

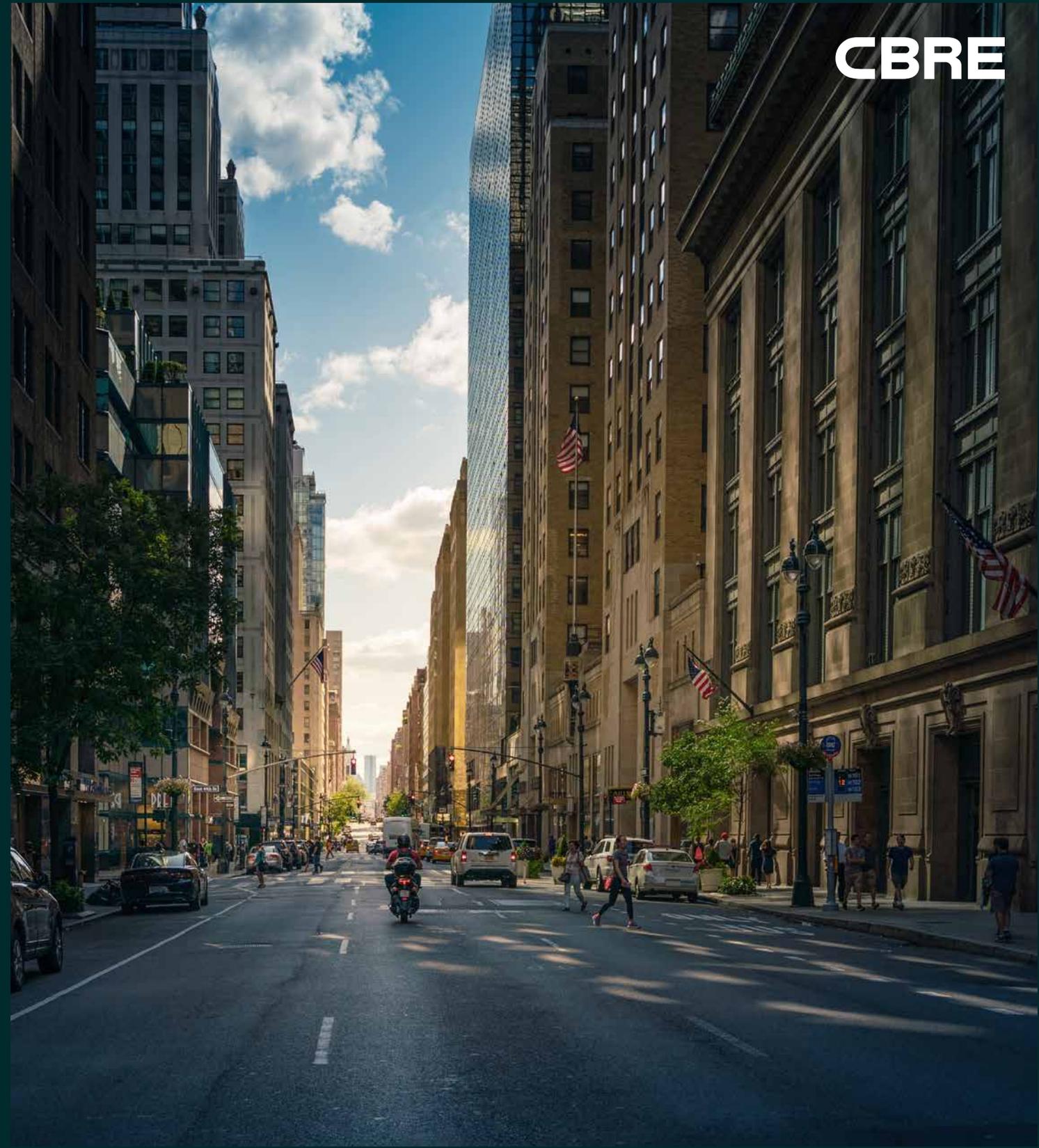
Intelligent Investment

2022 U.S. Real Estate Market Outlook

REPORT

Despite uncertainty from the omicron variant and other risks, a growing economy will fuel demand for space and increase real estate investment across all property types

CBRE RESEARCH
DECEMBER 2021



Contents

- 3 Introduction**
- 5 Economy & Policy**
Inflation will remain well above the Fed's 2% target through the first half of 2022 but will increase just 2.5% for the full year as supply chain and other economic headwinds abate. While pandemic-related disruptions will continue, the economic outlook is still bright, with 4.6% GDP growth expected for 2022.
- 10 Capital Markets**
Investment activity in 2022 is expected to top pre-pandemic highs and cap rates will remain stable or slightly compress amid strong investor demand and abundant capital—even as interest rates rise.
- 14 Office/Occupier**
Demand for office space will improve as more workers return to the office and occupiers take advantage of favorable market conditions. The shift to hybrid work will prompt more occupiers to redesign their spaces to enhance collaboration and employee well-being.
- 18 Retail**
Retailers are using space more efficiently, especially in grocery-anchored centers, which combined with limited development, higher consumer spending and economic growth, will invigorate the retail sector in 2022.
- 23 Industrial & Logistics**
Amid record demand, rent growth and investment activity, industrial real estate will stay hot in 2022. E-commerce's expansion will fuel the need for more warehouse space, as will the growing economy, population migration and the desire for "safety stock" onshore.
- 28 Multifamily**
The multifamily sector is set for a record-breaking 2022 amid solid fundamentals and heightened investor interest. With tremendous liquidity and a growing range of debt options available, multifamily pricing will be as strong as ever.
- 33 Hotels**
While the hotel sector could face renewed travel restrictions, we expect higher occupancy levels from an increase in inbound international and business travel in 2022.
- 37 Data Centers**
Data center needs will continue to grow as cloud service providers and social media and content streaming companies expand and 5G, AI and edge computing gain traction, spurring development of additional capacity nationwide.

