding customer and tenant needs and preferences; and enhancing performance and efficiencies across the business.

While digital adoption focused on solving business problems and improving operations continues in Canada's real estate sector, the industry is also taking notice of a technology that has been making waves since late 2022: generative artificial intelligence. Interviewees offered a variety of views on how they are approaching generative AI, with some saying it is too early to assess its impact on real estate, others starting to assess use cases, and several interviewees having already begun exploring opportunities to incorporate it in different ways, such as performing initial analysis of investment decisions and generating architectural drawings and designs.

Despite the diverging approaches, there was a feeling among many interviewees and survey respondents that generative AI has the potential both to significantly disrupt the real estate business and also to create new opportunities for companies that embrace it. "Something that would normally take a week, now takes three hours," one interviewee shared about their experience using generative AI tools to conduct market research and analysis. Whichever stage they're at in exploring





Source: Emerging Trends in Real Estate 2024 survey. Based on Canadian respondents only.

generative AI, given the complex issues it raises, companies should keep in mind the following key considerations:

- Carefully assessing the use cases: Real estate company leaders can expect to hear about a range of applications for generative AI to their businesses. Many will offer attractive value propositions aimed at increasing revenues, changing the business model, or reducing costs. But given that it will not be possible to pursue all potential opportunities, leaders will need to take a strategic and systematic approach to determining which use cases to move ahead with, considering the impacts on the bottom line.
- Data quality and availability: Ensuring availability of good quality data is key to optimizing generative AI tools. This will require real estate companies to look at which data they have moved to the cloud and what else they may need to migrate to pursue the use cases they are focusing on.

Responsible AI: Generative AI creates some unique risks, including the possibility of wrong or misleading outputs that erode trust if data sources are not reliable, accurate, and unbiased. The best time to consider risks is at the beginning of the generative Al journey to ensure that the right strategy, controls, and responsible practices are in place before moving ahead.

For those real estate companies that are unsure about Al uses and risks, it is important to keep in mind that it is possible to focus on experimenting with the technology for the time being. One approach is to develop proofs of concept and test ideas in secure environments to assess the impacts before fully adopting a generative AI tool or application.

Real estate companies also need to remember the key role of human judgment and creativity in making the most of generative AI. Human insights will help real estate companies not only manage the ethical risks involved but also ensure proper oversight of the outputs the technology creates. This is especially critical given that generative AI has proven to be most effective in producing directionally accurate results rather than the precise outputs a company needs. It could, for example, help a real estate company build the first draft of a sales plan that an employee would supplement and edit with further insights.

ESG Strategy, Reporting, and Performance:

Ensuring Tangible Returns Now versus Investments in Long-Term Value Creation

"Many still view this as a cost center. We see it as a profit center."

The ESG agenda has continued to evolve for Canada's real estate industry, with sentiment about the importance of environmental, social, and other concerns shifting among some interviewees. "Quietly, the sentiment among investor feedback is that it's maybe less important than the year before," said one interviewee. This statement reflected the views of some real estate players who suggested that the focus on ESG matters had diminished, given the current economic environment and questions about timelines to see payback from investments to address issues such as sustainability and climate change. Another concern is a lack of consistent key performance indicators to assess progress on the social and governance aspects of ESG matters, making it hard for companies to measure the success of their actions and initiatives. Those choosing to focus less on ESG matters as a result say they are not paying a price for doing so, with most emphasizing that they can still move deals forward because most investors prioritize finding the best returns. They are not ignoring ESG matters, but are just currently taking a more measured approach.

Even so, the survey showed environmental matters such as climate change ranked as a top issue for survey respondents this year, and a noteworthy segment of interviewees felt the importance of ESG performance has continued to rise. While the divide on these issues tends to be between smaller, privately owned real estate companies that view ESG investments as adding to inflationary pressures and larger institutional players that see this as a strategic priority, the differences are largely a question of how quickly to make changes and how far companies should go in taking action on issues like decarbonization. Some interviewees said that, while they are not looking to be leaders in this area and are more likely to focus on meeting minimum requirements, they are ready to pursue ESG initiatives that show a return on investment.

The temptation to focus on the most immediate pressures such as economic volatility and inflation is understandable. But, even with an uncertain outlook for 2024, real estate companies have several reasons to be proactive about issues such as sustainability, diversity, equity and inclusion, and social inequality in the year to come. These include not only the ripple effect of large Canadian pension funds focusing on ESG investing and performance, but also the following key trends in the market.

1. Evolving Reporting and Regulatory Requirements

Requirements for reporting on ESG issues have evolved quickly in Canada and around the world. In Europe, the Corporate Sustainability Reporting Directive has the potential to affect some Canadian companies, while new requirements are also moving ahead in Canada. Particularly noteworthy is the finalization by the International Sustainability Standards Board (ISSB) of two key standards in June 2023: general requirements for disclosure of sustainability-related financial information and climate-related disclosures. The Canadian Securities Administrators has indicated it will adopt these two standards, although the timing is uncertain.

While the ISSB standards, once adopted in Canada, will apply directly to publicly listed companies, they will affect privately owned businesses in several ways. The businesses may face requests from tenants subject to the ISSB standards for a building's sustainability and climate-related information, for example. At the same time, the new rules could set a broader baseline of what is expected of any organization reporting on its ESG performance. And once an organization discloses data about an issue, there is a natural expectation that it will take action to address any gaps.

The ISSB requirements are broad, covering an organization's strategy, metrics, and targets and requiring disclosure of its Scope 1, 2, and 3 greenhouse gas emissions. The requirements also include key real estate metrics, such as energy and water consumption at both the corporate and asset levels.

Also noteworthy on the social side of ESG regulations is new federal legislation on addressing forced labor in Canadian supply chains. Companies subject to the legislation must report annually, starting in 2024, on steps taken to prevent and reduce the risk of using forced or child labor at any step in the supply chain. Real estate companies will need to pay close attention to the new law, given the extended supply chains in the construction industry.

2. Emerging Opportunities to Create Value and Competitive Advantage

One of the key issues highlighted by the ISSB's new sustainability and climate disclosure standards is the increasing importance of ESG performance in both mitigating risks and creating new opportunities that could affect cash flows, access to financing, or the cost of capital in the short, medium, and long term. Avoiding risks has traditionally been a focus of assessing ESG benefits. This could include addressing the physical impacts of an ESG matter such as climate change on an organization's operations and supply chain. There are also transition risks. In the context of climate change, this could include policy, legal, technology, market, and reputation risks as the world shifts to a low-carbon economy.

These are all important, but increasing evidence shows that some companies and investors are seeing ESG considerations as a strategic lever to create business value. Real estate companies have a growing recognition of how ESG initiatives can lead to improved cash flows. This could mean, for example, being able to charge higher rents for more sustainable buildings, reduced operating costs from energy efficiencies, and long-term improvements in margins.

More broadly, ESG performance is emerging as another example of growing bifurcation in Canada's real estate market, which was evident in the words of one interviewee: "An ESG divide is coming. The smoke will clear on those that are talking about ESG and those that are actioning ESG change." Many interviewees have a sense that companies and assets that meet high ESG standards will be better able to attract more discerning sources of capital and deliver stronger growth and performance, while those that lag behind significantly may see negative impacts on valuations and find their assets permanently impaired.

So what are Canadian real estate players doing in response? One interviewee described their approach to finding win-win approaches to ESG matters by focusing on initiatives with clear payback. In their case, that means investing in newer types of heat pumps that are more efficient, as well as working with their teams to identify ways to reduce the emissions of their highest-emitting properties. The interviewee noted they are also in touch with their insurers to better understand the risks and costs of weather events and other climate-related changes. As part of their broader plans to recycle capital by selling off assets, they are considering how some properties may be permanently impaired by climate change risks.

3. New Technologies, Incentives, and Taxes

The good news is that, even for Canadian real estate players focused on taking a more measured approach to ESG matters, a growing array of supports and solutions are available to help them in their journeys, including the following.

Technology-enabled ESG reporting: Even with the growing focus on ESG matters and the pending implementation of ISSB disclosure standards, reporting practices on issues such as greenhouse gas emissions, biodiversity impacts, workplace diversity, cybersecurity protections, and labor practices remain challenging. But the landscape is changing quickly, with technology-enabled ESG reporting solutions emerging to help real estate companies produce disclosures that meet high standards for quality and assurance. While technology will be key to creating more effective, efficient, and accurate ESG reporting, the quality of the solutions offered by vendors varies, meaning real estate companies will need to carefully assess which products to adopt and implement meaningful review practices to ensure data integrity.

Sustainable building solutions: The array of tools, technologies, techniques, and solutions to create more sustainable real estate assets is also growing quickly. One interviewee, for example, noted how installing vertical wall solar panels on the sides of a building allows real estate companies to go beyond putting the panels on roofs. Others described their efforts to achieve emissions reductions by participating in district heating and energy systems, while several interviewees are focusing on low-carbon construction techniques to reduce the embodied carbon in building materials such as concrete. Building automation tools are another area of focus for real estate companies looking to reduce their energy use and emissions.

Taxes, incentives, and partnerships: For many real estate companies, a key challenge is managing the significant upfront costs of investments to reduce emissions. While interviewees tended to feel strongly that the array of government programs available to support these investments is insufficient, an approach that considers the full life-cycle costs-not to mention the evolving tax implications of emitting greenhouse gases-can make a difference to the business case for proceeding with decarbonization initiatives.

This would mean, for example, taking into account the avoided costs of federal and provincial carbon pricing frameworks due to emission reductions. Governments in Canada are also rolling out a growing number of incentive programs to help

companies manage the costs of clean energy equipment and technology initiatives, building retrofits, and efficiency upgrades. Although a few programs are targeted specifically at the real estate sector, many are applicable to all industries and would cover building and constructive activities.

The Housing Market at a Breaking Point:

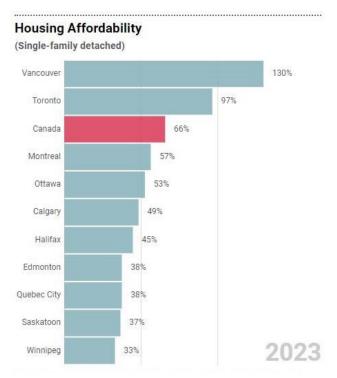
The Challenge of Tightening Supply versus Growing Demand

"We're missing a strategic vision in Canada by all three levels of government."

Concern about housing affordability continued to grow in 2023, and this trend is expected to deepen in 2024 given the overall shortage of houses and current homebuilding trends. According to an August 2023 report from the Canadian Home Builders' Association, 22 percent of industry panelists surveyed said the current market slowdown was causing them to cancel building projects entirely. And two-thirds said market conditions were causing them to build fewer units, signaling further constraints on the supply of homes in the near future.

The prospects for significantly alleviating affordability pressures in the near term are low given factors that are increasing housing demand amid tight supply. On the demand side, Canada's population—which surpassed the 40 million mark this year—will continue to grow as the country raises immigration levels. The federal government has raised its target of 431,645 new permanent residents in 2022 to up to 505,000 in 2023, 542,000 in 2024, and 550,000 the year after. The numbers of international arrivals needing housing becomes even bigger when accounting for nonpermanent residents such as international students holding study permits and temporary foreign workers, both of whom have been coming to Canada in large numbers recently. While newly published population estimates from Statistics Canada for the period spanning July 1, 2022, to July 1, 2023, shows Canada welcomed 468,817 immigrants during that time, the country also saw a large increase-697,701-in the net number of nonpermanent residents.

While there are excellent reasons for Canada to increase its working-age cohort through immigration and other measures given the overall aging of the population, the country also



overall aggregate of all housing types in a given market.

Source: RBC Economics, housing trends and affordability reports • Note: Data as of June 28, 2023 Note: The RBC housing affordability measures show the proportion of median pretax household income that would be required to cover mortgage payments (principal and interest), property taxes, and utilities based on the benchmark market price for single-family detached homes and condo apartments, as well as for an

needs to make sure it can house new arrivals. This is especially important in light of studies tracking troubling housing affordability trends in Canada. According to the Royal Bank of Canada, for example, homeownership costs as a percentage of median household income reached 65.9 percent for a singledetached home in the first quarter of 2023. While the Bank of Canada's monetary policies have helped soften home prices, interest rate hikes have still put upward pressure on the cost of carrying a mortgage.

One notable change in the affordability discussion this year is the increased focus on challenges in the rental market as potential homebuyers continue to rent after finding themselves unable to purchase homes. Canada's rental vacancy rate was just 1.9 percent in 2022, according to the Canada Mortgage and Housing Corporation (CMHC), and the tight rental market has helped lead to rapid rent increases in many Canadian cities.

According to the Toronto Regional Real Estate Board, the average rent for a one-bedroom condominium apartment rental rose 11.6 percent in the second quarter of 2023 compared with the same period last year. The affordability squeeze has continued to spread to rental markets in cities other than traditional high-cost centers such as Toronto and Vancouver. In its latest annual report on Canada's rental housing market, for example, CMHC found a record increase in average rents for Halifax in 2022. Cities in Atlantic Canada such as Halifax are seeing strong population growth, in part due to the region's rising share of immigrants coming to Canada. Coupled with the large number of Canadians moving to Halifax from other provinces in search of cheaper homes, the city's housing market has tightened to the point that some residents are now leaving the Nova Scotia capital for more affordable communities, CMHC reported. Other communities seeing record rent growth include Kitchener-Waterloo-Cambridge, where CMHC noted increases were higher than for other Ontario cities such as Toronto.

Supply Measures Welcome, but More Consistency Needed

Interviewees are resolute that government measures to facilitate supply are key to improving affordability, and that means working more collaboratively with the industry to mitigate the cost pressures builders are facing. A key way to do that is for both provincial and municipal governments to streamline approvals processes, because current timelines can add significant costs to development projects, especially when interest rates are high.

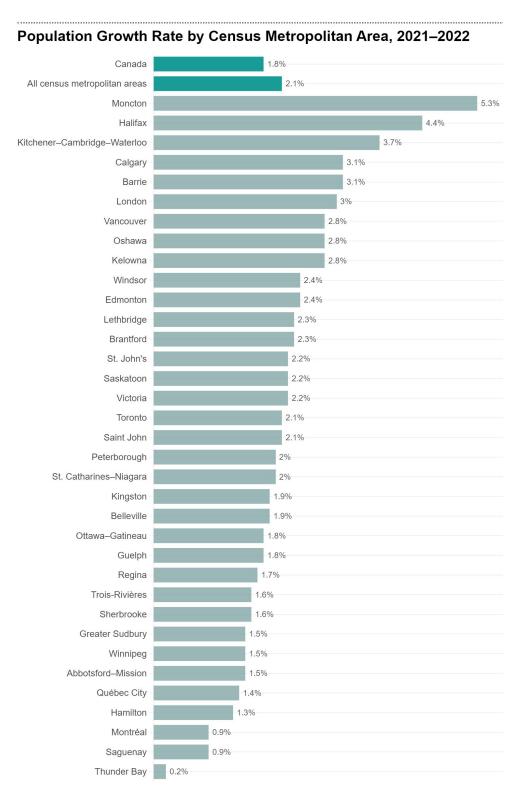
To be sure, several municipal and provincial governments have introduced changes recently aimed at speeding up approval timelines and facilitating new supply. In Ontario, for example, the provincial government has recently pursued a series of housing supply measures, including actions to streamline land-use planning, to set minimum density targets near major transit stations and to support the development of infrastructure needed for new homes. It has also enacted legislative changes to expedite approvals and zoning changes to facilitate building near priority transit projects through the Transit-Oriented Communities Act and, importantly, has moved to exempt affordable housing from development charges. In British Columbia, the province's Housing Supply Act allows the government to set housing targets in municipalities as part of efforts to speed up local approval processes. And in Nova Scotia, the province has established several special planning areas in the Halifax region to support the development of up to 22,600 new residential units.

Large Canadian cities, notably Vancouver and Toronto, also have taken action to address the so-called "missing middle" of medium-density homes and create more alternatives to singlefamily houses, which tend to be more expensive. At the federal level, significant recent moves include plans to remove the goods and services tax (GST) charged on new purpose-built rental housing projects—a move some provinces plan to build on with sales tax changes of their own. The federal government has also introduced changes to facilitate immigration by skilled tradespeople, which is key to mitigating labor shortages that are limiting new housing supply.

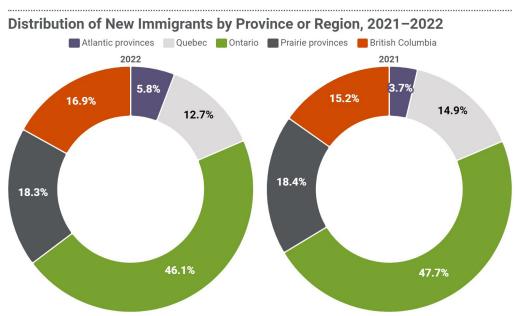
Interviewees are watching these changes with interest but are mostly reserving judgment on how much of a difference they will make, given the flurry of policy measures introduced in the past year. Many expressed a concern about the need for greater coherence of actions across different levels of government and for recognition that the real estate and building industries are a critical part of the solution to the overall problem of housing affordability and supply. Some expressed concern, for example, about policy measures, such as potential changes to the tax treatment of real estate investment trusts involved in rental housing, that could limit their investment in the market. Some interviewees also worried that discussions about introducing or tightening rent controls to address rising affordability concerns will deter investment in and development of rental housing, which would only increase the supply woes at the heart of the problem.

Ensuring Housing Attainability for More Canadians

Another issue mentioned by several interviewees is the need for policies and programs to better distinguish between affordable and attainable housing, both of which are in short supply. Truly affordable housing for the lowest-income Canadians



Source: Statistics Canada, annual demographic estimates, census metropolitan areas and census agglomerations • Note: Data as of August 28, 2023



Source: Statistics Canada, annual demographic estimates: Canada, provinces and territories, 2022 • Note: Data as of August 31, 2023

requires a different set of solutions—especially greater amounts of funding and other direct financial supports—than those needed to ensure suitable homes are attainable to a broader spectrum of homebuyers and renters. Tailoring programs and financial incentives to target varying needs and circumstances will be critical.

Both scenarios require more supportive measures to facilitate supply, with higher interest rates, financing issues, and cost increases creating challenges for all players involved in building homes, including nonprofit organizations focused more on deeply affordable housing and for-profit companies serving a broader range of renters and homebuyers. When it comes to supporting the delivery of housing supply for middle-income earners to buy or rent, interviewees emphasized the importance of creating the right conditions for real estate companies to build the homes required through measures like reducing development charges and taxes charged on residential construction projects. These levies have a significant impact on affordability in some provinces, including Ontario, where the Building Industry and Land Development Association estimates that fees, taxes, and charges imposed by all levels of government account for almost 25 percent of the cost of the average new home.

Industry players interviewed tended to emphasize that ensuring the supply of deeply affordable housing for low-income earners is more of a social responsibility of governments and

an issue they need to take the lead on solving. "It's going to cost money to get this done, and it can't be the developer," one interviewee stated, echoing the concerns of others that measures to put the costs of delivering deeply affordable housing onto developers will only make the market-rate homes they build more expensive. "Nobody asks grocery retailers to charge some customers more so others can be charged less," another interviewee said, summing up the sentiment of many in the industry.

But while emphasizing the need for governments to take the lead by putting more funding into affordable housing, interviewees also acknowledged their role in bringing solutions forward. Many referred to creative ways to increase housing attainability for more Canadians, such as making units smaller and less costly while finding ways to make up for the reduced space by enhancing common areas of buildings with more amenities. This is one more reason for companies to adopt construction technologies, innovative approaches to building housing, and process changes that help mitigate the cost pressures making homes even more unaffordable.

Some interviewees, in fact, reported that they are embracing their role in helping address a key issue on the social side of ESG matters. While emphasizing that governments need to do more through the right incentives, some interviewees said they are finding ways to make the numbers work as they consider how to incorporate affordable housing into their developments.

Markets to Watch

What are the top markets to watch across Canada in 2024? Following are key trends in large Canadian cities, which appear according to their ranking in this year's survey.

Toronto

After a slowdown in 2023, Toronto's economy is expected to regain momentum in 2024 with real gross domestic product (GDP) growth of 2.9 percent, according to the Conference Board of Canada (CBoC). The Greater Toronto Area remains a best bet among many of the interviewees, with one of them stating, "If I had \$100, I'd spend it all in Toronto."

But the region's real estate sector faces unique challenges. Toronto had the highest year-over-year increase in residential construction costs in Canada by a wide margin in the second quarter at 13 percent, according to Statistics Canada. This is compressing developers' margins and adding new pressure to lock in project costs as early as possible. Some are limiting the number of units they release at a time to help build rising construction costs into their sales prices. Condo developers are also facing weaker demand from investors, who are grappling with higher financing costs and limited price appreciation. Groundoriented housing remains a hot asset class in the residential market, although some developers sense that prices may soon approach levels that are unattainable for most buyers.

More broadly, affordability challenges continue to be a dominant feature of Toronto's housing market and are likely pushing many residents to move to lower-cost communities. Statistics Canada reported earlier this year that net intraprovincial migration losses are accelerating, with more than 78,000 residents leaving Toronto for other Ontario communities in 2021–2022. Immigration means the city's population is still growing overall. But these intraprovincial population outflows are creating new development opportunities elsewhere in the region. "Follow the GO line—that's where the growth will be," stated one interviewee, speaking of the Greater Toronto Area's regional transit system.

In Toronto, demand for rental housing continues to grow. But high borrowing costs make constructing purpose-built rental units challenging for many developers. Overall, the CBoC forecasts housing starts to rise 5.4 percent in 2024 but predicts activity will remain below 2022 levels.

In the office market, several interviewees said tenants are increasingly seeking high-quality, amenity-rich properties in the core, with some large-space occupiers consolidating their operations in downtown locations as their suburban leases expire. CBRE reported Toronto's downtown vacancy rate was 15.8 percent in the second quarter, notably lower than the 20.5 percent figure for the surrounding suburbs. But the near-record amount of sublease space on the market has some building owners concerned that vacancy rates could increase further as head leases expire.



Source: Emerging Trends in Real Estate 2024 survey. Note: Based on Canadian respondents only.

Many owners of Toronto-area industrial properties are feeling bullish, thanks to the recent run-up in rents and the opportunity to renew tenants at higher rates as leases turn over. But there are some concerns that rental growth may have plateaued, which is causing developers to proceed with greater caution in the face of high land prices. Colliers reported that industrial rents climbed less than 1 percent in the second guarter to an average of \$18.14 per square foot. That figure is down from the 8.6 percent increase recorded at the start of the year. The Toronto-area industrial vacancy rate is just 0.5 percent—the lowest among major Canadian markets.

As seen in other asset classes, divisions are widening among Toronto's retail properties. Owners of high-quality retail space, including grocery-anchored properties and enclosed shopping centers with premium tenant mixes, are seeing higher returns. Indeed, one of the city's super-regional malls recently recorded its highest-ever sales per square foot in 2022.

Vancouver

Residential developers in Vancouver are acting with more caution than in previous years as higher interest rates increase financing costs, reduce homebuyers' purchasing power, and weigh on the city's overall economic growth. The CBoC think tank says that after growing a mere 0.5 percent in 2023, Vancouver's economy will expand by 2.8 percent in 2024.

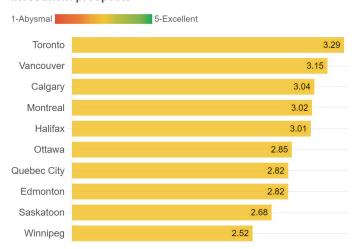
While some homebuilders are delaying the launch of new projects until next year, Vancouver is not seeing a significant slowdown in construction of projects already underway. After housing starts decline by an estimated 15 percent in 2023, the CBoC forecasts activity will completely recover and return to 2021 levels next year.

CMHC says a record number of new purpose-built rental units are on track for completion by 2023, but the scale of development still falls short of what is necessary to house Vancouver's growing population. Although some developers are launching new rental projects, sometimes with the support of government incentives, many see condominium developments as a more attractive and less risky opportunity. Many developers are continuing to focus on mixed-use, transit-oriented developments, particularly on properties near current and planned SkyTrain stations.

Vancouver's office market is outperforming those of most other Canadian cities, thanks in part to relatively successful return-to-office policies. But the amount of sublease space on the market is growing, raising questions about how much

Canada Markets to Watch

Investment prospects



Source: Emerging Trends in Real Estate 2024 survey. Note: Based on Canadian respondents only.

Canada Markets to Watch

Development prospects



Source: Emerging Trends in Real Estate 2024 survey. Note: Based on Canadian respondents only.

space tenants will require when their leases turn over. The city is seeing limited investment in offices, and developers in some cases are dropping office space from planned mixed-use developments. The city's downtown all-class office vacancy rate rose to 11.5 percent in the second quarter of 2023, up from

10.4 percent at the start of the year, according to CBRE. The downtown vacancy rate in class A buildings was slightly lower, at 10.9 percent.

Investors continue to show interest in the city's industrial assets, with many attracted by recent growth in lease rates. While asking rents stabilized in the second guarter, they have increased at a compound annual growth rate of 15.7 percent over the past four years to reach an average of \$22.05 per square foot, according to Colliers. Investors also see opportunities for long-term appreciation in property values as land constraints, combined with a push for greater residential density, create opportunities to eventually replace industrial buildings with multifamily developments.

But rising land costs are hindering efforts to create more supply, even with an industrial vacancy rate reported by Colliers of just 0.6 percent in 2023. Many of the builders launching new industrial projects are developing land acquired at lower prices years ago. Others are finding different ways to uncover development opportunities, such as forming joint ventures with existing landowners or developing properties on their behalf.

Calgary

Calgary is a "market that's gaining more interest," according to one interviewee. Several interviewees, including those from outside Alberta, said they were bullish on Calgary's residential segment-particularly its multiresidential market-thanks in part to an increasing population and its affordability relative to other major Canadian cities.

And with GDP expected to rise 2.8 percent in 2024, the city will trail only Edmonton and Toronto in economic growth next year. Calgary developers say they are still actively pursuing new projects. But interviewees said labor shortages are hampering the pace of housing starts, which the CBoC predicts will remain flat in 2024.

Investors are showing interest in all residential asset classes, including rental apartment buildings. The absence of rent control in Alberta gives investors greater confidence that they will be able to manage high interest rates. Some also believe single-family rental homes may emerge as a compelling opportunity in the coming years.

As a whole, Calgary's office market still faces challenges. While vacancy rates are trending downward, they stand at 31.5 percent downtown and 25.4 percent in the suburbs, according

to CBRE. But behind those headline figures, several building owners say they have been able to fill their space after investing in their properties and adding amenities. Tenants, they say, are willing to pay a premium to be in high-end space as a way of attracting employees back to the office. A municipal incentive program that encourages owners of underused office buildings to convert their properties to other uses continues to attract attention across the country. While some interviewees say they are seeing some good conversion opportunities, other building owners are still waiting to see how well the repurposing projects underway will play out.

The relative affordability of industrial space in Calgary continues to be a draw for tenants, especially among those looking to geographically diversify their Western Canadian operations. Industrial rents in Calgary reached an average of \$11.95 per square foot in the second quarter-considerably lower than the \$22.05 rate recorded in Vancouver, according to Colliers. That gap is helping maintain tenant demand. The recent rise in interest rates has caused developers to put some new industrial developments on hold, although many planned projects are proceeding.

Montreal

The CBoC forecasts Montreal's economic growth will trail most other major Canadian cities in 2024, with real GDP expected to expand 2.2 percent.

In the short term, homebuilders face the same challenges seen elsewhere in the country, including higher financing costs. This has led many homebuilders to be more cautious about starting new projects, with some delaying planned condo developments. CMHC found that after reaching a 30-year high in 2021, housing starts in Montreal plunged 25 percent in 2022 and slipped further in 2023. The national housing agency expects starts to edge up modestly in 2024.

Transit-oriented, multiresidential housing continues to be an area of particular interest for developers. The first phase of the new Réseau express métropolitain network opened in the summer of 2023, with additional sections scheduled to enter service in the coming years. Observers are watching to see whether proposals for a new eastern leg of the network will come to fruition and how calls for greater density around transit stations will fare against pockets of community opposition.

Downtown Montreal has regained some of its vibrancy with the return of festivals and major sporting events that were

put on hold during the COVID-19 pandemic. But the increased foot traffic has not included a resurgence of office workers, with many employees continuing to work from home several days a week. CBRE reports Montreal's citywide vacancy rate climbed to 17.4 percent in the second quarter, up from 16.8 percent at the start of the year. While the downtown market is outperforming the suburbs, vacancy in the central business district rose for the fourth consecutive guarter to 17 percent. The gap in vacancy rates between class A space (14.5 percent) and class B buildings (20.6 percent) is widening. In fact, some owners and managers of newer, high-quality office buildings with move-in-ready space say they are facing fewer challenges filling their properties than the headline figures suggest.

Industrial properties continue to be a favored asset class among investors. The market remains hot amid strong tenant demand. But after skyrocketing over the past two years, rental growth slowed considerably in mid-2023 to just 0.5 percent on a quarterly basis, reaching an average of \$16.80 per square foot, according to Colliers. Still, many in the real estate community believe there is room for further rental growth. Developers are continuing to plan and launch new projects but are increasingly finding themselves looking further from central Montreal to secure land.

In the retail sector, construction of a new high-end enclosed shopping center in Mount Royal expected to open in 2024 will increase competition for tenants and consumer foot traffic. Overall, interviewees reported they are seeing modest improvements in the performance of their retail portfolios.

Halifax

Halifax has been one of Canada's fastest-growing cities in recent years. The population increased by 4.5 percent in 2021-2022 alone—the second-highest growth rate in the country, behind only Moncton, according to Statistics Canada. This uptick has led to a limited inventory of available homes, even as construction activity remains above historic levels. Housing starts jumped 26.6 percent in 2023 and are expected to remain relatively constant in 2024, according to the CBoC. Overall, the think tank forecasts Halifax's economy will grow 2.2 percent next year.

The hot housing market is creating affordability challenges in Halifax as home prices appreciate and push more homebuyers to seek lower-priced properties farther outside the city. And, with higher interest rates further decreasing affordability, a growing number of would-be homebuyers are staying in the rental market longer. In March 2023, the Nova Scotia government extended and modified a temporary rent control measure that caps annual increases at 5 percent until the end of 2025. Although the rent control program has discouraged tenant turnover since it was first introduced in late 2020, interviewees stated it has not hindered the construction of new purposebuilt rental buildings as much as other challenges, such as higher financing costs and long approval timelines. Collectively, these hurdles make it more attractive to acquire existing rental housing than to build new inventory.

Several interviewees said they thought Halifax's downtown office market is currently oversupplied. CBRE says the vacancy rate stood at 18.4 percent in the second guarter, with the amount of sublease space on the market doubling from last year. But Halifax's office market also features several stabilizing characteristics. Government tenants are holding onto much of their space, and many private-sector employees—particularly those working for small businesses and regional companies quickly returned to the office once the most acute health risks of the pandemic had subsided.

Elsewhere in the market, investors remain interested in acquiring industrial park properties in Halifax and Dartmouth. But many feel current valuations are high, with rent increases recorded in recent years—as well as those yet to come—already priced in. Interviewees were also particularly bullish on new grocery-anchored retail developments to support new residential developments.

Ottawa

Robust demand for all types of housing—from downtown rental apartments to suburban single-family homes—is helping to keep residential construction activity above historic levels in Ottawa. While elevated interest rates and labor constraints are causing some uncertainty, the interviewees were overwhelmingly positive about the city's residential real estate outlook. They expressed confidence the market would absorb as many units as they could build. Indeed, after a slightly sluggish economic performance in 2023, the CBoC expects housing starts in Ottawa-Gatineau to jump 8.5 percent in 2024 and real GDP to grow 2 percent.

Residential developers are continuing to pursue opportunities close to Ottawa's current light rail line and an under-construction expansion scheduled to be completed in phases between 2024 and 2026. Purpose-built rental housing stood out as a particularly noteworthy residential asset class among the interviewees. Many new projects are under construction and coming online, with property owners typically achieving their desired

Survey Respondents' Views of Their Local Markets

		Poor Fair G		Good	Excellent			
Average		Strength of local economy	Investor Capital re		Development/ redevelopment opportunities	Public/private investment	Local development community	
Toronto	3.68	3.80	3.80	3.93	3.47	3.67	3.43	
Vancouver	3.77	3.85	3.92	3.77	3.62	3.69	3.75	
Calgary	3.72	3.48	3.75	3.89	3.72	3.68	3.76	
Montreal	3.39	3.60	3.40	3.20	3.40	3.40	3.33	
Halifax	3.03	3.10	2.70	3.00	3.20	2.90	3.25	
Ottawa	3.35	3.58	3.42	3.33	3.25	3.36	3.18	
Edmonton	3.23	3.56	3.17	3.33	3.08	3.17	3.09	
Quebec City	3.68	3.73	3.82	3.70	3.64	3.60	3.60	
Saskatoon	3.31	3.63	3.13	3.43	3.25	3.29	3.14	
Winnipeg	3.79	3.83	3.76	3.88	3.76	3.63	3.88	

Source: Emerging Trends in Real Estate 2024 survey. Note: Based on Canadian respondents only.

rental rates. Elsewhere, rising home prices in central Ottawa are continuing to push both prospective homebuyers and builders toward townhouses and smaller single-family houses in Ottawa's surrounding communities as well as new areas recently earmarked for development on the city's periphery.

Ottawa's office market has traditionally benefited from the federal government's stabilizing presence. But the government's return-to-office policies have not yet brought significant numbers of employees back downtown, where the overall vacancy rate was 15.1 percent in the second quarter of 2023, according to CBRE.

The federal government announced plans last fall to shed millions of square feet of office space but has since released few details about how it will consolidate its portfolio. This is creating uncertainty among landlords, especially with more than 50 percent of the government's leases expiring in the next five years, according to CBRE. The federal government did release a list of 10 properties in Ottawa-Gatineau that it plans to sell, but many are older buildings. At least some are expected to be demolished

Outside the downtown core, the region is seeing some bright spots, notably in the city's technology hub in the western suburb of Kanata, where several large multinational firms are increasing their presence.

Ottawa's industrial market continues to attract interest among developers and investors. New distribution centers are under construction in Ottawa and other eastern Ontario communities as companies take advantage of the region's transportation links and proximity to both Montreal and Toronto. In the city, demand for small-bay industrial space remains strong and is a favored segment among some investors. Average asking net rents declined slightly in the second quarter to \$15.84 per square foot but are still up 19.4 percent on a year-over-year basis, according to Colliers. The city's industrial vacancy rate has inched up for three straight quarters to reach 1.4 percent, Colliers reported.

Edmonton

Edmonton's relative affordability is helping to attract new residents who feel priced out of other major Canadian cities. Combined with strong international migration inflows, Edmonton's population growth is creating a positive outlook for the city's residential real estate sector. But despite these

2024 Forecast Economic Indicators by City

	Real GDP growth	Total employment growth	Unemployment rate	Household income per capita growth	Population growth	Total housing starts	Retail sales growth
Vancouver	2.8%	1.7%	4.8%	2.3%	2.1%	25,985	5.2%
Toronto	2.9%	1.9%	6.1%	2.4%	1.7%	39,300	4.6%
Montreal	2.2%	0.6%	4.9%	2.7%	0.9%	22,340	4.4%
Ottawa-Gatineau	2.0%	1.3%	4.7%	1.8%	1.9%	13,379	4.2%
Halifax	2.2%	1.0%	5.1%	1.6%	2.1%	4,271	4.8%
Winnipeg	2.4%	1.7%	4.6%	2.5%	1.3%	5,500	3.5%
Edmonton	2.9%	2.1%	6.0%	3.0%	1.7%	12,236	4.4%
Calgary	2.8%	2.2%	6.0%	3.2%	1.9%	13,109	4.8%
Quebec City	2.0%	1.3%	3.2%	3.1%	0.8%	6,540	4.6%
Saskatoon	2.1%	1.4%	4.8%	2.1%	2.0%	3,048	5.4%

Source: The Conference Board of Canada, Major City Insights, April-May 2023, accessed on July 27, 2023.

positive migration trends and a comparatively strong economic growth forecast of 2.9 percent in 2024, housing starts are expected to remain flat next year after falling 15.6 percent in 2023 as higher interest rates dampen demand for new homes, according to the CBoC.

These same population trends are increasing demand for rental accommodation and making existing multiresidential developments an attractive asset for investors. One interviewee said they are seeing notable competition when investment opportunities arise.

Edmonton's suburban office market is outperforming the downtown core and posted a slightly lower vacancy rate-20.9 versus 24.1 percent—in the second guarter, according to CBRE. While many large companies will continue to want a downtown presence, interviewees said high-quality suburban office space is proving popular as employees return to their workplaces.

Interviewees said the industrial market continues to be a best bet in Edmonton. Demand for space remains strong and rising rents are covering increases in operating costs. Colliers reported rents increased 4.3 percent on a year-over-year basis in the second quarter to reach \$10.43 per square foot. But the vacancy rate was the highest in the country, rising to 4.5 percent. While tenants may be cautious about taking on excess space in case the economy slows, interviewees remained confident in Edmonton's underlying fundamentals, particularly its role as a gateway to large mining sites and oil sands activity further north.

Quebec City

Higher interest rates are slowing Quebec City's housing market and overall economic growth. The CBoC forecasts the Quebec capital's real GDP will expand by 2 percent in 2024, trailing most other Canadian cities.

After hitting a record high in 2022, housing starts are expected to fall 13 percent this year and a further 9 percent in 2024. Although the pace of new home construction is slowing, demand remains healthy, particularly for multiresidential units. Several interviewees said they see opportunities in redeveloping portions of underused retail properties, as well as sites near transit corridors, to help meet this demand.

In the office market, one of the interviewees predicted there will be relatively few transactions in the near future as investors remain in price-discovery mode. Considerable uncertainty still hangs over the city's office market, particularly as many public-sector employees continue to spend significant portions of their workweek at home. Quebec City's office vacancy rate increased to 11.3 percent in the second quarter to hit its highest level in 10 years, according to CBRE.

In the industrial market, limited availability is continuing to drive up rents. On the retail front, owners of retail assets say they are feeling more confident about their portfolios than in years past, as they put more emphasis on managing their tenant mix to continue attracting consumer foot traffic.

Saskatoon

Saskatoon, like other Prairie cities, has been notable for its strong economic growth, driven in part by Saskatchewan's agricultural and mining industries, according to the CBoC. But while GDP growth will moderate to 1.2 percent in 2023 from 4.8 percent last year, the CBoC expects healthier rises of 2.1 percent and 2.5 percent in 2024 and 2025, respectively.

In the housing market, the CBoC is forecasting continued increases in starts. In 2024, it expects housing starts to reach 3,048 units, up from 2,775 this year and 2,659 in 2022. The activity is up significantly from 2020, when the city saw just 1,909 housing starts, according to the CBoC. Key developments include a proposed 26-story building that will feature 184 residential units as well as commercial space. Unlike many Canadian cities, Saskatoon saw a recent decline in residential building costs. According to Statistics Canada, construction costs fell 0.3 percent on a quarterly basis in the second quarter of 2023. On an annualized basis, costs were up a modest 1.6 percent.

Looking at purpose-built rental housing, CMHC expects international migration will bolster demand, helping push down the vacancy rate to 2 percent in 2024 from an estimated 2.5 percent in 2023. It projects vacancy will fall even with new supply being built and more units to start construction in the coming years.

Industrial property is another key area of strength for Saskatoon. The industrial vacancy rate was just 1.9 percent in the second guarter of 2023, according to Colliers, which expects to see upward pressure on rents.

Winnipeg

According to the CBoC, economic growth will improve in 2024, with GDP expected to rise 2.4 percent next year after increasing by 0.9 percent in 2023. Helping bolster the economy is a growing population, with the CBoC forecasting annual growth of 1.3 percent over the next few years.

Winnipeg continues to distinguish itself for its relative affordability for homebuyers. At 33.1 percent, RBC's housing affordability measure (homeownership costs as a percentage of median household income) for Winnipeg in the first guarter of 2023 was almost half the Canadian average of 65.9 percent for a single-family detached home. This was the lowest of the 10 markets to watch. At a time of continued supply chain and inflationary pressures, Winnipeg also stands out for a recent decline in residential construction costs, which were down 0.1

percent on a quarterly basis in the second guarter of 2023, according to Statistics Canada. On an annualized basis, costs were up 3.2 percent, compared with the average of 7.5 percent for all the cities analyzed.

In the rental housing market, CMHC expects high demand driven in part by strong international migration—and continued rent increases in 2024. It predicts the vacancy rate will rise to 3.2 percent next year from an estimated 2.5 percent in 2023 as rental construction activity brings new units to the market.

On the industrial front, Colliers reported a vacancy rate of just 2 percent in the second guarter of 2023, while net asking rents rose to an average of \$9.75 per square foot from about \$9 during the same period last year. While new supply is under construction, the city is seeing strong absorption. Office trends reflect much of what is seen nationally. According to CBRE, the downtown class A vacancy rate was 14.8 percent in the second quarter of 2023. This represented a 10-basis-point decline, versus a 130-point rise for downtown class B offices. CBRE noted several large new office projects are under construction, including a 300,000-square-foot building whose tenant will leave its current space upon completion.

Winnipeg also has several other significant projects underway, such as a large rail-serviced industrial project called the CentrePort Canada Rail Park. Winnipeg is also pursuing further downtown development through the city's CentrePlan 2050. A key focus is on getting more people living and visiting downtown by designing attractive buildings, streets, parks, and public spaces. The plan includes new urban design guidelines that will inform future changes to the zoning bylaw.

Property Type Outlook

Industrial Property

Industrial real estate remains a favored asset class, with low vacancy rates helping push up rents for leased space. The national vacancy rate of 1.2 percent was up just slightly from last year, according to Colliers' second-quarter data, while rents saw a bump to \$14.03 per square foot (from \$11.00). But despite ongoing demand drivers such as the need for space to accommodate the growth of online retail sales, there are cautious views on the outlook ahead as the industrial market, like other asset classes, becomes increasingly bifurcated.