Introduction

Recovery resilient despite ongoing COVID threat



Richard Barkham

Global Chief Economist & Global Head of Research

CBRE is maintaining a positive outlook for the economy and commercial real estate in 2022, despite uncertainty over potential impacts of the COVID omicron variant and other risks. While the new variant will impact the timing of a large-scale return to the office, fiscal and monetary policy remains highly supportive of economic growth. There may be other bumps along the way, notably from the ripple effects of an economic slowdown in China and rising oil prices, but the factors that held back growth in 2021—labor shortages, supply disruptions, inflation and other COVID variants—will ease. Monetary policy will tighten to keep longer-term inflation pressures in check, which may trigger some short-run volatility in the stock market, but it will not be enough to dampen investor demand for real estate.

We foresee a record year for commercial real estate investment, enabled by high levels of low-cost debt availability and new players drawn to real estate debt's attractive risk-adjusted returns. Commercial real estate values will rise, particularly for sought-after industrial and multifamily assets. Investors will sharpen their focus on emerging opportunities in the office and retail sectors in search of better returns.

The supply/demand balance in the office sector will remain highly favorable for occupiers, but the pace of recovery will pick up following a sluggish 2021. With hybrid work the new normal, office properties with amenities that enhance employee collaboration, connection and wellness will fare best.

Retail, by contrast, is seeing the effects of a longer-term transition, which has included pricing adjustments, low levels of new construction and beneficial investment in the best experiential and convenience-led centers. Sales-to-square-footage ratios are surging and the demographic- and pandemic-induced shift to the suburbs will favor grocery-anchored and neighborhood centers. With strong forward returns now achievable, we anticipate a decade-high level of retail investment volume in 2022.

Industrial & logistics hardly broke step during the pandemic as e-commerce surged. 2022 will see slower demand for physical goods as the service sector reopens and attracts more consumer spending. This will give supply a chance to catch up with demand. Third-party logistics operators are beginning to dominate the sector and are looking to get ever closer to the end consumer.

Multifamily will continue its recovery in 2022, with downtown locations returning to pre-pandemic occupancy levels. Single-family rentals in the suburbs will also fare well as some millennials leave the city to raise families.

A notable trend in the second half of 2022 will be the return of downtowns. As business and tourist travel picks up, we will see a sharp revival in the hotel sector in gateway cities, alongside the already recovering food & beverage sector. This, in turn, will stimulate the return to the office and the fuller recovery of downtown life.

The outlook for real estate in 2022 is positive, with big cities potentially surprising on the upside. Amid this recovery, ESG, demographics, digitization and decarbonization will take on a new importance.

We have produced this report to help you navigate the macro environment we expect in 2022 and look forward to working with you in the new year.



The outlook for real estate in 2022 is positive, with big cities potentially surprising on the upside.

01

Economy & Policy

Inflation will remain well above the Fed's 2% target through the first half of 2022 but will increase just 2.5% for the full year as supply chain and other economic headwinds abate. While pandemic-related disruptions will continue, the economic outlook is still bright, with 4.6% GDP growth expected for 2022.

Growing economy to fuel commercial real estate’s recovery

In terms of GDP, the U.S. has fully recovered from the pandemic-induced recession of 2020. Real estate’s recovery is generally in full swing, with some sectors progressing faster than others. The pace of GDP growth will slow in 2022 from 2021’s exceptionally high level but will remain above the long-term trend for the U.S. Alongside low interest rates, strong economic growth will provide highly supportive conditions for commercial real estate.

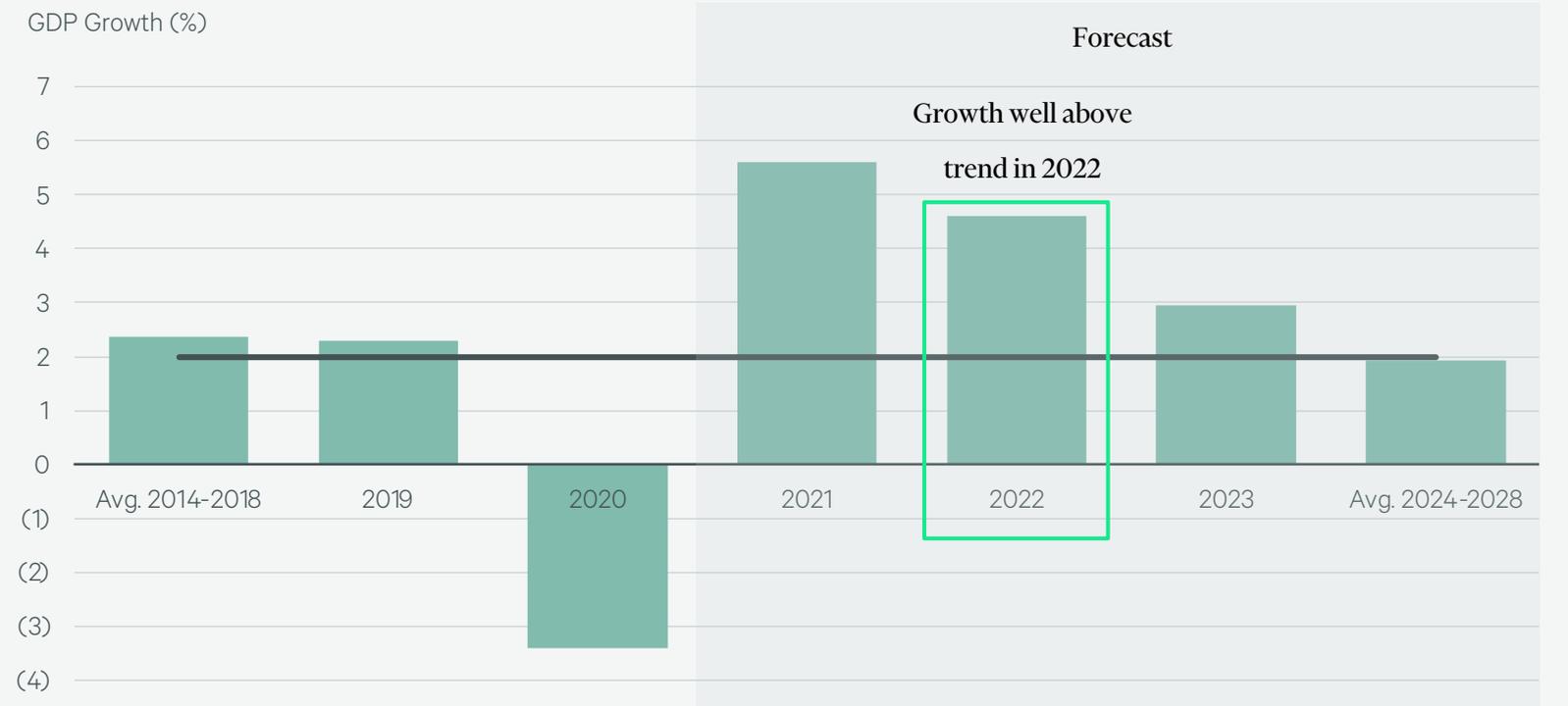
COVID-19 outlook still uncertain but more optimistic

As the delta and omicron variants showed, the pandemic’s course is difficult to predict. COVID will likely endure in some form for the foreseeable future. However, society is learning to adapt to life with the virus and the ability to manage its effects has improved considerably. This is largely due to broader vaccine availability and the emergence of antiviral and antibody therapeutics. So, while COVID-19 will remain present in 2022, its impact on people, health-care systems and the economy should be more subdued than in 2020 and 2021.

Continued economic growth ahead

We expect U.S. GDP to expand by a historically strong 4.6% in 2022. All four quarters will see more than double the long-term trend of around 2%. The recently enacted Infrastructure Investment and Jobs Act—as well as the social spending proposals under consideration as of this writing—may add some upside potential to our 2022 growth forecasts, with greater impact in 2023 and beyond.

FIGURE 1: U.S. GDP Growth, CBRE House View



Source: CBRE Research. November 2021.

● GDP Growth ● Long-Term Trend

Inflation and interest rates in focus

Inflation reached multi-decade highs in the U.S. during 2021, largely due to strong economic growth, labor shortages and hobbled supply chains. All of this conspired to increase costs for products and services. We expect that price increases (as measured by Core PCE, the Federal Reserve’s preferred measure) will remain elevated during the first half of 2022, but will increase just 2.5% for the full year amid cooling economic growth and fewer supply chain constraints. Headwinds to growth in China—the world’s second largest economy—are a risk to growth in the U.S. and could impact the timing of monetary policy adjustments.

Given the strong economic recovery and inflationary pressure, we expect the Fed will end its emergency quantitative easing—a key policy response to increase liquidity and improve market functioning during the pandemic—by mid-2022. This will set the stage for an increase in the federal funds rate, with the potential for more than one rate hike before year’s end. However, we do not foresee interest rates rising sharply enough to disrupt property markets, with the 10-year Treasury yield expected to reach 2.3% (from 1.4% in early December) by the end of 2022.

We do not foresee interest rates rising sharply enough to disrupt property markets, with the 10-year Treasury yield expected to reach 2.3% (from 1.4% in early December) by the end of 2022.

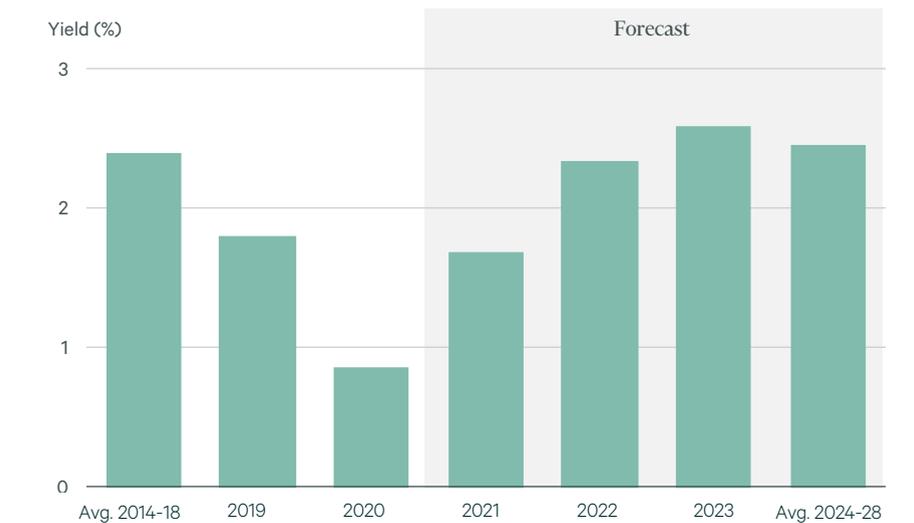


FIGURE 2: Inflation vs. Fed Target, CBRE House View



Source: CBRE Research, November 2021.