Rent for industrial assets is peaking and starting to stabilize, and there's consensus that further increases will be hard to achieve, especially if the economy enters a significant down-

Industrial Space, Q2 2023

	Availability rate	Under construction (sq ft)
Vancouver	1.7%	10,295,966
Greater Toronto	1.4%	14,583,012
Montreal	2.1%	3,778,509
Ottawa	1.8%	511,325
Winnipeg	_	682,104
Edmonton	8.3%	2,965,243
Calgary	8.2%	5,517,905

Source: Colliers Canada, Data as of July 26, 2023.

turn. Investors can no longer assume valuations will rise as quickly as in past years, which has led to lower transaction volumes. As one interviewee said, "Industrial has run its course."

But other interviewees say they are moving ahead with development, believing that industrial real estate continues to offer an attractive proposition. Companies that have built up strong land banks are more likely to move forward with development, while sites located reasonably close to major cities will have a greater ability to demand higher rents.

In this environment, some believe it is helpful to be strategic with land acquisitions by, for example, partnering with existing owners of industrial property. Whereas in the past, interviewees would often say they would buy any industrial asset, they are now assessing it more carefully to see which types of properties in which locations are most attractive.

When it comes to ESG investments, there is growing interest in the use of solar panels. Solar power can provide a dependable supply of clean electricity to tenants, helping to address rising energy costs while reducing carbon footprints. This is one way for industrial players to make their properties stand out, which could, in turn, help them attract high-quality tenants.

Retail Property

One of the more interesting trends this year has been the comeback story for retail property, with many interviewees more bullish about this asset class. There is generally a brighter outlook for retail real estate, thanks to a limited supply of space and the willingness of consumers to keep spending

despite economic uncertainty. This includes in-person shopping: 38 percent of Canadian respondents report shopping in-store at least weekly, according to PwC's latest Consumer Insights Survey.

"Retail is recovering," said one interviewee, summing up the general sentiment found this year. Other interviewees say they are fully leased and ahead of budget on their retail assets as some tenants look for more space, whether for larger showrooms, last-mile fulfillment, or brand development opportunities.

Similar to other asset classes, there's bifurcation in the retail segment also. The largest regional shopping centers and grocery-anchored retail properties are doing particularly well and seeing healthy traffic—back to prepandemic levels—while suburban strip malls continue to struggle. Interviewees believe it is important to invest in amenities and experiences, as well as ensure a variety of uses—including residential development—to create a greater sense of community and make the shopping center a destination for a diverse mix of consumers. For some, this could mean using creative leasing strategies to ensure a strong tenant mix that includes lifestyle, wellness, and entertainment uses.

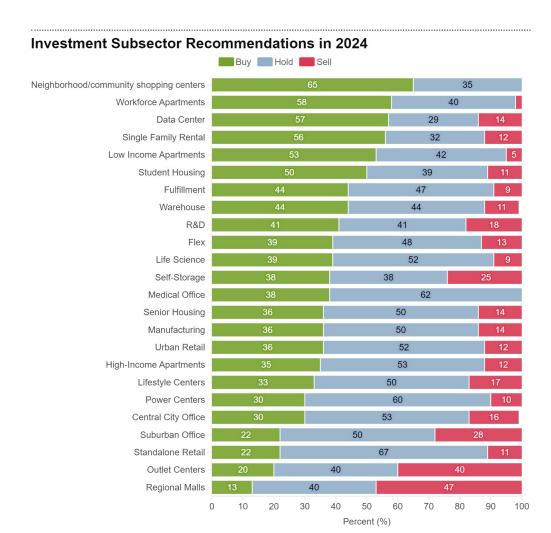
With the ongoing decline of large anchor tenants, some mall owners are seeing success by shifting toward smaller-format stores. In some cases, retailers are using part of their space to hold inventory for pickup and fulfillment of online orders from customers. They are also experimenting with store-within-astore concepts, in which a company sells its products through another retailer's existing locations. This avoids the costs of setting up new retail locations while compensating the other retailer for the use of its space.

Overall, interviewees feel that the long-term outlook for retail assets is favorable, particularly given rising demand resulting from immigration to Canada and population growth. This makes neighborhood retail developments aiming to serve the needs of new and growing communities a particularly good bet.

Offices

With offices considered a "bad word" in real estate at the moment, in the words of one interviewee, many industry players are taking a wait-and-see approach to this asset class. Construction is declining, and the national office vacancy rate sat at 18.1 percent in the second guarter, according to CBRE. The downturn in the technology sector has added to the challenges for office properties. As a result, there's a general sense among interviewees that it will be several years before the sec-

^{-:} Symbol represents data not available



Source: Emerging Trends in Real Estate 2024 survey. Note: Based on Canadian respondents only.

tor starts to recover. Office categories also tended to rank near the bottom of investment and development recommendations in the survey.

Questions remain about tenant space requirements. Although the percentage of employees going into the office at least some of the time has risen, many continue to want to work remotely. PwC's 2023 Hopes and Fears Survey found that among 2,000 Canadian respondents, 51 percent of those whose job can be done from home are working in a hybrid arrangement, with just 16 percent in the office full time.

Despite these challenges, many tenants in the best office locations are renewing their leases. Top-quality buildings with rich amenities and experiences in the best locations will remain in demand. Other buildings will suffer, with owners consider-

ing what to do with their struggling assets. This is reflected in CBRE's data: downtown class A vacancy rates are lower than for class B properties (16.5 versus 23.3 percent).

Some office owners are looking to sell their properties, but those looking for a deal are finding relatively few distressed buying opportunities. Some contrarian investors are buying up office assets at higher capitalization rates as they are more confident in a long-term recovery for the sector, while others are looking to buy fully leased buildings at relatively attractive prices and add value by refurbishing them.

Some industry players compared the outlook for offices with the situation faced by the retail segment in recent years. "Office is the new retail," said one interviewee, a comment that raises questions about the extent to which lessons learned from

Canadian Downtown Office Markets Statistics, 2Q 2023

	Under construction (sq ft)	Class A vacancy rate	Overall vacancy rate
Vancouver	1,153,477	10.9%	11.5%
Toronto	5,477,851	14.2%	15.8%
Montreal	1,397,392	14.5%	17.0%
Ottawa	61,888	11.3%	15.1%
Edmonton	0	22.7%	24.1%
Calgary	0	25.7%	31.5%

Source: CBRE, Canada office figures, Q2 2023 Note: Data as of July 4, 2023.

the repurposing of retail properties apply to office landlords navigating rising vacancy rates. For some owners, the current uncertainty is leading them to look at opportunities for adaptive use to incorporate, for example, health care, light industrial, and educational uses. "Offices could be the new schools," said one interviewee.

More discussion is also occurring about repurposing offices to housing, although the overall sentiment among interviewees is that it's still early, given that existing layouts tend to not be amenable to residential conversion. Even so, recent reports indicate that scores of buildings across Canada could be candidates for conversion. And experiences in Calgary, where conversions have been a factor in the recent decline in the local vacancy rate, prove it can be done successfully provided that there's meaningful support from the government to make it work financially.

Similar to the trend toward experiences, activities, and entertainment in retail real estate, many office owners are focusing on amenities that attract tenants and their employees. This could include, for example, converting traditional work areas to bar and cafe spaces as well as reimagining building amenities, such as lobbies, to host events and offer activities that all tenants can access. Investing in ESG features could be another key differentiator to create value in an increasingly bifurcated market.

Purpose-Built Rental Housing

This asset class has been a significant focus for both the real estate industry and governments recently. Among the most notable developments was the federal government's September 2023 announcement of GST relief for new rental housing construction. The move has industry players watching for similar actions to remove provincial sales taxes, which, combined with the federal announcement, could lead many to take another look at development opportunities in this asset

class. Some provinces have already announced plans to follow suit, while several developers have said they will be moving ahead with development plans as a result of the tax changes.

The tax relief comes amid the growing recognition of the need for significant investment in and development of purpose-built rental housing, given current trends in the market. According to the latest Canadian census data, the number of renter households grew by 21.5 percent from 2011–2021, which was significantly higher than the 8.4 percent growth on the ownership side. Rents are also rising quickly, especially for vacant units. According to CMHC's 2023 annual report on the rental market, the average rent jumped 18.3 percent last year for a two-bedroom unit that turned over to new tenants.

Immigration is generally an important source of demand, but another key segment of international arrivals who need rental housing is the growing number of foreign students attending Canadian postsecondary institutions. Another factor is spillover demand from people unable to afford homes at higher interest rates. Some interviewees believe this will push more people into the rental market, with the full impact being seen in 2024.

While government action on the GST and potential provincial sales tax changes may have an effect, current conditions have made it challenging in many markets to invest in the supply needed to meet the high demand for rental housing. Rising costs and interest rates are holding back some new developments, particularly in the largest markets such as Toronto, Vancouver, and Montreal. Introduction of new rent control rules or further tightening of existing regulations could make conditions even more challenging, which would only add to the affordability issues facing many renters.

If a developer already has a rental project under construction, they will likely continue building, but they may postpone moving forward with developments that have secured approvals

Under Construction Inventory by Intended Market

	2012		2017			2022			Q1 2023			Q2 2023			
	Home- owner	Rental	Condo	Home- owner	Rental	Condo	Home- owner	Rental	Condo	Home- owner	Rental	Condo	Home- owner	Rental	Condo
Vancouver	5,289	1,695	15,924	5,053	7,944	29,124	4,389	14,083	30,749	4,374	14,745	32,034	4,557	17,025	35,237
Toronto	14,785	2,987	51,039	18,534	6,663	45,152	14,646	13,514	73,274	14,204	14,142	71,197	13,657	16,416	77,554
Montreal	3,062	2,205	13,326	2,150	9,562	11,267	1,815	23,245	13,362	1,432	21,696	13,184	1,400	19,431	12,763
Ottawa	2,270	445	2,696	3,311	1,856	2,184	5,642	4,017	6,639	4,814	4,728	6,388	4,295	5,177	6,059
Halifax	931	2,234	462	671	3,026	453	830	5,916	0	889	5,843	0	918	6,477	6
Winnipeg	1,257	844	982	1,644	1,676	1,801	2,205	5,015	908	2,009	5,379	1,027	1,871	5,171	1,009
Edmonton	5,225	2,100	4,598	4,803	1,831	3,738	5,944	6,755	1,488	5,310	7,263	1,269	4,543	6,751	657
Calgary	4,092	975	5,849	4,066	1,058	5,174	6,277	6,589	5,728	6,019	8,003	5,352	6,225	8,704	5,157
Quebec City	661	1,365	1,533	483	3,439	1356	730	8,176	323	553	8,263	361	557	8,252	361
Saskatoon	1,401	246	1,292	847	143	563	729	1,548	526	616	1,786	521	636	1,461	443
Canada	50,080	21,290	105,622	55,402	49,132	114,225	63,027	115,955	154,683	59,619	122,763	154,192	57,406	126,035	162,498

Source: CMHC starts and completions survey, accessed on July 27, 2023. Note: Dwellings types include single, semi-detached, row and apartment

or been planned for the future. In some markets, interviewees are looking at buying older rental properties to modernize or add value to rather than develop new products. Having CMHC financing support and density bonuses for building purposebuilt rental housing can often make the difference when deciding whether to proceed with a development. And some categories of the rental market, such as student housing, are more attractive to interviewees than others in light of current growth trends in certain niche segments.

Condominiums

Interviewees are taking a cautious approach toward condo developments, with many saying they are delaying new launches, given the current environment, even as they maintain a strong optimism on the long-term prospects for this segment of the residential market. While rising costs, labor shortages, and long timelines for municipalities to approve new developments have created challenges for the industry for some time, higher interest rates have increased the cost of debt to the point that it is no longer feasible to proceed with many projects, particularly in Canada's largest and most expensive markets.

An additional emerging trend is the decline of investor activity, with rising interest rates deterring investors from buying new units to rent out. This reduces demand from a key buyer segment: data published earlier this year from the Canadian

Housing Statistics Program found the share of condos used as an investment in 2020 reached 39.4 percent in the five provinces (Nova Scotia, New Brunswick, Ontario, Manitoba, and British Columbia) studied. The absence of investors creates added challenges for developers, who rely on investors to buy up units during the critical presale phase of launching a condo project.

To manage these challenges, some interviewees are trying to lock in costs for labor and materials earlier to avoid increases later that threaten the viability of a project. They are also looking at ways to increase their value proposition. As one interviewee explained, the ground floor in a condo is a "dead zone" that does not offer a high return. Rethinking traditional condo design could mean adapting the ground floor for hybrid work by turning it into a coworking space. Other options include turning underused common areas into spaces for activities, socializing, or entertainment.

Despite the current challenges, the long-term outlook for condos is generally positive given strong housing demand. Condos continue to offer a more affordable price point compared with single-family housing for those looking to buy property, especially first-time homeowners.

Transit-oriented development centered around the large number of transportation projects underway across Canada represents another important opportunity to build condos as part of vibrant, mixed-use, and amenity-rich communities for Canadians looking to buy a home. Some interviewees expect to see a jump in demand for high-rise units in 2024 because there are not enough low-rise buildings to meet the needs of a growing population. But they will be paying close attention to what happens with interest rates in 2024 and how that could affect the condo market.

Single-Family Housing

Affordability has deteriorated for single-family housing, creating an ongoing headwind for developers. According to RBC's June 2023 housing affordability measure, ownership costs as a percentage of median household income reached 65.9 percent in the first quarter of 2023. Although that was down slightly from a peak in October 2022, it was up from 57.2 percent at the start of last year. In the face of other challenges, such as labor shortages and rising costs and interest rates, single-family construction activity has been slowing.

Developers are adapting by paying close attention to price points, given that many Canadians have reached the limit of what they can pay for a single-family home. Single-family housing construction continues to move further away from Canada's biggest cities, not only to suburbs but also further afield to secondary markets, given the growing appeal of smaller communities. These markets tend to be more affordable and are often an attractive option for Canadians who can work remotely and do not need to commute to major city downtown cores every day.

Looking at the low-rise category more broadly, affordability pressures are shifting the market toward smaller houses and townhouses rather than more expensive detached units. One trend that interviewees expect to see more of is stacked townhouses and mid-rise developments to increase density and affordability while appealing to suburban homebuyers. Some expect to incorporate fewer optional features upfront—such as appliances and finished basements—to make new single-family developments more affordable. They also expect to see more low-rise residential developments with a high-rise component.

Best Bets for 2024

What are the best bets for the year ahead? Through the interviews and survey of industry participants, three key opportunities were identified: industrial real estate, multifamily residential housing, and necessity-based retail property.

Industrial real estate: The industrial segment remains a best bet for many interviewees, although there is greater caution around the outlook for the year ahead. With industrial real estate perfectly priced and a sense that the recent fast pace of rent growth is unlikely to continue, sentiment around this asset class was more reserved compared to last year. But given strong fundamentals such as a very low vacancy rate across Canada, industry players still see opportunities in industrial properties, particularly in the manufacturing and warehousing segments and niche areas such as data centers. For some, while current conditions may be more challenging, the long-term outlook is positive.

For investors and developers pursuing industrial assets, it will be important to focus on finding the right opportunities to generate required returns. For some, this could mean investing in assets with strong ESG characteristics or opportunities to enhance sustainability features. Others note they are still willing to develop new assets on a speculative basis in cases where they have been able to buy the land at a relatively low cost. Although land costs are a significant challenge, some interviewees said recent softening of prices in the industrial segment is helping solidify investments in this asset class.

Multifamily residential housing: While talk of condo and rental project delays or cancellations reflect challenges in the multifamily residential class, this segment, like industrial real estate, boasts solid fundamentals that make it a best bet in the coming year. Amid strong population growth, the ongoing lack of supply, and the relative affordability of rental units and condos compared with single-family homes, the long-term outlook for multifamily housing remains positive. As one interviewee noted, it is a segment of real estate that has largely become resistant to a recession.

While both investment and development have become more challenging, interviewees noted some of the opportunities for real estate companies planning their next moves. Prospects are generally better in markets with fewer or no rent controls, one interviewee noted, while others suggested niche assets, such as student and senior housing, are attractive. While some interviewees pointed to complications with these niche areas, many felt underlying demand drivers are strong. These include the growth of the international student population as well as Canada's aging demographics. But as one interviewee noted, it is important to differentiate even in niche asset classes. They are focusing on homes for Canadians aged 55 and up, as opposed to traditional senior housing for the oldest retiree age groups.

In the rental segment, interviewees were bullish on specific types of opportunities even with current cost and financing

Investment Subsector Prospects Commercial/Multifamily in 2024 1-Abysmal 5-Excellent Data Center 3.86 3.75 Manufacturing Medical Office 3.62 Warehouse 3.59 Neighborhood/community shopping centers 3.57 Student Housing 3.56 Workforce Apartments 3.54 Single Family Rental 3.52 Fulfillment 3.50 3.50 Senior Housing Lifestyle Centers 3.46 Self-Storage Low Income Apartments 3.44 **Outlet Centers** 3.40 Flex 3.39 **Power Centers** 3.36 3.36 **High-Income Apartments** Standalone Retail 3.30 3.29 R&D Life Science 3.26 Urban Retail 3.12 Regional Malls 2.87 Central City Office 2.83

Source: Emerging Trends in Real Estate 2024 survey. Note: Based on Canadian respondents only.

Suburban Office

headwinds. For some, this could mean finding good incomegenerating opportunities from investing in existing, well-located rental buildings that they can then add value to. "Given the current market conditions, rental will be a key growth area for us," said one interviewee, a comment that resonates even more given the recent federal announcement of GST relief for new rental housing construction and the possibility that provinces may follow suit with further sales tax changes.

Necessity-based retail property: A perhaps surprising addition to the best bets list this year is this segment of retail property, especially when it comes to grocery-anchored developments that serve communities seeing strong population growth.

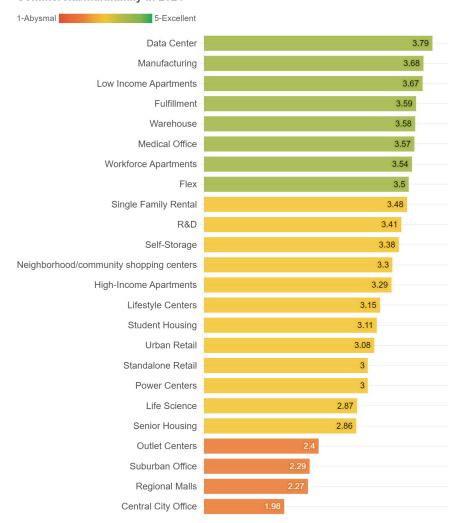
Neighborhood/community shopping centers ranked particularly high for investment prospects in the survey this year.

2.81

A warmer sentiment was also found toward the retail asset class overall. The sector's rebound reflects the fact that, unlike for offices, there has been little development of new retail supply in recent years. One interviewee noted they are seeing opportunities to buy quality retail assets at more attractive yields than they have seen in a long time. Repositioning retail properties to add value through mixed-use development is a significant trend, with scores of such projects underway in cities across the country.

Development Subsector Prospects

Commercial/Multifamily in 2024



Source: Emerging Trends in Real Estate 2024 survey. Note: Based on Canadian respondents only.

Honorable mentions: Besides these three best bets, an honorable mention this year goes to debt funds. While it is not an asset class in the survey, many interviewees cited this as a key opportunity at a time when there is a significant undersupply of debt and equity capital. By providing debt capital to those struggling with financing challenges, companies benefit from both higher yields as well as the security of the underlying real estate if the borrower cannot pay the lender back. Even so, one interviewee cautioned that companies will need to move quickly to take advantage of the opportunities they offer. They stressed that debt funds represent a "moment-in-time opportunity," especially in a smaller market such as Canada.

Another interesting finding was the high ranking in the survey for medical offices, which scored well for both investment and development prospects but saw relatively little discussion among the interviewees this year.

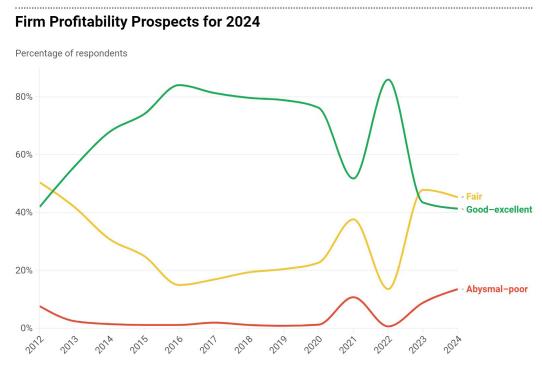
A New Era Comes into Focus

"Unbuckle your seatbelts because it's probably going to be a slow, careful ride.

Disruption won't happen like a roller coaster. It's gonna be slow going, and you're just gonna have to do your homework when it comes to specific details and specific places and specific property types."

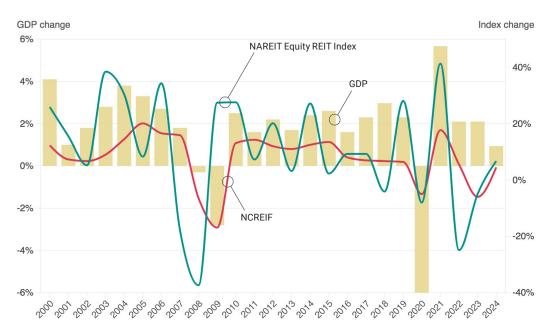
This is what will be. A consensus is growing in the commercial real estate community that the world we're looking at now is the world we'll be living in for a while. The worst of the COVID-19 pandemic has long passed. We should no longer expect a sudden U-turn to the way things were in the prepandemic times.

After three years of holding out hope, industry leaders have finally concluded that most of us really won't be returning to the office nearly as often, and some not at all. The implications for our industry are profound, and not only for office owners, managers, and brokers. Collateral impacts will also be seen on downtowns and other property sectors that depend on a vibrant office market. Investors need to rethink long-held canons about how to construct portfolios. These are all topics we explore in the following pages of this 2024 edition of Emerging Trends in Real Estate[®]. As the contours of a new era in real estate become increasingly clear, one overarching theme to emerge is one we're calling "The Great Reset." The past is no



Source: Emerging Trends in Real Estate surveys





Sources: NCREIF, NAREIT, Bureau of Economic Analysis/U.S. Department of Commerce, ULI Real Estate Economic Forecast *NCREIF, NAREIT and GDP projections for 2023 and 2024 are based on the ULI Real Estate Economic Forecast, Fall 2023.

longer prologue; old assumptions—about market dynamics, pricing, and risks—must be visited.

Another central element in this new era: the reluctant acceptance of "higher for longer." As a leading investment banker said, "The good news is that we have more clarity, more certainty, but the bad news is we don't like what we see because the rates are higher for longer."

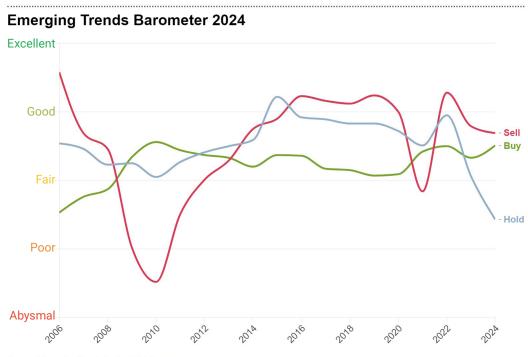
Respondents to this year's Emerging Trends survey believe the worst of inflation is behind us, with over half expecting inflation to decline in 2024 and another third believing inflation will at least stabilize. That should give the Federal Reserve Bank permission to stop hiking interest rates. But only three in 10 survey respondents expect commercial mortgage rates to drop in the coming year.

The good news of greater market certainty must be tempered by the latest smoke signals from the Fed suggesting that the mantra should be "higher for even longer." Paired with forecasts of slower future economic growth—another theme this year—owners must prepare for more painful property value losses.

Itching to Buy

Given all the negative press about commercial real estate markets, one perhaps surprising result from our survey: investors are eager to acquire new assets. The Emerging Trends Barometer for 2024 registered its highest "buy" rating since 2010, likely reflecting recent and expected price declines, making this a more favorable entry point for acquisitions after a decade of relentless appreciation. In addition, almost half of survey respondents expect cap rates to rise further next year, further depressing values.

Yet sales transaction levels are down, and many in our industry see a negative loop where buyers and sellers cannot agree on pricing because the shortage of sales limits price clarity. The reality does not seem so bleak. Transaction levels in the first half of 2023 fell about a quarter (26.1 percent) from the first-half average in 2015–2019—harsh, but not historically horrible—and they are well above levels in 2020 when the markets really were at a standstill during the economic lockdown. But there is no doubt that wide bid-ask spreads between buyer offers and seller expectations are limiting transactions, particularly in the beleaguered office sector, where sales are down over 60 percent from 2015 to 2019.



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

Said an executive with an asset management firm, "We're in a fairly good pause while there's a realignment of expectations between buyers and sellers. Sellers have not yet fully adjusted their expectations to current market conditions."

Investors want more assurance about where prices will settle. "We think we're seeing good opportunities, but it's hard to evaluate what a good opportunity is today because we don't have price comps," explained one fund adviser.

Industry participants also blame the debt markets. "Interest rates and cost of capital" remains the top concern in the survey, followed closely by "capital availability." Debt is viewed as slightly more available than last year for all sources except commercial banks. Still, respondents believe that both debt and equity underwriting will become more rigorous.

Not So Bad. Or Great.

Despite these capital market challenges, many in the industry remain at least somewhat hopeful, if less optimistic than typical. Over 40 percent of survey respondents rate their firm's profit outlook as good to excellent, but that is the lowest share

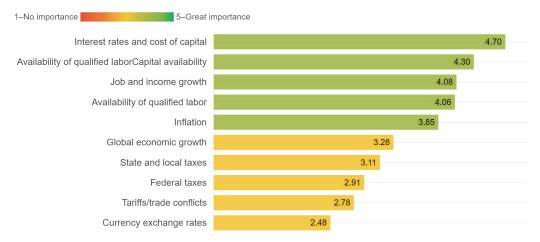
since the 2011 edition of Emerging Trends, when the industry was still trying to climb out of the Great Financial Crisis (GFC). Conversely, just 13 percent rate their firm's profit outlook as abysmal or poor-though that's the highest such share in over a decade.

Despite the weakness in real estate capital markets, this guarded optimism seems appropriate as property fundamentals remain surprisingly resilient in the face of considerable market dislocation and economic uncertainty. The office sector remains a conspicuous exception on this score, but its deep problems should not tar the entire industry. Said one industry strategist, "With office in such doldrums, it's easy to paint with a very broad brush about commercial real estate and think it's all bad."

The mixed sentiment expressed in the survey also reflects the diversity of outlooks among industry participants, which seems greater now than during either the GFC or the COVID lockdown, when most people seemed to share a common market mind-set. According to one adviser to pension funds, "There's different people in different places for different idiosyncratic

Importance of Issues for Real Estate in 2024

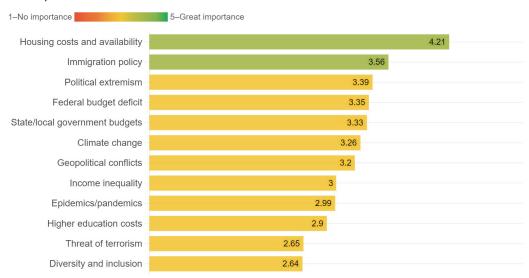
Economic/financial issues



Source: Emerging Trends in Real Estate 2024 survey.

Importance of Issues for Real Estate in 2024

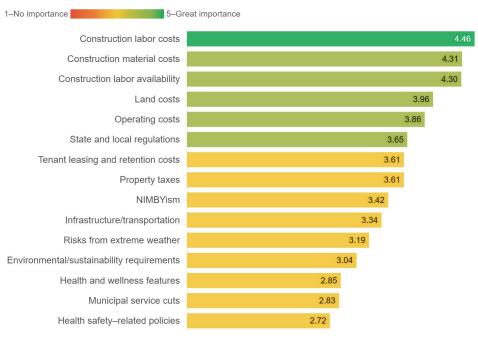
Social/political issues



Source: Emerging Trends in Real Estate 2024 survey.

Importance of Issues for Real Estate in 2024





Source: Emerging Trends in Real Estate 2024 survey.

reasons. There's some investors that are full speed ahead, some are starting to pick up their pencils, some that are still pencils down."

Many investors, especially "core" institutional funds, remain on the sidelines, waiting for the right entry point when prices will fall enough to make returns compelling. But that might take a while because few owners face enough distress to force inopportune sales. And most investors are looking for the end of interest rate hikes, which seems close at hand, though the wait for actual rate cuts will take longer.

The good news here is that the Merrill Lynch Option Volatility Estimate (MOVE) index, which measures bond market volatility, was at its lowest point in 18 months as of mid-October 2023 and generally trending down. Unfortunately, the index remains highly elevated by historical standards at its second-highest level since it was initiated in 2002. Thus, the markets likely need to calm down considerably before investors feel comfortable to re-enter the market.

Reflecting the view of many investors we interviewed, one firm's strategy head said, "I think it will take 'til 2024 for an uptick in transaction volume, but it'll come. It won't necessarily hinge on a lowering of interest rates by the Fed. It could happen before then as people get used to the new higher rates and start to transact again."

The sentiment of developers seems similarly bullish but cautious. Said one mixed-use developer, "We're keeping the foot on the gas and getting lease deals done, but we're watching closely for when it makes time to deploy new capital again. I think it's difficult to make big capital deployment bets until we start to see some stability in the interest rate markets and some settling of capital costs."

Meanwhile, more opportunistic funds are raising capital and circling, looking for distress, but not finding much yet. "I don't know when that date is going to be, but I think that there's going to be more distress, so I think that there's gonna be more opportunities," said the head of an asset management firm.

Although the broad contours of the commercial real estate (CRE) sector are coming into greater focus, the path forward will not necessarily be easy to discern or navigate. As noted in the quotation that opened this section, we'll still need to do our homework.

1. Higher and Slower for Longer

- Almost 18 months since economists started predicting a recession, there are scant signs that a downturn is imminent, and many forecasters have dialed back their recession probabilities.
- The emerging consensus is that the economy is headed for a "soft landing" or a "growth recession" with slow economic growth and at least moderate job growth, but with risks weighted firmly to the downside.
- Looking out further, we seem to be heading for an era of higher interest rates and slower economic growth than we have experienced in recent decades, presenting a challenging environment for real estate investors.

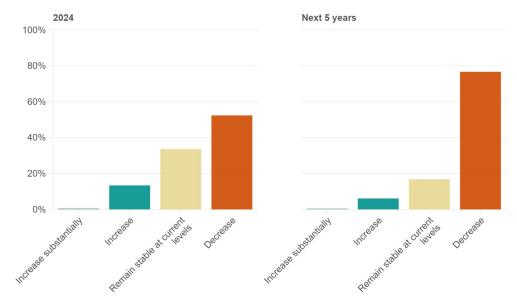
We've all been waiting a long time for a recession to start, but the U.S. economy refuses to give in. As one prominent economist we interviewed remarked, "It's amazing that the U.S. and many other economies have been so resilient in the face of rising rates. This is the most forecasted recession ever."

Indeed, according to the Wall Street Journal's closely watched survey of economists, the probability of a recession occurring within the next 12 months jumped to about 30 percent in April 2022, just after the Fed began its long string of rate hikes. By July, the economists surveyed put the odds at 50:50. By October, the median probability rose to 63 percent.

And then the yield curve between the three-month and 10-year Treasuries inverted in late October. The recession watch was on. As we prepare to publish Emerging Trends, it has been a whole year since that inversion. We are still waiting for the downturn.

Bears might point out that we need to be patient. The typical duration of an inverted yield curve before a recession starts is 15 months, so we may need to wait a bit longer. But few signs indicate a recession is imminent, and many prominent economists and forecasters have dialed back their recession probabilities well below 50 percent.

Anticipated Changes in 2024 and the Next Five Years Inflation



Still Growing, but Slower

Should we expect a recession? Given a long enough time horizon, the economy will inevitably fall into a recession at some point. But like the broken watch that tells the correct time twice a day—but cannot tell you when that is—continual recession predictions do not yield any meaningful information.

The received wisdom of industry pundits we interviewed is that the economy is headed for a "soft landing" or a "growth recession where we have a relatively strong labor market and decent job growth, but we have interest rates that are pushing us to a slowdown," in the words of a senior executive of a CRE advisory firm. However, "it is difficult to assess where the overall economy is headed, and there remain mixed signals."

To be sure, the economy has begun to slow on several fronts in recent months: real gross domestic product (GDP) growth slowed to an annualized rate of 2 percent in the first two guarters of 2023, down from 2.9 percent in the second half of 2022. But the recent rate was not appreciably lower than the 2.3 percent average for 2015–2019.

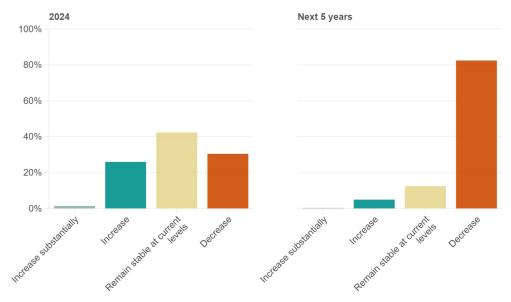
More convincingly, job growth has slowed to its slowest rate since the pandemic, with an average of 150,000 new nonfarm payroll jobs added monthly in the second guarter, down a third from the first-quarter average. But the recent average is still just 15 percent off its monthly average in 2018-2019. Similarly, the number of job openings was down almost 10 percent in the second quarter relative to the first-quarter average. Yet the 9 million openings in July were still 25 percent above the 2018–2019 average. As the single best gauge of demand for workers, this is hardly a sign of a looming recession.

Other indicators are strikingly encouraging for an economy supposedly on the verge of correction. Consumer spending which accounts for two-thirds of GDP-slowed to 1.7 percent in the second quarter of 2023, compared to a surprisingly strong 4.2 percent in the first quarter, but the recent growth was still on par with 2022 and only slightly below the prepandemic rate.

Many economists have been predicting a consumer slowdown as households deplete the extra savings they built up during the pandemic. But spending has remained durable, if not quite robust. More positively, there are few signs of significant consumer distress as credit delinquency rates remain modest, in part because household debt burdens remain modest, as we discuss in the "It's All About the Debt" trend.

Anticipated Changes in 2024 and the Next Five Years

Commercial mortgage rates



Worrying Signs

Still, economists worry, as they are wont to do. Soft landings are relatively rare for a reason: they are difficult to pull off, not least because economies become more vulnerable to shocks as they slow, pushing the economy into an outright recession. Indeed, soft landing predictions were common before each of the last few major recessions, including the GFC, but events swamped their rosy scenarios.

The chief concerns now include the following:

- Household savings rates are below normal levels, and consumers have depleted most of their pandemic savings (which could reduce future consumer spending);
- Student loan payments are resuming (which could further reduce consumer spending);
- Oil prices are rising (which could reignite inflation); and
- Banks are tightening lending standards (which could depress business investment).

That's a lot of ways to derail the economy, not to mention other potential black swan events, like the recent terrorist attacks in

Israel. But perhaps the greatest near-term threat might be the economy's very resilience in the form of persistent inflation. Though inflation is significantly down from its peak, getting "the last mile" down to 2 percent is proving to be difficult. Consumer prices rose in August 2023 at their fastest pace in more than a year, demonstrating the challenge of getting the last mile of inflation out of the system. And wage growth remains elevated, which is good for workers, especially the lower-income workers receiving a disproportionate share of recent wage gains, but problematic for reducing price inflation.

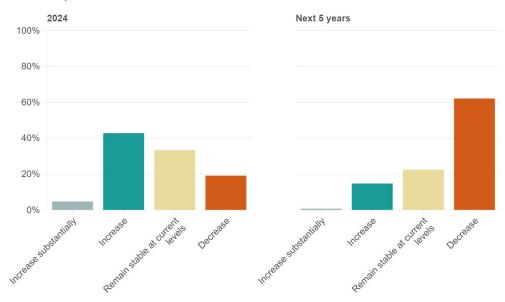
With inflation remaining still stubbornly above the Fed's target rates—and threatening to reignite—policymakers could be forced to push rates high enough to drag the economy into a recession. A related fear is that the Fed could hold rates too high for too long as interest rate hikes act with a significant lag.

But CRE industry leaders remain sanguine about the prospects for a soft landing. "A year from now, the economy will still have positive growth, but it will be slower, and rates will stay elevated because the economy can handle higher rates," said the head of CRE at one investment bank.

That sentiment tracks with most Wall Street expectations. The Federal Open Market Committee (FOMC) expects real GDP growth will slow to 2 percent in 2023 and just 1.5 percent

Anticipated Changes in 2024 and the Next Five Years

Real estate cap rates



in 2024, rising to 1.8 percent the following year and 1.85 percent in 2026, based on the central tendencies of forecasts by FOMC participants.

But even with slower growth, the era of more elevated interest rates will not likely end soon. The investment banking head further pointed out that "Pressures are going to be more inflationary than they were for the past 20-plus years where free trade allowed us to have deflationary pressure on goods." Higher for longer, indeed.

Slower for Longer, Too

What does this mean for the CRE industry? The senior executive of a CRE advisory firm said, "It's important to distinguish between what's going on in the overall economy and what's happening in real estate. The upbeat assessment of avoiding a recession has some dark clouds for the real estate industry because it means that we have a longer period of higher interest rates than previously projected."

Higher for longer is not only challenging for real estate deals. It also slows economic growth by reducing business investment and productivity. These headwinds to economic growth will be compounded by weaker demographic drivers, with slower natural population growth via childbirth and restrictive immigration policies. It all adds up to weaker space demand.

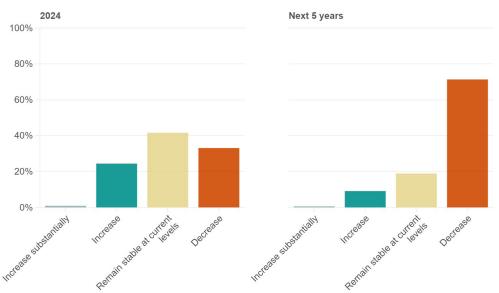
2. The Great Reset

- The Fed spoiled CRE's long run of historically strong performance with the first of 11 rate hikes in March 2022, and markets are not expected to return to their former glory anytime soon.
- The office sector has an outsized impact on the perceived risks and opportunities in commercial real estate, but fundamentals in most sectors are still generally strong, and distress is low.
- Still, market participants will need to recalibrate their expectations to reflect diminished drivers in the coming years to the detriment of rent growth, property values, and returns.

It was guite a run. Year after year following the GFC, commercial real estate generated unusually strong returns via robust rent growth, declining cap rates, and rising property values. And much of the appreciation was fueled by the octane of near-zero interest rates. It crashed briefly with the COVID lockdown and then surged again in 2021 on the strength of soaring warehouse and apartment rents and investors' seemingly insatiable appetite for more product.

Anticipated Changes in 2024 and the Next Five Years

Investor return expectations



No longer. The Fed popped the CRE balloon with the first of 11 rate hikes in March 2022, and markets have not been the same—and are not expected to return to their former glory anytime soon. Capital had flooded into real estate because it provided a unique combination of yield, income growth, and inflation protection, as well as the downside security of hard assets. But as the yield on 10-year Treasury bonds has pushed past 4.5 percent—double its 2.25 percent average from 2015–2019—bonds and other assets offer more compelling risk-adjusted returns, and CRE funds must compete harder for capital allocations.

It will not be easy. The executive of one real estate investment bank explained, "A lot of investment has been driven by people betting on a better future and having aggressive exit caps, which was rational for the industry environment that existed for the last 15 years. In this investment environment, that's not rational."

Adjusting Our Expectations

Indeed, the "higher for longer" era portends a period of difficult adjustments for the industry. Higher rates mean higher borrowing costs, which kills many acquisitions at the old prices and strains the feasibility of new construction. Both transaction activity and construction have slid as interest rates continued to rise, with no rate relief in sight. According to the head of one asset management firm: "Right now, I think that most investors are anchored to what transpired over the last 13 or 14 years with zero interest rates. Everybody's anchoring to the old days, and until they adjust to the new rates," buyers and sellers will not transact.

At the same time, the industry is expecting slower income growth going forward. As discussed in the "Higher and Slower for Longer" trend, population growth has slowed in recent years due to lower birth rates and more restrictive immigration policies. At the same time, economic growth is also projected to be more subdued, partly due to the elevated interest rates. The slower economic and demographic growth translates into slower job growth, reduced space demand, and slower rent growth. "The period of excessive income growth seems to be in the rearview mirror," concluded one prominent industry economist.

Ultimately, cap rates must rise to justify lower growth rates and higher costs, which drives down prices. The head of strategy for one asset management firm said, "If it's going to be higher

for longer, then the negotiating advantage should shift to folks looking for good deals, particularly for highly indebted property markets." That means lower asset values.

But Adjustments Take Time

Eventually. But that adjustment process may take an extended time to play out. The U.S. head of one asset management firm explained it as follows: "With no incentive to sell unless you have to, there's a reticence among owners to sell that will tamp down on transaction activity, definitely in the near term. But as there's more and more acceptance of the broader state of the macro environment, the owners who probably need to sell will start to loosen up a little bit."

Some will have no choice. Owners facing major lease or debt expirations may be forced to sell, particularly if the higher debt costs render refinancing unfeasible or the asset cannot satisfy required loan terms or covenants. Many banks now require that borrowers put more equity into their projects to lower the project's loan-to-value ratio; others require that borrowers keep deposits in their banks, which effectively accomplishes the same thing.

Some owners will conclude it is not worth throwing good money after bad and will hand the proverbial keys back to their lender. Distress levels are still relatively contained compared with other periods when there was pervasive market disruption, as we discuss in the "It's All About the Debt" trend, so there are still few distressed sales. But owners are starting to capitulate to the reality of falling demand and pricing, particularly in the beleaguered office sector. Prominent owners have recently walked away from even class A buildings in New York and San Francisco, among other markets.