FIGURE 3: U.S. 10-Year Treasury Yield, CBRE House View



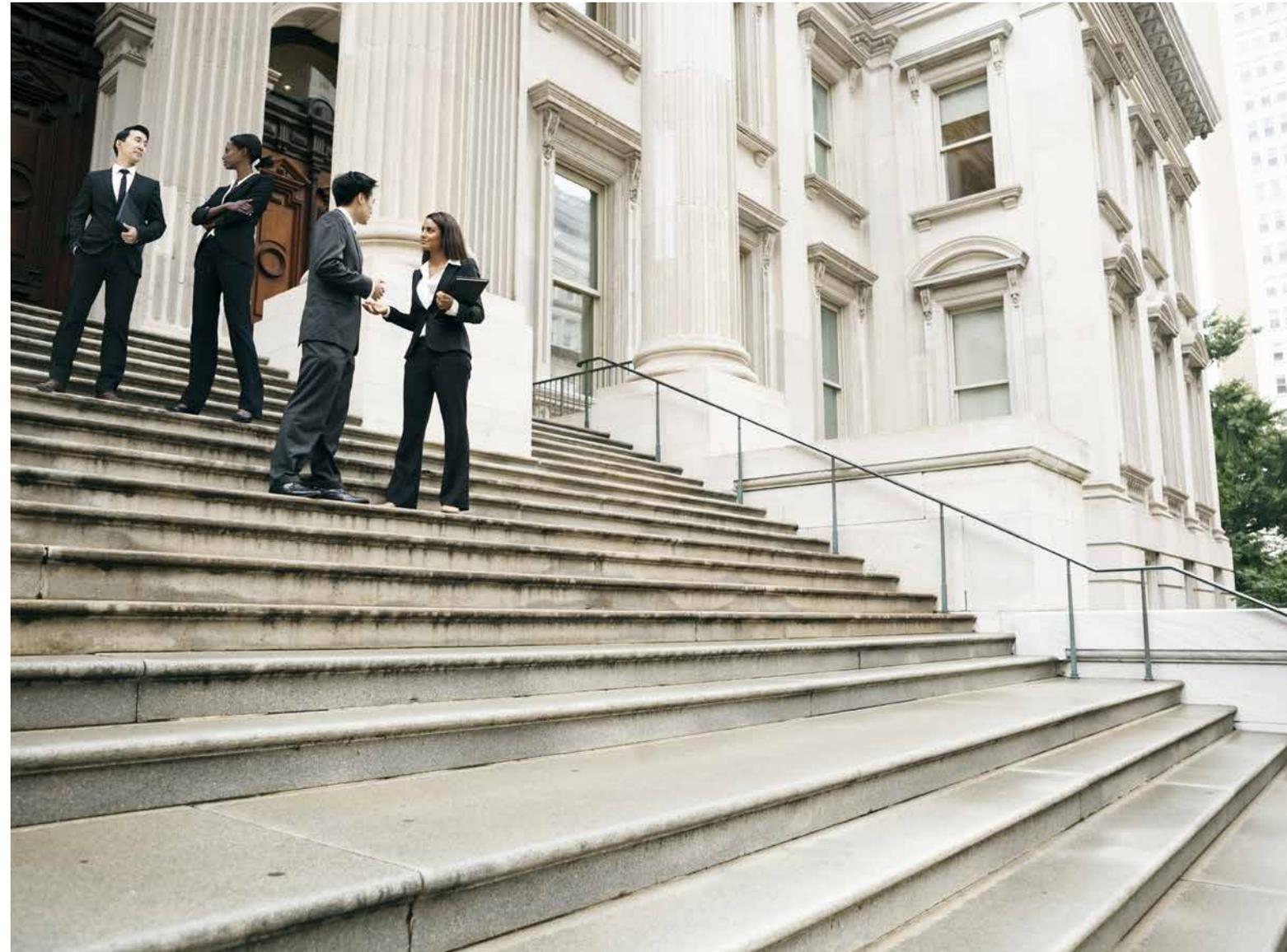
Source: CBRE Research, October 2021.

Policy changes and commercial real estate

The recently enacted Infrastructure Investment and Jobs Act includes \$550 billion in new spending on physical infrastructure over the next 10 years that could boost commercial real estate in 2022 and beyond. One positive effect is higher short- and long-term economic growth, which translates into more demand for commercial real estate, as new projects get underway and long-run productivity improves. In local markets, new areas could be opened for development, and better infrastructure supports the growth of local businesses.

As of this writing, Washington, D.C., policymakers are considering a large social spending bill that is estimated to cost about \$1.75 trillion over 10 years. Several provisions could benefit property markets. Enhanced tax credits and health-care subsidies would support spending among lower- and middle-income workers. Large investments in “green” initiatives and affordable housing could increase demand in certain property sectors and regions, while universal pre-K and expanded Pell grants could expand workforce participation over time.

This bill also carries major implications for the tax code, which pose some degree of risk for commercial real estate. The most notable changes are a 3.8% net investment income tax expansion (which will cover rent and capital gains), surtaxes on taxpayers with adjusted gross incomes over \$10 million and new tax incentives for clean energy infrastructure and building retrofits. Importantly, many of the proposed tax changes that would have been most detrimental to property markets are now off the table—including those affecting the 1031 exchange and carried interest treatment as well as an increase in the tax rate on capital gains.



\$550 B

bipartisan bill increase of infrastructure spending over 10 years

3.8%

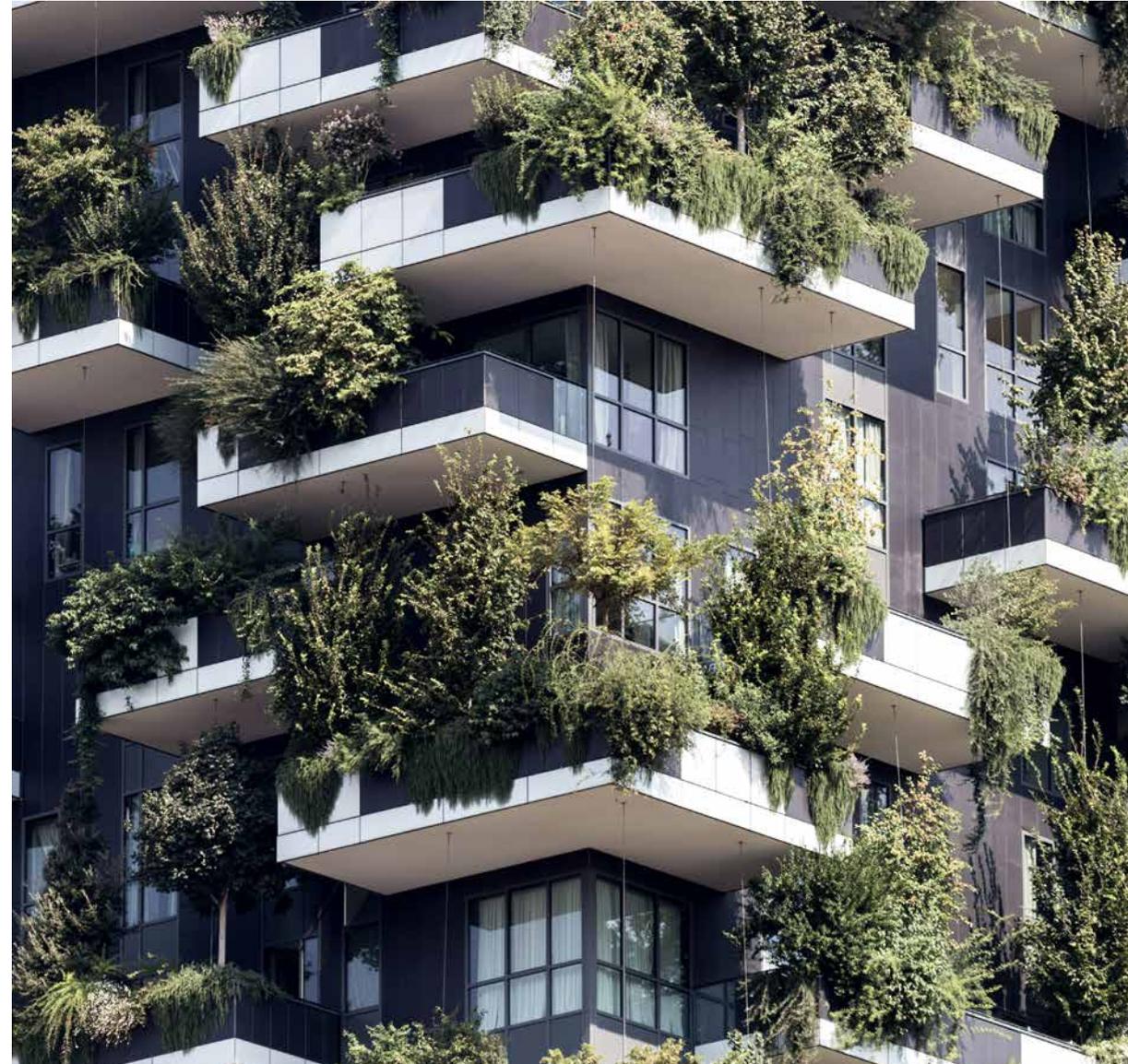
net investment income tax expansion, which would cover rent and capital gains

A growing focus on ESG

Environment, social and governance (ESG) initiatives will play a larger role in real estate in 2022. According to CBRE's [2021 Americas Investor Intention Survey](#), more than 75% of investors have adopted or are considering ESG criteria, a trend that will continue.

Impacts will not only come in the form of legislation, including elements of President Biden's spending proposals, but also from federal regulation. The Securities and Exchange Commission (SEC) is expected to issue rules to improve ESG reporting consistency across various disclosures and reports to investors. These rules will touch on each of the ESG principles, including climate change, human capital management and board diversity. This will likely heighten investor and occupier focus on how their real estate decisions may hasten ESG compliance. Beyond the federal level, it is important to note that policymakers on the state and local levels are also focused on ESG—many have already enacted notable policies in this regard—and this too is worth watching in 2022.

In real estate terms, ESG will lead to more demand for efficient buildings and retrofits. Given the fact that commercial buildings account for 16% of U.S. CO2 emissions, according to the U.S. Department of Energy, property portfolios will play an important role in meeting ESG targets in the coming years.



Trends to watch

Slowing growth abroad and the normalization of monetary policy

Economic headwinds in China and supply chain issues will factor into inflationary pressures in 2022 and influence monetary policy. Should economic growth in China outperform and supply chain issues persist, the resulting inflationary pressures could hasten the Fed's first rate hike since 2018. Alternatively, slowing growth in Asia and a resolution of supply chain issues could slow the U.S. central bank's reduction in monetary stimulus. These are the main factors—along with COVID-19—that could shape the overall economic environment in 2022.

02

Capital Markets

Investment activity in 2022 is expected to top pre-pandemic highs and cap rates will remain stable or slightly compress amid strong investor demand and abundant capital—even as interest rates rise.