Even if painful to their owners, these value losses often will not be devastating, especially for longer-held assets. The values of most commercial properties continued to appreciate until just last year, and the office sector aside, recent value declines generally have been modest compared with prior gains. According to Green Street's Commercial Property Price Index, property values have declined 16 percent since the COVID peak in 2022, far less than the 54 percent run-up since the GFC. These figures are inherently difficult to quantify precisely, and different sources report different figures. But these various sources all concur that many, perhaps most, owners will be simply giving

up some gains-unpleasant as that is-but still exiting well ahead of their initial acquisition basis.

That does not cover everyone, of course. With office values down more than 30 percent already according to some sources and further decline expected, many office owners will soon face difficult decision points. And some investors bought apartments and industrial buildings in 2021 and early 2022 with aggressive underwriting assumptions about future rent growth and terminal cap rates. Assets were purchased with adjustable-rate debt at rock-bottom interest rates that have since increased significantly, reducing net income below break-even.

These situations are still the exception, but property values will need to come down further to set the stage for the next investment wave in an era of higher interest rates and slower growth. Until then, "I don't think the transaction market is going to snap back. I think it's going to be in a malaise for a while," concluded the head of an asset management firm.

Back to Fundamentals

And what then? "In a slower-growth environment—slower economic growth, slower population growth, which means slower rent and net operating income growth-people should not be relying on cap rate compression for the returns," advised a senior investment banker. That means owners will need to pay more attention to their operations and rein in extraneous expenses. "People will be more focused on operating fundamentals going forward—much more focused on recurring cash on cash," said another investment banker.

The greater attention to operating fundamentals portends structural adjustments to address the expense side of income statements. The industry scaled up for higher transaction levels in the 2010s: "the amount of money in the market that can transact, the way that managers have structured the size of their funds and their teams," explained an adviser to major institutional investors. Add in the brokerage team and other resources that support transactions. All these resources are oversized, given current and likely future transaction levels, and must be resized to reflect actual activity levels.

The industry faces other adjustments, too. Changing demographic patterns mean the old geographic investment rules must be revised. Investor interest has shifted from downtowns to the suburbs and from the Gateway markets to the Sun Belt.

Some of these changes began even before the pandemic but have taken on new urgency and reinforce the dislocation that investors face—a topic we address in the "Portfolio Pivot" trend to follow.

A Diverse Industry

Not every part of the industry is hurting. In the words of one industry economist, "Commercial real estate is so incredibly varied not just by property type, but also by geography, so we'd be committing a grave mistake if we hitch our wagon to the tyranny of averages."

As we noted in the introduction, the office sector has an outsized impact on the perceived risks and opportunities in commercial real estate, but fundamentals in most sectors are still generally strong, and investor demand for good product remains healthy. An executive with one CRE investment firm said, "We're still seeing strong investor interest in the very welllocated stuff. An especially well-located asset is still getting very good pricing from a seller's perspective, particularly in the industrial and multifamily space." The Emerging Trends survey shows continued interest in several niche segments including data centers, student housing, and medical offices.

Nonetheless, the era of higher interest rates and slower economic growth will have profound impacts throughout the industry. "Maybe we're coming to the acceptance phase of grief that the bull market is no longer," concluded the executive with one advisory firm.

But even if changes will be painful to many and significant to most, they may not be as wrenching as some fear. The executive at one asset management firm put it this way: "I think this realignment period is less dramatic, less emotional than the realignment after the Great Financial Crisis or even the pause during the early moments of the pandemic. This realignment feels to me to be more studied and thoughtful."

It will need to be. For most of the 20th century, interest rates were even higher than they are now, and real estate people were able to make deals and build things. "But the difference is that the economy was growing at a significantly higher growth rate with a growing population and growing middle class and younger population," pointed out an asset manager we interviewed. "Now we have an aging population that is spending less."

How does the industry operate with higher rates and slower growth? We are about to find out.

3. A Painful but Needed Capitulation

- The office property sector is going through a reconsideration of its purpose and sustainable size comparable to the retail shakeout of the past decade, but at much greater speed.
- After three years of remote and hybrid working, there is no longer any reasonable expectation of a full office market recovery back to prepandemic levels.
- Broad-brush conclusions should be resisted as many buildings and markets outperform in this increasingly bifurcated sector.
- Nonetheless, a significant share of the existing inventory is functionally obsolete and will need to be repurposed or demolished to make way for higher-use uses, at great expense to their owners.

"There is more clarity now than there was a year ago about the future of office," said one investment banking firm executive. With all the adaptations we've made to work from home, "it is difficult to change work and commuting behavior patterns after a few years."

That sentiment is the growing, if not entirely settled, consensus among industry experts, with wide-reaching implications for not only office markets but also other property sectors and our nation's downtowns. With more than three years of experience since the pandemic lockdown, we now accept, at the very least,

that things are not returning to the way they were before, so there will be no full office recovery back to prepandemic levels.

Indeed, the very purpose of office buildings is being challenged, much like people started to question the need for retail space a decade ago as e-commerce emerged as a more convenient and economical alternative to in-store shopping. Malls have not disappeared, of course, but fewer are needed now that online shopping is easy and widely available. Office space is going through a comparable reconsideration.

"Why do we even office in the first place?" asked the head of research for an industry association. "For getting today's tasks done, people are more efficient not in the office. But for developing workplace capital, you needed people to be together, bumping into each other, having random conversations that help build for the future." Not every day, however.

Historically, offices supplied all the equipment knowledge workers needed to be effective: landline phones and copy machines, then fax machines and printers, and credenzas to store all the paper documents produced. Now, almost all of that has been replaced by better, portable equipment that can be set up anywhere with a wireless internet connection—which is to say, pretty much everywhere.

In addition, employees have made significant investments and life adjustments to facilitate hybrid or remote working. Many have moved to more distant suburbs or even to other regions. Others have adapted their lifestyles around more flexible hybrid work schedules or found more practical uses for the

Direct Office Vacancy Rate, Downtown versus Suburban, 4Q19 and 2Q23

	4Q19	2Q23	Percentage point change	Percent change
Downtown	10.0%	17.3%	+7.3%	73%
Class A only	10.1%	18.3%	+8.2%	81%
Suburban	12.1%	16.0%	+3.9%	32%
Class A only	13.1%	19.3%	+6.2%	47%
Top 6 markets* – class A	7.7%	16.0%	+8.3%	108%
Top 6 excluding New York – class A	9.7%	19.7%	+10.0%	104%

Sources: Nelson Economics analysis of Colliers International data.

^{*} Top six markets are Boston, Chicago, Los Angeles, Manhattan, San Francisco, and Washington, D.C.

time they formerly spent commuting. In short, there are just too many compelling reasons to work from home for at least part of the week.

Labor Day was hyped by many tech and other companies as yet another line in the sand when employees had to return to work more often. Major firms announced plans to track card swipes and tie compensation or performance ratings to attendance. But Labor Day 2023 looks little different from Labor Day 2022 and Labor Day 2021. Industry data, such as the card swipes tracked by Kastle System, show only slight improvement. The 10-city average occupancy did edge up slightly, rising from 47 percent to just over 50 percent since Labor Day-hardly a return to prepandemic normalcy.

It all adds up to reduced tenant demand for office space. "Demand is probably 60 or 70 percent of what it was, so you've probably got 30 or 40 percent too much space that exists," concluded one industry adviser. "But unlike an apartment, where at some point you can lower the rent enough to rent it up, sometimes there is no rent in which you can lease an obsolete office building."

But Not Every Office Building

Context is important. Not all office buildings are hemorrhaging tenants; many are doing just fine. The newest, premier facilities are attracting a disproportionate share of leasing interest. At the same time, the office markets in many smaller metro areas are at least getting by, if not thriving as before. Still, there is no doubt that the typical office building in most major markets is suffering.

While the occupancy rates for most property sectors are near or above prepandemic levels, office occupancy has plummeted-especially in the class A space of downtowns that used to boast the highest occupancies (and rents). Vacancy rates have jumped twice as much in downtown markets as in suburban markets. But the change in the country's dominant office markets is perhaps most troubling: vacancy rates have more than doubled since the pandemic began. And all this at a time of record office-inclined knowledge employment, which should support more tenant office demand.

This issue is a problem for investors because downtown office buildings have been a pillar of institutional real estate holdings, as we discuss in the "Portfolio Pivot" trend. And it is a problem for downtown areas, which account for a disproportionate share of distressed office buildings, as we discuss further in the "Downtowns Need to Reinvent Themselves-Again" trend.

A Bifurcated Market

Much as the retail sector experienced over the past decade, the office market is bifurcating between the haves and the havenots. "There's just a few relevant properties in very attractive locations that remain relevant to corporate America, and that's where all the corporations are leasing," said a director of an asset management firm. Firms want the newest, safest, healthiest buildings with the top amenities in the best locations.

Said one investment banker, perhaps with a dose of hyperbole, "Close to 90 percent of the office absorption is in the top 10 percent of the stock. And the rest of the space? It's like putting lipstick on a pig. You're trying to take a class B building to class A. But there are some buildings where there isn't enough lipstick around to get it leased up."

That "lipstick" comes in the form of expensive building and tenant improvements. But "with elevated interest rates, construction costs, and tenant allowances, it's really hard to make those retenanting decisions pencil," said a leading office owner and developer.

What to Do with All That Other Space?

Tenants aren't the only ones avoiding offices. Office buildings have lost their appeal to investors as well. As noted in the introduction, office sales transactions are down more than twice as much as the other major property types. "The only way to get an office transaction done that has any kind of hair on it at all today is with seller financing and perhaps a master lease, a willingness to take a substantial hit to the price, and even then, you may not get anything," said the asset management firm director.

If neither tenants nor investors want them, the paramount question for owners and cities has become what to do with all the empty office space. An executive with a development firm explained: "Converting office spaces into other types of properties is overhyped. While some conversions are feasible, not all office buildings can be economically converted. Demolishing buildings and repurposing the land might be more economical in some cases."

"Everyone's talking about redeveloping office to other uses, but the percentage of office inventory that can be converted to residential or other viable uses is actually pretty small," said the industry adviser. "And the valuation has to get to a much lower basis before a lot of significant changes happen." But this capitulation has begun and will likely gain momentum as major leases roll and loans come due. Most experts we interviewed anticipate further value declines as owners must choose

Design for Disassembly: Embodied Carbon and Real Estate

Until recently, when real estate professionals thought about reducing carbon, they looked at operational emissions—emissions mostly associated with utility use during the operations of the building. However, over the past few years, more experts have begun to understand the significance of embodied carbon. In doing so, they have instituted government policies, industry reporting standards, and corporate goals to accelerate the reduction of embodied carbon.

While up front embodied carbon is the current focus, real estate professionals are beginning to look further into design for disassembly for a more circular approach to development.

The Importance of Embodied Carbon

Embodied carbon refers to the greenhouse gas emissions arising from the manufacturing, transportation, installation, maintenance, and disposal of building materials. Of the 39 percent of global emissions attributable to buildings annually, 28 percent is from operational carbon and 11 percent is from embodied carbon. For real estate, embodied carbon is considered a Scope 3 emission.

Between now and 2060, developers around the world will be doubling the amount of building floor space, equivalent to building an entire New York City every month for 40 years. Much of the carbon footprint of these new buildings will take the form of embodied carbon. Embodied carbon will also be a significant portion of emissions of existing buildings in the form of fit-outs; renovations; mechanical, electrical, and plumbing (MEP) replacements; and demolition.

Real estate professionals can no longer ignore the embodied carbon elephant in the room, and stakeholders are putting on the pressure from all angles to address the issue.

Policies and Programs Are Addressing Embodied Carbon

Government policies are showing strong support at a market level for reducing embodied carbon in the built environment. Many of these policies have come about within the past few years. Examples include the following:

In August 2023, the California Building Standards
 Commission passed two California Green Building
 Standards Code (CALGreen) amendments to reduce
 embodied carbon emissions associated with buildings for
 new construction and major renovations.

- The city of Vancouver's (British Columbia) Whole Building Life Cycle Assessment zoning requirement became part of its Building By-Law, which went into effect in July 2023. Effective January 2025, embodied carbon must be reduced by 10 to 20 percent compared with the standardized baseline.
- San Francisco's Construction and Demolition Law went into effect in January 2022. It sets debris recovery requirements for all projects in the city to be recycled or reused with no waste to landfill.
- At the federal level, in December 2021, the General Services Agency announced its Buy Clean program, requiring low-carbon concrete and asphalt to be used in large public projects and requiring Environmental Product Declarations (EPDs).
- In March 2021, the U.S. Securities and Exchange Commission proposed climate reporting requirements based on the Task Force on Climate-related Financial Disclosures (TCFD) framework, which includes disclosure of Scope 1, 2, and 3 material emissions as well as physical climate risk.
- The Inflation Reduction Act, passed in August 2022, includes billions of dollars in assistance and tools to help manufacturers, institutional buyers, real estate developers, builders, and others measure, report, and substantially lower the levels of embodied carbon.

Corporate real estate firms are also including embodied carbon in the accounting of their net zero goals. Much of this is motivated through Science Based Targets initiative (SBTi) commitments. Examples include the following:

- Kilroy Realty Corporation aims to reduce the embodied carbon of construction materials in development projects 30 percent by 2030 and 50 percent by year-end 2050. It is also aiming to reduce Scope 1, 2, and 3 emissions 31 percent by 2030 and 72 percent by 2050 from a 2017 base year.
- Lendlease aims to achieve net zero carbon by 2025 for Scopes 1 and 2 and absolute zero carbon by 2040 for all scopes and activities without the use of offsets.

Continued next page.

between reinvesting in their properties or giving them back to their lenders.

The Chance for a Recovery

Before we pronounce the death of office, however, we should consider the recent rebound in retail, as we document in our retail sector section. As the saying goes, we learn more from our mistakes than our successes, and indeed, Emerging Trends offered a bleak outlook for the sector only three years ago as we were in the throes of lockdown. Point taken, but that still does not make an office rebound any more likely.

It calls to mind Jim Carrey's character, Lloyd Christmas, in the Dumb and Dumber movie. When told his chances of getting a date with a particular woman were one in a million, he beamed. "You're telling me there's a chance?" So, yes, there is a chance for a robust office recovery. There is always a chance. (Trivia fans will remember that in real life, Carrey ultimately did get the girl, marrying the actress Lauren Holly, who played the object of Carrey's affection in the movie. So indeed, there was a "chance," though the marriage lasted less than a year.)

And there are industry optimists. The development firm executive, who dismisses the broad potential for office conversions, nonetheless is "encouraged" by his recent "conversations with larger technology companies. Now they've got three years of data that proves that they are not working as well as they once did when we were all together."

Certifications and reporting standards are focusing on embodied carbon as an important part of whole-life carbon analyses, as a part of their connection between sustainability and financial performance. Examples include the following:

- Green building certifications including LEED, Living Building Challenge, and Building Research Establishment Environmental Assessment Method (BREEAM) recognize embodied carbon measurement and mitigation as part of minimizing the impact of a building's life cycle.
- Voluntary sustainability frameworks such as GRESB already require companies to provide data on the embodied carbon emissions of their buildings, including the materials used in construction and the transportation of those materials.
- The TCFD, recently absorbed by the International Sustainability Standards Board (ISSB), emphasizes disclosure of climate-related risks and opportunities, as well as Scope 1, 2, and 3 emissions.

Not Every Building Can Be Converted

A common phrase in the industry is that "the most sustainable building is the one that's never built." As such, the movement to convert existing buildings from office to multifamily (or any other asset class, really), offers a meaningful achievement in saving carbon emissions.

Because most of a building's embodied carbon is accounted for by the foundation, structure, and envelope, it typically makes sense to reuse these parts of a building rather than to demolish and rebuild. According to the U.S. Environmental

Protection Agency, it takes about 65 years for an energyefficient new building to save the amount of energy lost in demolishing an existing building.

Building conversions are an increasingly popular way to repurpose existing buildings whose original purposes no longer support market needs. However, not every building will be converted; some assets will simply become obsolete. In this case, the building's demolition adds further embodied carbon emissions to its life-cycle total.

Moving forward, architects and developers are beginning to explore design for disassembly. Design for disassembly is a building design process that allows for the easy recovery of products, parts, and materials when a building is disassembled or renovated. The process is intended to maximize economic value and minimize environmental impacts through reuse, repair, remanufacture, and recycling.

Localities such as King County, Washington, are already educating the development community on design for disassembly, encouraging stakeholders to consider questions such as "How easily can the building be transitioned to different uses?"; "What will happen to the building when it has reached the end of its life?"; and "What connections are used between all the different building elements? How easy are they to undo?"

Embodied carbon will be playing an increasingly heavy role in the industry's consideration of the materials, design, and lifecycle carbon emissions of its buildings.

-ULI Greenprint Center for Building Performance

Another developer we interviewed, who focuses on upscale inner suburban markets, is guite bullish on his firm's office portfolio, noting that "office tenants are downsizing and consolidating but are relocating to newer buildings and paying more rent per square foot" in buildings like his.

Finally, some investors point to the potential for artificial intelligence (AI) to generate a new source of demand, particularly in traditional tech markets such as San Francisco, where much of the venture capital and employment is based. Salesforce just announced a major new round of hiring fueled by AI and reversed some recent layoffs.

But these views have become lonely voices in the industry. For one thing, AI could also ultimately undermine office demand by replacing different types of office-based jobs, as we discuss in the "An Artificial Boom?" trend. And eventually, firms whose business model can support some amount of remote work will keep reducing their office footprint: they save on rent, and their workers will be happier and save on commuting time. Plus, as firms go more remote, their talent pool goes global, enabling them to recruit the best talent at the most affordable wages. The economics are just too compelling for firms to reverse course and lease office space like before.

4. It's All About the Debt

- Debt levels in all corners of our economy have increased to record levels, but household and corporate debt burdens seem to be under control relative to historical benchmarks and delinquency rates remain low.
- However, CRE capital has become scarce and expensive, reducing sales transactions and broadly undermining project feasibility.
- Distress levels remain low, but a liquidity crisis looms as many owners of underperforming buildings face debt deadlines and will be unable to refinance their projects, prompting either defaults or distressed asset sales.

As they sang in Cabaret, "Money makes the world go round." Debt is vital to the functioning of not only commercial real estate markets but to the economy as a whole.

It must be because our nation is awash in debt. The total outstanding debt among U.S. households, corporations, and the federal government now exceeds \$50 trillion, up a third in just the three and a half years since this decade began (through the second quarter of 2023). The federal government alone

accounts for almost two-thirds of that. But even excluding Washington, households and corporations together have accumulated \$18 trillion in debt, up a quarter since the end of 2019.

The federal debt now exceeds GDP. Should we be concerned? Probably, to all but the most fanatical adherents of Modern Monetary Theory, who hold that revenues should not constrain our government spending. The inflation of the past year seems to undercut their lack of concern about the national debt, and their theory will be severely tested in the coming years as Medicare and Social Security costs soar as baby boomers retire. Higher interest rates on the debt will compound this arowth.

But nongovernment debt looks to be under control. Both corporate debt (relative to the market value of corporate equities) and household debt (as a percent of disposable personal income) have been sliding since they peaked before the GFC and have stayed within a narrow range for about a decade. Even better, there are few signs of distress, as delinquency rates on both corporate and household borrowing remain subdued, even if late payments on credit cards and consumer loans have ticked up a bit this year.

In sum, significant debt is outstanding, but household and corporate debt burdens, at least, seem generally well in hand (within the means of borrowers to repay with scant signs of pervasive financial distress).

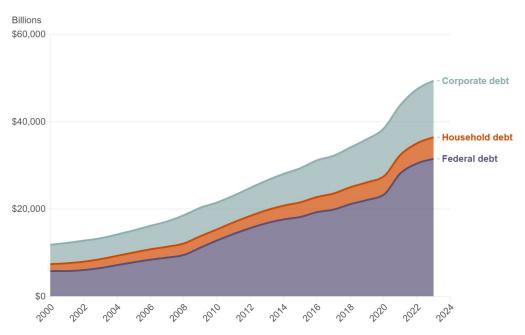
That is reassuring news for the economy for when we do ultimately fall into a recession. Together with accumulated household savings, the downside risks of a severe financial event seem limited. These are positive drivers for CRE. However, the rapidly rising federal debt could be more problematic, potentially "crowding out" private investment, leading to slower economic growth and higher interest rates, both of which would be long-term drags on property construction, investment, and returns.

Real Estate Is Different

If the rest of the economy is flooded with debt, CRE capital markets are begging for more credit. Almost every industry participant we interviewed for this report said debt became less available to them or the industry generally after the Fed began to hike interest rates in March 2022. Many blame this year's sales transaction decline partly on this reduced availability.

"Transaction volumes are low simply because there's a lack of debt right now, and debt is the oxygen of most real estate

Quarterly U.S. Debt Levels, 2000–2023



Source: Federal Reserve Bank of St. Louis

investors," said the head of one asset management firm. "When oxygen starts cutting off, the patient is struggling to figure out what to do with no debt."

Indeed, the industry is struggling, with reduced availability and higher financing costs. The Mortgage Bankers Association (MBA) estimates that the dollar volume of loan originations this year is down by about 30 percent from the first-half-year average from 2016 to 2019. That drop exceeds the 24 percent decline in the volume of sales transactions over the same period. Originations are falling among all primary debt sources, including banks, commercial mortgage-backed securities (CMBS), and life insurance companies, although private debt sources are sometimes stepping in where others refuse to lend. Debt technically might be available but not at a price that anyone likes.

As we noted in the introduction, "capital availability" was cited as the second most important issue for real estate in 2024 in the survey, topped only by "interest rates and cost of capital." Further, more than three-quarters of respondents believe that debt for acquisitions and refinancing is "undersupplied."

No directly comparable surveys of credit availability exist for non-CRE businesses, but a study by the National Federation

of Independent Business (NFIB) in August reports that almost two-thirds (62 percent) of small businesses say that their approved credit is adequate to meet their needs.

CRE debt has not vanished, however. There is still plenty of debt in the system. In fact, it is increasing. CRE mortgage debt was up 7.8 percent year-over-year as of August 2023, double the yearly 3.8 percent increase in household and corporate debt through the second quarter of 2023, according to figures from the Fed.

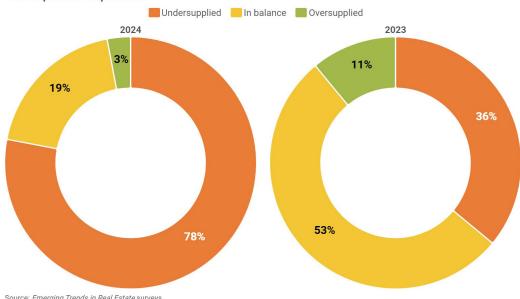
Tighter Underwriting and Costs Limit Credit Availability

How then to reconcile the sharp decline in originations and the increase in debt outstanding? "Banks are making fewer new loans," said one industry economist we interviewed. "But they're still growing their books of business because borrowers are holding on to the lower-cost debt or just their debt." Thus, the increasing volume of outstanding CRE debt reflects the limited availability of new credit and their higher interest rates, as borrowers are holding onto their existing debt.

One developer we interviewed said, "It's more expensive, there's less of it available, and it's more stringently underwritten." That last point is underscored by banker survey data from the

Real Estate Capital Market Balance Forecast, 2024 versus 2023

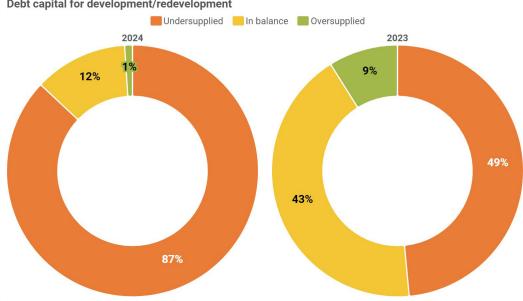
Debt capital for acquisitions



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

Real Estate Capital Market Balance Forecast, 2024 versus 2023

Debt capital for development/redevelopment



Federal Reserve Bank of Dallas, showing that CRE debt is more difficult to get now than last year. (The most reliable national figures come from the Federal Reserve Bank, but that data is published with a significant lag—as of the end of September 2023, the latest figures were published in March. The Dallas Fed publishes its own Banking Conditions Survey that is more timely and generally tracks closely with those of the national Fed, though it covers only banks headquartered in its southcentral region. The latest report is based on surveys conducted in late September.)

Banks began sharply reducing their credit availability after the March 2022 interest rate hikes, with more banks reporting tighter credit standards and decreasing their CRE loans. However, the most recent figures may provide some modest optimism for real estate investors, showing that conditions might finally be easing, though they remain well above last year's levels and quite elevated by historical standards.

The Looming Liquidity Crisis

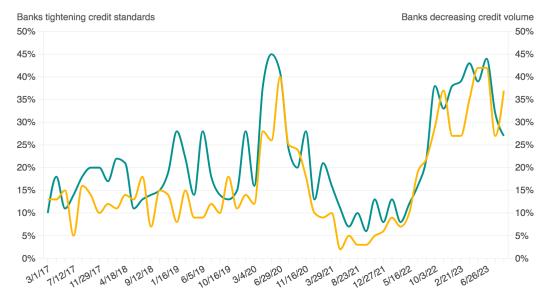
Reduced availability and greater cost of debt present significant obstacles for investors seeking to acquire new assets and developers wanting to construct new projects. One executive with an investment management firm constantly looking for new deals said his firm is using more cash now and holding off on financing until rates fall. "Why lock down your debt costs at such a high rate, or at least, perceived high rates today?"

The bigger problem for the industry is the wall of debt coming due that must be refinanced. The MBA estimates that over \$725 billion of commercial and multifamily mortgages mature in 2023, with another \$1.2 trillion maturing over the following two years, representing over 40 percent of the \$4.4 trillion of outstanding CRE mortgages. Much of this debt will be refinanced at higher interest rates, although some lenders will agree to "extend and pretend" to postpone difficult choices until lending conditions are more favorable. One investment manager said, "Banks are struggling to figure out what to do. They might be willing to negotiate extensions with owners because they don't want to write down their loan portfolios, and they don't want to own these assets." Other lenders are exploring different types of "dequity," various flavors of financing that combine elements of both debt and equity to plug gaps in the capital stack.

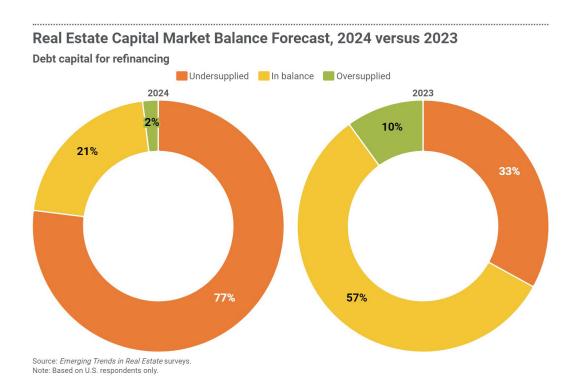
But there are two major groups of owners facing more difficult choices. Some purchased assets a year or two ago that they underwrote with aggressive rent growth assumptions and very optimistic exit cap rates, assuming they could either sell or refinance in a few years. Instead, interest rates have grown faster

Commercial Real Estate Loans: Standards and Volumes

Net share of banks tightening standards for commercial real estate loans (left) Net share of banks decreasing commercial real estate loan volumes (right)



Source: Nelson Economics Analysis of Federal Reserve Bank of Dallas Banking Conditions Survey



than their net income, and lenders are lowering maximum loan-to-value ratios.

Together, these factors mean the borrowers can refinance only a portion of their original debt and must contribute additional equity. Plus, the new debt will be a lot more expensive than their cheap older debt. The net result: lower asset values and inability to refinance the debt on feasible terms, even on assets that are otherwise still performing well with high occupancies. Owners may be forced to default on their debt and give the assets back to their lenders, particularly in the multifamily sector.

The situation confronting owners of underperforming assets, especially major office buildings, is even more dire. Most were purchased years ago, before the pandemic, under much more favorable market circumstances. Many are enduring tenant departures and require significant capital investments to attract or even retain their tenants. Even if their mortgages are not yet expiring, some borrowers are choosing to default on their debt and give the property back the keys.

Limited but Growing Distress

Thus far, delinquency and default rates remain at healthy levels and well below levels seen in recent recessions, though they are inching up, particularly for CMBS, life insurance companies, and banks and thrifts. However, we can expect these rates to

rise significantly, particularly in the office and multifamily sectors, as major leases expire and mortgages come due.

While obviously painful for the particular borrowers and their lenders involved, one benefit to investors of the growing distress is that sales transactions will increase, bringing much-needed pricing transparency to the marketplace. That clarity, in turn, could help break the logiam holding back many buyers now.

But the process will not be easy. One investment manager said, "Expiring debt will trigger a whole lot of transactions because not everyone's going to be able to refinance. That's going to force a repricing. It depends on how much capital is on the sidelines, but there's not enough dry powder out there to absorb the differential. So, there will be a lot of pain." If there is not enough dry powder, there will not be enough buyers of the troubled properties, leading to more distressed assets.

As often in business, one party's adversity is another's opportunity. The pullback from traditional lenders such as banks and life insurance companies is creating more compelling prospects for private lenders. An executive with one private debt firm explained the upside for his firm: "Because it's a seller's market as a lender, you're getting higher quality borrowers, you're getting better rates. Just everything, in every way, the market is better for lending because there's relatively the same amount of borrowers, a lot fewer lenders."

But overall, the situation for many CRE lenders is bleak. One industry economist summarized the scenario as follows: "There's a ton of opportunity out there for new loans, but pain in existing books of business."

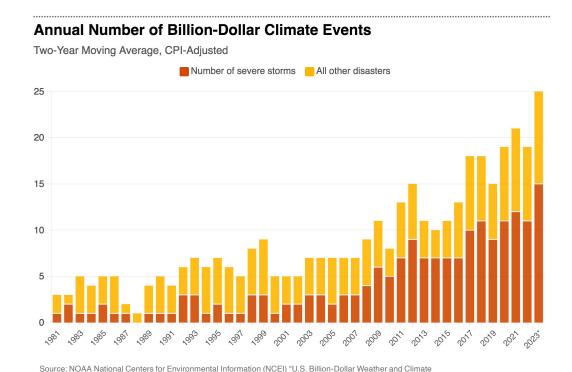
5. Eco-Anxiety Comes Home

- As heat records continue to be broken, the number of billion-dollar climate events is rising sharply, posing increased costs and risks to owners and operating challenges for managers.
- Insurance historically has been only a minor concern for commercial property owners, but rising insurance costs and declining availability is forcing the industry to rethink the approach to insuring assets against growing climate risks.
- Property owners and managers are getting caught in the middle of culture wars and fiduciary duty, as some people decry environmental, social, and governance (ESG) efforts that government regulations and investor mandates require.

After a record-breaking summer, 2023 is trending to be among the hottest years ever recorded. Preliminary data from the Copernicus Climate Change Service shows that the global average surface temperature for June through August was 1.17 degrees F above the 30-year average through 2020. For perspective, that was over half a degree warmer than the previous summer record, set in 2019. Numerous U.S. cities set all-time records.

And once again, the number of billion-dollar climate events continues to rise. The United States has already endured 24 billion-dollar events this year through mid-September only part way through the hurricane season. By comparison, the annual average number of events for 1980-1999, adjusted for inflation, was just 4.5. Over the past five years, the yearly average has risen to 18, and now that figure has been reached in just nine months.

But why is this a concern, aside from our own personal comfort and safety? One answer was succinctly offered by ULI's former chair, Owen Thomas, in a recent article in Urban Land magazine: "The quality and financial performance of real estate



Disasters" (2023); compiled by Nelson Economics. * 2023 figure projected based on actual figures through October 10, 2023. assets is increasingly correlated with sustainability performance."

Even if they want to do the right thing, however, CRE investors and fund managers face complex and difficult choices in considering how exactly to move forward. On the agenda: decarbonization and energy efficiency, indoor environmental quality, climate resilience, soaring insurance costs and declining insurance availability, and uncertain access to resources like power and water.

The Tragedy of the Horizon

Most of these issues have been percolating in the background for years but have become increasingly urgent as climate events mount and the risks and costs to owners rise. The head of sustainability for a property and investment management firm said, "Investors are not investing to lose their money. They want to understand what the risks are and what might impact that investment."

A critical industry problem is that most market participants have a decision time horizon that is much shorter than needed to address physical risks due to climate change, a concept that Mark Carney, then the Bank of England governor, famously dubbed "the tragedy of the horizon." Even if it makes financial sense over the lifespan of a building to enhance its resilience. the risk of a climate event occurring in any particular year within the anticipated hold period is minimal, and many owners believe the costs would be covered by insurance anyway. Indeed, that is what insurance is supposed to be for. But is that a wise long-term strategy?

It is the industry's collective disconnect between the decision time horizon for property investments and nature's climate change timeline that enables people to ignore climate risks. Explained one leading CRE academic, "Daniel Kahneman got his Nobel Prize over this, about how short term our horizons are and how little information we use to make decisions. So, we keep seeing market capitalization not reflect the risk of climate change like fires and floods."

Suddenly, People Pay Attention to Insurance

Maybe not for much longer. "The key issue right now with climate is the insurers are bringing the costs of climate events to you in real time today," said the head of research for a CRE analytics firm. "Depending on the [insurance] company, depending on the [building] owner, insurance costs have more than doubled over the last two to four years."

Historically, insurance has been only a minor concern for commercial property owners, accounting for only about 3 percent of rent, and even then, often paid or reimbursed by tenants. But the huge spike in costs is forcing owners to pay attention. Owners who normally routinely pass these costs on to tenants worry that, at some point, tenants will balk or the costs might limit future rent increases; while if the owner pays, that eats into returns. And that assumes the insurance is even available, which is no longer a given in some areas.

The analytics firm researcher further explained, "Regulators have their fair share of blame by limiting the increases in insurance premiums. Even without additional climate events, just the inflation makes it extremely hard for an insurer to make money in California or Florida," so they elect to stop offering coverage.

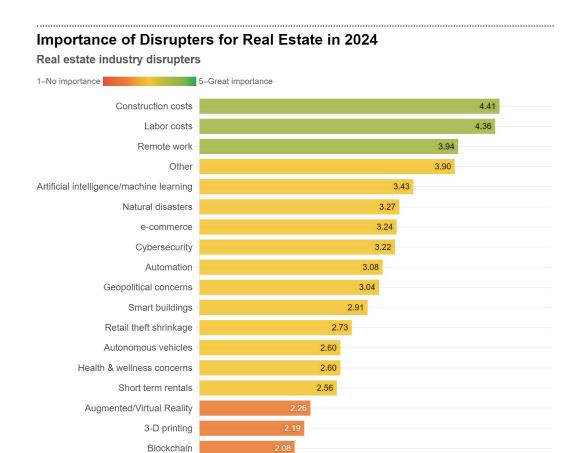
An asset manager for one CRE investment firm said, "The rapid increase in cost and the decline in the availability of insurance coverage is forcing property owners to explicitly deal with what the carriers believe the risk is associated with that location. So, they have a choice: they can either pay what the carriers believe the risk is, or they can self-insure."

Major institutional investors generally secure insurance for their entire portfolio, so they may not worry about obtaining insurance for a particular property. But one investment executive we interviewed said, "If you're a smaller buyer, and you're buying in one of these high-risk areas, like Houston or South Florida, the seller is going to be concerned about whether you're going to be able to secure the insurance." The buyer might also be less able to secure a long-term mortgage for the property if insurance is unavailable.

"The net-net of higher insurance costs is probably less new supply of housing or industrial space and higher rents," said that property investor, as these two property types are more likely than other major property sectors to be located on highrisk sites such as along the coastline or near forests.

To ESG or Not to ESG

Regardless of insurance costs, property owners and managers have more urgent reasons to address climate risks: growing government regulation and ESG mandates. The city governments of most leading CRE markets have enacted climate-related regulations in recent years including such mandates as regular energy audits, energy benchmarking disclosure, and requiring commercial buildings to implement energy-saving measures. New York City has pioneered these



Source: Emerging Trends in Real Estate 2024 survey.

efforts, but other cities include Austin, Boston, Chicago, Denver, Los Angeles, Seattle, and Washington, D.C., among many others-in other words, most of the top markets where institutional investors buy property.

But it is not just local governments making this push. According to the leader of one asset management firm, "Investors are getting far more knowledgeable and sophisticated about climate and resilience. Looking forward five years, that's what will really differentiate performance to a much greater extent." Often, the push comes from European investors, where ESG and impact investing are more accepted. A board member of one climate investment firm said, "We're starting to see greater demand in the U.S., in part because capital is global."

In this era of heightened polarization, however, there has been a growing blowback from "anti-woke" groups who reject ESG efforts. Many leading asset management firms, including the three largest—Blackrock, Vanguard, and State Street Global

Advisors—have all been criticized for their ESG efforts by conservatives.

One asset manager said, "There is a broad range of investors, some of whom think that ESG efforts are not doing enough, and some are convinced that they are wasting time and effort that could be spent increasing returns." Another asset management executive also saw these "barbells of investors, which certainly creates a challenge for funds if you've got some of both in a commingled product. But, aside from that, the reality is it's hard not to look forward and see cap rates being applied to what might be comparable buildings, except for some of these environmental factors, not getting wider."

Homeowners Still Don't Take Notice

The situation is more problematic in residential real estate because homebuyers generally operate with less information than CRE professionals do. For example, a 2022 Fannie Mae survey found that "Overall awareness of flood risk is low, particularly for those in high-risk zones. . . . Despite being required

Sustainable Real Estate: On-Site Solar

Amid the urgency to limit the impacts of climate change and the desire to cautiously navigate market fluctuations, commercial real estate owners and occupiers are increasingly focused on two critical things: improving environmental performance and their own bottom line. Adopting energy efficiency practices and implementing renewable energy initiatives pave the path to achieve these goals. Due diligence criteria, financial viability indicators, and sustainability performance metrics are now a significant part of the investment process and operational decision-making for real estate investors. The journey to reach the critical goals mentioned above highlights the relevance of several other factors at play, including the following:

• **Value creation.** Seventy percent of private equity (PE) investors (including PE real estate investors) surveyed by PwC in its Global Private Equity Responsible Investment Survey 2023 place value creation among the top three drivers for their organization's environmental, social, and governance (ESG) activities. For real estate, according to the U.S. Environmental Protection Agency (EPA), energy use can account for one-third of total operating cost in commercial office buildings. Furthermore, 30 percent of energy in commercial buildings is wasted due to inefficient use.

This inherent gap provides a lucrative opportunity to undertake energy efficiency projects and implement operational changes that can reduce operating expenses, attract tenants, demand a higher rent premium due to improved indoor environment, and increase property values. In addition, pursuing various certification and rating programs such as Leadership in Energy and Environmental Design (LEED) and Energy Star, which recognize top sustainability and energy performers, can lead to enhanced brand reputation for the building and the organization.

• Net zero commitments. Companies, including real estate investors and occupiers, have adopted formal and public commitments to reduce their Scope 1, 2, and 3 greenhouse gas emissions by a specific date (typically 2050) to support the objectives of the Paris Accord. These goals are public and are often measured against a formal set of criteria and frameworks such as the Science Based Targets initiative, Better Buildings Partnership, and Net Zero Asset Managers initiative.

This momentum is well demonstrated by the fact that companies spanning over a third of the global economy by market capitalization (including real estate managers, their institutional investors, and their blue-chip occupiers) plus governments have set or committed to set net zero commitments by the end of 2022.

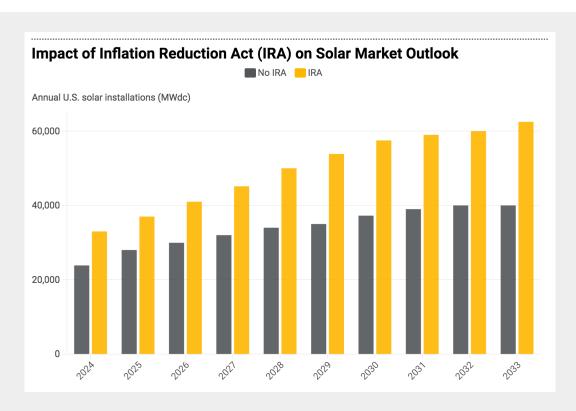
Regulatory compliance. Global regulatory compliance for ESG reporting and energy performance is a priority for real estate executives. Europe is leading the way. Certain companies that market or hold assets in the EU are under pressure to quickly comply with the EU Taxonomy, Sustainable Finance Disclosure Regulation (SFDR), Corporate Sustainability Reporting Directive (CSRD), and other policies.

In the United States, the Securities and Exchange Commission (SEC) proposed that Climate Disclosure, which continues to be discussed for public companies, will increase disclosures relating to emissions reporting and climate risk. At the local level, more than 50 states and cities have adopted building laws related to energy and carbon benchmarking and reduction, performance standards, and electrification. Owners or landlords that fail to act in a timely manner face varying and steep penalties plus brand and reputational risks.

Tax credits and incentives. Increasingly, local, state, and federal incentives are provided to support projects that lower emissions and energy use. The Inflation Reduction Act (IRA) is the largest investment in climate and energy in U.S. history. The IRA was adopted in August 2022, and the initial forecast is that \$390 billion in funding for climate and energy initiatives is available to tap into over the next decade.

Energy incentives of \$270 billion will drive opportunities for real estate companies, providing an impetus to undertake impactful renewable energy projects. The IRA makes existing energy credits and deductions more useful and valuable. Incorporating analysis of credits and incentives into energy efficiency strategies and project plans can significantly improve return on investment (ROI) and cut simple payback periods.

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Specifically related to solar energy, the Solar Energy Industries Association (SEIA) forecasts that over the next 10 years, the IRA will lead to 48 percent more solar deployment (an additional 160 GW of solar power) than would otherwise be expected under a no-IRA scenario. This translates to \$565 billion in new solar investment over this 10-year period, \$144 billion more than under a no-IRA scenario.