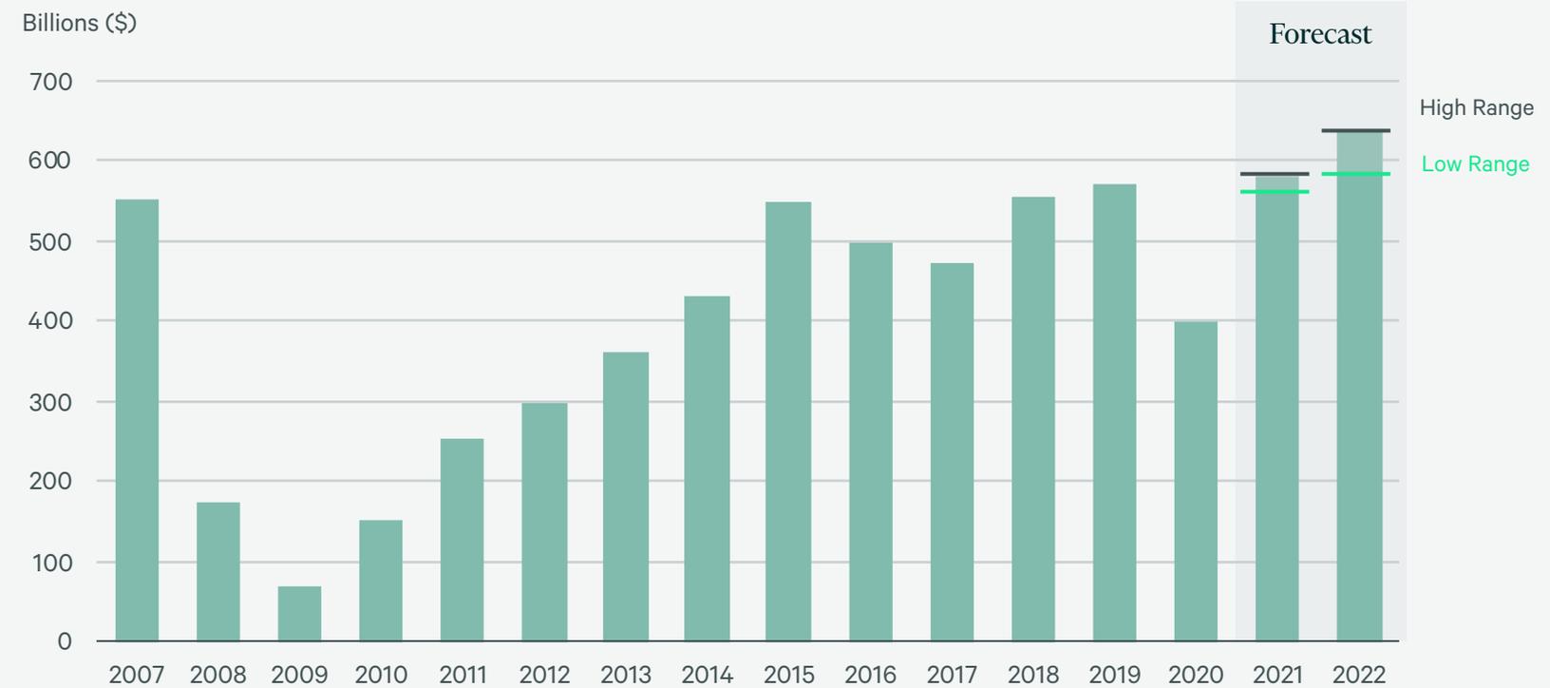
Investment volume approaching record territory

Commercial real estate investment activity roared back in 2021 thanks to strong investor demand and abundant capital flows. Capital availability will continue to support a buoyant acquisition market in 2022, with equity capital targeting U.S. real estate near all-time highs and low-cost financing readily available. More foreign capital is expected to target U.S. assets in 2022, as international travel restrictions ease and costs to hedge against dollar depreciation remain very low.

Total investment volume in 2022 is projected to increase 5%-10% over 2021 levels, which are on track to roughly equal pre-pandemic volumes from 2019 (currently the highest annual total on record). Although industrial and multifamily assets will likely continue to capture the most investor interest given the tailwinds of e-commerce and demographic shifts, investment in office and retail assets should also pick up. Industrial and multifamily volumes are projected to increase 10%-15% over 2021 levels, while office and retail volumes will rise 5%-10%. Meanwhile, hotel volume in the first three quarters of 2021 recovered to pre-pandemic levels, a positive sign for the sector heading into 2022.

Total investment volume in 2022 is projected to increase 5%-10% over 2021 levels, which are on track to roughly equal pre-pandemic volumes from 2019.

FIGURE 4: Total U.S. Capital Investment Volume



Source: CBRE Research, Real Capital Analytics, October 2021.

Cap rates to hold steady

Strong demand for assets will push pricing higher, helping to hold cap rates generally steady even with minimal increases in long-term interest rates. We expect real estate spreads to remain wide by historical standards, helping to offset the impact of rising interest rates. The all-property average cap rate is expected to be 280-300 basis points (bps) higher than the 10-year Treasury yield during the first half of 2022, on par with the 290-bp average from 2013 to 2018, before narrowing to 250 bps in H2 2022. In addition, rents should continue rising, supporting higher property net operating income (NOI) for most asset types. Although cap rates typically follow the direction of real interest rates in the long run, NOI expectations are more influential in the short term.

Despite some lingering challenges for certain retail, hotel and office segments, real estate fundamentals are expected to strengthen throughout 2022. Economic and employment growth in 2022 will drive NOI higher as landlords fill vacancies and raise rents, though this will vary by asset type, quality and market. Overall, NOIs are forecast to increase for the multifamily (8%), industrial (4%) and retail (2%) sectors. The hotel sector will see a material improvement in NOI, though the omicron variant could impact by how much. NOI is expected to decrease modestly for the office sector (-1.5%), as lower-quality assets contend with a flight-to-quality to Class A properties by occupiers adopting hybrid work arrangements.

Overall, as real estate values appreciate, real estate investors will be rewarded by the high yield spread versus risk-free Treasury rates. Additionally, we expect that inflation will increase 2.5% for the year, a level below our forecast NOI growth. Consequently, the opportunity for relatively low-risk yields, coupled with the ability to hedge against inflation, will make real estate a particularly attractive investment option in 2022.

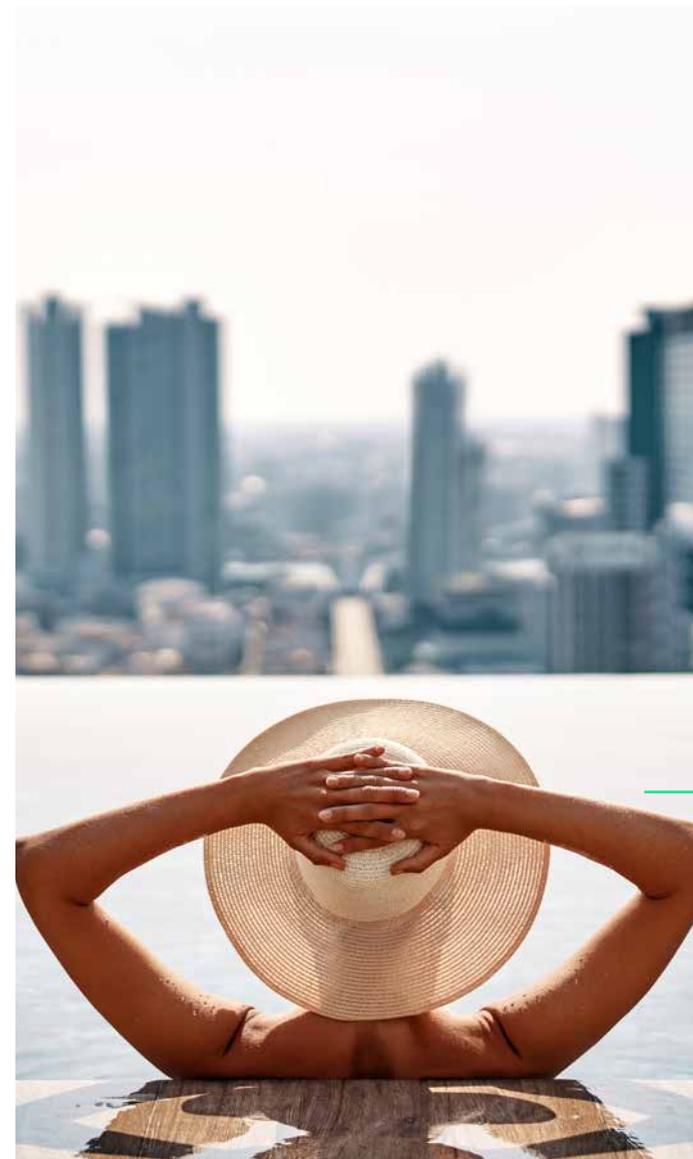
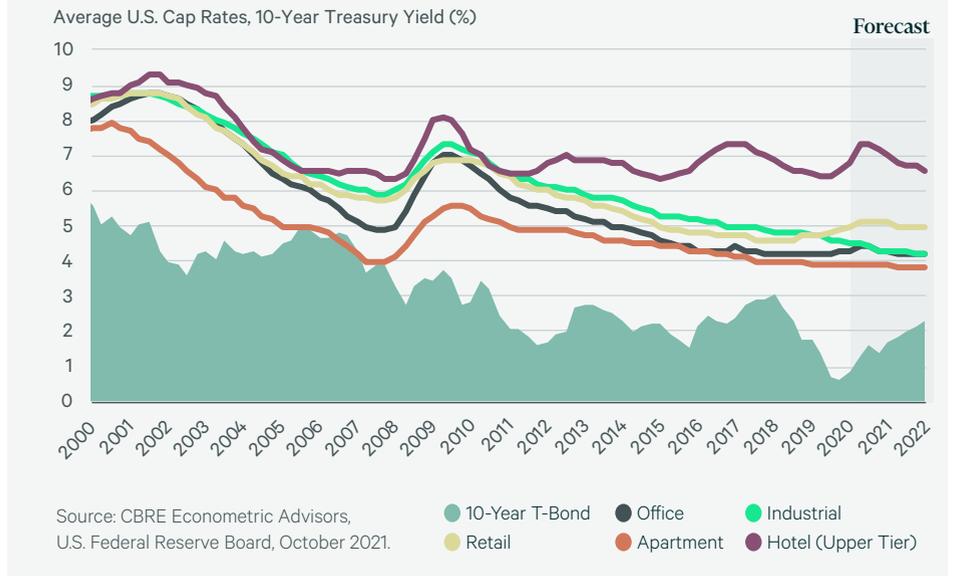


FIGURE 5: Spread Over Risk-Free Rate Narrowing but Still Significant



Strong demand for assets will push pricing higher, helping to hold cap rates generally steady