In the past year, there has been a significant growth of on-site solar for commercial real estate including rooftops, parking canopies, and ground mounts. According to another recent report, solar accounted for 54 percent of all new electricitygenerating capacity added to the U.S. grid in the first quarter of 2023, and the commercial solar segment grew 27 percent compared to the previous year. Solar photovoltaic is now the lowest-cost source of new energy compared to coal, oil, and nuclear power. According to PwC, nearly half (46 percent) of commercial and industrial leaders expect an increase in on-site energy generation or battery storage over the next two years.

Sustainability implementation has a clear advantage for real estate: it can help improve financial returns for on-site renewable investment, create tenant demand for green energy, and

accelerate electric vehicle (EV) charging adoption given the recent surging interest. Solar also presents a value-creation opportunity for real estate owners either through electricity cost savings (lower cost to produce power, reduced demand charges, and lower transmission and distribution cost) or by creating a new revenue stream by selling electricity and/ or renewable energy certificates to tenants. In addition to the economics, many other reasons make building owners consider solar, including the following:

- Reduction in annual utility costs and associated increase in property values;
- Support of tenants' sustainability commitments to net zero transition;
- Increase in property resilience to extreme weather events;
- Reduction of grid dependency for property's energy needs;
- Improvement of regional air quality; and
- Growth in local job opportunities during installation.

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to have flood insurance if they have a mortgage, nearly 40 percent of respondents in a high-risk zone claim they do not have insurance because they do not live in a high-risk zone."

Even when they are aware, insurance uptake is often inadequate. "People historically have not been incentivized to think long term because taxpayer-subsidized insurance for flood insurance underprices the risk, so we subsidize people on coastal hills and rivers that are in flood zones," said a real estate professor.

Another factor is the flood maps drawn by the Federal Emergency Management Agency (FEMA) are outdated and do not account for future risk due to climate change, but changing them is difficult. According to one asset manager who focuses on climate risk, "There's a huge constituency, well funded, that wants no change to a FEMA map, ever, because when you change a FEMA map, there are big losers: if the FEMA map changes, you may or may not have any value left in the property you bought."

It is no surprise, then, that most households do not take climate risk seriously. A study by Redfin found that twice as many people moved into our nation's most flood-prone counties as moved out of them in 2021–2022, compared with the prior two years. Similarly, the counties most prone to wildfires and excessive heat also have experienced more in-migration than move-outs. Either households are not getting the message, or our government insurance programs are providing the wrong incentives

The asset manager who focuses on climate risk said, "You have several forces at work determining migration patterns: you have economic opportunity, you've got lifestyle, and then exposure to natural risk. People tend to oversimplify to justify a decision they've made. It took years to build up the momentum of this movement, and it will take years to change it."

But a reckoning could happen sooner than homeowners expect. A new residential climate risk study in the journal Nature highlights the financial risks to homeowners. The authors conclude that residential real estate markets fail to properly reflect the true costs of flood risks such that the market is overvalued by \$121 billion to \$237 billion, with the most overvalued property concentrated in markets with no flood-risk disclosure laws and where there is less concern about climate change.

Furthermore, a Redfin study found that homebuyers in high-risk areas who have access to flood risk information—datapoints many MLS sites are now including—bid on lower-risk homes. The study concludes that "home values in flood-prone areas could drop as more people become aware of the risks."

Though the Nature and Redfin studies addressed only residential markets, it seems likely that commercial real estate could be similarly overvalued because they are subject to the same climate forces and emerging consumer awareness. Caveat emptor.

A recent Morgan Stanley report estimated that about 40 billion square feet in roof/parking space available in U.S. real estate and commercial trucking properties could be used to generate solar power. Annual electricity generation from these properties could equal 25 percent of total electricity consumption from commercial properties in the United States and about 10 percent of total electricity sales in the country. While the opportunity is significant, the largest U.S. real estate owners continue to be the first movers to deploy strategy and capital to capture the renewable energy opportunity. SEIA cites Target, Prologis, Walmart, Amazon, and Lineage Logistics as the top five corporate users by total installed onsite solar capacity for the past year.

The first step for building owners looking to take advantage of solar opportunities and benefits is to develop an installation strategy. They should prioritize individual sites based on several key factors, including location and solar potential, federal and local incentives, utility programs, roof condition, and property restrictions. While on-site solar may not be feasible for every property in a portfolio, the assessment could help property owners discover additional opportunities to advance their sustainability and energy efficiency goals, while creating positive impact for their bottom line.

-Randy Hoff, PwC

6. Even Further Out of Reach

- Housing affordability continues to reign as a top challenge for the CRE sector.
- The United States experienced the fastest-ever deterioration in housing affordability over the past three years as housing prices soared during the pandemic, followed by a historic mortgage rate shock that more than doubled mortgage interest rates.
- After sharp rent escalations last year, rent growth has eased for now due to large supply deliveries, but rent growth is expected to resume as construction has fallen.

Housing affordability has graced the pages of Emerging Trends for too long, securing a place among the Top 10 trends for the past seven years starting in 2017 as housing became less and less affordable to more and more people. Last year, Emerging Trends noted that "housing affordability has fallen to its lowest level in over 30 years" as both for-sale and rental housing costs soared to record levels.

This year, it is even worse, especially for homebuyers. Rents are higher than ever, too, but rising more slowly, at least. For now, the affordability focus is back on the for-sale market and likely to remain there for a while in this era of "higher for longer" interest rates. A troubling combination of slowing but still rising home prices and rapid increases in borrowing costs has put home purchases further out of reach of even more people. The share of U.S. households that can afford the median-priced home is at its lowest point in almost 40 years, according to the National Association of Realtors (NAR).

"Housing affordability is the critical issue in real estate," said a leading real estate academic, referring specifically to the market for for-sale housing. Many industry participants seem to agree. Respondents to the Emerging Trends survey overwhelmingly cited "housing costs and availability" as the most critical social/political issue this year, far outdistancing other important issues including immigration policy and political extremism.

Blame the Fed (At Least in Part)

The United States experienced the fastest-ever deterioration in housing affordability over the past three years, with the Fed bearing much of the responsibility. First-home prices soared during the pandemic when the Fed lowered interest rates to

near zero to stimulate the economy. Mortgage interest rates fell to their lowest rates ever, fueling increased demand for housing just when supply was falling. Homebuilders slowed construction of new homes while investors were buying many existing homes to convert into rentals, further reducing the supply. The result was a 30 percent jump in the median price of existing homes sold from 2020 to 2022, based on NAR data.

Then came the historic mortgage rate shock as the Fed moved aggressively to tame inflation by driving up interest rates, ultimately leading to a 150 percent surge in mortgage interest rates (from 3.0 to 7.7 percent). The adverse impact on affordability was even greater than the 30 percent price increase: a homebuyer earning the median household income of about \$75,000 can afford about a \$300,000 home with a 7.7 percent mortgage rate (the average in early October 2024) assuming typical terms such as a 30-year fixed-rate mortgage, 20 percent down payment, and spending 28 percent of gross income on mortgage payments (including property taxes and insurance). Two years ago, that same buyer could have bought a \$500,000 home with a 3.0 percent mortgage—a 40 percent decline of over \$200,000. For further perspective, the median home price in August 2023 was about \$407,000, or more than a third higher than a typical household could afford.

The Fed's complicity goes further. The chief economist at a CRE data firm stated, "The easiest way to deal with the lack of affordability is just to build more. And the Fed raising rates made it harder to get financing, which then makes it harder to develop homes, and what's really needed to deal with the affordability issues." Ironically, the Fed must actually slow economic growth to improve affordability by lowering interest rates and costs, which would allow for more construction.

Unfortunately, no relief seems to be in sight. Though home prices fell briefly earlier this year as high interest rates cramped affordability, that decline appears to be over as prices started rising again this summer. The chief culprit now is the extreme scarcity of existing homes put up for sale. The good news for existing homeowners is that few must pay the prevailing high interest rates. Most either own their house outright with no debt or have locked in rock-bottom interest rates on their fixed-rate mortgages. The bad news for homebuyers is that homeowners are opting to stay in their homes rather than face higher mortgage payments, so the supply of homes on the market is at historic lows. With so little on the market, desperate homebuyers are bidding up home prices on the few homes available.

More Options for Renters

The situation has been more favorable for renters of late. Rent growth nationally is flat or minimal, depending on the source, after peaking at over 15 percent year-over-year in early 2022. The difference? Healthy additions to supply. Apartment construction is on pace to add over 460,000 units in the United States this year, on top of over 700,000 units added in the past two years for a total of 1.2 million since the pandemic began.

This is finally providing much-needed relief for renters, though angst for some multifamily investors who bought projects last year in anticipation of strong continued rent growth. Another million units are scheduled to be completed through 2025, most in high-growth, high-demand markets, which should put additional downward pressure on rents. But to be clear: rents have not actually declined in most markets, where rents remain at or near record levels; only the rate of increase has eased.

And that relief may not last for long. The same interest rate increases that sharply increased borrowing costs for homebuyers did much the same for multifamily developers. According to one CRE investment banker, "The supply of new product has been choked off quickly. Between the cost of financing, labor shortages, and material shortages, the cost to add new product is really choking off new supply."

Another reason for high rents is rising household formation rates, as remote workers need more workspace at home. Many have been ditching their roommates. An analysis by the Economic Innovation Group found that while remote work increased out-migration from dense, high-rent markets such as New York and San Francisco, rising household formation rates counterbalanced the impacts of the outflow, so occupancy and rents stayed high. Thus, all the recent apartment supply has done little to dent the nation's wide housing supply gap, which Zillow has calculated has grown to 4.3 million units.

"The shortage of housing in the U.S. is perpetual," said the investment banker. Little wonder then that rents are expected to resume rising in 2024 as multifamily deliveries start to decline. One mixed-use developer stated, "We're under-housed in this country. Supply may have gotten ahead of itself in the Sun Belt markets and some corporate growth markets, but overall, we're very bullish on the ability to grow revenue in our multifamily portfolio." Which means higher rents for renters.

Now What?

There are no easy answers to solving the affordable housing crisis, as we have explored in prior editions of Emerging Trends. But maybe there is one: build more housing, preferably at all price points. As if there were ever really any doubt, the recent market trends in the for-sale and rental sectors demonstrate that supply does matter when it comes to housing affordability. The price of homes soared when demand increased but supply fell. Rent growth moderated when significant new apartment supply came to market. This simple dynamic should not be controversial.

But the reality is that the industry does not build enough units affordable to lower-income people especially, so not all new supply will necessarily improve affordability. Most (60 percent) of the new units built from 2020 to 2022 are affordable to less than half (41 percent) of America's renter population, according to an analysis by RentCafe. In theory, some of the units formerly occupied by the households renting these new pricey units will filter down to less affluent families. But will they, if there is a perennial housing shortage?

We have previously discussed impediments to increasing the supply, such as excessive permitting fees and entitlement costs, as well as restrictive zoning. Some states such as California, Florida, and Oregon have adopted measures to increase as-of-right density to boost affordable housing production. However, these measures can sometimes create conflicts with legitimate efforts to preserve neighborhood character when state boards can override local jurisdiction.

Regardless, this progress is being overwhelmed by spiraling construction costs. What would it take, short of a magic wand, to produce more affordable housing? One former homebuilder said, "Lower interest rates, lower material costs, lower labor costs. Material costs can come down, and lumber has come back down. But labor? No way. Maybe if we went into recession, then plumbers and electricians might start dropping their prices right now."

The challenges to building truly affordable lower-income housing are even greater. One affordable housing lender stated, "We are so very much in an era of real estate trying to solve social challenges. So, it could logically follow that deals are getting harder to do. With a lot of social challenges—addiction, crises of despair, and lots of health-related challenges—all sorts of individuals need and deserve a kind of care that goes well beyond a standard property management operation. And those kinds of housing needs are trying to be jammed into a program that was not set up to do that kind of work."

7. Portfolio Pivot

- Recent shifts in both property and financial markets are upending long-established norms about how CRE portfolios should be constructed, including the definition of "core" assets.
- With downtown offices and regional malls—the traditional pillars of CRE portfolios—both suffering existential declines in tenant demand and property values, fund managers must find replacement investments.
- Fund managers are considering a range of newer product types previously viewed as niche but offering more compelling returns.

Constructing a commercial real estate portfolio was perhaps never a simple matter. Working with the client to identify their investment goals and risk tolerance, the portfolio manager must determine the property sector allocation, target asset markets, desired tenancy by type of asset, as well as the preferred operational, physical, and site attributes of each asset type. Once all these targets are decided, the portfolio manager must also establish the portfolio's level of diversification and liquidity.

And those are just the primary considerations. Additional strategic management issues to consider include balancing short- and longer-term market views and objectives, how much weight should be placed on ESG factors, and how to compete for investors' investment allocation. That is a lot.

But most of these issues need not be revisited frequently. For different styles of the portfolio-say, a conservative "core" portfolio or a more aggressive "value-add" or riskier still "opportunistic" portfolio—these parameters have tended to be relatively constant over time, with a narrow range of options within each type depending upon the client's specific preferences. These parameters might be modified periodically and fine-tuned more regularly, but the tweaks tend to be modest, even over longer time horizons.

These parameters are changing. "One thing that has evolved during this last period is how we think about the composition of a core portfolio and the definition of core," said the head of an asset management firm.

Falling Out of Love with Retail and Office

Recent shifts in both property and financial markets are upending long-established norms about how CRE portfolios should be constructed and even how often they should be refreshed. Institutional funds began investing more seriously in commercial real estate after the Employee Retirement Income Security Act (ERISA) was enacted in 1974, which allowed pension funds to invest in a broader range of assets. Ever since, there have been two traditional pillars of CRE portfolios: conventional office and enclosed retail centers.

Downtown office and regional malls offered investors several key benefits. They provided stable cash flows with relative liquidity because these in-demand assets could be easily resold. Their long-term leases typically included escalations, providing an inflation hedge. As large assets, they also allowed fund managers to invest large sums of capital with one underwriting in one transaction. And it did not hurt that these buildings looked good on the cover of an annual report.

But then e-commerce and work-from-home happened, upending the market dynamics of the retail and office sectors. It is unfair to ascribe all the fall-off in tenant demand to these two factors alone. As a nation, we had built too many malls (and other types of retail space, too) for years, even as shopping patterns were evolving. And firms were reducing their perhead office space demand well before COVID. Nonetheless, e-commerce and remote working greatly increased during the pandemic and helped accelerate the tenant shifts away from enclosed retail and office. Their appeal to investors sank, even if regional malls have staged a partial recovery this year, as discussed in Chapter 2.

An investment banking executive stated, "The fortress investments, the super secure investments in real estate—what the heck happened? Where did they go? Malls and office buildings were the storehouses of value, the great inflation hedges. And now the only thing that has really stood up over time has been multifamily."

"It's not clear how to replace the stability we used to expect from class A offices and top-tier regional malls," said the head of strategy for an asset management firm. "They're not going away totally, but they're going to be much more diminished, so there's still a lot of turmoil about where to redeploy. That's the number one issue institutional investors are facing."

What Is "Core"?

What are investors considering to replace office and regional malls? Investors were already shifting their gaze and fund allocations to other CRE product types. The head of an asset management firm stated, "Traditionally, 'core' has been defined as the four main food groups [office, retail, industrial, and multifamily]. Looking forward, I expect some of what has been a little bit more niche or specialized becomes a bit more mainstream. And maybe it's not necessarily even as a new asset class, but it's an expansion of [an] existing asset class."

Most of these more "specialized" sectors are not entirely new but represent extensions of more conventional ones. The asset management firm leader continued, "The definition of core industrial is expanding to include cold storage and self-storage, while core multifamily includes student housing and singlefamily rental. The definition of what fits in one of these main food groups gets expanded."

A senior investment banker confirmed this sentiment, saying, "The self-storage, digital infrastructure, and data center business are the places people feel more confident around." A director of an asset management firm added, "Investors should be more open to these sectors, and those who have been open to it have seen very attractive returns. And I'm pleased to see NCREIF [National Council of Real Estate Investment Fiduciaries] is accommodating some of this in their indices, which only helps us all be better investors."

Indeed, the five highest-rated sectors in the Emerging Trends 2024 survey are all specialized subsector segments, such as data centers and moderate-income/workforce apartments.

Core investors are even willing to consider conventional office buildings, but not in the same way as before. "I think office gets rethought in terms of what's core, perhaps less by geography like urban or CBD [central business district] and more by age and stage or by capital intensity," said one asset manager.

Buying, Selling, and Managing

Once investors get comfortable considering more specialized sectors, they still have other challenges to deal with. For example, how does a fund manager replace malls and offices to deploy large amounts of capital efficiently? "I think the answer is one word: portfolios," said an institutional fund adviser. "You don't buy two truck stops and then another two and then another two. You buy 100 truck stops, or you buy a 20 percent interest in 400. Or you buy large properties like data centers and life science buildings." But there is the additional challenge that these sectors are smaller overall, meaning there are fewer investment opportunities.

In this era of elevated interest rates and slower growth, "you need to be more selective about location and asset characteristics than five years ago when you could make a bet on industrial or make a bet on residential, and it didn't all have to be perfect, and you would still end up okay," said one asset management executive.

Owners also must be able to manage the property, which typically is more operational and thus requires more specialized knowledge than more conventional product types. For example, niche housing for students, seniors, and lower-income households all involve services not provided to residents of conventional housing. The facilities are also different, requiring future specialized expertise. The head of research of another asset management firm said, "A lot of the companies that want to get into it don't have the expertise. So, they either must build it or partner with somebody that does have it."

Is It Green Enough?

Finally, fund managers are increasingly being asked to look into the future to consider how best to prepare their portfolios to address the growing climate risks, as we explored in the "Eco-Anxiety Comes Home" trend. The fund strategy head said, "Once you figure out what the composition of that portfolio looks like, the number two issue is going to be some combination of decarbonization of it and at the same time adapting that portfolio to climate change." That involves "improving your energy conservation efforts and a whole series of activities to decarbonize and reduce the carbon footprint of every aspect of real estate: construction, the management, the ownership of it"—and then reporting on it to various stakeholders including investors as well as regulators and industry trade associations such as NCREIF and the Pension Real Estate Association (PREA) that have increased their focus on ESG.

It all adds up to a very full plate of issues for the fund manager. Good luck!

8. Not Remotely the Same

- The shift to remote work might be the single most important trend for property market dynamics in generations, as impactful for the sector office as e-commerce has been for the retail and industrial sectors, but with other far-reaching impacts on our lives and property markets.
- The prevalence of remote working overall in the United States has almost tripled relative to prepandemic trends, but has been far greater in large cities and in office-inclined jobs, to the detriment of the nation's office sector and downtowns.
- Remote and hybrid workers are more willing to relocate than other workers, typically moving to less-dense suburbs and smaller cities, often in search of more affordable housing. This trend is especially strong among younger households under age 35, normally the likely urban dwell-

Working from home is changing everything. The shift to remote work might be the single most important trend for property market dynamics in generations, perhaps since the Federal-Aid Highway Act of 1956 literally paved the way for suburbanization. As impactful for office tenant demand as e-commerce has been for the retail and industrial sectors, remote working is also changing intra- and interregional migration patterns, the kinds of housing we want, household formation rates, and where we shop and eat. It is also sapping the vitality of our downtowns while adding new life to inner suburbs and smaller cities.

We have noted the importance of remote working in several trends and property sector outlooks in this report, and it gets star billing in our two office sector narratives. But the issue is noteworthy enough to our lives and our property markets generally that, in this trend, we highlight and explain its significance as a foundational driver.

The Future Is Now

"Brazil is the country of the future . . . and always will be," according to a quote attributed to Charles de Gaulle. That ironic statement neatly captures the unfulfilled promise not only of that Latin American country but also of many technological breakthroughs that seem to show great promise but have never lived up to their hype. Recent examples include virtual reality, fusion power, and blockchain applications. Some might even include artificial intelligence in this category, a topic we explore in our last trend this year, "An Artificial Boom?"

"Hot desking" and "hoteling" also merited a special place in this pantheon until the pandemic. Workers are not assigned a set workspace but either take what is available on a first-come, first-serve basis (hot desking) or reserve space in advance for when they know they will be in the office (hoteling). For years, corporate space planners and their advisers had been promoting these concepts as a means of reducing occupancy costs. This model was especially appropriate for auditors and management consultants who would spend weeks at a time at their clients' offices. Why should their employers lease space that could be vacant most of the time?

This proved to be aspirational in most organizations. Employees hated these arrangements, and their firms found them cumbersome to execute and just not worth antagonizing their workers. Then came COVID, and office workers all went home to work. Once the lockdown was over and firms reopened their offices, they found that their workers had gotten used to working from home and rather liked it.

If most corporate leaders assumed that working from home would be temporary, they soon learned that "it is difficult to change work and commuting behavior patterns after a few years," as we quoted one investment banking leader in the "A Painful but Needed Capitulation" trend. Over time, a growing number of firms adopted an attitude of "If you can't beat them, join them," partly in recognition that they could reduce their space footprint and thus save on their occupancy costs.

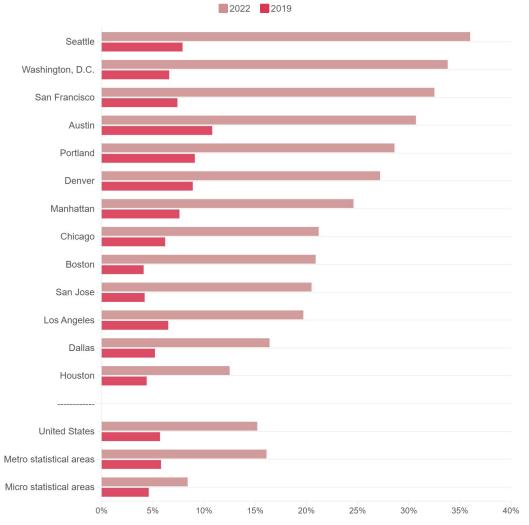
Another investment banker we interviewed said, "After the pandemic, people started to ask questions like, does everyone need to be in every day? Can we then get more efficient and hotel and maybe go to two, three days and these other schedules?" Enter the pandemic, and the concept of "hybrid" work arrangements was born-and hoteling was given new life.

By the Numbers

The prevalence of remote working in the United States has almost tripled relative to prepandemic trends, according to new data from the U.S. Census Bureau's 2022 American Community Survey, rising from 5.7 percent of all workers in 2019 to 15.2 percent in 2022—a gain of nearly 10 percentage points. (Workers self-identify as "work from home" based on where they spend the majority of their workweek; hybrid workers who go to an office one or two days per week would be considered remote workers.) But the shift in many of the nation's leading cities-particularly those with a high concentration of tech employment—has been even greater. Among the nation's 30 largest cities, the 10 with the greatest gains in working from home experienced an average increase more than

Share of Residents Working from Home

U.S. and Select Cities, 2019 and 2022



 $Source: U.S.\ Census\ Bureau, American\ Community\ Survey;\ compiled\ by\ Nelson\ Economics.$

twice as large as nationwide: from an average of 7.3 percent in 2019 to 27.6 percent in 2022—an increase of over 20 percentage points.

Remote Work Opens Up Options

The greatest impact of the shift to working from home is on the office sector. The foregoing census figures count all workers, including those in industries not amenable to remote working. such as factories and retail. Remote working in office-inclined sectors is even greater.

But this shift has much more widespread impacts. Freed of the need to commute to a workplace every workday, employees can move farther away. A small share of workers has gone fully remote, opening up a virtually unlimited range of location options. These COVID migrants have added even more fuel to the interregional migration to the Sun Belt that started well before.

Much more common are the hybrid workers who need to come into their workplace at least occasionally. Most stay within the same region but decamp to less-dense communities. Housing there is not only more affordable but also larger and so can better accommodate working from home. Thus, smaller cities and inner suburbs have been thriving at the expense of downtowns, as we discuss in the "Downtowns Need to Reinvent Themselves—Again" trend.

The greater mobility of remote workers—whether hybrid or fully remote—represents yet another significant shift in the American economic landscape. Prior to the pandemic, remote workers were actually less likely to move than other workers for the simple reason that they had less incentive to move. They had already located where it made sense, given their work arrangements. But people newly working much more often during the pandemic found themselves suddenly untethered from their workplace and free to consider new options.

The composition of the movers is also changing. "The people leaving expensive states and cities tend to be either highly skilled tech people or the unskilled," said one real estate academic. "But the normal college-educated can't afford to leave." In general, however, the movers are more affluent, according to census data.

They also skew younger. A new Fannie Mae survey found that 15 percent of remote workers aged 18 to 34 are "willing to relocate to a new metropolitan or regional area," and another 15 percent are "willing to live and/or commute a larger distance adding more than 20 minutes." By contrast, just 8 percent

of remote workers aged 35 to 44 are willing to move interregionally, and 11 percent are willing to move farther within their region. Similarly, for remote workers aged 45 to 64, the share willing to move longer distances is just 11 percent and 7 percent, respectively. These older-age cohorts tend to be more rooted in their communities. They are also more likely to already own their homes. "Home affordability" is the primary consideration cited when looking for a new home.

Follow the Money . . . and Migrants

These new or intensified migration patterns will have property markets impacts far beyond those on office building. More homes will be needed in the suburbs and smaller cities. Employees working from home will be shopping and eating more often closer to home, rather than near the downtown office where they used to work. People are also buying and renting larger homes so they can work better at home. Business hotels will host fewer overnight guests and meetings downtown. Transit systems will need to be reconfigured to reflect the reduced need for daily commutes from suburbs into downtowns. All told, the impacts on the built environment will be profound.

9. Downtowns Need to Reinvent Themselves—Again

- Urban economists and city leaders are debating the future of downtowns if the future involves significantly fewer occupied office buildings. Pessimists fear an "urban doom loop" while optimists counter that cities will adapt to the new adversities as they always have managed to in the past.
- The future of downtown vitality may hinge on whether the economic forces of agglomeration continue to concentrate high-valued firms and industries into cities.
- Downtowns face more live/work/play alternative communities in their suburbs, smaller cities, and even their own city neighborhoods that will compete for their economic vitality.

For the first two years of the pandemic, real estate professionals debated the extent to which workers would return to the office. That seems settled now, as we discussed in the "A Painful but Needed Capitulation" trend. In short, we won't be returning to the office in anything close to the numbers before the pandemic.

Now the battlefront has moved to the downtowns that are home to a very disproportionate share of these much emptier

Changing Demographics, New Housing Opportunities

As the industry plans for the future, it is important to look beyond past trends to examine how demographic influences have shifted since 2020 and whether these shifts are permanent or merely temporary.

Demographic shifts are seemingly slow moving, but that also means they come with a certain degree of predictability. Of course, a less-predictable major event (like a global pandemic) has the ability to move these trends at a more rapid pace, but those are rare. History is full of stories of business leaders who understood and planned for the big demographic shifts and the opportunities they present.

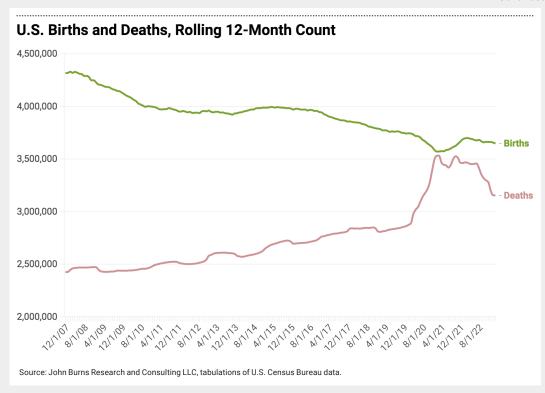
Population Growth

Overall U.S. net population growth fell to an incredibly low 500,000 people in 2021. The rebound to 1.26 million in 2022 was a significant improvement, but still the lowest level since the 1940s.

Two components of net population growth in the United States were affected significantly in the pandemic era:

- Natural change—the difference between the number of births and deaths—has been slowing for years, as births decreased and deaths increased due to the growing older population. The combination of a continued decline in births and rapidly rising deaths during the pandemic nearly halted the natural increase in population. The birth—death gap has widened once again, but remains lower than in the past, slowing the rate of overall population growth.
- Immigration has, in recent decades, fueled about one-third of the net population growth in the United States. While already slowing in the years leading up to the pandemic, immigration came to a near-standstill in 2020 and 2021, as borders remained tightened. A rebound to more than 1 million net immigrants between mid-2021 and mid-2022 showed the strong demand for people to enter the United States. Overall U.S. net population growth looks to be more reliant on the amount of immigration than it has in recent decades.

U.S. population growth remains very slow by historical standards, including for the working-age population. The growth *Continued next page.*



	Share of total population, 2015	Share of net growth, 2015-2019	Share of net growth, 2015-2022	Change 2019-2022
Urban	15%	12%	3%	-675,000
Suburban	65%	82%	87%	3,000,000
Rural	20%	6%	10%	675,000

Source: John Burns Research and Consulting LLC, tabulations of U.S. Census Bureau population estimates, 2022 vintage.

in the population aged 20 to 64-a group that comprises 95 percent of full-time jobs—is barely positive in recent years, adding to tight labor market conditions. The likely outcome is elevated income growth, as employers have to pay workers more to retain them or to attract people into the labor force.

Household Growth

The years 2020 and 2021 had the right conditions for a surge in household formation—and a global pandemic helped fuel the trend. Consider the following:

- Pent-up demand among a large young-adult population;
- Higher savings as a result of government stimulus;
- Wage growth as a result of labor shortages;
- More emphasis placed on the importance of the home, as experiences fell to the wayside;
- Desire for more space (e.g., roommates splitting up);
- More freedom to relocate due to remote work policies;
- Record-low mortgage rates; and
- Moratoriums on foreclosures and evictions, which would normally be a drag on household formations.

The combination of these factors helped to contribute to some of the strongest household formation levels in the United States in decades. But as some of these factors have mitigated or reversed course, household growth has naturally slowed—a trend that tends to show up first in slower apartment absorption, as newly formed households tend to rent first.

Still, the prospects for solid household formation—including both owners and renters—remain in place for the near to medium term, based on the aging of the population. The rising number of U.S. births from the mid-1990s to the late-2000s is translating into a growing wave of young adults today. The largest five-year population cohort will turn between 32 and 36 in 2024, approaching the median age of a first-time homebuyer. Young adults are forming households and buying homes later in life compared with prior generations, but

surveys suggest they continue to aspire to these life milestones—it is just happening later.

The longer future for new housing demand starts to become murkier. U.S. births began declining in 2008—the group that will turn 16 in 2024—and have continued to decline, falling to just 3.7 million births in 2022. Although this population is years off from forming households, it is clear that immigration will play a bigger role in determining how much larger today's youngest population will be.

Geography Shifts

Whereas births, deaths, and immigration all affect population growth at the national and local level, it is domestic migration the shifting of populations within the United States—that drives much of the local growth. This has been the story of the past several years—what John Burns Research & Consulting dubbed "The Great American Move"—as people raced to get out of a house they did not care for or seek a new location altogether.

This shift of geography had the greatest benefit to suburban locations. While the suburbs were already poised to capture an outsized share of growth due to predictable demographic trends, the pandemic accelerated that growth. John Burns Research & Consulting estimates that the suburbs, which captured 82 percent of net growth from 2015 to 2019, actually captured 87 percent of growth when including 2015 to 2022. Well-documented is the shift out of big cities during the first several years of the pandemic, though growth does appear to be returning. The rural U.S. locations also benefited, especially the exurban locations on the fringes of the large metropolitan areas.

Remote Work

The ability to work from a remote location, without the same ties to an office as in the past, certainly played a big role in these geography shifts. It is expected to remain a significant, permanent shift—and a continued development opportunity.

While the call back to office still looms for some, more workers have more freedom in their choice of location than in the Continued next page. past, enabled by high-speed internet and technology. The United States has witnessed large geographic shifts in the past:

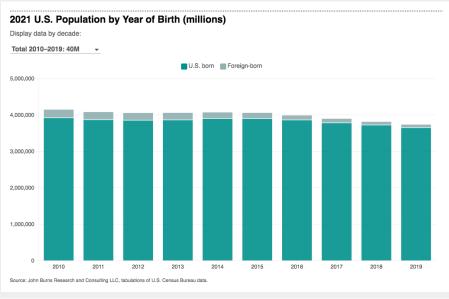
- Mass production of automobiles enabled the Great Northern Migration in the early 1900s;
- Mass production of air conditioning enabled the Great Southern Migration in the 1950s and 1960s; and
- The Federal-Aid Highway Act of 1956 made commuting feasible, enabling suburban housing to flourish in the 1950s and 1960s.

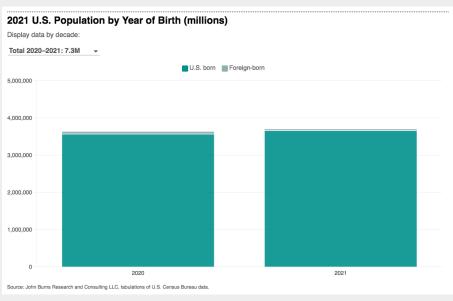
It is no coincidence that the population born in the 1990s, whose generation was branded as the Connectors, is a growing share of the labor force today and had already been shifting society toward living connected via technology.

Conclusion

The U.S. population is not growing fast, but the distribution of people is changing, both in numbers and geography. These shifts present opportunities for some housing markets for those who pay close attention to demographic trends and act upon them.

-John Burns Research and Consulting LLC





offices. Many observers fear for the future of formerly dominant gateway cities, while others believe that these cities will adapt and recover sooner than expected. Pessimists have adopted the term "urban doom loop" to describe the downward spiral that could follow the decline in foot traffic when offices sit empty. Nearby stores and services close, diminishing the allure for residents and reducing property values. Tax revenues tank, forcing cities to cut critical services, further reducing the community's appeal to commercial and residential users. Transit systems suffer as ridership declines, requiring service cutbacks, so even fewer commuters ride the buses and trains. It is a bleak outlook.

A more hopeful perspective focuses on the traditional strengths of cities to attract young, highly motivated people combined with their capacity to adapt. Cities have faced their share of crises before, from suburbanization in the 1950s to white flight in the 1960s and crime in the 1970s. But cities have proved resilient and adapted, revitalizing their appeal for many people. "The dynamics that made urban centers attractive to a huge percentage of the population exist today and will persist into the future," said a leading housing sector consultant. "I don't want to live in the woods, even if I'm not going to the office."

Small versus Large Cities

Before we debate the future, we must first be clear about the present. Smaller U.S. cities have largely recovered since the pandemic while larger cities struggle. According to phone mobility data, visits made to the CBDs of the largest U.S. cities (those with a population of at least 1.5 million people) are down more than 40 percent from prepandemic levels, according to a study by Georgetown University and University of Chicago economists. On the other hand, visits to the downtowns of cities with a population of under 150,000 people are down less than 5 percent.

What is the difference between these two types of cities? One issue is that the shift to remote working has been greater in large cities than in smaller cities, as we discussed in the "Not Remotely the Same" trend. Many of the country's largest cities are tech centers, whose work and workforce are more amenable to off-site work.

But there is a more fundamental distinction. According to the study authors, large cities depend on agglomeration the benefits of concentrating resources such as capital and specialized labor in an area-for their economic vitality, while smaller cities do not. Since COVID hit our cities, agglomeration seems to count for a lot less for businesses than it used to, so larger cities have lost disproportionately more residents, jobs, property values, and general economic vitality than smaller cities and suburbs.

According to one real estate academic, "Some of the changes that we are seeing are permanent. It seems like the hybrid work environment that we're going to settle into is going to be to the benefit of the second- and third-tier cities."

Agglomeration versus Dispersion

Will that continue? Competing visions on the future of large-city CBDs turn partly on the enduring importance of agglomeration as a driving locational force in an era when technology enables remote communication and collaboration. Our interviews with industry leaders encompassed a range of views, but most interviewees side with a continuing strong role for agglomeration.

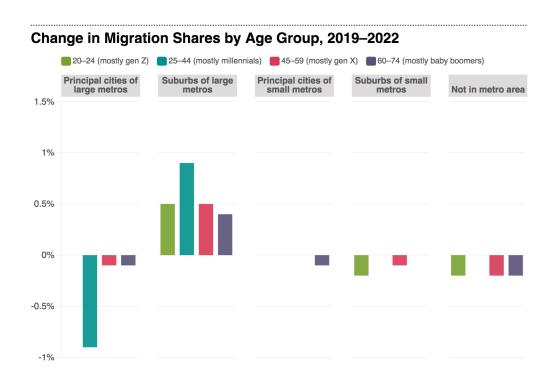
One urban economist said, "In the long term, I'm bullish on cities because we are transitioning to a knowledge and innovation economy, and knowledge and innovation are super-powered by proximity, and the more of it, the better. And that's what cities provide. So, the demand is there." Indeed, the urban exodus during the pandemic appears to be reversing, with the latest Census Bureau data showing that population growth is rebounding in the nation's largest counties.

Not everyone is convinced, though. Another real estate economist said, "Agglomeration is still important, but I think specialization and separation are gone. Suburbs are looking more like cities, and cities are looking more like suburbs in terms of the uses that we're seeing." In addition, downtowns are no longer the only center of activity in their cities. While residents are returning to cities that emptied during the pandemic, some urban cores continue to empty. So, cities are not necessarily the unique incubators of innovation they were.

Walkable Alternatives

Big cities are also not the only "15-minute cities" anymore. Many small cities and inner suburbs of large cities offer some degree of walkability and diversity of entertainment offerings with less of the (perceived) downsides of city living, such as crime, government dysfunction, and high cost of living-all issues mentioned by industry experts in our interviews.

Given these alternatives, will large cities and their downtowns regain their traditional appeal to young households? During the pandemic, all age groups left large cities, and none more so than millennials, who were starting to leave for the suburbs



before the pandemic anyway as they married, started families, and wanted more space. The shift to remote work gave them even more incentive.

It remains to be seen if the smaller cities and inner suburbs will continue to be compelling alternatives for households that historically would set up homes in the downtowns of larger cities. According to the urban economist, "More flexible work does two things. It supercharges suburbanization, but the more time you spend at home, the more you're going to wish your home was in a vibrant neighborhood. So that is actually a competitive disadvantage for moving to a townhouse somewhere out in the suburbs."

However, in some gateway metro areas, neighborhoods are thriving even as their downtowns are failing, providing that vibrant live/work/play mix previously associated more with downtown areas. In this way, the more residential neighborhoods of large cities that formerly would be in a more supportive role for the downtowns now are actually more competitive, accounting for a greater share of the city's stores and offices.

Converting to a New Future

Office buildings have increasingly dominated the physical and economic landscape of major downtowns since World War II, to the relative exclusion of other land uses. Even before the pandemic, these office districts were often barren in many cities once the workers left their offices each night. The pandemic only intensified the feeling of ghost towns. If large-city downtowns are going to find a new purpose, their evolution will need to embrace a different mix of land uses that involve fewer office buildings.

The obvious first step is to convert these empty office buildings to other uses, particularly residential, in light of the tremendous housing shortage. "These conversions can have a big impact on the local level," said a senior researcher at a large brokerage firm. "They add hundreds of residences to otherwise quiet blocks of the city and otherwise enhance the livability and work/live/play vibe of these neighborhoods." Indeed, cities are adopting a variety of measures to encourage these conversions:

 Boston's Downtown Office to Residential Conversion pilot program provides a tax abatement that reduces the tax bill of properties converted into apartments by roughly 75 percent for up to 25 years.

- New York City has launched several programs, including an Office Conversion Accelerator to expedite adaptive use projects. The plan would rezone 136 million square feet of office buildings built before 1990 to allow for conversion to residential and other uses.
- Chicago's LaSalle Street Reimagined would diversify an area that currently is 85 percent office space, facilitating the conversion of five downtown office buildings to create more than 1,000 apartments. A minimum of 30 percent of the apartments would be designated as affordable for households earning less than 60 percent of the area median income.
- The city of Seattle solicited proposals to identify potential office conversions. After selecting the top three candidates, the city government is drafting legislation, incentive programs, and regulatory modifications supporting the conversion projects.
- Washington, D.C., has a goal of adding 15,000 residents to the downtown. The city's efforts include offering a 20-year tax abatement to developers that build more than 10 housing units, zoning changes, and relaxing some regulations that impede conversions.
- The California state legislature has appropriated \$400 million in incentives for commercial-to-residential conversions, with \$105 million for affordable housing. The legislature is also considering the Office to Housing Conversion Act that would facilitate and speed office conversions and require 10 percent of new housing to be set aside for affordable units.

These measures will help but will not be a panacea. Conversions are easy to envision but tough to execute, as we highlighted in the office sections of this report. One real estate investment trust (REIT) adviser we interviewed said, "Maybe 10 to 20 percent of office buildings can be reasonably and economically converted to apartments because you can't have a 10-foot-wide, 40-foot-deep apartment unit with a single window looking out." These conversions also typically require a significant loss in value for the building to be feasible for conversion—not a welcome prospect for most owners.

The Need for a Third Place

If not residential, what then? The range of other possible uses is beyond imagination, but cities can set the foundation for that imagination. "What can cities do to help get to that longerterm future?" asked the urban economist. "Regulatory reform.

Simplifying, streamlining, liberalizing zoning and building codes to make it easier to turn buildings into other buildings."

One idea gaining interest: third places. "We need more spaces to provide ways for people to come together and community," said a lender at a major bank specializing in community investing. "Where do we go? Where does civic life happen? Where do people come together and exchange ideas? If we all don't have a place we can go, we're probably going to hate each other more because the media is going to convince us that we don't agree. Real estate is a platform to provide those opportunities."

Even More Change Ahead

With commuting and daytime populations down, cities also must rethink their transit and vehicular networks to prioritize shorter trips over long commutes. With fewer young people choosing to drive at all, cities also need to consider reducing parking spaces and requirements.

That is a lot to consider. The transition will not be easy or painless. According to the head of one asset management firm, "We can't escape the basic economics, which is a fall in demand, given fixed supply, means the value of space falls. The question is, how do cities, the urban built space, address this decline in value?"

It begs the question of how cities will fund the necessary infrastructure improvements and incentive programs needed to transition to the next downtown iteration. Even if cities do not fall into the "urban doom loop" spiral, revenues in many cities almost certainly will decline along with property values, employment, and retail sales in their commercial hearts. That is the challenge ahead.

10. An Artificial Boom?

Despite the hype and popular attention on artificial intelligence, actual CRE uses appear to be limited and most mundane to date. The range and sophistication of industry uses are likely to expand quickly, given the promise of the technology and the volume of venture capital investment going into the sector.

The exciting potential includes probabilistic models to help predict property climate risks, identify investment opportunities, and construct higher-performing portfolios.

Al adoption could replace many types of routine white-collar work, but jobs losses could be offset by greater overall economic growth as well as space demand from AI firms.

Artificial intelligence zoomed into popular consciousness this year with the release of two wildly popular consumer versions of AI programs by Google (Bard) and OpenAI (ChatGPT). In truth, AI has been around for some time in various forms and guises. The type of AI generating the most buzz now is known as "generative AI." Unlike the more basic "reactive AI," like expert systems, these large language models use statistical models to mimic human intelligence by analyzing vast amounts of data to learn underlying patterns and connections and then make predictions.

Different sources provide wildly different estimates of the AI market size depending on what is counted. However, most peg the global market value at over \$200 billion already and growing by 30 to 40 percent annually. Estimates of the U.S. share also vary significantly, but the domestic market is generally thought to account for a disproportionate share of global investment and employment in AI.

What For?

The potential business applications seem endless, but their CRE uses appear to be limited to date. How might AI be deployed in the CRE sector? What opportunities might it create?

An executive involved in AI applications for CRE said, "AI is going to change so many things so quickly at such scale that I don't know that we have a good mental model to process what it means, not only for real estate but for society at large." But so far, the actual uses have been pretty mundane for the most part. "When I think about all the ways in which AI may nip around the edges of real estate by changing how you interact with a customer service agent or property management, it still feels very low level."

A developer for a real estate investment firm that leases to many tech firms, including AI, agreed. "There are ways we can't even fathom that will be helpful in all businesses. But the one I've heard of more recently is administrative tasks. It basically serves as your superpower assistant: lunch, property tours, running in the background handling all those sorts of things." Important, perhaps, but still pretty basic.

What's Next?

Those humble uses are likely to expand quickly, given the promise of the technology and the volume of venture capital investment going into the sector. Many firms are already experimenting with potential applications, which are likely to be as diverse as the real estate industry itself—from building and designing to operating and managing, leasing and selling, analyzing and forecasting.

Already, firms are using AI for routine tasks such as drafting or editing various forms of content including pitch decks, marketing plans, and investment committee memos. Also likely to follow: functions that can be automated and streamlined, such as customer service and administrative functions, but also more substantive areas, such as reviewing or drafting leases or other legal documents.

With firms under eternal pressure to reduce costs and headcounts, everything that can be automated will be automated. However, it is the potential for higher-value tasks that get industry leaders more excited. For example, insurance companies and rating agencies are starting to use AI to better understand the impact of evolving climate risks on properties in different locations. The AI executive said, "The insurance company's ability to harvest lots of data and make predictive real insights and do it fast and quickly is going to be made possible because of Al."

Some firms are experimenting with other sophisticated functions, such as mining large data sets to facilitate investment decision-making or identify investment or development opportunities. An academic using AI for market forecasting said, "The AI revolution in commercial real estate is to drop the old approaches and embrace a more predictive perspective on these ideas." Rather than using the frequency statistics that typically underlie CRE forecasting models, "the alternative approach is a Bayesian probability approach, which mathematically is much more complicated because you're essentially simulating rather than estimating."

Al could be used to develop superior portfolio construction strategies with predictive models that guide fund managers on how different property types and markets are likely to interact. And after the acquisition, owners eventually will be able to harness AI to manage their assets better. For more insights, see the sidebar "Revolutionizing the Real Estate Life Cycle: The Power of AI in Driving Sustainability."

With sufficient advances, AI eventually could displace some CRE employees, particularly those performing routine tasks. However, those holding jobs requiring a more personal touch, such as brokers and transactional professionals who negotiate deals, probably should not worry too much. Al seems unlikely to replace functions requiring interpersonal skills that come into play during real estate transactions or analysis of intangible qualities. But AI could help those performing those functions to work smarter with better information.

Friend or Foe

If AI can help CRE professionals work more efficiently and effectively, it also has the potential to both hurt and help the industry in various other ways. Most notably, AI can enhance worker productivity throughout the economy and thus promote general economic growth and create more jobs. On the other hand, AI could also replace many knowledge workers who normally work in offices by automating mundane tasks such as drafting legal documents or preparing accounting statements.

A study by McKinsey & Company concluded that, on balance, we should expect to experience significant boosts to worker productivity, jobs, wages, and ultimately economic growth. Thus, commercial real estate markets could benefit directly from increased job growth and more indirectly from broader economic growth, both of which could fuel more CRE tenant demand across most property sectors.

Other studies have predicted that AI could lead to significant job displacement as well. However, there is a long tradition of predictions over the past two centuries whenever a new technology is introduced that it will destroy jobs. Most recently, many predicted the introduction of robotics in warehouses would reduce warehouse jobs. The reality is that, historically, the economy generally gains jobs on net when technology promotes productivity, though many transitional job losses are inevitable. Many thousands of workers associated with horses and buggies—from the drivers to the stable hands—lost their jobs with the introduction of the automobile. Still, they were eventually far outnumbered by all the factory workers making the cars and gas station attendants. Contrary to fears, warehouse jobs have climbed sharply in recent years—up almost 50 percent in this decade alone.

Much of the future losses are likely to be focused on whitecollar workers, whereas most tech-related workplace displacement in recent decades has hit blue-collar work, such as in factories. That would be a further setback for the office sector, which is already reeling from unprecedented declines in tenant demand. An investment banking executive noted that the efficiency of remote working is permanently reducing office demand. "Artificial intelligence is going to take that one step further. You'll have certain office jobs that may not exist anymore. And noncommoditized office buildings will suffer if more of those rote-type jobs come out of the workforce."

However, these losses could be offset by the tremendous gains in office demand from AI firms themselves. There are no definitive employment estimates for the AI industry, but various sources suggest there are already at least 100,000 Al jobs in the United States. JLL estimates the industry occupies over 17 million square feet of office space, increasing to over 60 million square feet within five years if recent growth rates are sustained. Al is also generating employment in related sectors. For example, Salesforce recently announced that it will hire 3,300 workers related to AI either directly or indirectly, after previously announcing 8,000 job cuts early this year.

What and Where?

What type of space do Al firms need? According to the techfocused developer we interviewed, "The space they're looking for is similar to what we saw with young technology startups, which is creative, open space, quality attributes highly amenitized similar to what you'd see from a normal technology company."

Much of this demand is, and will continue to be, located in the traditional tech markets-possible "green shoots" for the San Francisco Bay Area and other tech markets hit hard by the shift to remote working. An analysis by the Brookings Institute shows that 60 percent of U.S.-based Al job openings are concentrated in 15 metropolitan areas, with the Bay Area capturing one-quarter of all listings. That share tracks with Brookings' estimate that the Bay Area also accounted for about one-quarter of AI conference papers, patents, and companies in 2021.

It all seems very promising, but still speculative, with much unknown. According to the head of analytics for a CRE data firm, "As an industry, we've got a long way to go. There's a huge lack of understanding that might slow the adoption. There is still a lot of misinformation, so there's a reluctance to adoption. But we're excited at the potential."

Revolutionizing the Real Estate Life Cycle: The Power of AI in Driving Sustainability

The world of real estate has seen a significant transformation over the years, with technology playing a crucial role in shaping the industry's future. One of the most transformative and disruptive advances is artificial intelligence (AI)—which includes machine learning, deep learning, and generative Al. Al can simulate human intelligence through machines, which provides the ability to automate tasks, make decisions, or create new content. As business leaders closely monitor the potential impact, AI is estimated by PwC to contribute up to \$15.7 trillion to the global economy in 2030.

While the business world is grappling with surging demand for Al, there is a simultaneous demand for greener, more sustainable solutions, and the real estate industry is no exception. Because real estate assets account for 39 percent of carbon emissions on a global basis, according to the ULI Global Sustainability Outlook 2023, a clear need exists to make the industry greener. The combination of AI and sustainability has the potential to deliver unprecedented economic and technological benefits while positively contributing to the fight against climate change.

The Need for Change

The real estate life cycle, from market planning to facility management and lease administration, is primed for a tech-

nological shift. One key area of change is the need for energy optimization. According to the U.S. Environmental Protection Agency (EPA), an average of 30 percent of the energy used in commercial buildings is wasted. And that energy is expensive and has an impact. Energy Star estimates that decreasing energy consumption by just 10 percent can result in a 1.5 percent increase in net operating income. If AI can support energy efficiency, it yields benefits from the perspective of both cost savings and sustainability. This is just one example of how Al can be a beneficial player across the real estate life cycle.

The Real Estate Life Cycle: Supported by AI

The increasing demand for sustainable real estate solutions—coupled with the need for efficiency, accuracy, and cost effectiveness—is driving the adoption of AI in the real estate sector. Investors and developers seek data-driven insights to boost confidence in their decision-making, while occupants desire smarter and more comfortable spaces. Underpinning all this, both investors and occupiers are recognizing the importance of environmental responsibility and energy efficiency across the entirety of the real estate life cycle. The following illustrates the optimized real estate life cycle—streamlined by Al with the goal of delivering monetary savings and reducing negative climate impacts.

Artificial Intelligence The simulation of human intelligence processes by machines, especially computer systems. Used by data scientists Machine Learning imitate the way humans learn, gradually improving its performance **Deep Learning** A machine learning technique that imitates the way humans gain certain types of knowledges; uses statistics and predictive modeling to process data and make decisions. **Generative Al** Al is now accessible all developers & use Algorithms (such as ChatGPT, Dall-E, Codex) that use prompts or existing data to create new content: Written: text, code Visual: images, videos Auditory: audio users Ċ

Market planning. Starting with market planning, Al-powered algorithms analyze vast amounts of data to predict market trends, allowing developers and investors to make informed decisions about where and when to invest. These predictive capabilities will become more accurate as more data becomes available, leading to more precise investment decisions that use market trends while assessing the ecological impact of development projects. This will enable stakeholders to make choices that align with environmental goals while also being financially sound.

Property management. During the construction process, project management benefits from Al's ability to optimize construction schedules, manage resources efficiently, and even identify



potential risks before they escalate. This will enhance collaboration between stakeholders and optimize resource allocation.

Facility management. Once a building is constructed, facility management is witnessing the rise of "smart buildings" that monitor energy use, adjust lighting and heating systems based on occupancy patterns, and suggest energy-saving strategies by using internet of things (IoT) sensors and AI algorithms. According to the Office of Energy Efficiency and Renewable Energy, implementing smart sensor technology can result in approximately 29 percent reduction of site energy consumption. Thus, there is a great potential for energy savings and improved occupant comfort while reducing a property's carbon footprint.

Space management. In space management, Al algorithms that analyze space use patterns are leveraged to optimize layouts and enhance productivity. These algorithms can benefit from AI-powered energy management systems that analyze use patterns to minimize energy consumption, thereby reducing carbon footprints. This area is poised to evolve further to incorporate sustainable design principles. Al algorithms will optimize space layouts to maximize natural light and ventilation, minimizing the need for artificial lighting and climate control. Al will continue to refine space use patterns, accommodating flexible work arrangements and promoting productivity.

Lease administration and accounting. Finally, though traditionally a very manual and time-consuming processes, lease administration and accounting can be streamlined using Al-powered software to manage lease data, track payments, and ensure compliance, thus reducing errors and minimizing administrative overhead. Furthermore, AI can process client lease documents, abstracting key terms to automatically populate relevant databases and contracts. There will likely be opportunities to integrate Al-driven sustainability reporting, ensuring that tenants and landlords are aware of the environmental impact of their spaces. Al could also help incentivize sustainable practices through lease terms that reward energy-efficient behaviors.

Deploying AI Responsibly

While the future of AI in real estate is promising, it needs to be deployed responsibly. It is paramount to consider data privacy and security, particularly for systems that rely on large datasets. Protecting personal and sensitive information is critical.

Another consideration for responsible AI is mitigating against biased, offensive, or misleading content in Al algorithms. For example, if historical data used for training contains biases, AI systems might inadvertently perpetuate those biases. The same thing applies to market or property assessments. Developers and stakeholders must ensure that AI models are trained on diverse and representative data to avoid perpetuating biases against people and creating misinformation or malicious content.

Conclusion

Ultimately, embedding artificial intelligence into the real estate life cycle shows great potential for both cost and resource efficiency, while also being a positive step forward in the industry's sustainability efforts. Al has already demonstrated its potential to reduce environmental impact, particularly concerning lowering energy expenditure. As the industry moves forward, Al's predictive capabilities and optimization will be essential in shaping eco-conscious decisions at every stage of the life cycle. Challenges around responsible AI may exist but the commitment to sustainable development and the power of AI make the partnership between technology and environmental responsibility a bright prospect for the real estate industry and the planet.

-Katherine Huh, Emily Godward, and Lisa Kent, PwC



Property Type Outlook

"You have to look at the overarching, longer trends and make decisions about what sectors and what investment strategies you're going to focus on based on that long-term view of basic supply and demand, with more focus on the demand side of the equation, particularly if you're a long-term holder of real estate."

With commercial real estate capital markets so disrupted by the recent increases in interest rates, property owners and investors have turned their attention to property market fundamentals as the best way to generate returns. That means focusing more on the competitive supply of new properties and especially tenant demand for space. This change in focus helps account for the dip in investor demand for industrial, which is finally receiving muchneeded deliveries that are muting rent gains. And it certainly explains the plunge in investor demand for office buildings, where tenant space demands continue to spiral down.

Yet the biggest feel-good property story this year is the retail sector comeback, which is probably better explained by a collective reassessment of the sector than by any dramatic recent shifts in supply and demand dynamics. It seems clear that the retail sector was underappreciated. Now the industry is coming to realize that the nation will keep shopping for most of its goods and many services in shopping centers indefinitely, even if e-commerce continues to take market share away from in-store retailers.



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

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

Prospects for Major Commercial Property Types, 2020-2024

1-Abysmal 2-Poor 3-Fair 4-Good 5-Excellent



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

Prospects for Major Commercial Property Types, 2020–2024

1-Abysmal 2-Poor 3-Fair 4-Good 5-Excellent



The more positive attitude toward the retail sector was evident in our interviews this year and confirmed by the results of the Emerging Trends industry survey. The overall retail score jumped more than 14 percent [42 basis points (bps)], by far the largest one-year gain in any property sector in over a decade since the GFC. In this remarkable and broad-based turnaround, every retail segment improved, led by an astonishing 44 percent (84 bps) gain in the rating of regional malls, followed by 20 percent increases in outlet and power centers.

Retail is still a long way from being the industry favorite, however. What's on top? Not industrial. After 16 straight years at either the first or second position among the major property types, industrial/distribution fell to the number three position. Still, the decline was not dramatic at just 1.5 percent.

Housing is now the preferred property type, with multifamily housing just edging out single-family housing in the two top positions. Multifamily managed to earn a slightly higher rating this year despite rising vacancies in some high-growth markets as the massive pipeline of new product came to market. But singlefamily housing had a much bigger gain, second only to retail, as the historically low number of homes available in the resale market presented better opportunities for homebuilders, despite the increase in mortgage interest rates.

The office sector continues to get no love from survey respondents. Its rating of 2.60 was the lowest of any major sector since 2011, after falling another 4.4 percent (12 bps) this year. Central city offices were the lowest rated of any property segment by a wide margin, displacing regional malls, which had long dwelled at the bottom of the heap. Suburban offices were a bit better but still received the second-lowest rating, and both CBD and suburban offices dropped further this year.

Hotels were about flat this year as economy hotels regained favor, but luxury, upscale, and midscale hotels all declined moderately.

In sum, the all-sector investment prospects average rose slightly from 3.26 to 3.37—the second highest since 2016, though still below the 3.43 registered in 2022. The ratings of three major property types increased (single-family housing, multifamily housing, and retail), while two declined (office and industrial), and one was about flat (hotels). Despite the overall small gain in investment prospects, development prospects fell marginally again to their lowest rating since before the pandemic.

With the declining fortunes of the office sector, the spread between the top and bottom sectors widened again this year to tie its highest level in the past two decades.

Among the property subsectors, data centers remain the most preferred type, followed by moderate-income/workforce apartments. However, life science facilities fell the most of any segment (9.1 percent), the victim of significant supply additions while demand cooled. Overall, the ratings of many niche segments outpaced the traditional major property types as more niche sectors are becoming accepted institutional investment options.

Multifamily: Build Baby Build

The multifamily sector has most of the same headwinds as other commercial properties—ballooning mortgage rates putting pressure on values and refinancings, rising expenses, a potential hit to demand in the event of an economic downturn-along with a surging supply pipeline.

However, the tone in multifamily housing is much less negative than other segments of the market because of long-term demand drivers that should enable it to maintain steady performance. Although the postpandemic demand wave has decelerated, absorption remains strong. Occupancy rates nationwide are down from all-time highs but still solid relative to historical averages. Even the main cause of declining occupancy rates—the recent bump in supply—eventually will be seen as a blip when considered against the nation's long-term critical shortage of housing. "We're not creating nearly enough housing to meet demand, which leads to increasing housing costs and stifles regional economic growth," said an executive at a state affordable housing coalition.

And while the capital crunch is painful, the multifamily sector retains more liquidity than other property types. The governmentsponsored enterprises (GSEs) have reduced origination volume from previous years, but they still represent a backbone of debt availability that other property types lack. The sharp reduction in transaction volume is caused more by the fact that owners don't want to sell while pricing is uncertain than by a lack of investor demand.

That's not to say that multifamily values haven't declined, with the problems that creates, or that investors are lining up to buy properties the way they did in recent years. But the sector has favorable long-term fundamental drivers and a less-difficult path relative to other asset types on the other side of the current interest rate-driven malaise.

Growing Demand

Absorption of apartments hit record levels in recent years owing to a surge in household formation and social and demographic

trends. Since 2019, household formation has averaged nearly 2 million per year, according to the U.S. Census Bureau's American Community Survey. The percentage of young adults living with parents, which had steadily risen for two decades, began to reverse in 2021. The number of 18- to 34-year-olds living with parents fell by 1.9 million, from 6.8 million in 2020 to 4.9 million in 2022, according to the U.S. Census Bureau.

The job market recovery, rising income, and excess savings accumulated in the wake of the pandemic gave households more financial wherewithal. Individuals who began working remotely, either full or part time, wanted more space for home offices. Renters looking for more space and/or cheaper housing moved away from gateway markets to suburbs and the Sun Belt. Appreciating home values and the increase in mortgage rates contributed to multifamily demand by making homeownership relatively less affordable, a trend that is likely to continue.

Apartment Prospect Trends

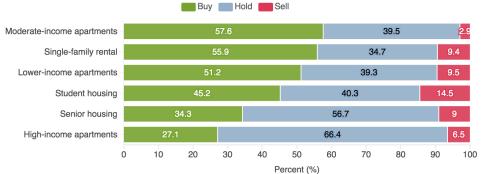




Source: Emerging Trends in Real Estate surveys.

Apartment

Buy/Hold/Sell Recommendations



Source: Emerging Trends in Real Estate 2024 survey. Note: Based on U.S. respondents only.

The result has been an unprecedented windfall for the industry. Roughly 600,000 apartment units were absorbed in 2021, according to Yardi Matrix, double the "normal" average. That led to unprecedented rent growth. The average U.S. multifamily asking rent increased by an annual record 15 percent in 2021 and 22 percent over two years through December 2022, per Yardi Matrix, with growth topping 30 percent in Sun Belt markets such as Tampa, Austin, Miami, and Nashville.

Rent growth decelerated in 2023 and is likely to remain muted in 2024 as the factors that drove demand are softening (but not eliminated entirely) while supply growth is robust, and affordability is increasingly strained. Household finances are boosted by low unemployment and wage growth remaining in the 4 percent range, while the job market continues to surprise on the upside of forecasts. The migration to the Sun Belt slowed from the lockdown-era rush and is more akin to long-term levels. Through August 2023, roughly 200,000 apartments have been absorbed year-to-date, per Yardi Matrix.

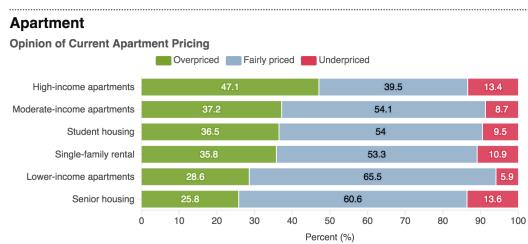
Current moderate levels of absorption aren't enough to keep up with the growth in supply that was fueled in recent years by growth in Sun Belt and Western markets and low-cost financing from regional banks. More than 2 million units have come online since 2017 and another 1.1 million units were under construction in the second half of 2023. Yardi Matrix forecasts 900.000 units will be delivered in 2023–2024, which will erode occupancy rates and rent growth in the short term. Also contributing to the slower rent growth is the growing number of households that are "rent-challenged," meaning they pay more than 30 percent of their income on rent. The combination of decelerating factors means multifamily rent growth is likely to remain subdued in 2024 and maybe longer.

The flattening on the national level, though, masks emerging metro and regional differences in which the Sun Belt and West metro areas that recorded explosive growth in the last cycle have fallen behind typically slow-growth markets in the Northeast and Midwest. What's behind this rotation? Metro areas such as New York, New Jersey, Boston, Chicago, Indianapolis, and Kansas City have maintained high occupancy rates because demand has been consistent, and they generally have not had a rapid boom in supply. Larger coastal markets including New York, Boston, and Chicago that lost residents during the pandemic have benefited from the return of office workers and rebounding foreign immigration. After several years of weak immigration growth, more than 1 million immigrants were admitted into the United States in 2022, according to the U.S. Census Bureau.

Demand remains strong in Sun Belt markets but not enough to match the supply growth. Metro areas including Austin, Nashville, Raleigh-Durham, Miami, Salt Lake City, Phoenix, and Orlando have seen occupancy rates fall as large numbers of new units come online. While these metro areas will be fine in the long run, lease-up of these units will be slower than expected and market rents will grow more slowly over the next year or two as apartment supply expands by 4 to 5 percent per year. Other markets, primarily in the West such as San Francisco, Seattle, and Portland, have seen rent growth turn negative due to slowing demand, issues with public safety, and the difficult regulatory environment that includes a protracted entitlement process and new rent-control laws.

Higher Rates Pose a Problem

Multifamily's strong fundamentals diminish rather than eliminate the impact of higher interest rates. Property values are down, and transaction activity has fallen 70 percent from 2021 levels due to pricing uncertainty. As of summer 2023, multifamily property



Source: Emerging Trends in Real Estate 2024 survey Note: Based on U.S. respondents only

values were down 14.5 percent from the peak in July 2022, according to the MSCI Commercial Property Price Index (CPPI). MSCI analysis suggested that prices needed to drop another 10 percent before property sales returned to "normal" levels.

High mortgage rates have cut into mortgage activity, especially commercial banks, CMBSs, and collateralized loan obligations (CLOs), which were either reducing exposure to commercial properties or offering pricing that was not competitive. GSE volume was \$86 billion through mid-October 2023, down by nearly 25 percent year-over-year, according to Commercial Mortgage Alert and Trepp. Fannie Mae and Freddie Mac were on track to not fully fund their allocations (\$75 billion apiece) for the first time in many years. However, even reduced origination levels demonstrate

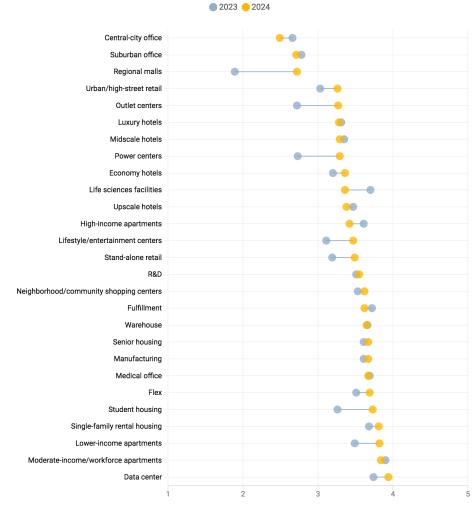
the advantages of multifamily, as all CMBS and CLO issuance was down 65 percent year-over-year through mid-October, per Commercial Mortgage Alert and Trepp.

Higher mortgage rates are creating a problem refinancing many loans. Many property owners face a shortfall when refinancing 3 to 4 percent mortgages with loans at 6 to 8 percent rates while property values are down 15 to 25 percent and lenders are reducing the amount of leverage they will provide. With loan proceeds down upward of 30 percent, many property owners face a choice—either put equity into the building to cover the shortfall, negotiate an extension with the lender, or hand back the keys. The early trend indicates that extensions are winning. The multifamily CMBS delinquency rate doubled, but only to 1.9 percent as of September 2023, per Trepp.

Prospects for Commercial/Multifamily Subsectors, 2024 versus 2023



1-Abysmal 2-Poor 3-Fair 4-Good 5-Excellent



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

How much loan defaults eventually increase will depend on how high interest rates go, how long they stay high, the performance of properties, and the seasoning of loans as they come due. Long-term loans coming due that enjoyed outsized rent growth over five to 10 years are less likely to have issues than the shortterm loans on value-add properties originated just before rates increased in spring 2022 that do not have the benefit of years of income growth. Federal Reserve Chair Jay Powell has indicated a hawkish tone on keeping rates higher for longer, largely dashing optimism that rates might come down in 2024.

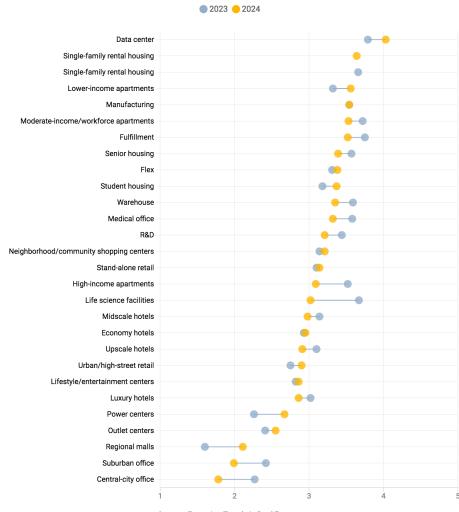
In addition to increasing debt-service costs, multifamily properties are facing a rapid increase in expenses, particularly insurance. A study of more than 20,000 multifamily properties that use Yardi accounting software found that expenses increased by an unusually high 9.3 percent in the year ending mid-year 2023. The average insurance premium rose by nearly 19 percent during that period, and average insurance costs per unit increased by more than 30 percent in the Southeast and parts of the country with a growing number of weather-related incidents that result in multi-billion-dollar payouts. Some owners in states such as Florida and parts of California and Texas are finding it difficult to get property insurance quotes.

Rapidly rising costs of land, materials, and labor, as well as constricted debt availability, could put an end to the supply increase, as starts are dropping rapidly. "Development is difficult to pencil at 8 to 9 percent mortgage rates and with leverage down to 50

Prospects for Commercial/Multifamily Subsectors, 2024 versus 2023



1-Abysmal 2-Poor 3-Fair 4-Good 5-Excellent



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

percent," said a senior executive at a large multifamily property owner/developer. "You go through the exercise of looking for opportunities but in the end it doesn't pencil out."

Focus on the Future

It's probably too easy to focus the multifamily narrative on the day-to-day headwinds such as rents, property values, loan rates, and net operating expenses. Taking a step back and looking at the longer view, the sector looks much better. Most of the markets that have negative rent growth year-over-year through

fall 2023 have seen rents increase 20 to 30 percent over the past three years and 80 to 100 percent over the past decade. Property values may be down 15 to 25 percent from the 2022 peak but have more than doubled over the course of the cycle and are up nearly 20 percent since 2019, per the MSCI CPPI.

What's more, long-term demand trends are favorable. The recent bump in supply will one day be seen as a hiccup when considered from the longer-term reality that the United States is severely underhoused. The United States has a housing shortage of 3.9

Senior Housing: Capital Market Challenges in the Near Term, but Plenty of **Opportunities Ahead**

As with all property types, senior housing's landscape has been dominated by the capital markets in 2023. The rapid increase in interest rates orchestrated by the Federal Reserve starting in March 2022 has caused a seismic shift in the availability and cost of capital for the most interest-sensitive sectors of the economy. These sectors include senior housing as well as other forms of commercial real estate. The transactions market has been subdued as buyers and sellers wait for greater transparency into pricing metrics and behavior. The outflow of deposits from smaller regional banks, which have traditionally been a reliable source of funding for senior housing operators and developers, has exacerbated the lack of available debt. And, much like the multifamily sector that has Fannie Mae and Freddie Mac as critical debt providers, greater scrutiny from the government-sponsored entities (GSEs) toward borrowers has limited the availability of senior housing debt financing from those sources.

Indeed, borrowing for new construction, capital expenditures, acquisitions, repositionings, and recapitalizations is challenging even for best-in-class senior housing sponsors. Borrowers who need to refinance existing loans are facing significant challenges because paydowns on principal are often needed and loan proceeds are often lower. With \$10 billion to \$14 billion of senior housing loans maturing in the coming two years, the need for recapitalization finance is significant and problematic. Borrowers with adjustable-rate debt are often facing unsurmountable debt service costs, as adjustable-rate mortgages roll over to significantly higher rates and often include a costly interest rate cap or hedge as well. Further, many 10-year loans issued in 2008 and 2009 had five-year interest-only covenants, and amortization of the principle is now being added to debt service costs.

The good news is that market fundamentals for senior housing are on the mend and improving steadily. Second-guarter data on senior housing trends released by NIC MAP Vision continued to show solid improvement in occupancy rates, relatively strong demand, languishing inventory growth, and steady rate increases. Or said another way—strong market fundamentals. These are welcome indicators for operators, investors, and debt providers. They continue the positive trend seen since the middle of 2021 when the recovery from the pandemic began to take root.

The combination of rising occupancies and growing rates provides positive revenue growth and revenue per occupied room (RevPOR)/revenue per available room (RevPAR) unit metrics, supporting improvement in net operating incomes (NOIs) and margins. Thus, while the cost of servicing debt is rising, the ability to pay that added cost is partly being mitigated by stronger revenue growth, at least for many operators of senior housing.

Eventually, the markets will clear, possibly at price levels lower than during 2022 or even 2019 before COVID-19. Inversely, cap rates are likely to be higher due to a higher interest rate environment. Return requirements will also be higher.

Looking beyond capital market trends, investors also should watch other factors influencing the senior housing sector, including the following:

• The opportunities associated with the full integration of senior housing into the health care continuum as well as the competitive threats of industry disruptors entering the senior care space;

Continued next page.

million units, according to a recent report by Up for Growth, a Washington, D.C., based nonprofit that is attempting to call attention to housing affordability. Up for Growth reports that 193 U.S. metro areas experienced underproduction in 2021, and that the problem worsened in 83 percent of the 256 markets it studied.

Population growth, suburbanization, work-from-home, and the growth in investors buying homes for single-family and shortterm rentals all increase demand for housing units. Evolving

demographics and lifestyle trends determine where and what kind of housing is needed. Over the past two decades, much of the demand for housing came in urban areas supporting young knowledge workers. The age cohorts growing the most in the next 20 years will come from Baby Boomers and 35- to 54-yearolds raising children and (some) working hybrid office jobs. Ultimately, the important issue is that the country needs more multifamily housing to meet the demands of the population and evolving lifestyle trends.

- The emerging diversification of the senior housing sector into new product types stratified by rate and service offerings as the sector continues to mature and evolve, including active adult and middle market product offerings;
- The necessity for affordable care and housing options for the ever-growing middle-income older adult cohort;
- The articulation of a new value proposition for senior housing as baby boomers gradually become residents who seek a high quality of life, wellness, longevity, and purpose;
- Strong desires by older adults to age at home, despite logistical challenges, high costs, and limited home care staff;
- The ongoing recovery of occupancy from the nadir reached during the COVID pandemic, boosted by the recent slowdown in inventory growth and strong demand patterns;
- Rising costs of insurance due to catastrophic climaterelated crises and the impact on cash flow and NOI;
- The development of new financing structures to address the dearth of debt capital in the market today;
- The growing need for capital for senior housing operations in addition to the need for real estate capital;
- Ongoing efforts to lower aggregate costs for residents by creatively providing á la carte personalized services;
- The implementation of new REIT rules related to REITs operating property types such as independent living;
- Staff recruitment, hiring, training, and retention remain critical issues for the industry despite some recent easing of labor pressures; high turnover of staff lessens the experience of the resident and hurts length of stay, revenue growth potential, NOI, and organization reputation;
- Partnership opportunities for holistic care and service optimization, including care coordination and integration;

- The likely shortage of inventory for a growing cohort of higher acuity older adults who will require services and care options, potentially creating a less competitive landscape for such operators in select markets;
- The role of technology in creating efficiencies and opportunities in the industry, with particular attention on artificial intelligence;
- The recognition of the benefits of "well buildings" for staff and residents;
- Federal and state budgetary threats to entitlement programs that provide older adults with income and health care services;
- Uniform data reporting including the creation and use by industry stakeholders of a standard chart of account, digital electronic medical records, and interoperability between health systems and insurer records;
- The rise of solo aging due to rising "gray divorce" rates and lower ratios of adult-children caretakers:
- And of course, U.S. demographic patterns that are resulting in greater numbers of individuals into the 80-plus cohort, creating a deep pool of potential new residents for senior housing.

Taken as a whole, these trends will shape the outlook for the industry for years to come, fostering an active marketplace with myriad opportunities and requisite creative solutions as the needs of an aging population take root.

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

Student Housing Performance Remains Strong, but Signs of Moderation Emerge

The off-campus, purpose-built student housing sector has enjoyed a strong rebound from the COVID-19 pandemic lows. Both occupancy (95.8 percent) and rent growth (5.6 percent) reached all-time highs in fall 2022 as the nation's key investment-grade universities experienced a solid uptick in demand, driven by students returning to campus.

Fall 2023 statistics suggest that the fall 2022 watermark year was not an ephemeral phenomenon, although it is reasonable to anticipate moderation going forward Consider the following influences and their impact on fall 2023 readings, as well as expectations for fall 2024 and beyond.

Fall 2023 Occupancy Eases, but Outperforms Long-Term **Norms**

Fall 2023's occupancy rate at the start of the academic year achieved a healthy mark of 94.7 percent. Though below the year-prior level, this mark still outperformed the industry's 10-year average by roughly 1.7 percentage points.

With 94.7 percent of the nation's purpose-built off-campus housing stock occupied at the start of the academic year, this means that the largest-ever number of beds are leased. Though year-over-year occupancy rates eased 1.1 percent, it is worth mentioning that an additional 37,000 or so new offcampus beds delivered in 2023. As such, the total number of occupied beds in fall 2023 (958,000) sits about 14,000 beds above the prior-year mark.

On one hand, a record number of occupied beds supports the idea that student housing demand has been quite strong in recent leasing seasons. Still, the pace of trailing 12-month absorption (34,100 beds in fall 2022 versus 13,700 in fall 2023) suggests that demand is normalizing at a steady pace.

Fall 2023 Rent Growth Excels, but Momentum Is Moderating

The pace at which rents grew in fall 2023 is a strong reflection of how student housing demand has rebounded from the doldrums of fall 2020 and fall 2021. Effective asking rents across the United States grew by 8.6 percent for the fall 2023 leasing season, far outpacing the prior year mark.

Such robust annual rent change does slightly mask the pace at which rent growth slowed in the second half of fall 2023, however. Some of this follows a normal seasonal trend. For instance, monthly rent changes totaled 0.4 percent between June and August 2023. That slightly underperformed the same period from 2022. But in comparison to the booming fall 2023 leasing months (October, November, and December—three months in which the monthly pace of rent grew 1.3 to 1.7 percent), it is clear to see that the pace of rent growth is beginning to moderate closer to historically normal seasonal levels.

Though rent growth is likely to persist through fall 2024 and beyond, the slowing pace of rent growth through the second half of 2023 should serve as a barometer for expectations through the coming months.

Enrollment Growth (and Returning to Campus) Since 2020 Has Helped Student Housing Demand

Although the United States is experiencing a contraction in total collegiate enrollment, it is critically important to bifurcate investment-grade universities from the broader universe. RealPage collects data on hundreds of universities across the nation, but specifically focuses on a subset of universities considered to be "investment grade" for most analyses.

Among these 188 investment-grade universities tracked (and forecast) by RealPage, the total number of enrolled students grew by roughly 45,000 students between fall 2020 and fall 2021. This is an important timeline to focus on, as many students who enrolled in fall 2020 are now entering their senior year.

These 45,000 students have undoubtedly helped provide an additional boost for recent demand, a key driving force behind record income growth for the sector in the past two years.

According to the National Student Housing Clearinghouse Research Center, the universe of U.S. collegiate enrollment remains about 1.1 million students (or 5.8 percent) below its prepandemic level (versus 0.5 percent growth among the aforementioned 188 investment-grade universities).

Continued next page.

Enrollment Trends Yield a Mixed-Bag of Results

Though investment-grade university enrollment (as of fall 2022) remains above its prepandemic mark, there is a doubleedged sword here, too.

The core of these 188 investment-grade universities has seen growth equal to 0.5 percent on aggregate. Conversely, the universe of U.S. collegiate enrollment remains about 129,000 students (or 1.7 percent) below its prepandemic level. From one perspective then, there is a small-yet-powerful contingent collection of universities where enrollment growth remains healthy.

But even the collection of 188 investment-grade universities is seeing headwinds emerge. For instance, the fall 2022 total enrollment count at these campuses (4.8 million students) fell by 22,000 from the fall 2021 figure.

This ultimately points to a key trend within the student housing sector. That is, national-level trends can (and do) tend to wash out considerable campus-level differences (a trend that will be discussed shortly).

Limited Shadow Market Options Help(ed) Drive Student **Housing Demand Funnel**

The stunningly low availability of alternative housing options near university campuses such as conventional market-rate or traditional lease-by-the-unit (i.e., "student competitive") housing in 2021 and 2022 may have helped drive more students into purpose-built off-campus housing.

Student competitive occupancy rates peaked at 97.6 percent in 2022. With just 2.4 percent of those beds available, there is some indication that additional demand was edged into the purpose-built off-campus sector. Indeed, this coincides with the fall 2022 purpose-built sector's occupancy peak (95.8

But the student competitive space is seeing occupancy rates fall. As of September 2023, student competitive occupancy sat at 94.7 percent (down nearly 200 basis points from the peak). In turn, the number of unoccupied student competitive beds has risen from an estimated 117,800 beds at its tightest level, to more than double that (277,900 beds) just 18 or so months later.

With expectations that student competitive occupancy will hold near its current level through the coming academic year, the purpose-built student sector will see a degree of competition from shadow market options not experienced since the fall 2020 year.

Purpose-Built Student Housing Supply Has Reestablished a (Lower) Baseline

The average number of new beds delivered per year in fall 2021, fall 2022, and fall 2023 is just 33,700 beds. By comparison, the fall 2014 through fall 2020 period saw an average of 56,200 new beds per year. From that perspective, signals already pointed toward a "new norm" in the 2020s development cycle. But rising interest rates have caused construction starts to plummet, which further solidifies the likelihood that purpose-built student housing development has reestablished a new baseline for supply.

Other Considerations for Fall 2024 and Beyond

As a result of robust demand, income growth among offcampus student housing assets easily reached an all-time high—although one must consider stubbornly elevated expense pressures if assessing total revenue (i.e., net operating income) growth in 2024. Performance is likely to moderate from recent all-time highs moving into 2024 and beyond, though easing supply should help offset the expected cooldown in demand. An additional long-term consideration is slowing (even contracting) enrollment growth at a number of schools, a further factor in the expectation for cooling demand beyond 2024.

-RealPage Inc.

For-Sale Housing's Balancing Act in 2024

The year 2024 is likely to challenge the for-sale housing industry on several fronts because the market has experienced several shifts. Affordability is at an all-time low after a meteoric rise in housing prices and mortgage rates. Construction costs continue to increase and remain volatile, making it difficult for builders and developers. Land development and purchase remains difficult in many parts of the country, and some municipalities are putting higher impact fees and other restrictions on new development. Despite the headwinds, housing industry leaders remain both optimistic and pragmatic and believe fundamentals will remain steady into 2024, with demand outpacing supply in most markets.

Mortgage Rate Shifts

When mortgage rates increased in late 2022, the housing market ground to a halt. Buyers put purchases on hold and builders stopped buying land. After several months of weak conditions, builders started offering incentives—mostly in the form of mortgage rate buydowns—which reinvigorated the housing market in nearly all markets across the country. Most homebuilders are still using mortgage rate buydowns and expect to maintain the incentive into 2024. Builders are buying down the rates for all 30 years by

up to 1.5 percent, which can cost the builder up to 6 percent of the mortgage amount. A recent John Burns Research & Consulting survey indicated that mortgage rates below 5.5 percent fuel demand, and builders are trying to hit these rates with buydowns.

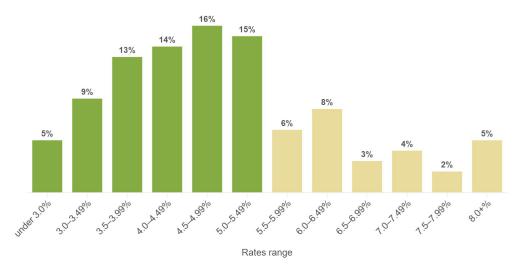
Mortgage rate buydowns can be expensive for builders. If mortgage rates continue to rise, the additional cost will start to affect builder margins. Although builders have a strong cushion built in from postpandemic rapid price appreciation, the buydown cost, combined with potential rising construction costs, could put a serious dent in homebuilder margins in 2024.

Public versus Private Builder Shifts

The current high interest rate environment has made financing deals difficult for private builders. While public builders have sufficient cash to purchase land and lots, private builders often must borrow directly from banks or equity sources. Private equity sources focused on these builders concentrate primarily on builders with strong operating models and good leadership. Despite some available funding for private builders, the public builders now sell 41 percent of all new homes in the United States, which is up significantly from the 23 percent market share in 2001.

Highest Acceptable Mortgage Rate for a New Home Purchase

Percentage of homeowners and renters with a household income of \$50,000+ who plan to purchase their next home with a mortgage*



Source: New Home Trends Institute by John Burns Research & Consulting LLC, August–September 2023 survey. *excludes households that are unsure about the maximum rate

Migration Shifts

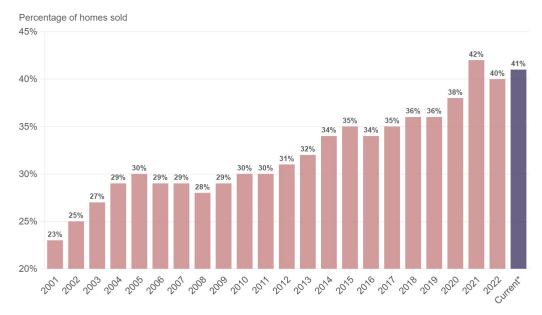
Postpandemic migration led to massive housing demand in suburban markets, a trend promulgated by the ability to work from home, lower cost of housing, and more space in the suburbs. Since 2021, U.S. home prices have risen by double digits in some popular in-migration suburbs including Tampa, Phoenix, and Atlanta. Net migration to the suburbs continues today, but at a slower pace. Many suburbs are starting to experience out-migration of residents who are being priced out and moving to the exurbs or farther suburbs. For example, Tampa saw a total of 3,324 new households over the past 12 months move into the region—the largest increase from New York (1,332) and Miami (537). But at the same time, Tampa recorded an out-migration of 877 households to Lakeland metropolitan statistical area (MSA), the neighboring, more affordable housing market.

Austin is another example of shifting migration trends. While Austin experiences the largest in-migration from California markets (Los Angeles and San Jose), the out-migration from Austin is pronounced. The largest out-migration market is San Antonio, followed by Kileen, Texas, and Denver, Colorado. Many builders are anticipating the migration shift, and homebuilders are seeking land positions in more affordable MSAs across the country, especially those where residents can reasonably commute to work several days a week. The large public homebuilders are looking for opportunities to expand in the Southeast, Florida, and Southwest markets. This often translates to smaller MSAs like Gainesville, Georgia; Greenville, South Carolina; or Daytona Beach, Florida. Private equity remains focused on the Sun Belt markets. Affordability is anticipated to play a large role in the next wave of migration, especially for residents who cannot afford to remain in the larger MSAs.

Competition Shifts

With the advent of the build-to-rent (BTR) industry and a sharp increase in construction activity in the traditional multifamily sector, builders are seeing increasing competition from the rental industry. More renters are staying in their current rentals instead of moving out to buy homes, which creates more competition than typical for the single-family for-sale sector. Apartment REIT same-store turnover levels remain lower than average across the country.

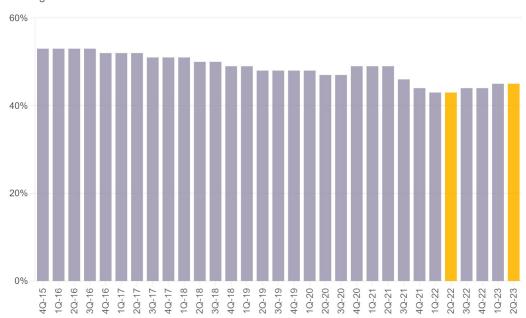
Home Orders by Public Builders as Percentage of U.S. New Home Sales



Sources: John Burns Research and Consulting, using data from U.S. Census Bureau, Bloomberg, U.S. Securities and Exchange Commission fillings, *trailing four-quarter total as of 2Q 2023

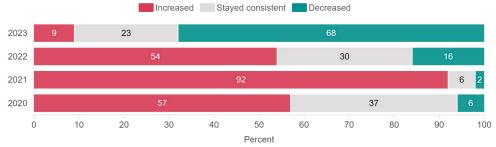
Apartment REIT Same-Store Turnover

Trailing 12-month total



Sources: Public company filings; John Burns Research LLC; U.S. Census Bureau; Bloomberg (data 2Q23, published August 2023).

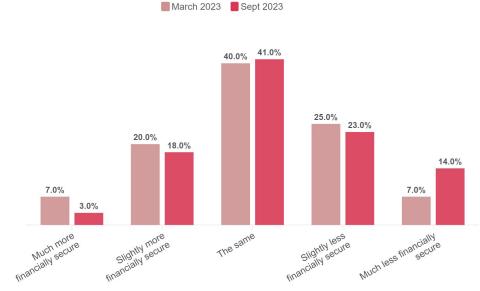
Direction of Average Build Cycle YOY for U.S. New Detached and Attached Homes



Source: John Burns Research & Consulting LLC (data 2023, published August 2023).

Change in Personal Financial Situation Compared with Same Time Last Year

Share of homeowners and renters with household income of \$50,000+



Source: John Burns Research & Consulting LLC (data 2023, published August 2023).

Some entry-level builders consider the increase in renters a positive for the industry because many of their future homebuyers come directly from the rental industry. Other builders use the advent of the BTR industry as an opportunity to fee-build their portfolios or create a rental portfolio internally.

Consumer Shifts

Consumer sentiment is starting to shift due to a combination of high mortgage rates and consumer finances. A September 2023 New Home Trends Institute survey indicated that consumers are tightening their budgets primarily because of inflation. Thirtyseven percent of consumers feel less financially secure than they did this time last year, an increase from March 2023 when 21 percent reported being better off. Builders are responding by finding attainable price points through innovative product design, building smaller homes, or buying land in less-expensive markets.

While construction costs remain volatile month to month, cycle times for builders are becoming more reliable, which is helping builder confidence in pricing and costs. In a recent John Burns

Research & Consulting survey, 68 percent of builders reported their average build cycle decreased since 2022. The survey feedback aligns with commentary from recent public builder earnings calls that confirms the resolution of supply chain bottlenecks and improved cycle times. The build cycle time for single-family attached and detached homes averages 183 workdays (eight or nine months) nationally in August 2023.

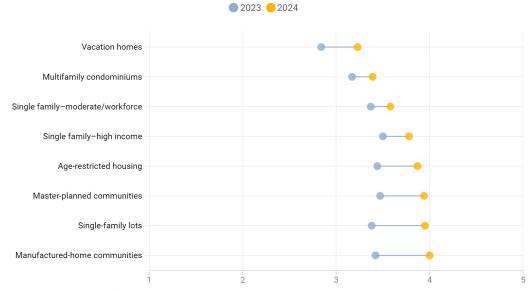
Conclusion

Industry participants—from private equity sources to developers to builders—have a cautiously optimistic view of the housing market but recognize the potential risks in 2024. They see a need for more housing supply and expect the Sun Belt markets to continue their expansion. Public builders will continue to dominate market share. The quest for affordability will be paramount, with builders continuing to buy down mortgage rates, building smaller homes and buying land in the more affordable areas. Most industry participants are taking a pragmatic approach to 2024—aware of the risks but planning for a solid year.

Prospects for Residential Property Types 2024 versus 2023

Development prospects

1-Abysmal 2-Poor 3-Fair 4-Good 5-Excellent

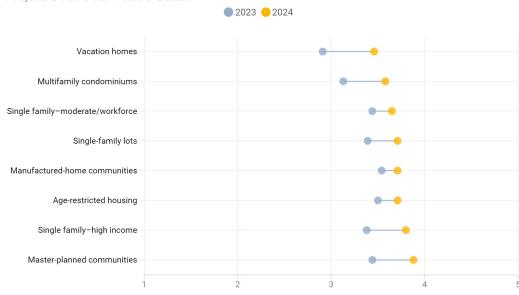


Source: *Emerging Trends in Real Estate* surveys. Note: Based on U.S. respondents only.

Prospects for Residential Property Types 2024 versus 2023

Investment prospects

1-Abysmal 2-Poor 3-Fair 4-Good 5-Excellent



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

Single-Family Rental Housing

The single-family rental housing market has experienced significant growth and transformation in recent years. Deteriorating housing affordability, demographic shifts, supply constraints, and increased investor activity have all contributed to a rise in demand for (and supply of) singlefamily homes. According to the National Rental Home Council (NRHC), "the single-family industry is still in its nascent stages. The federal government is just beginning to explore the best ways to support the industry as it continues to grow, and operating margins have grown slowly but steadily as operators have built scale and refined their platforms."

Affordability

Higher mortgage rates and elevated home prices continue to challenge for-sale housing affordability. According to John Burns Research & Consulting, the spread between owning an entry-level home (\$3,587) and renting an entry-level home (\$2,178) is over \$1,400 per month. A higher-than-usual number of home renters are staying in place, and many prospective buyers are moving to the sidelines after considering higher monthly payments.

Demographic Trends

Evolving demographic trends also contribute to rising single-family rental demand. Young adults are delaying homeownership due to such factors as student debt and other delayed adult milestones. Single-family rental homes are appealing for households aging out of apartments but not ready to purchase a home. Many empty nesters and retirees are also turning toward single-family rentals, electing to forego the responsibilities of homeownership and enjoy the benefits of a maintenance-free lifestyle in a single-family home.

One underrated contributor to single-family rental demand is shifting lifestyle preferences. The COVID-19 pandemic has highlighted the value of larger living spaces and outdoor areas. driving more people to seek single-family homes (versus apartments) for rent. In addition, younger renters appear to place a higher value on mobility than previous generations, and renting offers more mobility than purchasing.

Supply Constraints

Investors and developers aiming to expand the supply of single-family rental housing face unique challenges. These hurdles include land availability, zoning regulations, NIMBYism (not in my backyard), and financing challenges. Meanwhile, additional upward pressure exists on rents as more households compete for limited options. All these challenges compound in expensive and land-constrained markets such as San Fransisco or New York, where homeownership costs much more than renting.

Investor Activity

Investors have taken note of the growing demand for singlefamily rentals, leading to an influx of capital into this market. Real estate investment trusts (REITs), private equity firms, and individual investors have been actively acquiring and managing single-family rental properties. This trend has increased the overall rental housing supply and created new opportunities for property management and real estate services.

Challenges and Opportunities

As with many growing industries, challenges persist in the single-family rental housing market. One emerging challenge is renter affordability. Upward pressure on rents has made it harder for renters to find affordable options. In supply-constrained markets, renters have limited choices, driving prices even higher.

Another challenge facing the single-family rental housing industry today is rising costs. Nearly every input, from property taxes to insurance and repair expenses, has skyrocketed over the past three years. While landlords have successfully passed on most of those costs through higher rents up to this point, single-family rent growth is slowing, and these expenses continue to rise.

Looking ahead, the single-family rental housing market holds significant promise. Economic uncertainty and shifting lifestyle preferences are expected to sustain demand for single-family rentals. Young adults comprise a substantial portion of the rental market and continue to delay homeownership, further boosting demand.

Investors will likely remain active in the market, seeking opportunities to capitalize on the growing demand and expand the stock of rental housing supply. Addressing affordability challenges and supply constraints will ensure the market's long-term sustainability and provide affordable rental options to all types of households. Policymakers play a pivotal role in shaping the future of this market, addressing affordability concerns, and fostering responsible investment practices.

-John Burns Research & Consulting LLC

Industrial/Distribution: Fundamentals and Capital Markets Normalize as Future Growth Is Evaluated

The industrial real estate market is transitioning to a new normal after years of unprecedented—and unsustainable—growth. Industrial tenants are taking stock of their current portfolios and moving more cautiously into the next phase of growth. The construction pipeline is gradually delivering, and a decline in starts should rebalance supply-demand dynamics in the year ahead. Rent growth in 2024 is expected to decelerate from double-digit numbers, as the effect of surge pricing cools off. A buyer/seller gap in price expectations produced a sharp slowdown in transactions, reflecting 2022's rapid increase in benchmark interest rates.

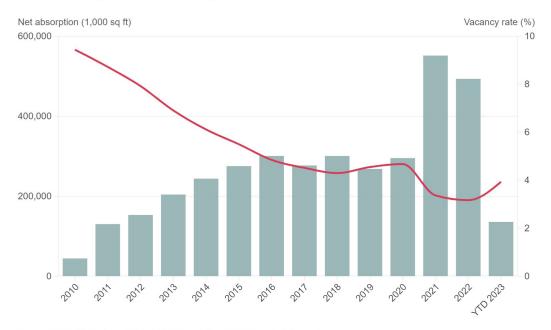
Market Demand Is Normalizing

Occupiers are taking a more cautious approach to the leasing process. After years of absorbing space rapidly to meet the needs of pandemic-related supply chain disruptions and growing consumer spending, occupiers are making their next moves in a measured way consistent with prepandemic years. During the first half of 2023, the United States had 136 million square feet in net absorption, which is a 48 percent slowdown from the first half of 2022 and an increase of 18 percent compared with the first half of 2019.

Major companies began slowing down their decision-making in early 2023, as economic uncertainty has restricted new spending. These occupiers are evaluating their portfolios with increased oversight before committing resources to new leases, a trend one occupier expert describes as "protection mode." Underlying requirements in the market have remained elevated, however, and the slowdown is mostly delaying deals. Many deals that would have closed in 2023 are getting pushed to 2024 and beyond.

Aside from the impact that economic uncertainty is having on tenants' willingness to absorb more space, this slowdown is also a reflection of increased cost pressures for occupiers—with transportation and labor being the biggest expense—and a need to evaluate logistics real estate footprints as part of a long-term supply chain strategy. One change has been the involvement of C-suite executives in leasing decisions, as leases are scrutinized for their worth amid a period of restricted spending. Cumulative rent growth of more than 50 percent over the past few years has drawn attention, but the expense is still seen as worth the cost when a strategic absorption of space allows for costs to be cut in other areas of greater expense, such as transportation. Increasing deal complexity, given the long-term strategy that an industrial lease plays for a tenant, has led to the need for more oversight. Occupiers are still moving into new spaces, but the process

Industrial Space Net Absorption, 2010–2023



Sources: CBRE, JLL, Cushman & Wakefield, Colliers, CoStar, CBRE-EA, Prologis Research. Note: YTD 2023 figure is for June 2023.

Industrial/Distribution Prospect Trends

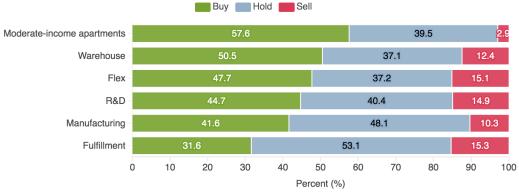




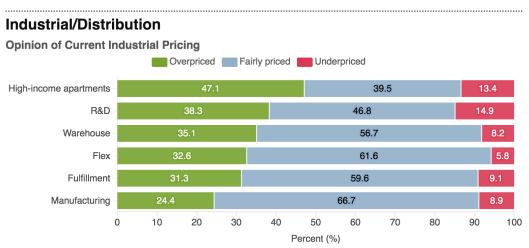
Source: Emerging Trends in Real Estate surveys.

Industrial/Distribution

Buy/Hold/Sell Recommendations



Source: Emerging Trends in Real Estate 2024 survey. Note: Based on U.S. respondents only.



Source: Emerging Trends in Real Estate 2024 survey. Note: Based on U.S. respondents only.

involves more checks before signing a new lease. Despite tenants being interested in adding space to their portfolio, absorption is slower because deal-making timelines are lengthening.

Supply Pipeline Will Rebalance with Demand in 2024

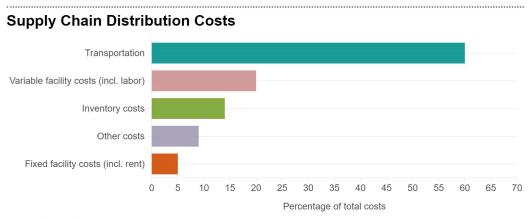
The pipeline of industrial space under construction peaked in the fourth guarter of 2022, and 440 million square feet of space was expected to be delivered in 2023. Into 2024, supply will rebalance because new starts have declined by about 50 percent this year and an estimated 240 million square feet is expected to be delivered. Given expectations for relatively stable demand, an industrial leasing expert expects that "supply crunch" will return in 2024.

Sublease availabilities rose in 2023. Some industrial experts expect this to extend into 2024 because a large spread between

in-place and market leases creates opportunities for underused space to generate cash flow. This is not concerning to industry experts because the price of sublease space remains on par with new leases.

Supply Chain Optimization Is Becoming Increasingly Complex amid Persistent Disruption

A major priority in the industrial sector is the optimization of supply chain networks. The past few years have included multiple major supply chain disruptions including a pandemic and lengthy labor negotiations. These interruptions have created unprecedented challenges for companies needing to deliver to end customers. With costs continuing to rise rapidly, optimization remains a key strategy for industrial occupiers to maintain margins.



Source: 2022 CBRE Supply Chain Advisory.

As transportation costs continue to rise, companies are adjusting to moving their supply networks and operations closer to the end consumer. One form that takes is "nearshoring" operations in Mexico for North America, where there has been a 103 percent increase in absorption year to date as of fall 2023 compared with prepandemic 2019, primarily in markets such as Monterrey, which borders the United States. According to a supply chain expert, "there has been a contraction in globalization but not an actual shift of volume of what's moving around the world."

As Al and technology are adding to capabilities, supply chains need to be future-proofed: they must adapt and be agile to meet the needs of customers. To do this, companies need to be able to forecast multiple scenarios at every level of their supply network and have solutions to each problem. This level of detailed prediction capability requires extremely high-quality data. In the past, the need for such proactive visibility was not as integral, but as supply chains increase in complexity, data and technology are often key to maintaining a cutting edge.

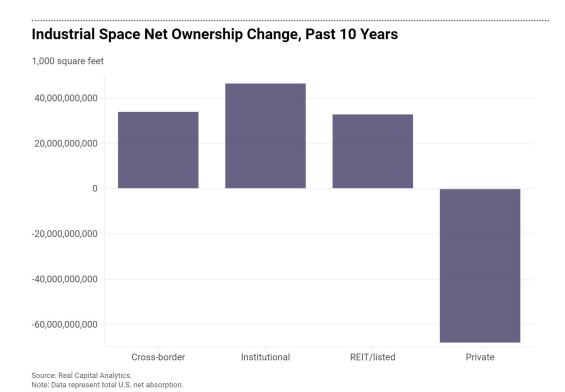
Regionalization Is a Long-Term Driver of Demand

As companies grow their supply networks to be both more agile and closer to the end customer, a regional approach has become key to serving local populations. This change aims to mitigate the impact of supply chain disruptions, compared with past networks that relied heavily on a national, just-in-time approach with a single country of origin.

A beneficiary of built-out decentralized regional networks is secondary markets that have seen exponential growth because they can serve as expansion locations to serve a region and/ or supplement a port of entry. For example, in the West region, space can be scarce as occupancy remains high in core markets such as Los Angeles (98 percent) and the Inland Empire (97 percent). Inland markets such as Phoenix and Las Vegas can offer opportunities for growth as local populations increase due to demographic shifts. Demand in these markets has skyrocketed as regionalization has attracted multiple layers of suppliers.

Customer Inventory Build Continues to Drive Demand

Inventories rebalanced in 2023 and will likely trend with sales going forward. Companies that over-inventoried in 2022 typically carried 25 to 30 percent in excess inventory, according to a supply chain industry expert. After the supply chain bottlenecks cleared, companies are taking a better look at their inventories to ensure that the right size and mix of products are available. Although the bulk of companies have already right-sized, some companies may take until the end of 2024 to adjust their inventories to match current consumer trends.



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The Prospect of an Economic Soft Landing Supports Self-Storage Outlook

The industry landscape in 2023 is marked by a return to normalcy. As the global health crisis moves further into the rearview mirror, the self-storage market is undergoing a period of rebalancing. The initial rental demand surge, fueled by an abrupt transition to remote office operations in 2020 and the release of pent-up household formation the following year, mostly abated by 2022. This led vacancy rates and asking rents to move toward the prepandemic norm across most major metro areas.

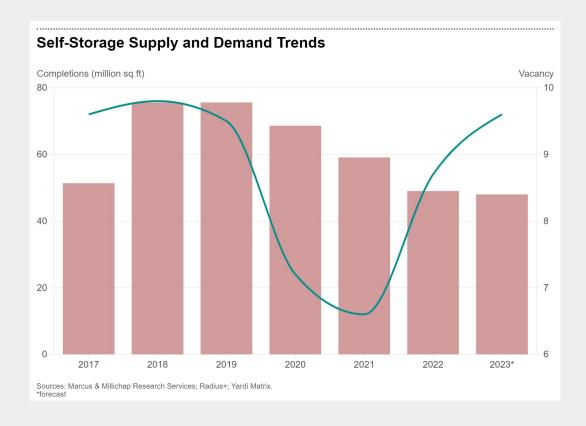
These trends are continuing this year, as household formation remains subdued. Elevated mortgage rates, which doubled in less than 20 months, have disincentivized many current homeowners from seeking out new abodes, in turn limiting the number of entry-level options for potential first-time buyers. As moving residences is the second most common motivator behind renting a storage unit, the drop in relocations has affected self-storage operations. Hybrid and remote schedules have also become more heavily integrated into mainstream work culture, and some renters have let go of their storage units as home workspaces become a permanent fixture.

Reduced population mobility and dissipating pandemicdemand drivers will push self-storage vacancy up across most major markets this year, placing downward pressure on asking rents. The mean marketed rate still exceeds the 2019 level in many cases, insulating revenues from the worst of inflation. The outlook across the sector also remains bullish due to an improved national economic outlook.

Optimistic labor market forecasts bode well for storage

use. As demand for storage units realigns with typical historical levels, the prospect that the Federal Reserve will achieve an economic soft landing with its current monetary policies has the potential to stabilize storage renter demand moving into 2024. Employment gains through August 2023 have outperformed expectations, with the country on track to add 2.5 million new jobs in the calendar year. While many economists anticipate hiring to decelerate next year, concerns of widespread national job losses have largely abated.

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In addition, retailers and wholesalers are now carrying 3 percent more inventories relative to sales versus the 2019 average. Industry experts expect further growth to more than 5 to 10 percent as potential supply chain disruptions continue and require additional investments for resilience.

Environmentally Sustainable Buildings Gain Traction for Industrial Tenants

Severe weather disruptions and volatile energy costs are a growing threat to the global supply chain, and government regulations and incentives aimed at reducing carbon emissions are growing. Furthermore, companies are setting increasingly aggressive sustainability goals. Consequently, occupiers are beginning to request features such as solar power and electronic vehicle

charging stations, as well as the power availability to provide basic needs such as air conditioning for their labor force as temperatures across the United States hit record highs this year.

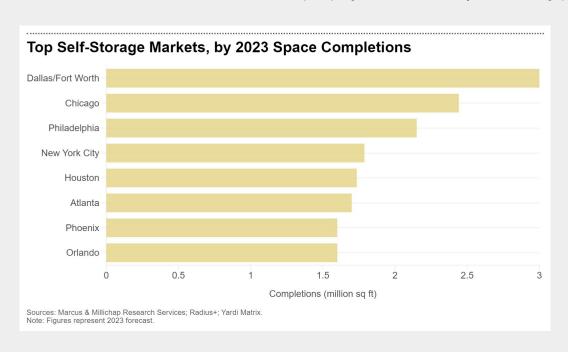
As a result, the demand for future-proofed modern buildings has been growing. However, sustainability initiatives are still in preliminary stages of development, meaning industrial occupiers are still looking for a blueprint on what it means to be green.

At the same time, properties and parcels with superior access to power infrastructure are facing competition from data centers, electronic vehicle companies, manufacturing, and other highpower uses.

However, this good news comes with some caveats. Wellpublicized tech layoffs that began last year have continued into the third quarter of 2023, with the information sector alone contracting by 69,000 positions during the first eight months of the year. The failure of Silicon Valley Bank will present a hurdle to recovery in this segment, as the institution was a notable source of funding for smaller startups. Heightened scrutiny among other lenders, in tandem with higher interest rates, will also affect broader business formation moving forward. Still, the overall labor market is on track to remain

generally tight going into next year, a welcome sign for storage demand in the future. The nationwide supply pipeline will add some nuance to next year's outlook, however.

Inflated material costs affect project placement and developer strategies. Starting in late 2022, construction spending across the self-storage sector outpaced the dollar amount noted in the 2018 to 2019 period, when the industry underwent a record supply wave that resulted in downward movement of asking rents. The return of greater construction spending is prompting similar concerns today. However, a large portion



Industrial Investment Declines with Pricing Uncertainty

Deal volume is down 45 percent as of the second guarter from the second quarter of 2022 (according to financial analytics firm MSCI), a trend that does not concern industry experts. After record-breaking years in 2021 and 2022, a slowdown in volume was expected. The current pace is still ahead of deal volumes in prepandemic years of 2015 to 2019, in part due to higher property values. Industrial real estate is still considered one of the most stable long-term investments among the property types because of favorable operating conditions, built-in growth, high liquidity, and rising barriers to new supply.

Pricing is down from peak levels as the rapid increase in benchmark interest rates pushed up required returns. This put upward pressure on cap rates and created a buyer/seller gap in pricing

expectations that depressed transaction volumes. In midyear 2023, the average price per square foot for industrial property sold was down 1.2 percent from a year earlier, which is not a huge decline compared with retail (down 7.6 percent) and office (down 8.4 percent), according to Real Capital Analytics. Areas such as Miami, New Jersey, Los Angeles, and Inland Empire showed more stability in pricing relative to secondary and tertiary markets

The return outlook for industrial real estate still leads the pack, according to the Pension Real Estate Association (PREA) guarterly survey of investors. In addition to a favorable outlook for operating fundamentals, logistics real estate also benefits from a long-term structural shift in institutional capital allocations, which should keep the related real estate risk premium lower in the future than in the past.

of the additional development budgets results from sharp increases in material costs. In June, for example, the price of both steel sheet and aluminum exceeded the immediate prepandemic expense by more than 60 percent. Rising input costs have led to a tangible decline in groundbreakings in some settings, particularly metropolitan and rural areas with lower rents.

Development also faces restraints along the West Coast—due to high land and labor costs, as well as regulatory hurdlesprompting innovation. Developers in Seattle have increasingly leaned on mixed-use strategies to receive project approvals, often attaching professionally managed storage operations to multifamily developments. In San Francisco, boutique startups have converted some vacant office floorplans into commercial storage units.

Rapid construction is underway across the South and select Northeastern locales. Developers are still active across the Sun Belt, prompted by robust in-migration trends. Despite their growing populations, many of these markets—particularly those in Texas and Florida—note the highest amounts of self-storage square footage per capita. Dallas/Fort Worth and Orlando remain near the top regions for development, which may begin to weigh on fundamentals more acutely in 2024. Rapid stock expansion is also underway in select Northeastern markets, although historic supply/demand imbalances imply a different impact to operations. Land constraints in New York City have traditionally hindered development within the five boroughs, translating to the lowest per capita inventory rating and highest asking rent nationwide.

Supply gains in New York City have accelerated in recent years in response, however, with local inventory growing nearly 25 percent over the past five years. New space was similarly warranted in Philadelphia, which has added an average of 1.4 million square feet per year since 2018, totaling a more than 27 percent increase in inventory. Yet, at just 5.2 square feet per capita at the start of 2023, the market boasts the second-lowest measure east of the Mississippi.

Investment market faces near-term hurdles, but foundations for buyer demand are solid. Self-storage trades saw a sharp slowdown in the first half of 2023 from historic deal flow during the preceding two years. While higher capital costs are a clear contributing factor, some investors may also be waiting for a clearer picture on the path of vacancy rates and asking rents, which will make the price discovery process less challenging. Despite near-term complications, the sector's commendable fundamentals during the worst periods of the health crisis drew attention from investors not traditionally familiar with self-storage, which has notably expanded the segment's buyer base. Unique, cyclically agnostic demand factors, such as a need for a unit following a death, divorce. or similar transitional life events, will also contribute to the sector's investment appeal long term. Due to these factors, lenders have also been more amenable to facilitate acquisitions of this type than other, more challenged asset classes.

-Marcus & Millichap

Life Sciences Real Estate on Growth Trajectory Despite Headwinds

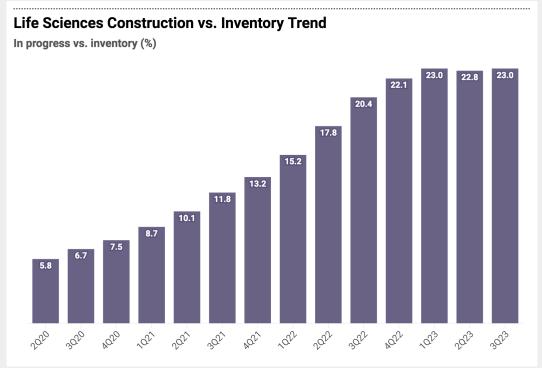
The life science sector has seen enormous growth in the past several years, partially driven by the pandemic and race to build a vaccine for COVID-19. Venture capital funding into early-stage biotech companies had already been increasing in 2019 and then reached unprecedented levels by the end of 2021. This increase translated into a significant need for space at a time when very little was available. This supply/demand imbalance drove investors and developers to the sector, and life sciences real estate and transaction activity took off. Now, in 2023, conditions have shifted substantially. With turmoil in the banking industry and new caution among investors, funding levels have come down substantially since the peak, albeit still well above previous levels. This shift, combined with significant amounts of new inventory, has changed the supply and demand picture and affected fundamentals.

Inventory and Construction

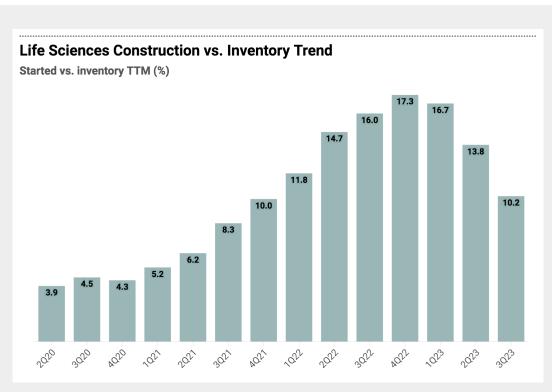
Life sciences real estate includes any property that supports the research and operations of companies involved in pharmaceutical and biotech research, development, and production. This includes any property where 100 percent of the space is either laboratory or manufacturing and the office space supporting those functions. Revista currently tracks 344 million square feet of life sciences space in just over 2,700 buildings across the United States. These buildings are mostly owned by third-party investors with 58 percent of square footage representing either REIT or private investor ownership. This characteristic is most pronounced in the core clusters such as Boston, San Francisco, and San Diego. In these three markets, 76 percent of life sciences inventory is owned by either a REIT or private investor. This trend may change in coming years as investors become more comfortable with the space and other markets continue to mature.

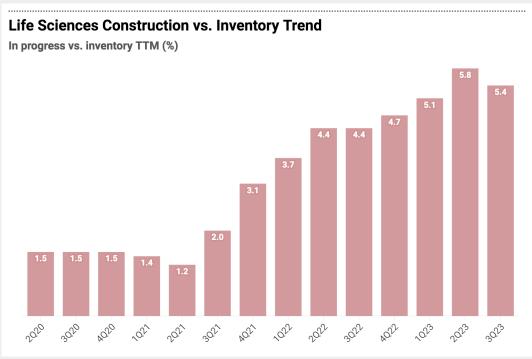
Following the significant increase in funding and demand for space, construction activity began to pick up in late 2021. By the end of 2022, square footage of construction projects breaking ground had reached an annual run rate of 17.3 percent of inventory. The total pipeline of under-construction projects was almost a quarter of total inventory at about 78

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TTM = time to market

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million square feet. Again, these statistics are more pronounced in the core clusters of Boston, San Francisco, and San Diego where construction starts peaked at 29.2 percent and the under-construction pipeline still sits at a record 35 percent of existing inventory. Most of these projects represent ground-up construction, but in some areas such as Boston, conversions of existing buildings are a big part of the activity.

Fundamentals and Markets

With inventory growing at a significant rate simultaneous with a pullback in funding, there is bound to be an impact on performance fundamentals. Of the current life sciences underconstruction pipeline in the third quarter of 2023, 60 percent is pre-leased. That leaves a meaningful amount of new inventory that will come available in the near term. Even with all these headwinds, demand has so far remained strong, and the impact has been more muted than one might think. Compared with the third quarter of 2022, occupancy is down 120 basis points (bps) from 93.7 to 92.5 percent across the United States. Of the 17.4 million square feet delivered, 11.4 million were absorbed. Rents on newly written leases increased significantly in 2021 and into 2022, hitting a high watermark of \$76.40 per square foot across the top markets. This amount has come down substantially in 2023, but revenue per available square foot continues to rise. Annual rent bumps have stayed relatively steady around the 3 percent mark.

Performance varies widely from market to market. Boston has been the most active across all markets in terms of construction both on a total square footage basis as well as a percentage of inventory. Currently, 42.6 percent of inventory, or 24.6 million square feet, is in progress. Occupancy has fallen 220 bps over the past year to 90.9 percent in the current quarter. The San Francisco/San Jose metro area had some

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U.S. Life Science Key Metrics by Metro Area, Ranked by Space Currently Open (3Q 2023)

Core-based statistical area	Open (million sq ft)	In progress (million sq ft)	In progress as % of inventory	Occupancy (%)	Annual absorption (sq ft)	Annual absorption net completions (sq ft)
Boston-Cambridge-Newton, MA-NH	57.7M	24.6M	42.6%	90.9	2,659,302	-1,533,381
San Francisco-San Jose, CA	46.0M	14.2M	30.8%	92.5	2,460,540	433,032
New York-Newark-Jersey City, NY-NJ-PA	30.4M	2.6M	8.5%	87.3	-112,319	-1,243,320
San Diego-Chula Vista- Carlsbad, CA	26.4M	7.0M	26.5%	89.9	817,536	-813,381
Philadelphia-Camden- Wilmington, PA-NJ-DE-MD	18.1M	6.0M	33.1%	94.9	1,910,356	-87,938
Raleigh-Durham, NC	17.0M	6.0M	35.3%	92.3	1,359,970	-522,308
DC-Baltimore, DC-VA-MD-WV	11.8M	1.9M	16.3%	91.1	288,078	-415,188
Chicago-Naperville-Elgin, IL-IN-WI	11.0M	0.9M	8.4%	92.3	239,639	-80,361
Los Angeles-Long Beach- Anaheim, CA	8.6M	0.5M	5.9%	97.6	123,956	-246,136
Seattle-Tacoma-Bellevue, WA	7.6M	1.5M	19.6%	89.9	197,241	-23,406
Denver-Boulder, CO	6.5M	0.7M	10.6%	84.2	-110,225	-817,860

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deteriorating occupancy earlier in 2022 but has been on the rebound in recent guarters. It is the only market to see positive absorption net completions in the third guarter of 2023. New markets have been emerging over the past few years as well. Philadelphia is one of the markets with the highest occupancy at 94.9 percent and has absorbed almost all the 2 million square feet delivered in the past 12 months.

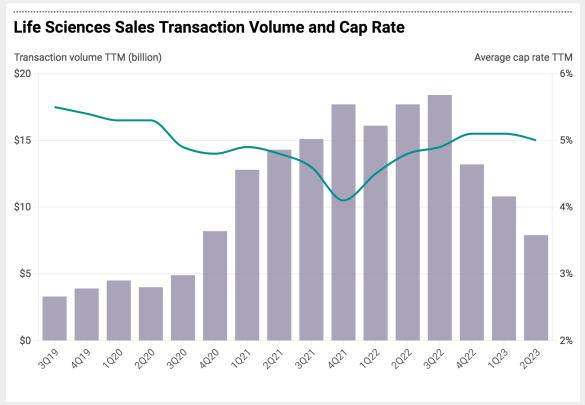
Acquisition Activity

Growth in the sector also brought investor interest on the real estate acquisitions side. Beginning in late 2020 and into 2021, transaction activity really began to take off. The fourth guarter of 2021 was the highest recorded guarter of activity, with \$6.9 billion trading hands. This activity and demand also drove cap rates to their lowest point at 4.1 percent. With the arrival of rapidly rising interest rates and buyer/seller disconnect on pricing, activity slowed and then tapered further into

2023. Cap rates have expanded to 5 percent as of the second guarter of 2023. These trends are not unlike what is being seen in other commercial real estate sectors. It is worth noting that with all the development and new inventory, in a few years that will translate into many acquisition opportunities for high-quality assets.

The life sciences sector is still in its infancy and the long-term growth potential is enormous. New drug discoveries and technological advances, along with an aging population and focus on wellness, will continue to drive more funding and talent to biotech and pharmaceutical companies. While the economy and overarching market conditions may affect dynamics along the way, the future remains growth oriented.

-Revista



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TTM = time to market

Hotels

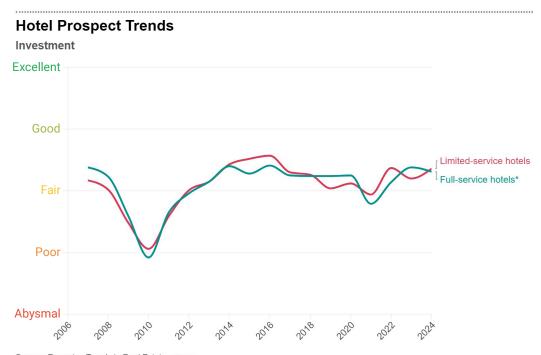
The hotel sector continues to show strong performance amid recessionary concerns and macroeconomic headwinds, highlighted by year-over-year gains in average daily room (ADR) rates and revenue per available room (RevPAR). Higher inflation rates helped boost ADR throughout the past year, but signs of pricing fatigue are beginning to emerge. Robust growth in leisure demand over the past three years is starting to plateau and continued uncertainty around business transient demand and inbound international travel's recovery has made the outlook for core urban markets murky. Despite this, hotel performance is continuing to return to prepandemic levels. According to STR data, at the time of this publication, RevPAR in the United States has surpassed 2019 levels in each month since March 2022.

Inbound international travel continues to recover, and the opening of China's borders presents a critical opportunity that is yet to materialize. Year-over-year growth of key performance indicators in the top 25 hotel markets was superior to the rest of the United States. Performance in leisure-oriented markets that initially surged in popularity during the pandemic (e.g., drive-to outdoor markets with beaches, mountains, etc.) is still strong compared with historical levels, but growth in these markets is waning as international leisure destinations have gradually reopened.

Return of International Travel

Following three years of lockdown, China has started to lift restrictions for outbound international travel, presenting a critical opportunity in the United States' postpandemic travel recovery. Before the pandemic, China was the world's largest outbound international travel market in terms of both airline passenger traffic and spending levels according to CNN. There is substantial pent-up travel demand among Chinese residents, but to date, it has been displaced to other parts of the world rather than the United States. According to the National Travel and Tourism Office, only 849,000 Chinese travelers are expected to visit the United States in 2023 compared with 2.8 million in 2019. Inbound travel to the United States from China is not expected to reach 2019 levels until at least 2027. The sluggish return of the Chinese traveler is most significantly affecting gateway markets along the West Coast and, to a lesser degree, New York City.

While travelers from Canada and Mexico made up 53 percent of inbound international arrivals in the United States in 2022, there was a substantial year-over-year uptick from select Asian, European, and South American countries, according to the National Travel and Tourism Office. The number of inbound travelers from the United Kingdom increased by 494 percent to 3.5 million between 2021 and 2022 and is forecast to increase further to 4.2 million by the end of 2023, surpassing prepandemic



Source: Emerging Trends in Real Estate surveys. *Starting in 2017, results are the average of investment prospects for three categories—luxury, upscale, and midscale hotels. Previous years' results are based on investment prospects for a single category—full-service hotels

levels by 2025. Before the pandemic, the United Kingdom was the greatest source of international visitations to the United States. Inbound travel from India also showed significant year-over-year improvement in 2022, jumping by 190 percent to 1.3 million, with the expectation that passenger volume will exceed prepandemic levels by 2024. Given India's large population and rapidly growing economy, the upward trajectory of inbound traveler volume may be indicative of an increasingly lucrative area of focus for United States hotels while travel from China continues to recover.

Despite these positive trends in inbound traveler volume, long wait times for U.S. visitor visas are creating a bottleneck in the recovery. In February 2023, officials representing New York, Chicago, and other major U.S. markets signed a letter to the Secretary of State requesting immediate action to reduce visitor visa interview wait times. In response, the State Department implemented initiatives in countries with above-average wait

times including moving existing staff into embassies in these countries, increasing their hours, and waiving interview requirements altogether in certain cases. In a July release from Skift, the average wait time for a U.S. embassy interview for a first-time visitor visa applicant from India, Brazil, China, and other top countries for U.S. tourism exceeds 400 days, according to the U.S. Travel Association. In late August, the U.S. consulate in India said it had finally cleared the visa backlog caused by the COVID-19 pandemic and said that applicants can schedule appointments for immigrant visa interviews within the standard timeframe.

As borders outside the United States have gradually reopened, Americans have been traveling internationally in large waves. This has caused some level of disruption in domestic leisure demand, particularly at higher-priced hotels. Guests who choose to travel internationally are typically the same guests who are willing to pay higher rates when traveling for leisure domestically.



Urban Markets Progress, but with Some Uncertainty

Hotels in highly dense urban markets experienced the most severe performance decline during and immediately following the shutdown caused by the pandemic. More recently, urban markets have made substantial strides in their postpandemic recovery. The growth in group and, to a lesser extent, business transient demand has been instrumental in driving performance recovery in urban markets. According to data from STR, RevPAR in urban markets exceeded 2019 levels in both the first and second quarters of 2023. The transient, group, and contract segments each realized year-over-year gains in RevPAR during the same periods, primarily driven by increases in ADR, as the growth of in-person conferences, meetings, and other events has gained traction over the past year.

Although urban markets, in aggregate, have shown a steady recovery, the timelines across individual markets are still uneven. New York City has continued to outperform, highlighted by a 13.3 percent year-over-year RevPAR increase during the second guarter, propelling the market's RevPAR 10.0 percent above 2019 levels. Miami was a market that flourished during the pandemic but is now experiencing little to no growth, receding year-over-year in the second quarter of 2023. Recovery in Chicago is progressing, albeit slowly. RevPAR in Chicago increased 12.1 percent in the second quarter but was only 0.4 percent above 2019 levels. Performance in San Francisco continues to suffer with RevPAR down 7.0 year-over-year in the second quarter, remaining 28.5 percent below 2019 levels. Before the pandemic, travelers from China made up most of the inbound international demand for San Francisco. Even though China recently lifted restrictions on overseas travel, it is not expected that inbound Chinese travel volume will reach prepandemic levels until 2027, posing a great deal of uncertainty for San Francisco's performance in the near term.

It was initially expected that by this time, there would be greater clarity on the future of office space in the central business district (CBD); however, the outlook is still murky and, in the opinion of some, pessimistic. Vacancy rates in CBD offices nationwide remain elevated and are not expected to experience a material decline until 2027. As a result, levels of midweek business travel, typically a significant contributor to performance in urban markets, come into question. In addition, several large companies have recently announced plans to restructure their corporate travel procedures in efforts to contain or reduce their carbon footprints. These issues will likely affect midweek travel patterns. Day trips in the corporate world may become a thing of the past and business travel going forward may be more streamlined and purpose-driven, justifying longer stays but less-frequent trips.

Technology Adoption in Operations and Guest Experience

In the postpandemic era, more hoteliers are looking to further integrate technology into both their operations and guest experience design. Although the initial implementation costs may seem high, technology can create long-term benefits across several areas of an operation. The leverage of technology can help in addressing larger challenges facing the industry, including the labor shortage, rising operational costs, and the ever-changing behaviors and desires of the guest. Legacy software systems will be replaced to drive efficiency in data collection and informed decision-making, and to improve back-office workflows. In addition, AI will facilitate sophisticated and secure data collection and analysis, allowing operators to generate and act upon more accurate guest-focused insights, resulting in a higher-quality, personalized guest experience—instrumental in driving guest loyalty and retention.

Since the onset of the pandemic, the hotel industry has been faced with the impact of a significant reduction in the pool of available talent. When pandemic-related restrictions came about, many workers in the industry were laid off or furloughed, forcing them to find new jobs. Many of these workers embraced the flexibility, wages, and benefits found in other lines of work and chose not to return to the hotel industry once demand returned, creating a labor shortage. To mitigate the constraints caused by this shortage, hoteliers have begun to look to technology as a means of making operations leaner and more efficient.

Al can be used to streamline and increase visibility into task management processes. For example, when a light bulb in the 20-foot ceiling of a hotel's lobby needs to be replaced, a front desk attendant can take a picture from his or her smartphone and link it to a replacement request sent to engineering. In turn, Al can at once find the exact item and identify the tools needed for specific replacement, allowing the engineering team to fulfill the request in less time. Housekeeping schedules can be designed and stored on cloud-based platforms, easing the resource allocation process and facilitating more effective communication across the department. Al and data analytics can also better inform operators' decisions on staffing needs based on demand during a given period.

Guests' desires for "contactless" experiences have grown over the past few years. This includes everything from the check-in process to requesting on-demand services, the use of digital key cards, and mobile payment. Technologies addressing these desires are not necessarily new, but awareness and adoption around them are becoming more widespread. Some hotels have

removed informational binders and gone paperless in quest rooms, instead using QR codes that, when scanned, allow guests to take control of certain aspects of their stays, from placing a room service order to sending a housekeeping or maintenance request, and controlling lighting and temperature in their rooms.

Technology implementation can also be geared toward spearheading sustainability initiatives at the property level. Sustainability has become an increasingly crucial part of a guest's desired experience and an element that, in many cases, they are willing to pay a premium for. As operators shift toward contactless guest experiences, use of paper in hotels will decline. Some hotels have begun using AI to control their central HVAC systems, resulting in substantial reductions in energy consumption and cost savings. Data-driven procurement processes in food and beverage departments can lead to more exact inventory ordering, minimizing waste.

Capital Markets and Transactions

The current inflationary environment is placing increased pressure on buyers to deploy capital that has been accumulated over the past several guarters, but a higher cost of debt and wide bid-ask spreads have posed significant barriers to executing transactions. Heightened interest rates caused a sharp decline in transaction activity beginning in the back half of 2022 and continuing today. Hotel deal volume was down more than 50 percent year-over-year in each of the first two guarters of 2023. Cap rates in the sector are climbing from the lows experienced in 2021 and the first half of 2022; periods highlighted by historically low interest rates and free flowing liquidity. Alternatively, pricing in the hotel sector has remained largely unaffected by the current macroeconomic environment, showing marginal year-over-year increases in the first and second guarters of 2023, according to MSCI Real Assets.

Given the current economic environment, transactions at lower price points (e.g., limited service versus luxury) have been more prevalent. Limited-service hotels accounted for 322 of the 390 hotels transacted in the second guarter of 2023. On a dollar basis, limited-service deal volume decreased 56 percent yearover-year in the second quarter compared with 62 percent for full-service hotels. If interest rates stay elevated, the appetite for limited-service deals will likely remain due to lower asset pricing and less costly operating models.

Individual asset deals have been more the norm than portfolio deals through the first half of 2023, making up \$10 billion of the \$11.3 billion in volume reported by MSCI Real Assets for the hotel sector. As markets continue to recover at different paces and

smaller deals remain more attractive, individual asset sales will likely continue to drive total deal volume.

Climate change continues to play an increasingly significant role in investment decisions. Abnormal weather patterns have introduced greater physical and operational risks for properties in certain regions. Hurricanes, tornados, fires, and flooding have driven and will continue to drive higher insurance premiums in regions that are more susceptible to these types of events. Some insurance providers have chosen not to underwrite policies in certain parts of California and Florida where the probability of natural disasters is higher. Properties with experiences reliant on regional weather patterns are surrounded by greater uncertainty. Hotels in ski areas, for example, may have trouble making debt service payments in seasons with less snow. Some Sun Belt states are experiencing extreme heat levels during the summer, impeding occupancy rates during a season that has historically generated strong leisure demand.

Looking ahead, it is unlikely that deal volume within the hotel sector will materially improve during the rest of 2023 and through at least the first half of 2024. At current interest rates, there will need to be a reduction in the existing bid-ask spread to move the needle. If the current state of the capital markets remains unchanged, deals may be pushed to market sales due to untimely debt maturities and unfavorable alternatives. A turn toward normalization of investor sentiment and transaction activity is not likely to begin until the Fed shows action on stabilizing and then reducing interest rates, although it is currently unclear when this may occur.

Retail: Despite Challenges, Retail Emerges as CRE Darling

Today the market faces some very real challenges that hold the potential to drive even greater pessimism. After a two-year respite in which there were almost no retail bankruptcies, 2023 has seen some major chain failures and, as this report went to press, there were more likely to come. Meanwhile, central business district retail that had previously been dependent upon daytime traffic generated by office workers has been affected by the remote work trend. Smash-and-grab burglaries, organized shoplifting, and the high-profile woes of a select few American high street retail districts could easily lead one to believe that all urban retail was deeply challenged. Meanwhile, there has never been more bifurcation in the mall world. Though class A and trophy malls are reporting some of the highest occupancy rates of the past decade, the challenges of declining class B and C assets remain.

But despite all these current challenges (some real, some exaggerated), retail has strengthened in terms of both performance and investor preference when only a few years ago it was the most troubled of all asset types.

Here is why.

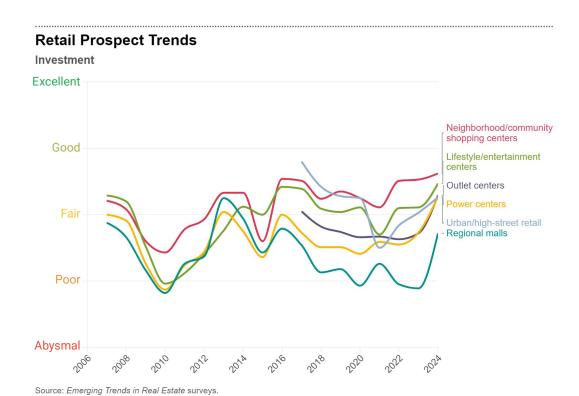
Consumer Resilience, So Far

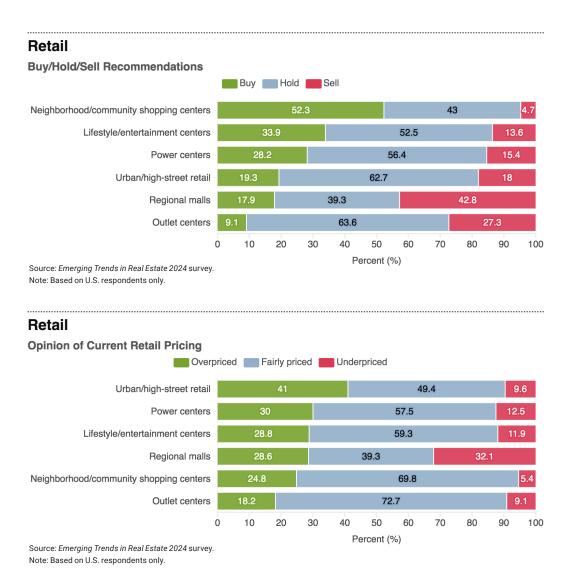
Through the third guarter of 2023, consumer spending has proven to be far more resilient than most economists have expected, despite still-elevated inflation. In August 2023, seasonally adjusted retail sales were up 2.5 percent over 2022 levels, with this metric remaining positive since May 2020. Only since March 2023 have retail sales fallen below the 5.0 percent growth rate. That said, greater economic headwinds in the fourth guarter of 2023 could potentially finally drive these numbers into the red. Much of the excess savings that consumers built up during the pandemic (roughly \$2.1 trillion according to the Bureau of Economic Analysis) has dissipated—falling by \$1.6 trillion through May 2023. The pause in student loan repayments ended in October 2023,

meaning that a large swath of gen Z and younger millennial consumers are about to take a considerable financial hit.

Yet very few chains that entered the year in growth mode have pulled back on their plans. The most notable that has is Dollar General, which revised its 2023 expansion plans downward from 1,000 new stores to a still whopping 950.

What is more likely is that chains may not reach their growth goals simply because of the lack of available quality space in the size, formats, or locations they want. As one broker told us, "We may not have the same velocity in 2023 as we have the last two years, but this has mostly been a function of the reduced availability. Some deals are taking a little longer for retailers to get through committee, but our greatest challenge in Texas has been finding space." A real estate manager for an off-price apparel chain told us, "We are keeping our store growth targets where they are. Most markets are tight to begin with and our biggest challenge remains finding space. If there is a downturn, we expect it to be brief and it may even open some options for us. The Bed Bath & Beyond liquidation certainly opened some great sites for us."





Bankruptcies Tick Back Up, but Is This a Return to "The Bad Old Days"?

Following 2020's record-shattering levels of closures (an estimated 184,000 retail, leisure, and hospitality businesses permanently closed their doors that year) and bankruptcies, 2021 and 2022 saw only a handful of minor bankruptcies. But 2023 has seen some of the largest chain store failures in recent years, including some large liquidations. The largest bankruptcy of 2023 (through September) was the collapse of Bed Bath & Beyondwhich resulted in 896 storefronts (most above 30,000 square feet in size) being returned to the market. As this report went to press, the 2,200-unit Rite Aid was preparing to file Chapter 11, with analysts expecting them to shed up to 500 stores.

So, is the market returning to where it was in 2019?

We think the answer is no. Nearly every retailer that has filed bankruptcy in 2023 was on credit agency watch lists long before the pandemic. One could make the argument that it is amazing they survived this long. Most important is what we are seeing in the leasing market. According to one prominent analyst, "Within three months of their liquidation, nearly a third of the Bed Bath [& Beyond] and buybuy Baby stores already had tenants lined up. It took the better part of three years to backfill most of the vacant Toys 'R' Us stores when they failed. . . . It's unprecedented."

As the leasing manager for a REIT told us, "Retail always has had winners and losers. But for the past 15 years we have had the added issue of e-commerce disrupting chains. We think the market is largely beyond that now and we are seeing a return to more normalized patterns."

It appears that retail's challenges have finally shifted away from the structural impact of e-commerce to the cyclical.

Untangling Urban from Amenity Retail to High Street

But not everything is rosy in retail. For years there was an "amenities arms race" among office landlords in central business districts. Everything from restaurants to fitness clubs, daycare to food halls, were viewed as having a "halo effect" in the office world-ground-floor retail amenities that drove greater office tenant demand (and rents) upstairs. The pandemic and the rise of remote and hybrid work have upended that formula to varying degrees depending on the city.

The retail leasing manager for a major office REIT told us, "That sandwich shop on our ground floor was dependent on the foot traffic we had when there were 3,000 people in the building any given workday. Take away 40 percent of those workers and very few of those businesses are going to survive. The old rent model for ground-floor retail in an office building simply no longer works."

But, as one underwriter for a lender told us, "We've seen, and approved, some deals in downtown office towers where our owner was giving that space to restaurant or fitness concepts for a fraction of the prepandemic rents. In a few cases, we have signed off on some rent-free deals because having great workplace amenities is arguably more important now than ever. But we are being very selective in this."

One San Francisco office broker advised us, "We are at or near the low-water mark for office in this city. 'Survive until 25' is the refrain in the brokerage community. By then, most users who were going to downsize will have done so and we should start to see the return of organic growth, though the market will have a big hole to dig out of. Conversions of office to multifamily is what we really need to see to bring equilibrium back to both the urban office and retail markets."

San Francisco stands out in the national discourse as facing some of the greatest postpandemic challenges, with the highprofile struggles of its downtown/Union Square retail landing national media attention. Headlines from Chicago's Magnificent Mile have been only slightly less bleak.

Yet, these high street districts are not the norm. They are outliers where multiple factors have coalesced. Part of the Magnificent Mile's issues have to do with the emergence of the Fulton Market District over the past decade as a rival retail hotspot (retail

vacancy there is roughly half that of Michigan Avenue). As challenged as San Francisco's downtown currently is, the outlook is significantly more positive in the city's residential retail districts including Clement, Chestnut, or Hayes streets.

As one brokerage analyst told us, "There is literally 0 percent vacancy on Rodeo Drive and tight availability in all of Los Angeles's premier shopping districts. There were more luxury retail deals signed in Manhattan through the first half of 2023 than what we tracked in 2019. We're seeing improvement in Boston and D.C. But the big story for us is Miami. It used to be when a foreign luxury concept came to the [United] States that their first store would be in Manhattan, the second one either in Los Angeles, San Francisco, or Chicago. Suddenly, Miami is in the number two or three slot and we are also seeing Dallas and Houston jumping ahead on that list."

Luxury retail tenant demand has skyrocketed over the past 18 months. According to one urban broker we spoke to, "A lot of these global luxury concepts have spent the last decade chasing growth in China and the Middle East. But the Chinese economy is slowing and may enter a recession for the first time in 30 years. Many of these brands are saturated in Europe and the Middle East. Suddenly North America is looking like the best place to grow."

The Stars Shine Brighter in the Suburbs

The pandemic accelerated suburban migration that was already expected to occur as urban millennials and empty-nest baby boomers aged into new phases in their lives.

Of course, throughout the late 2010s, the retail real estate market was already experiencing an immense gap in performance between outdoor shopping center types (community/neighborhood, power, unanchored strip, etc.) and enclosed malls. Vacant or dying malls, across the street from vibrant grocery-anchored centers, have not been uncommon and this is largely due to the categories of tenants active in either and their exposure to e-commerce disruption.

According to the Costar Group, there is just under 12 billion square feet of retail space in the United States. Grocery-anchored community or neighborhood shopping centers account for 25 percent of the nation's retail inventory, mostly in America's suburbs. Community/neighborhood center vacancy during the pandemic peaked at 7.8 percent. Vacancy for this asset type peaked at 10.3 percent in 2011 in the aftermath of the GFC. Today, it sits at just 6.0 percent, its lowest level in 20 years.

It is a similar story for big box-focused power centers and unanchored strip centers. Power centers account for 6.7 percent of the nation's retail inventory. This shopping center type also experienced comparatively minimal disruption from the pandemic when its vacancy rate peaked at 5.4 percent. Power centers also saw greater challenges in the aftermath of the GFC; vacancy levels peaked at 6.1 percent in 2011. As of the second guarter of 2023, it stood at just 4.3 percent, matching low-water marks set both in 2014 and 2003. Lastly, unanchored strip centers account for 5.9 percent of all retail inventory. Vacancy in the second quarter of 2023 was just 4.7 percent, down from 2020's 6.3 percent and 2011's 10.8 percent readings. Unanchored strip center vacancy is at a 19-year low.

Often overlooked in retail's recent rebound has been the role of new construction, or the lack thereof, that has been as critical a factor in restoring market equilibrium as the ongoing wave of tenant space demand. The United States will close 2023 with roughly 35.0 million square feet of new retail product across all shopping center types. In 2022, the market added 24.4 million square feet of new retail space following 2021's record-setting low of just 19.3 million square feet. But here is something to keep in mind: between 2008 and 2020, the market averaged 60.9 million square feet of deliveries each year. Between 1998 and 2007, that number was 145.2 million square feet annually. Current retail development levels are roughly 25 percent of what had been the norm prior to the GFC.

While deliveries will increase going forward (2024 will likely see about 45 million square feet of new product come online), several economic factors are keeping development levels in check. According to one developer, "Despite how tight the market is, it's hard to get new projects to pencil between the cost of land and construction. We have passed on a few projects simply because we weren't sure we would be able to consistently achieve the kinds of rents we would need to justify the project."

Of course, the other factor that has driven vacancy rates to, or near, 20-year lows for some shopping center types has been demand. A lot of it.

The Demand Equation

According to market research firm Coresight, store openings outpaced closures in 2021 for the first time since 2016. The ratio of stores opening to closing only increased since then, with Coresight reporting an estimated 5,200 new store openings versus 3,200 closures in 2023. But that only includes traditional retailers and not many categories that have become critical

demand drivers such as restaurants, beauty salons, health clubs, or the emerging experiential retail category. One analyst with a credit ratings firm that tracks the growth plans of those categories told us, "Fitness concepts alone could expand by over 1,000 units in the year ahead. In the restaurant category, we could be looking at somewhere near 7,000 openings ahead driven by QSRs [quick service restaurants] and fast casual concepts." Planned growth from experiential concepts (which include everything from competitive socializing concepts, "eater-tainment," amusement chains, and interactive art installations) have growth plans that could drive as much as 10 million square feet of occupancy growth through the end of 2024. Lastly, luxury and celebritydriven brands (from Kate Hudson's Fabletics to Rihanna's Savage x Fenty) are also ramping up growth—particularly in America's mall and urban high street districts.

By midyear 2023, all these factors had translated into dozens of U.S. retail markets reporting historically low vacancy or availability rates. This includes some Sun Belt markets, even as they are experiencing modest upticks in new development.

Investment Outlook

According to the Costar Group, the market should close 2023 with somewhere between 180 and 190 transactions. This would be roughly 50 percent of the sales volume of 2022, when 360 centers traded, and down nearly 60 percent from 2021, when 440 transactions were recorded. But sales velocity in those years was already depressed because of the limited supply of performing assets. Between 2014 and 2019, the United States averaged roughly 1,000 shopping center transactions annually. As one market participant told us, "We still love the grocery-anchored space, but everyone is chasing the same thing and there are fewer owners willing to part with these assets right now at prices that make sense for us. The higher cost of money means you're likely going to have to lower your price to attract buyers. Who wants to do that when your overall fundamentals are improving? If you don't need to, you're not going to sell in this environment unless you're selling distress."

Net lease retail has also slowed, even though it is primarily driven by cash buyers with long-term investment horizons for whom rising interest rates have far less impact. "The problem is supply," one net lease broker told us. "We are seeing about a third of the sales volume we did last year. There remains a lot of demand for single-tenant grocery and good fast-food sites, but not a lot of buyers wanting to part with those now."

There has been one exception to the trading slowdown, however. In the second guarter of 2023, according to Trepp, office properties overtook malls as the most distressed CRE property type. Although this is primarily due to deteriorating office fundamentals, we have also seen mall transactions ramping up, particularly distress or value-add deals. Since 2022, there have been over 90 transactions including malls (or portions), nearly all of which were value-add deals to players looking to redevelop or reimagine them.

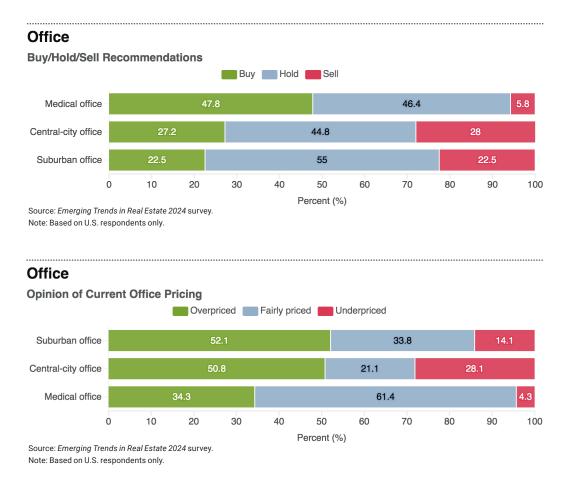
Looking ahead, most of the market participants we talked to believed investment activity was likely to remain subdued at least through the first half of 2024. As one analyst told us, "Ironically, the fastest path to investment activity roaring back would probably be if the U.S. did end up having a recession in the next few months. It would provide a sense of bottom, which would help reduce the divide between buyers and sellers in terms of bid-ask. If it necessitated the Fed reversing interest rates, it would spark a lot of movement. We suspect a soft-landing scenario will be a lot murkier in terms of the investment market and would mean a longer path back to transactional normalcy."

Office: The Future Is Now

- Office market sentiment is largely negative as the market faces headwinds that include declining space demand, pressure on owners to increase capital expenditures, and the impact of rising interest rates.
- As work-from-home (WFH) becomes ingrained, companies renewing leases are taking out shorter leases and 10 to 20 percent less space than they did prepandemic. Improving building amenities will be a key to luring employees to the office.
- Office market recovery will be hampered by weak capital market liquidity as many investors and lenders are reluctant to increase exposure to the sector. Office property values are expected to drop 30 to 40 percent on average.
- Despite the negative outlook, most office buildings are performing well, with the occupancy rate either staying the same or even improved since 2020. The pandemic has prompted an effort to redevelop obsolete office buildings and renovate CBDs that will serve the sector well over time.



Source: Emerging Trends in Real Estate surveys.



There's no sugarcoating it: sentiment in the office market is grim, and it may not have hit rock bottom. As the debate rages about how much demand will be disrupted by WFH, the Federal Reserve's interest rate hikes have produced a body blow to the sector, adding a full-blown capital crisis on top of problematic fundamentals

Once commercial real estate's undisputed trophy property type, sentiment has turned negative. Although some segments of office are performing well—such as newer class A properties, regions with strong office-using job growth, and niche sectors including medical office and life sciences—the outlook has largely turned bearish. Discussion about offices has a negative bent: how far will demand for space and values fall? How much distress will increase? And what to do with all the obsolete space as companies reduce their office footprints, especially in core markets such as New York and San Francisco that once were safe havens for investors?

The fall from grace is so far that the serious problems caused by WFH and weakening occupier demand have more recently taken a back seat to the rapid and steep decline in liquidity. Not only are many lenders and investors reluctant to add office to their portfolios, but some of the country's largest office owners can barely wait to surrender properties when loans mature.

Amid the negativity, though, is the sense that the sector's crisis provides a chance to reset office's place in the property ecosystem. That means realigning the amount of office space to fit future demand, redesigning offices to fit the needs of users, and redeveloping entire downtowns to become environs where people want to live, play, and yes, work.

"If I'm an urban planner, I think it's the most exciting time to be alive," said an executive at an international consulting firm. "It's going to take time, but I view this as an opportunity for American urban cores to reinvent themselves. They have the time and space to do it now."

Hybrid Is the New Normal

The office market is among the most discussed topics in the business world these days. Unfortunately, the commentary is often more noise than substance, as the dialogue veers between declaring an office doom loop (a typical recent headline: "Latest Office Stats Offer Little Reason for Hope") or assurances that CEOs are finally serious about enforcing a return to the office (example: "U-Turn Permitted: Companies Rethinking Office Abandonment"). "The narrative is that work-from-home is going to kill the office. It clearly will do something," said an academic researcher who noted that the headlines may be overblown. "Sometimes the narrative can be as powerful as the reality."

While it is too soon to say that the postpandemic office culture is fully baked, some basic trends appear solidified. One is that hybrid will always be an option for office workers. Virtually every Emerging Trends interviewee said some form of the phrase "hybrid has clearly won." WFH now represents about 30 percent of total days worked in the United States, with nearly half (45.9 percent) of workers either hybrid (33.7 percent) at an average of 2.5 days per week in the office or fully remote (12.1 percent) as of summer 2023, according to data from WFH Research.

The prevalence of WFH depends on job sector, work function, and location. Sectors with the highest rate of workers who are fully remote and/or hybrid (per WFH Research) include traditional office-using segments such as information, technology, finance and insurance, and professional business services. Large coastal centers including San Francisco, Los Angeles, and New York have the highest rate of telecommuters, while small firms are more likely than large firms to have hybrid workforces.

As the job market starts to loosen, some CEOs are kicking the tires on stricter enforcement of return to the office. After saying last year that the company had no plans for such mandates, Amazon CEO Andy Jassy this year announced an in-office policy of three days a week. Google and Meta are also mandating three days, while other large companies including BlackRock and Disney are mandating four days a week in the office. Meanwhile, the federal government is prioritizing a return to office. "CEOs all want more in-person work," said a senior executive at a company that owns offices. "They recognize that remote work is like a benefit, or compensation. At the same time, it comes with a real cost to productivity and culture."

Increasingly, both employees and employers view remote work as a benefit to barter. Some employees may opt to trade a flexible work arrangement for salary. In that sense, the tight labor market has helped prop up flexible work arrangements. Employers that enforce a full return to office have difficulty retaining staff,

something that could change if the economy hits a downturn. "In a more recessionary environment workers . . . would be happy to go to the office and afraid of losing their jobs," one leasing broker said.

Commuting is a huge factor. "One of the most sought-after amenities is anything that removes the burden of commuting. People have less tolerance for commuting than they did prepandemic," said a senior researcher at a large brokerage. "To the extent someone doesn't like to commute an hour each way, they will want to stay home two days a week or find a job that allows them to work from home," noted a data firm analyst.

Evolving Office Amenities

Whatever the ultimate outcome of the wrangling between labor and management, in practice there is a loose consensus that some tasks are a more natural fit for working from home. "Going forward, heads-down work can be remote and office space will primarily be used for group interactions," said an office market consultant. Because going to an office daily is no longer the default for workers, companies must plan not only how to ensure employees want to come back for the specified number of days but also how to use the space for efficiency and productivity.

Key elements for offices going forward focus on investment in technology that is better than what employees use at home and promotes efficient interactivity, enabling better collaboration between workers and clients, clearly defined space, improved experiential value, and designs that meet employee needs and improve productivity. All these elements could require years of experimentation to perfect, noted a senior office brokerage executive. "Companies that adapt to the evolution of hybrid work will be the most successful." he said.

Executing this strategy will not be the same for every company and workplace, but identifying and providing the right configuration and set of amenities will be an important part of retaining staff and maintaining productivity.

Owners of newer buildings or those that have the means to make expensive upgrades to buildings to provide the required amenities and experiences will have a major advantage. "I'm just not sure how easy it is to do these things, but it will take a lot of time and money," said a property consultant. Many tenants won't even visit buildings that don't have the right amenities, putting some owners in a position in which they must spend millions of dollars without even the promise of new income. Owners add amenity centers "because they have to have it to compete with [buildings] that have them," said a New York City leasing broker. "Owners of buildings have to be much more attuned to integrated build-out,

the supply of services, and stronger customer needs and wants, just like other industries," the consultant said.

Demand Diminishing

The new WFH paradigm has office owners taking it in the pocketbook from both sides. Tenants are taking less space and have the leverage to demand more money spent on tenant improvements. Office absorption continues to be weak and vacancies continue to rise (most data services put the national vacancy rate in the high teens). Companies are downsizing, with an increasing amount of space—upward of 200 million square feet—being subleased. New starts have declined, but more than 100 million square feet of space is under construction nationally as of September 2023, according to CommercialEdge.

The consensus among analysts is that companies renewing leases on average have reduced space requirements between 12 to 20 percent relative to prepandemic levels. This is even though office employment has reached a record high of 35 million, up 2 million since before the pandemic. "There's an asymmetrical relationship between office employment and occupancy rates," said an economist for a large data firm. "There is less pressure on the upside and more downside volatility. Even those companies that are considering expansion are pausing plans until they make it through the expected downturn." And it could get worse, according to an executive at a debt analytics firm. "The market has not experienced the full effect of the sublease market, which will put more downward pressure on rates," he said.

Because of the uncertainty about space needs, companies are signing leases that are roughly 10 to 12 percent shorter than before the pandemic. Occupiers signing leases of 10-plus years are demanding substantially higher tenant improvement funds and free rent periods, especially at B/C properties. "Some leases won't reach break-even until year four or five," said one broker. "The model is unsustainable; landlords are giving away too much." Said another: "Landlords are in a terrible predicament. In most cases, they don't have a lot of leverage."

The biggest declines are in San Francisco, where demand is down 20 percent since the pandemic due to factors that include the increase in homelessness and crime and poor transportation, and Manhattan, which features waning demand and a large delivery pipeline in Hudson Yards that is cannibalizing class A properties in Midtown. And while there are markets such as Miami or Dallas where demand is stable, even some high-growth markets such as Phoenix, Denver, and Tampa are facing weaker demand, while other high-migration markets such as Salt Lake City, Raleigh, Charlotte, and Austin are experiencing growth in

supply that may outstrip demand. "Every city has its own story," noted an economist at a large brokerage firm.

Still, despite shifting fundamentals, a large share of office buildings are not in crisis. According to Cushman Wakefield, despite 230 million square feet of negative absorption since January 2020, 52 percent of the 50,000 office buildings it tracks nationally are fully leased and 90 percent have no sublease space. While 38 percent of office buildings have seen vacancy rates increase, 20 percent have recorded decreases.

The markets with the biggest postpandemic downturns, San Francisco and New York, have encountered bear markets before and always bounced back. "San Francisco has a lot of problems, but it's a cyclical market; it will come roaring back because there is so much money going into AI," said one analyst. Another noted about New York: "People have counted out Manhattan before. In 2002, the consensus was that it would always be blemished, but today it is more vibrant than ever."

Capital Issues

Whatever problems the office market faces on the demand side, the capital markets are worse. Property values are down, and the value destruction was exacerbated by the increase in interest rates, which will lead to a spike in distress as properties with lowrate mortgages face refinancing at much higher rates. "Anything underwritten prior to the new rate regime has had a big chunk of equity wiped out," said a consulting firm executive. Office values are down 30 to 40 percent on average and up to 60 to 70 percent for some types of properties and locations.

Coming off a long expansionary period in 2020, "we had exuberant capital, super low rates, and the returns felt good at the time," said an executive at a large office owner. "Now the capital spigot has been cut off, interest rates changed, liquidity changed. Having 2 percent debt now up to 6 percent puts things in a tailspin."

Some debt is available, but the most active bidders are debt funds, whose capital tends to be expensive, and the leverage offered is low—less than 50 percent as opposed to 60 to 65 percent traditionally. "There is debt available, but it requires a tremendous amount of write-downs of existing capital," said an executive at an office firm.

By itself, the increase in mortgage rates to 6 to 9 percent in 2023 from the 4 to 6 percent it was for years up until spring 2022 would lead to an increase in delinquencies. Using only a debt-service metric, properties qualify for 20 to 30 percent less proceeds than they did before rates spiked. Rate hikes affect all commercial

property types, including multifamily and industrial, which are facing increased distress even as property performance is strong.

Office, however, is even more challenged, as it faces a fundamentals problem in addition to reduced values, higher capitalization rates, higher capital costs, and less debt availability. "That's a strong recipe for prolonged office distress," said an executive at a debt analytics firm. How much? Trepp estimates that the CMBS office delinquency rate, at 5.6 percent in September 2023, could top 10 percent over the next year. CBRE estimates that through 2025, office loans will have a \$72.4 billion capital shortfall, or 26.4 percent of the total loan volume originated between 2018 and 2020.

"Many investors no longer want any office exposure of any kind, and many lenders are loathe to lend on office," said an executive at a large office owner/developer. "If you say 'office,' it's the end of the conversation right now with many lenders and investors." Said another: "If I'm an investor deciding where to put my money, why would I put it in office?"

Why indeed? The office market has some pain ahead in coming years as companies downsize space requirements, property values settle at new levels with higher cap rates, mortgage delinquencies increase, and office buildings are converted to other uses. That said, the need for office buildings isn't going away. The growth in technology, AI, and professional services will increase office-using jobs that will feed space demand, even if workers don't use them five days a week.

Meanwhile, the pandemic caused a rapid and massive hardship for central business districts that highlighted the need for transformation, and the good news is that most jurisdictions are treating it with a sense of necessary urgency. "Diversity of use is an important part of keeping cities vibrant," said an academic who has produced research about the office market. "It's a moment for cities to be doing what they clearly should have been doing but now there's an impetus for that finally to happen."

Strong Fundamentals Characterize the Medical Office Sector

The U.S. health care system supports an insured population of more than 300 million people and represents over 17 percent of the U.S. gross domestic product (GDP). The medical real estate that supports this industry falls into two categories: inpatient, or hospitals, and outpatient, or medical office buildings (MOBs).

MOBs are buildings occupied by medical tenants where services and procedures are performed on an outpatient basis. These buildings may be on a hospital campus, attached to a hospital building, or in more convenient areas in the community. They might be occupied by various types of specialties, from urgent care to dialysis centers to ambulatory surgery centers and, of course, regular physician offices. They are generally purpose built for medical use and have features that attract medical tenants such as a covered drop-off or a backup generator for emergency power.

Due to the increasing number of insured people following the introduction of the Affordable Care Act, as well as an aging population, the already significant demand for medical services has continued to grow. In addition, advances in medical technologies have enabled the transfer of many inpatient procedures to lower-cost, more-efficient outpatient settings. The sector has also been shifting to a retail mind-set, where hospital systems and providers look to attract new patients and build market share in new areas, contributing to the increased demand for high-quality medical space.

Tenants of MOBs tend to sign much longer leases than do tenants of other types of commercial real estate-sometimes up to 15 or 20 years—and are much more likely to renew because moving too far away would jeopardize their local patient market share. This patient/provider dynamic and increasing demand for space has resulted in remarkably stable performance across the sector. Renewal rates in the medical office sector are typically 80 percent or more and rent growth is very steady, typically ranging between 2 and 3 percent per year. These dynamics have helped the medical office sector maintain healthy fundamentals throughout economic cycles.

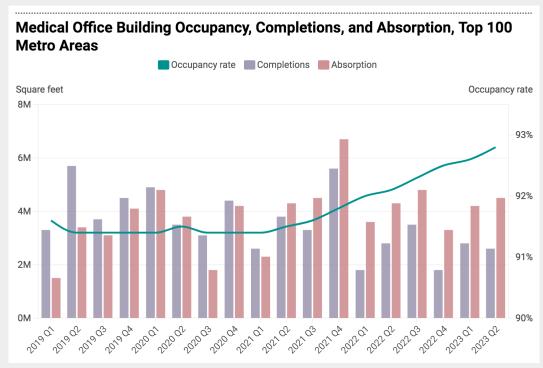
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Recent trends show strength in the medical office sector. Inside the top 100 metro areas, the MOB occupancy rate was 92.8 percent in the second quarter of 2023. The occupancy rate has been climbing in recent years as absorption (the change in occupied space) has been outpacing square feet completed within the sector.

While industry fundamentals remain strong, real estate investment volumes within the medical office sector have slowed in 2023. After reaching peak investment volumes of \$30.2 billion (annual basis) in the third guarter of 2022, medical office transaction volume has since slowed to \$20.2 billion as of the second quarter of 2023.

Despite lower volumes, transaction activity is occurring within the medical office sector in 2023. The first two quarters of 2023 saw medical office transaction volume at \$4.7 billion. While this is materially lower than the first two quarters of 2022 (\$10.1 billion), it is largely in line with levels seen during the first two quarters of 2018 through 2021. There has also been a general lack of distressed sales taking place within the sector. Industry participants report a disconnect still exists between sellers and buyers and that this is the main reason transaction volumes are down in 2023. But the stage is set for increases in volumes when buyers and sellers can better come together and the capital markets begin to normalize.

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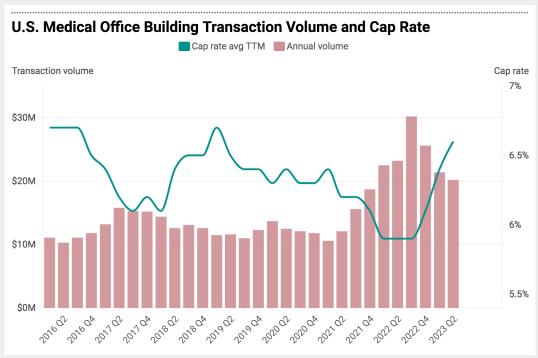
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The medical office sector is large and investable, comprising over 1.5 billion square feet of current inventory. Investors in the medical office sector have various structures and vehicles to facilitate investment. Institutional investors often choose to invest through an operating partner. Operating partners are often vertically integrated regional or national firms that specialize in the development, acquisition, and operations of MOBs. They often have deep relationships with hospitals, health systems, and physician groups. While hospitals will work in joint venture on outpatient development, pure sale leasebacks are less common in the sector. Most of the sale leaseback volume occurs with physician groups.

On a square footage basis, over half of the sector is owned by users of the real estate (hospitals, providers, and physician groups). The remainder is owned by REITs and private investors. A substantial amount of opportunity exists for investors to take on more ownership.

With strong fundamentals and tailwinds buoying the medical office sector, one might expect development levels to be rising. That is not the case, as most development is driven by new tenant demand. Speculative development is rare aside from occasional selected trophy markets. The medical office inventory has been growing between 1 and 2 percent annually

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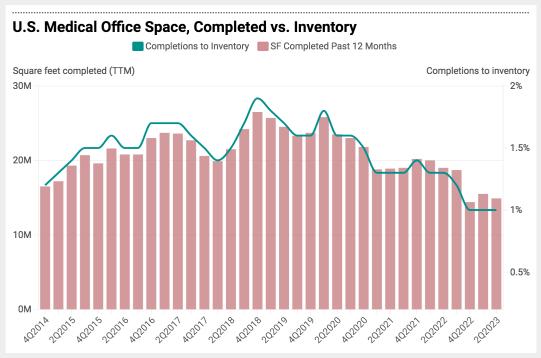
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with most recent observations at 1 percent. This is one of the reasons occupancies have been rising across the sector.

Looking ahead, many factors will continue to push demand for medical office space on an upward trajectory: the aging population and the growing number of insured people needing care; the increasing move by health systems and hospitals to locate services in more convenient, community-based areas; and advancements in health care technology and care delivery that require the space to support it. With very little

speculative construction and reliable performance, combined with the availability of industry-specific data, the medical office sector has been maturing into an attractive and stable commercial real estate asset class of its own. This has captured the interest of the broader investment community, and their appetite for exposure has been continuing to grow. These dynamics bode well for the future and help insulate the sector against broader market cycles.

-Revista



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Emerging PropTech Innovations 2024

One year ago, MetaProp's Mid-Year 2022 Global PropTech Confidence Index marked the lowest industry sentiment on record. Investor confidence signaled a tightening in the earlystage tech market as investors adjusted to softer downstream market conditions, while later-stage investors notably slowed deal-making pace in response to widely reported losses and ongoing market turbulence. At the same time, startups struggled to grapple with continuous headwinds stemming from a more challenging capital raising landscape.

Twelve months later, the Mid-Year 2023 Global PropTech Confidence Index reveals a measured resurgence in industry sentiment as market conditions progressively edge towards stability. A multitude of startups that deferred capital raises amidst the market correction are poised to re-approach the venture market before their financial resources edge too thin, fueling a continued elevation in deal flow activity. With each passing month, a larger number of higher quality companies are coming back to market with urgency to transact and there is a large backlog of venture-backed companies poised to seek capital over the next few quarters.

Additionally, developments in the broader real estate market continue to shape and amplify opportunities for innovation in the PropTech sector. Macro and market-specific uncertainty surrounding the future of office, a threefold increase in US manufacturing construction, pared back acquisition activity in the booming single family rental segment, and global markets' growing focus on specialty asset types are but a few of the myriad of ongoing real estate industry shifts with implications for PropTech companies.

In this section, we will cover three emerging trends that seem to be fueling new growth and innovation in the PropTech industry moving into 2024:

- 1. The growing criticality of asset data automation and integration as the number of data streams continues to
- 2. The opportunities, risks, and limitations of Al applications, and;
- 3. Office owners and operators' continued lassoing of solutions necessary for the ongoing evolution of the workplace.

1. The Criticality of Asset Data Automation and Integration Grows as the Number of Data Streams Continues to Expand

At MetaProp, many of us are fans of the classic 1984 superhero comedy, The Toxic Avenger, where a young boy falls into a vat of toxic waste and emerges as a nasty superhero. This year, filmmakers revisited this tale and remade it using the finest modern computer graphic imagery available, greatly improving the viewing experience. In the same vein, wrangling data remains just as much of an issue for real estate companies in 2023 as it was in 1984, the only difference being these companies now have the opportunity to create beautiful, beatific data lakes, rather than turgid and smelly data swamps. The way to facilitate clean data is to leverage new tools for data cleansing and integration automation.

Many commercial real estate firms are now awash in data and their exposure continues to grow exponentially. It is anticipated that the global volume of real estate data will continue to double every two years for the foreseeable future. In fact, it is estimated that 90% of the world's data across all industries was created in the past two years alone.

Real estate investors now have diverse data sets sitting inside a variety of incumbent technology platforms that are often inconsistent or incompatible. Within the past decade, exciting new companies have emerged to help real estate firms better integrate their data, automate the movement and analysis of the data, and learn actionable insights. Additionally, new financial automation platforms aimed at accounting, reporting, and performance tracking are taking data calculation and automation to an entirely new level. In this era of exponential data growth, it can be critical to utilize existing technologies to properly navigate complex information to support insightful decision-making.

2. Opportunities, Risks, and Limitations of Al Applications

In 2023, it seems like everyone in the real estate industry continues to buzz about generative artificial intelligence. Many believe that some of these large language models, if trained properly on real estate data, can inform real estate executives on which US market will be the next Nashville, or Bozeman, or Bushwick on a neighborhood level within a metropolitan area. The new large language models can accomplish astonishing

Continued next page.

tasks; however, they should not yet be trusted to make complex real estate decisions.

Applications for generative AI within real estate remain abundant, yet are mostly focused on property management and property marketing rather than investment decision making. Chatbots and digital companions that help with leasing, property management, and facilities management have rapidly increased in adoption in recent years. The quality of the output has also increased to the level where it's very challenging to distinguish between a human and artificially-intelligent robot interaction while leasing an apartment, for example. Al platform solutions continue to push the envelope as additional gueries and language data are fed daily into these vast databases and the technology continues to improve and help drive efficiency.

Communication is also a huge area where generative AI and automation can create value. New communication tools for real estate organizations are helping to centralize all data and workflow to cut down on redundant emails, texts, WhatsApp messages, and the deluge of digital correspondence that now makes daily business functions challenging for property managers across the globe.

The rise in complexity of these large language models has created a boon for the data center industry. The computing capacity required to run these models has many Wall Street analysts forecasting robust growth for both mini data centers and containerized data centers over the next decade. The stock market has experienced explosive growth for chip manufacturers, mainly powered by the new voracious demand for generative artificial intelligence capabilities across industries including real estate. In this particular case, the demand to use artificial intelligence across all real estate assets will likely create an additional surge in the data center asset category.

3. Office Owners and Operators Continue to Lasso the Solutions Necessary for the Ongoing Evolution of the Workplace

The push to return workers to the office continues in various ways across the country, as employers implement mandates on time spent within the office and re-visit remote work plans. From both anecdotal and statistical occupancy data, it appears that most cities across the country should not anticipate a return to a full five-day office work week. Office owners and managers as well as tenants will need to adjust to a new reality of three days per week in the office and 60% occupancy. However, this does not mean complete doom and gloom for the office sector.

Thanks to high national vacancy, high interest rates, and low demand, very limited new supply of office buildings will come onto the market within the foreseeable future. Certain office assets will be able to be repositioned; however the vast majority will have to remain office buildings and will have to figure out how to properly deliver amenities and incentivize tenants to sign leases in a competitive market.

Tenant engagement and experience applications that improve efficiency, productivity, and satisfaction in the work environment will become more essential. Additionally, utilizing advanced sensors to understand occupancy and learning to adapt offices to a modern environment will grow in value as demand for flexibility rises among tenants. Finally, new parametric design tools for quickly adjusting office spaces as well as modular furniture to make flexibility a reality will continue to proliferate and gain adoption.

-Zach Aarons, Co-Founder and General Partner - MetaProp

Markets to Watch

"You can't fight the demographic trends. We have seen this movement to good weather and to more affordable locations within the U.S., and I don't see anything that's pushing that the other way. But you've got to be selective in choosing the right locations within-you name the city."

One clear theme in *Emerging Trends* this year is that commercial real estate investors are becoming increasingly cautious in their outlook and more selective in their asset selection. That mind-set reflects the expectation that in an era of "higher and slower for longer," it will be harder to earn an acceptable return in the coming years. Investors are reconsidering not just which property types they should buy but also the qualities of specific assets within each property sector.

This heightened degree of asset selectivity is extending to locational attributes as well. Just as investors are becoming more discerning within the property types they prefer, industry participants we interviewed for this report say they are less willing to give blanket endorsements to their preferred geographic markets. Rather, they focus on specific submarkets by property type: apartments in a particular neighborhood in one city and warehouses on the south side of another city.

Outlook Still Sunnier in the Sun Belt

To be sure, the market preferences of respondents to the Emerging Trends survey have not changed radically in the past two years since undergoing some fundamental shifts in the

Warm vs. Cold Climate Markets in the Emerging Trends 20 Highest-Rated Markets, 2011-2024



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

U.S. Markets to Watch

Overall Real Estate Prospects

1 Markella	41 D.:
1 Nashville	41 Boise
2 Phoenix	42 Pittsburgh
3 Dallas/Fort Worth	43 Norfolk
4 Atlanta	44 Cape Coral/Fort Myers/Naples
5 Austin	45 Washington, DC-MD suburbs
6 San Diego	46 Jersey City
7 Boston	47 Sacramento
8 San Antonio	48 St. Louis
9 Raleigh/Durham	49 Greenville, SC
10 Seattle	50 Baltimore
11 Houston	51 Portland, OR
12 Denver	52 Westchester, NY/Fairfield, CT
13 Charlotte	53 Columbus
14 Miami	54 San Francisco
15 Northern New Jersey	55 Birmingham
16 Washington, DC-Northern VA	56 Memphis
17 Los Angeles	57 Charleston
18 Tampa/St. Petersburg	58 Tacoma
19 Orlando	59 Tallahassee
20 Las Vegas	60 Cleveland
21 Fort Lauderdale	61 Knoxville
22 Indianapolis	62 Milwaukee
23 Washington, DC-District	63 Louisville
24 Orange County	64 Omaha
25 Inland Empire	65 Oklahoma City
26 Minneapolis/St. Paul	66 Cincinnati
27 Philadelphia	67 New Orleans
28 Brooklyn	68 Chattanooga
29 Chicago	69 Des Moines
30 Salt Lake City	70 Providence, RI
31 Manhattan	71 Honolulu
32 Richmond	72 Deltona/Daytona
33 San Jose	73 Buffalo
34 Kansas City	74 Portland, ME
35 Palm Beach	75 Albuquerque
36 Jacksonville	76 Tucson
37 NYC Other	77 Spokane, WA/Coeur d'Alene, ID
38 Long Island	78 Gainesville
39 Detroit	79 Madison
40 Oakland/East Bay	80 Hartford

Homebuilding Prospects

1 Austin	41 Norfolk
2 San Antonio	42 Northern New Jersey
3 Washington, DC-Northern VA	43 Portland, OR
4 Atlanta	44 Memphis
5 Dallas/Fort Worth	45 Chicago
6 Charlotte	46 Richmond
7 Houston	47 Louisville
8 Raleigh/Durham	48 Deltona/Daytona Beach
9 Tampa/St. Petersburg	49 Oklahoma City
10 Denver	50 San Francisco
11 Seattle	51 Baltimore
12 Phoenix	52 Spokane, WA/Coeur d'Alene, ID
13 Inland Empire	53 Cincinnati
14 Washington, DC-District	54 New York-other boroughs
15 Sacramento	55 Omaha
16 Tacoma	56 Tucson
17 Salt Lake City	57 Birmingham
18 Orlando	58 Albuquerque
19 Las Vegas	59 Des Moines
20 Nashville	60 Brooklyn
21 Kansas City	61 Westchester, NY/Fairfield, CT
22 Jacksonville	62 Tallahassee
23 Orange County	63 Knoxville
24 Miami	64 Buffalo
25 Palm Beach	65 Madison
26 Cape Coral/Fort Myers/Naples	66 Chattanooga
27 Fort Lauderdale	67 Honolulu
28 Indianapolis	68 New York-Manhattan
29 San Diego	69 Providence, RI
30 Los Angeles	70 Jersey City
31 Philadelphia	71 St. Louis
32 Boston	72 Pittsburgh
33 Boise	73 Milwaukee
34 Columbus	74 Portland, ME
35 Oakland/East Bay	75 Detroit
36 Washington, DC-MD suburbs	76 Long Island
37 San Jose	77 Hartford
38 Greenville, SC	78 Cleveland
39 Minneapolis/St. Paul	79 Gainesville
40 Charleston	80 New Orleans

Source: Emerging Trends in Real Estate 2024 survey.

Source: Emerging Trends in Real Estate 2023 survey.

Key: More than 1 standard deviation above mean

+/- 1 standard deviation of mean More than 1 standard deviation below mean

immediate aftermath of the pandemic. Clear general preferences are still evident. For example, respondents still see the best opportunities in the so-called "smile" markets situated along an arc in the southern third of the country. The number of these Sun Belt markets among the top 20 markets for "overall prospects" has inched up to 15 this year from 14 in the last two years and an average of 12 in the decade preceding the pandemic. At the same time, the number of markets in coldweather climates in the Northeast and Midwest has remained

Emerging Trends in Real Estate 2024 Market Categories

Major group	Subgroup	Markets				
Magnets	Super Sun Belt	Atlanta Dallas/Fort Worth Houston Miami	Phoenix San Antonio Tampa/St. Petersburg			
	18-Hour Cities	Charlotte Denver Fort Lauderdale Minneapolis	Portland, OR Salt Lake City San Diego			
	Supernovas	Austin Boise Jacksonville	Nashville Raleigh/Durham			
	Multitalented Producers	Chicago Los Angeles	San Jose Seattle			
	Knowledge and Innovation Centers	Boston New York-Manhattan	San Francisco Washington, DC-District			
The Establishment	Major Market Adjacent	Inland Empire Jersey City Long Island New York-Brooklyn New York-other boroughs Northern New Jersey	Oakland/East Bay Orange County Washington, DC-MD suburbs Washington, DC-Northern VA West Palm Beach Westchester, NY/Fairfield, CT			
Niche	Boutique Markets	Chattanooga Des Moines Greenville, SC Knoxville	Omaha Portland, ME Richmond			
	Eds and Meds	Baltimore Columbus Gainesville Madison	Memphis Philadelphia Pittsburgh Tallahassee			
	Visitor and Convention Centers	Cape Coral/Fort Myers/Naples Charleston Deltona/Daytona Honolulu	Las Vegas New Orleans Orlando Virginia Beach/Norfolk			
Backbone	The Affordable West	Albuquerque Sacramento Spokane, WA/Coeur d'Alene, ID	Tacoma Tucson			
	Determined Competitors	Birmingham Indianapolis Kansas City, MO	Louisville Oklahoma City			
	Reinventing	Buffalo Cincinnati Cleveland Detroit	Hartford Milwaukee Providence St. Louis			

 $Source: \textit{Emerging Trends in Real Estate} \ surveys; compiled by Nelson Economics.$

Note: Bold type indicates the 20 highest-rated markets in Emerging Trends in Real Estate 2024 survey for overall real estate prospects.

stuck at just two, down from an average of three before the pandemic. So, little recent change there.

One industry consultant we interviewed said, "There has been a 50-year pattern of migration from the Northeast and the Midwest to the Sun Belt. There's no evidence in the last year that that trend is abating." The consultant continued that when you consider the relative cost of living, the quality of life, and the extent these are business-friendly states, "there's a reason why some of that's happening, and I think that that will continue."

With these geographic preferences somewhat fixed, the market rankings, as determined by the relative ratings of each market, did not change significantly from last year. There was only one change in the composition of the top 20 metro areas from last year, with Las Vegas displacing Salt Lake City. Three of the top 10 markets from the 2023 report dropped out of the top 10 this year—Tampa/St. Petersburg, Miami, and Charlotte—but all stayed in the top 20.

Looking at the full range of 80 markets, the relative ratings were more stable than in most years. Only five markets moved up or down at least 10 positions from last year, compared to the 20 markets in 2023 that moved at least 10 places from the prior year. The ranking of the typical market moved up or down by only half as much (by 3.5 positions, on average) as from 2022 to 2023 (7.1 positions).

Getting Tighter

Yet, turn the prism and a different impression emerges. Most notably, expectations are more downbeat nearly everywhere. Survey respondents gave lower ratings to 74 of the 80 markets in the *Emerging Trends* coverage universe this year, while only five improved. Scores fell for the second year in a row to their lowest level since before the pandemic. On a scale of 1 to 5, the average score for all markets fell from 3.19 in 2022 to 2.87 last year and to 2.74 this year. These score declines are relatively modest, amounting to just 5 percent this year, but their direction is unmistakable. The nearly uniform downgrade helps

Average Ranks by Market Category: 2024 versus 2023

(Higher scores are better, scale of 1 to 5)

		Averag	je Rank		Change 2023–2024 Percentage of markets in category		
Group	Subgroup	2024	2023	Average Change in Rank	% That Moved Up	% That Stayed Even	% That Moved Down
	Super Sun Belt	3.35	3.56	-0.21	14%	0%	86%
Manuata	18-Hour Cities	3.09	3.19	-0.10	14%	0%	86%
Magnets	Supernovas	3.18	3.40	-0.23	0%	0%	100%
	All Magnets	3.21	3.38	-0.17	11%	0%	89%
	Multitalented Producers	3.11	3.16	-0.05	0%	0%	100%
The Establishment	Knowledge and Innovation Centers	2.99	3.12	-0.13	0%	0%	100%
The Establishment	Major Market Adjacent	2.90	3.04	-0.13	0%	0%	100%
	All Establishment	2.96	3.08	-0.12	0%	0%	100%
	Boutique	2.37	2.53	-0.16	0%	0%	100%
Niche	Eds and Meds	2.46	2.63	-0.17	0%	13%	88%
Nicne	Visitor and Convention Centers	2.57	2.74	-0.17	0%	0%	100%
	All Niche	2.51	2.68	-0.17	0%	6%	94%
Backbone	The Affordable West	2.22	2.33	-0.11	20%	0%	80%
	Determined Competitors	2.60	2.68	-0.07	0%	0%	100%
	Reinventing	2.30	2.42	-0.11	25%	0%	75%
	All Backbone	2.36	2.46	-0.10	15%	0%	85%
All Markets		2.74	2.89	-0.14	6%	1%	93%

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

explain the historically low profitability prospects expressed by survey respondents, as discussed in chapter 1.

In addition to the lower overall ratings, the ratings are within a tighter range than they have been in a while. The score difference between the first- and tenth-ranked markets is only 29 basis points (bps), compared to 45 bps last year, a 35 percent decline. Similarly, the score difference between number one and number 20 is only 46 bps, compared to 68 bps last year, a 33 percent decline. In other words, survey respondents see less difference in prospects among markets than they used to.

Moreover, the drop in scores has been more significant among the leading markets. The top 10 market scores dropped an average of 22 basis points, compared to 13 bps for all other markets, further demonstrating that the ratings are getting tighter among markets. The greater tightness of the market scores and the greater decline in scores among the top markets show that industry participants are less enamored with high-flying markets than in previous years.

Enduring Trends

The French proverb "The more things change, the more they stay the same" is meant to convey that the daily current of turbulence does not alter deeper realities. And so it is with the market predilections of industry participants. If their preferences are narrowing or adjusting slightly, they are not disappearing entirely. The average score fell this year for every broad Emerging Trends market category. However, their relative standings were unchanged: the Magnet markets are still the most favored category, followed closely by the large Establishment markets. Finding relatively less interest among survey respondents are the generally smaller and/or older Niche and Backbone markets, as they have in prior years. Full descriptions of these market groupings can be found in the "Grouping the Markets" section following.

Drilling down into the subgroups, the Supernova markets (-23 bps) and Super Sun Belt (-21 bps) fell the most of any market grouping. This seems to reflect primarily the come-down of the highest-rated markets rather than a fundamental reappraisal of these specific metro areas: both retain their standing at the top of the heap, although the gap with the Establishment markets has narrowed.

What accounts for the enduring—if slightly diminished—appeal of these two Magnet markets, along with the group's third member, the 18-Hour Cities? Based on our interviews with industry leaders, investors are attracted to the growth story in these metro areas, as exemplified in the industry quotation that opens this chapter. Population growth for these markets averages three times the national average and twice as much as any other market group. Economic growth is also well above average.

Households are attracted by the warmer weather, more affordable housing, and strong job growth in these mostly Sun Belt markets. Firms are attracted by the lower regulations and taxes in these markets, along with the growing labor force, in a virtuous cycle between population in-migration and corporate relocations, which feed off each other. In turn, these key drivers attract the attention of commercial and residential real estate investors and homebuilders. There is a strong and sustained market correlation between the overall real estate prospect ratings and homebuilder ratings in the Emerging Trends survey.

Population Size and Economic Output by Major Market Category

	Magnets	Establishment	Niche	Backbone	
Population (000s)					
Total	62,960	68,880	34,108	31,421	
Average	3,314	3,444	1,483	1,746	
Share of all Emerging Trends markets	31.9%	34.9%	17.3%	15.9%	
GMP (\$ millions)					
Total	\$4,080	\$5,750	\$2,001	\$1,783	
Average	\$214.7	\$287.5	\$87.0	\$99.1	
Share of all Emerging Trends markets	30.0%	42.2%	14.7%	13.1%	

Sources: Bureau of Economic Analysis, IHS Markit, Moody's and U.S. Census Bureau; compiled by Nelson Economics. Note: GMP=Gross metropolitan product

Not all of the recent rating declines in these markets can be attributed to just general investor malaise, however. As we highlighted in Emerging Trends last year, some of the fastestgrowing markets have experienced some growing pains, with greater traffic congestion and more expensive housing, among other issues, and those trends seem to have intensified in the past year. The appeal for investors and developers has also slipped, as many of these markets quickly became supplied in some product types, especially multifamily. But that does not seem to be changing the long-term industry demand.

The head of research for an asset management firm acknowledged the recent overbuilding but said, "I still default long-term strategically to the long-term growth in the Sun Belt markets."

And Some Emerging Trends

If there's one factor that could dent the Sun Belt hegemony, it's the escalating risks from climate change. As we documented in the "Eco-Anxiety Comes Home" trend, the number of major climate-related natural disasters keeps rising, and insurers are taking notice, raising premiums and reducing availability in states where there are caps on premium increases, such as California and Florida.

Indeed, insurance woes seem to be at least one factor turning industry participants away from Florida markets. Six of the 10 Florida markets in the Emerging Trends coverage fell in the rankings, including all three of the top 20 markets, led by Tampa/St. Petersburg, which fell 13 places. Miami, Orlando, and Deltona/Daytona Beach also each fell by at least five places in the rankings.

Population and Economic Five-Year Growth

		Forecast Population Growth	Forecast Eco	nomic Growth
Group	Subgroup	2023-28	Total GMP 2023-2028	Per Capita GMP 2023-2028
	Super Sun Belt	6.1%	3.7%	2.4%
Mammata	18-Hour Cities	4.0%	3.2%	2.3%
Magnets	Supernovas	7.6%	4.6%	2.9%
	All Magnets	5.7%	3.7%	2.4%
	Multitalented Producers	0.3%	2.2%	2.0%
The FeachBahmana	Knowledge and Innovation Centers	1.1%	1.9%	1.9%
The Establishment	Major Market Adjacent	1.3%	2.6%	2.2%
	All Establishment	0.9%	2.3%	2.0%
	Boutique	2.8%	2.6%	1.8%
Niche	Eds and Meds	1.1%	2.4%	2.0%
Niche	Visitor and Convention Centers	5.5%	3.3%	2.3%
	All Niche	2.9%	2.7%	2.1%
	The Affordable West	2.2%	3.0%	2.1%
Backbone	Determined Competitors	2.0%	2.9%	2.1%
	Reinventing	0.0%	1.6%	1.5%
	All Backbone	0.9%	2.2%	1.8%
Total, all Emerging Tren	ds markets	2.8%	2.7%	2.1%
U.S. total		1.9%	2.7%	2.1%

Sources: Bureau of Economic Analysis, HIS Markit, and U.S. Census Bureau; compiled by Nelson Economics. Note: GMP=Gross metropolitan product

The immediate impacts of climate risks should not be overstated, however. As we noted in "Eco-Anxiety Comes Home," households consider a range of factors when deciding where to live, and climate risks do not yet rank highly for many people. Consider that Phoenix jumped seven places this year to the second overall position, and Las Vegas cracked the top 20 for the first time in at least a decade. Both cities were in the news this year for their record-breaking heat waves, but that did not seem to deter new residents—or the interest of CRE developers and investors

Moreover, California did not seem to suffer from their insurance problems, demonstrating that other factors are at play in the ratings. All eight of the California markets improved their rankings this year over last, though the individual changes were not meaningful, with none more than five places.

Other top trends we identified in the first chapter could have more significant impacts on market perceptions over time, notably the expected further fallout in the office sector, especially downtown offices. Eight of the top 10 and 12 of the top 20 markets have office vacancies at least two percentage points above the national average, and three have vacancy rates over 10 percentage points above. Some of these markets are used to functioning at elevated vacancy rates, including Dallas and Phoenix. Still, the record levels now—with more than 30 percent of downtown class A space vacant in some markets—could portend a reckoning, particularly as owners face significant tenant lease terminations or expiring debt.

Some of these same markets, especially tech hubs such as Seattle and Austin, also have the highest shares of remote workers, contributing to the office sector downturn. The

Population Size and Economic Output

(Detail by market subgroups))

(Population (000s)			GMP (\$	GMP (\$ Billions)	
Group	Subgroup	Total	Average	Per Capita Income	Total	Average	Per Capita GMP Average
	Super Sun Belt	35,712	5,102	\$51,963	\$2,273	\$325	\$63,655
Manuata	18-Hour Cities	18,598	2,657	\$56,004	\$1,267	\$181	\$68,106
Magnets	Supernovas	8,650	1,730	\$55,970	\$540	\$108	\$62,432
	All Magnets	62,960	3,314	\$53,707	\$4,080	\$215	\$64,802
	Share of all Emerging Trends markets	31.9%			30.0%		
	Multitalented Producers	24,330	6,083	\$62,994	\$2,078	\$520	\$85,417
The Establishment	Knowledge and Innovation Centers	8,658	2,165	\$97,944	\$1,595	\$399	\$184,186
The Establishment	Major Market Adjacent	35,891	2,991	\$57,163	\$2,077	\$173	\$57,861
	All Establishment	68,880	3,444	\$64,349	\$5,750	\$287	\$83,474
	Share of all Emerging Trends markets	34.9%			42.2%		
	Boutique	6,090	870	\$53,364	\$357	\$51	\$58,642
Niche	Eds and Meds	16,397	2,050	\$57,355	\$1,036	\$129	\$63,182
Niche	Visitor and Convention Centers	11,621	1,453	\$49,544	\$608	\$76	\$52,314
	All Niche	34,108	1,483	\$53,981	\$2,001	\$87	\$58,669
	Share of all Emerging Trends markets	17.3%			14.7%		
	The Affordable West	5,950	1,190	\$48,493	\$312	\$62	\$52,417
Backbone	Determined Competitors	8,376	1,675	\$54,188	\$460	\$92	\$54,976
	Reinventing	17,095	2,137	\$55,097	\$1,011	\$126	\$59,134
	All Backbone	31,421	1,746	\$53,604	\$1,783	\$99	\$56,754
	Share of all Emerging Trends markets	15.9%			13.1%		
Total, all Emerging Trends markets		197,369	2.89	\$54,755	\$54,755	\$170	\$68,977

Sources: Bureau of Economic Analysis, HIS Markit, and U.S. Census Bureau; compiled by Nelson Economics Note: GMP=Gross metropolitan product

impacts from the markets with many people working from home will bear watching for further impacts not only on the office buildings but also their downtowns. Yet other top-rated markets with high office vacancies have much lower rates of remote working, such as Los Angeles, Dallas, and Houston. These trends show that remote working is likely to have different impacts in different markets and that not all office troubles can be blamed on working from home. Construction continued unabated in some markets, even as firms had been reducing their per-head space demand for years before the pandemic.

Grouping the Markets

The Emerging Trends survey covers 80 geographic markets, which are sorted into major categories and subgroups to facilitate the analysis of these markets.

Magnets

Magnet markets are migration destinations for both people and companies, and most are growing more quickly than the U.S. average in terms of both population and jobs. These metro areas are also the preferred markets for investors and builders, with the highest average "Overall Real Estate Prospects" ratings of any group in the Emerging Trends survey, as well as a disproportionate share of the leading markets. Collectively, these markets account for almost one-third of the population and economic output in the Emerging Trends coverage universe, the second largest group in "Markets to Watch." However, they account for almost two-thirds (65 percent) of the 20 highestrated markets.

Super Sun Belt. These markets are large and diverse but still affordable, forming powerhouse economies that attract a wide range of businesses. Despite their large population bases, most are among the fastest-growing markets in the country. Moreover, their economic performance has been solid through thick and thin.

This dynamic helps explain the popularity of these markets in the Emerging Trends survey. These metro areas collectively have maintained the highest average rating of any subgroup in terms of overall prospects for the last three years. The average ranking of Super Sun Belt markets slipped the second most this year of any of the 12 subgroups after the Supernovas. The high rating is led by longtime survey favorites Dallas/Fort Worth and Atlanta, which ranked third and fourth this year. This category also includes Phoenix, which jumped to number two this year. Interviewees most commonly cite the solid growth prospects, business-friendly environment, affordable housing,

and good quality of life as reasons for the popularity of these metro areas.

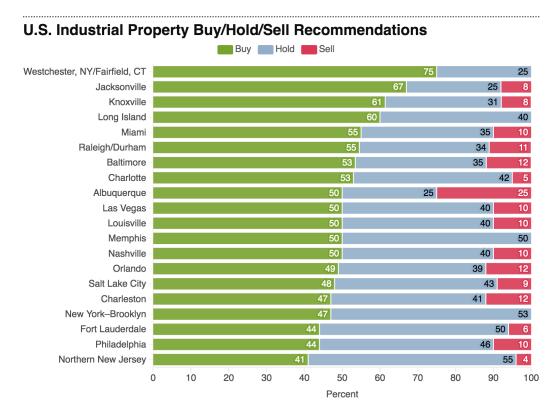
Population growth in these markets is fueling considerable development and employment growth—and vice versa. Every market is growing faster than the national average, adding over a million new residents since 2019—all requiring new housing, services, and workplaces. Said one Atlanta interviewee in the 2022 report, in what applies to all these markets: "Low cost of land, climate, and available jobs make the market attractive. Hence, the influx of people moving here."

18-Hour Cities. Metro areas in this now-classic *Emerging* Trends category faired relatively well during the pandemic recession, a testament to their enduring appeal. Though growing less affordable over time-partly due to price pressures from transplants from more expensive Establishment markets—these medium-sized cities nonetheless continue to attract in-migration due to lifestyle, workforce quality, and development opportunities, according to ULI interviews. Measured by per capita gross metropolitan product (GMP), workers here are the most productive of any subgroup in the fast-growing Magnets category.

The 18-Hour Cities are scattered throughout the country, comprising a more geographically diverse set of markets than the other subgroups. The 18-Hour Cities markets include Charlotte, Denver, Minneapolis/St. Paul, Portland (Oregon), Salt Lake City, San Diego, and Fort Lauderdale. Features common to all are active downtowns and urban-like suburban nodes

The dynamic economies of these markets continue to make them popular with developers and investors alike. Four of the seven markets in this grouping rate among the top 20 markets nationally for overall prospects, led by San Diego (number six), followed by Denver and Charlotte. As a group, the 18-Hour Cities rate fourth highest among the 12 subgroups, falling just behind the Multitalented Producers of the Establishment markets category this year.

Supernovas. The Supernovas are the fastest-growing markets in our coverage universe, though the pace is slowing slightly. Like the astronomic source for its name, the five metro areas in the Supernovas category have exploded into prominence over the past decade or so. All are smaller markets with between 1 million and 2 million residents. But their defining attribute is their tremendous and sustained population and job growth, which are well above national averages. These are true magnet markets, particularly for educated millennials. Over the next



Source: Emerging Trends in Real Estate 2024 survey.

Note: Cities listed are the top 20 rated for investment in the industrial sector; cities are ordered according to the percentage of "buy" recommendations.

five years, the number of residents in these metro areas is projected to grow by 7.6 percent, four times the forecasted U.S. population growth of 1.9 percent over the same period.

Despite their relatively modest sizes, all the Supernovas have above-average levels of economic diversity and white-collar employment, which explain their strong investor appeal and should help them sustain high growth in the years ahead. Nashville repeats as the top market in the nation for the third year in a row, while Austin fell one spot to number five and Raleigh/Durham dropped to number nine. These three markets took three of the four top-rated spots in our 2022 survey after sweeping the top three places in 2021.

The glow for this category has faded somewhat this year as their unfettered growth has invited some big-city problems such as congestion and rising costs of living. Most notably, Boise, the 2022 shooting star, fell further to number 41 after two years in the top 20. But the Supernovas appear to be suffering some growing pains more broadly, as discussed elsewhere in this report. Even in leading markets such as Nashville

and Austin, feedback from local market experts via ULI District Councils revealed frustration with infrastructure quality and living costs, prompting concern about the future growth pros-

Still, these are problems that city leaders and real estate professionals in most other markets would love to have: these are still some of the fastest-growing and strongest economies in the nation, and little on the horizon seems likely to change that.

The Establishment

The Establishment markets have long been the nation's economic engines. The 20 markets in this category produce 42 percent of the GMP in the 80 Emerging Trends markets while accounting for only 35 percent of its population base, primarily reflecting the outsized contributions of the nation's gateway markets, which we refer to as the Knowledge and Innovation Centers. These markets include the central cities and nearby markets for Boston; Chicago; Los Angeles; New York City;



Source: Emerging Trends in Real Estate 2024 survey.

Note: Cities listed are the top 20 rated for investment in the multifamily sector; cities are ordered according to the percentage of "buy" recommendations.

Washington, D.C.; Seattle; Silicon Valley; and the San Francisco Bay area.

Though growing more slowly than the Magnet markets, the Establishment markets still offer tremendous opportunities. This group's average rating is second among our four major groupings. However, the appeal of these markets to investors and developers has waned in recent years as growth has slowed across many of these markets while challenges have increased.

Multitalented Producers. Though all the Establishment markets are large and economically varied, some are more diverse than others, specifically the multitalented metro areas of Chicago, Los Angeles, San Jose, and Seattle. These markets distinctively produce a wide range of both goods and services, ranging from airplanes and software in Seattle to films and apparel in Los Angeles.

Though these metro areas all have a significant tech presence and a substantial science, technology, engineering, and math-

ematics (STEM) employment base, office-based jobs generally make up a smaller share of employment than in the Magnets or other Establishment markets. But make no mistake: workers here tend to be productive, with per capita GMP ranking the second highest of any of the subgroups. Though their elevated cost of doing business and getting deals done limits their appeal for some real estate professionals, the Multitalented Producers nonetheless continue to attract a disproportionate share of investment dollars.

Ratings for these markets have been volatile in recent years, mostly due to the changing fortunes of the tech sector, which figures heavily in these economies. San Jose and especially Seattle both improved this year after tumbling in last year's ranking. Together, the ratings of these markets fell the least of any category after declining more than almost any subgroup in the 2022 survey. This subgroup now rates the third highest, up one rung from last year.

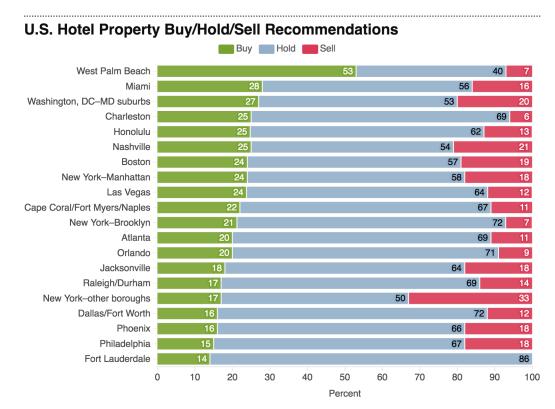
Knowledge and Innovation Centers. This grouping serves as the focus of intellectual capital in the economy, whether in social media (San Francisco), finance (Manhattan), biosciences (Boston), or think tanks (Washington, D.C.). With the most educated workforces in the country, these innovation centers are by far the most productive, with per capita GMP more than twice that of any other subgroup.

This group also has some of the most expensive housing in the country, along with the highest costs of doing business. Lofty asset prices have cut investor appeal for most of these markets, especially as growth has slowed in recent years. These markets also bore the brunt of out-migration from dense, expensive CBDs during the pandemic, though most are staging rapid recoveries. The average rating for this group dropped on par with the modest national decline this year. None of the markets moved significantly up or down this year.

Overall, this group remains somewhat out of favor with investors relative to its former glory not long ago. Only Boston remains among the 20 top-rated markets. Boston has leveraged its region's world-class concentration of higher education to become a world leader in life sciences. Much of the development is in its new Seaport market, augmenting a central cluster across the Charles River in Cambridge.

Major Market-Adjacent. This group includes the markets surrounding high-cost CBDs in Los Angeles, Miami, New York City, San Francisco, and Washington, D.C. Though most are suburban in character, some are more urban. Moreover, several are or contain MSAs or divisions in their own right: Northern New Jersey (Newark, NJ/PA metropolitan division), Inland Empire (Riverside/San Bernardino/Ontario, California, MSA), and suburban Maryland (Frederick/Gaithersburg/Rockville metropolitan division), among others.

Many of these markets benefited from the out-migration from their neighboring CBDs during the pandemic, and their prospects have improved somewhat in the eyes of survey respondents. But here, too, there is a diversity in trends as seven of the 12 markets either improved or stayed even this year, and five declined, led by Jersey City, which fell 14 places.



Source: Emerging Trends in Real Estate 2024 survey.

Note: Cities listed are the top 20 rated for investment in the hotel sector; cities are ordered according to the percentage of "buy" recommendations.

Niche Markets

Befitting their moniker, Niche markets are generally smaller or less economically diverse than the Magnets and Establishment markets but typically have a dominant economic driver that supports stable economic growth. This group ranks third among the four major market groups in terms of investor outlooks but far behind the Magnet and Establishment groups.

Boutique markets are smaller cities with innovative or unique developments that coordinate well with their economic and demographic profiles. However, the demographics in these markets—with fewer millennials and more seniors—tend to be less favorable for economic growth. "Eds and meds" is an oft-used term to describe areas with sizable education and/ or health care facilities. Finally, Convention and Visitor Centers markets focus on tourism, conventions, and, in some cases, the retirement and second-home market

Boutique Markets. These are smaller markets with lively downtowns; diversity in leisure, cultural, and natural/outdoor amenities: and stable economic bases that withstood the COVID-19 downturn better than many markets. These markets offer a lower cost of living and cost of doing business in a

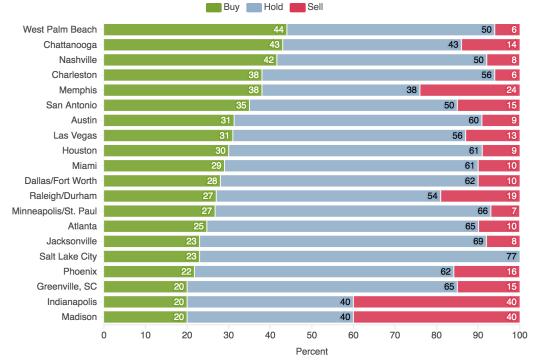
diverse range of settings, primarily noncoastal. Chattanooga, Des Moines, Greenville, Knoxville, Omaha, and Portland (Maine) all have populations of less than 1 million, and all maintained their previous positive in-migration during the pandemic, indicating the appeal of these towns.

Richmond remains the top-rated market in this subgroup and continues to attract substantial residential and commercial development, but every market in this grouping experienced lower overall scores this year.

Eds and Meds. Before the pandemic, Eds and Meds markets were envied for their desirable combination of stability (large universities) and growth (health care). COVID-19 initially dented their reputations as both education and medicine suffered disproportionately during the pandemic. However, demand for education and health care—and the facilities that house them have resumed their growth. Ratings for these markets fell in concert with the other Niche subgroups this year.

This category includes markets with a strong base of major universities, highly ranked health care systems, or both-Baltimore, Columbus, Gainesville, Madison, Memphis,

U.S. Retail Property Buy/Hold/Sell Recommendations



Source: Emerging Trends in Real Estate 2024 survey.

Note: Cities listed are the top 20 rated for investment in the retail sector; cities are ordered according to the percentage of "buy" recommendations.

Pittsburgh, and Tallahassee. Each metro area has one or more universities in the U.S. News & World Report top 100, while Memphis has St. Jude Children's Research Hospital, the topranked children's specialty hospital in the United States. Cities in the Eds and Meds category typically are more affordable markets. Philadelphia-the largest market in this category-also has significant employment in telecommunications and financial services, among other sectors. And both Philadelphia and Pittsburgh, at the other end of Pennsylvania, have numerous corporate headquarters in various sectors.

Convention and Visitor Centers. These Sun Belt (or just sunny, in the case of Honolulu and Las Vegas) markets draw substantial numbers of visitors, whether for conventions or leisure. At the same time, several markets in this category also have substantial bases of retirement/second-home markets. Markets in this category include Cape Coral/Fort Myers/Naples, Charleston, Deltona/Daytona Beach, Honolulu, Las Vegas, New Orleans, Orlando, and Virginia Beach/Norfolk. All have significantly more tourism employment (relative to market size) than the U.S. average, with Las Vegas the most travel-dependent market in the country.

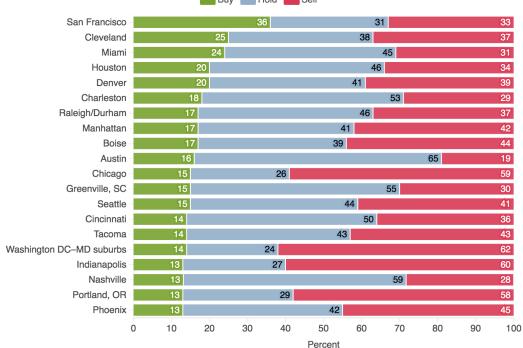
These markets all endured significant challenges resulting from COVID-related restrictions, particularly those that rely on air travel, business demand, or both. As with most markets nationally, none of this group moved materially this year, but Las Vegas was notable for cracking the top 20 for the first time in years, while Orlando fell.

Backbone Markets

The final group comprises a wide variety of interesting and enjoyable places to live and work. Though generally rated relatively lower in our surveys, many of these metro areas offer select investment development/redevelopment opportunities. These 18 Backbone markets have more than 30 million residents among them. Although markets in the Affordable West subgroup are growing sharply, most of the Backbone markets are slower growing but benefit from moderate housing and business costs. This category as a whole fell less than any group this year.

The Affordable West. Beyond the pricey coastal markets in Seattle, Los Angeles, the San Francisco Bay area, and San Diego, several small- to medium-sized cities offer attractive places to live at a more affordable price. Notably, they





Source: Emerging Trends in Real Estate 2024 survey.

Note: Cities listed are the top 20 rated for investment in the office sector; cities are ordered according to the percentage of "buy" recommendations.

are among the fastest-growing metro areas outside the Magnets. These include Albuquerque; Sacramento; Spokane, Washington/Coeur d'Alene, Idaho; Tacoma; and Tucson, all of which are forecasted to experience faster population growth than the nation as a whole over the next five years. Nonetheless, affordability here is fading as this rapid population growth has pushed home prices relative to income higher than the national average.

Though the ratings of these markets fell this year, as they did just about everywhere, they actually dropped a bit less here, so their rankings rose slightly, though none moved significantly.

Determined Competitors. These diverse markets tend to be strong ancillary locations in their regions, with several successfully revitalizing their downtowns and neighborhoods. This group includes Indianapolis; Kansas City, Missouri; Louisville; Birmingham, Alabama; and Oklahoma City-all very affordable with a favorable quality of life. Significantly, all maintained positive population growth through the pandemic, and all saw faster job recovery than the national average—a positive sign

for future economic growth. The ratings for this group fell less than most in this year's survey, and every metro area either improved their ranking or stayed the same, with Indianapolis rising 7 places to almost crack the top 20 at number 22.

Reinventing. Reinventing markets are eastern and midwestern cities seeking to modernize their economic base. Many were manufacturing centers and are now moving to a more sustainable mix of education, health care, and technology. These markets include Buffalo, Cincinnati, Cleveland, Detroit, Hartford, Milwaukee, Providence, and St. Louis. Though the economic rebound in most of these markets lags the national recovery, the federal government's stimulus programs have helped cushion the downturn. However, anemic population growth remains a problem, as several of these markets experience negative net out-migration as residents search for opportunities elsewhere. Overall, there were few material changes in the outlook for these markets, in the view of *Emerging Trends* respondents, but Milwaukee moved up 13 places, the most of any market this year, though only up to number 62.

Interviewees

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AEW Josh Heller Lauren O'Neil Lily Kao Mike Acton Mike Byrne Sara Cassidy

Aimco Ian Woychuk **Alate Partners** Courtney Cooper

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Allied Properties REIT Cecilia Williams Michael Emory

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Altree Developments Zev Mandelbaum

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Armel Corporation Alpa Patel

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The Urban Land Institute is a global, member-driven organization comprising more than 48,000 real estate and urban development professionals dedicated to advancing the Institute's mission of shaping the future of the built environment for transformative impact in communities worldwide.

ULI's interdisciplinary membership represents all aspects of the industry, including developers, property owners, investors, architects, urban planners, public officials, real estate brokers, appraisers, attorneys, engineers, financiers, and academics. Established in 1936, the Institute has a presence in the Americas, Europe, and Asia Pacific regions, with members in 84 countries.

The extraordinary impact that ULI makes on land use decision-making is based on its members sharing expertise on a variety of factors affecting the built environment, including urbanization, demographic and population changes, new economic drivers, technology advancements, and environmental concerns.

Peer-to-peer learning is achieved through the knowledge shared by members at thousands of convenings each year that reinforce ULI's position as a global authority on land use and real estate. In 2022 alone, more than 2,800 events, both virtual and in person, were held in 320 cities around the world.

Drawing on the work of its members, the Institute recognizes and shares best practices in urban design and development for the benefit of communities around the globe.

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