Alternative lenders driving debt market

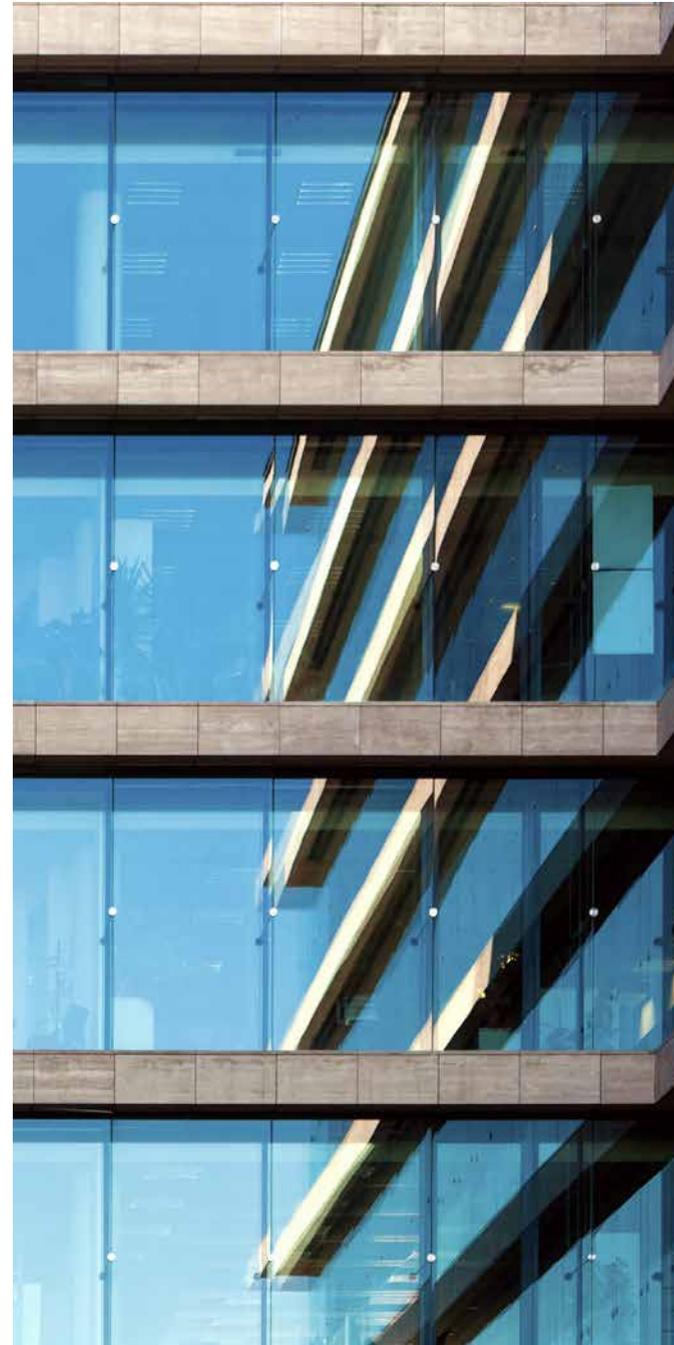
Loan origination volumes will likely remain elevated through 2022—building on the marked increase in 2021—as borrowers seek to lock in lower rates ahead of the Fed’s tightening of monetary policy. 2021 saw a surge in activity from alternative lenders, particularly debt funds making use of collateralized loan obligations (CLO). This shift reflects a growing risk appetite from both borrowers seeking bridge loans and other transitional financing and investors who are eager for the higher yields, especially given current corporate and government bond spreads. CLO and traditional commercial mortgage-backed securities (CMBS) issuance should remain high in 2022 assuming the Fed tapers its asset purchases in a way that does not roil credit markets.

Life insurance companies have been very active as well, finding good value in commercial real estate lending, particularly for multifamily and industrial assets. At the same time, private equity firms have increasingly been interested in acquiring loan portfolios from life companies, as their investment parameters (which can be more aggressive than the low-risk, low-yield life company approach). Life companies are expected to remain active lenders in 2022, though some portion will likely continue moving into private equity.

Also notable is the growth in single-asset, single-borrower deals. Many investors are still cautious about segments of the office and retail sectors and prefer the security of evaluating a single property and sponsor rather than combing through the financials of a larger conduit deal. We expect that both investors and lenders will become more comfortable underwriting office and retail deals in 2022 as fundamentals improve and the impacts of remote work and e-commerce become clearer.

A good year ahead for capital markets

Putting the pieces together, 2022 is set for a record level of investment activity, fueled by ample liquidity and stable cap rates. Improving economic conditions will support both asset value appreciation and NOI growth, boosting returns. The largest risks to this outlook are from a COVID-19-caused disruption, an unforeseen spike in interest rates or elevated inflation that proves more durable than currently anticipated. At this point, these factors do not appear to be major threats to the outlook.



Trends to watch

Bifurcation of investment strategies.

As investors rebalance risk and return in the post-pandemic real estate environment, both core and opportunistic investment strategies are expected to accelerate further in 2022. Given the strength of underlying fundamentals, multifamily will likely make up a large share of opportunistic acquisitions. The flight-to-quality trend will likely be most apparent for office assets, including demand from institutional investors that paused acquisitions during the pandemic and now are under pressure to efficiently deploy large amounts of capital.

Increased debt fund activity fueled by strong resurgence in CLO

Demand for shorter-term, floating-rate financing is growing amid increased interest in acquiring properties that need renovation or other upgrades. Investors searching for higher yields are eager for this type of product, and large private equity firms are becoming active CLO issuers to accommodate this demand.

Transition away from LIBOR

Beginning in 2022, LIBOR-indexed loans and derivatives will no longer be available, and both borrowers and lenders will need to make decisions when evaluating both existing and new loans. As lenders adjust their processes and borrowers figure out what their risks are under a new benchmark, there could be some confusion in credit markets, though the transition is not expected to significantly impact liquidity.

Growing interest in ESG for long-term investors

The pandemic has reinforced the need for investors to proactively think about insulating their portfolios against unforeseen externalities, such as climate change and shifting societal norms.

03

Office/ Occupier

Demand for office space will improve as more workers return to the office and occupiers take advantage of favorable market conditions. The shift to hybrid work will prompt more occupiers to redesign their spaces to enhance collaboration and employee well-being.

Office market inches closer to its “next normal”

U.S. office market activity strengthened in the second half of 2021, and the momentum likely will continue in 2022. Although the outlook depends on how new COVID variants impact society, effective medical advancements will make occupiers more comfortable with making long-term leasing decisions. At the same time, however, occupiers are still determining how best to support hybrid work and how it will impact their portfolio strategies. Although demand will be greater in 2022, the U.S. office market will contend with the highest vacancy in nearly three decades and lower rental rates until the second half of the year.

Occupier-favorable market conditions to persist

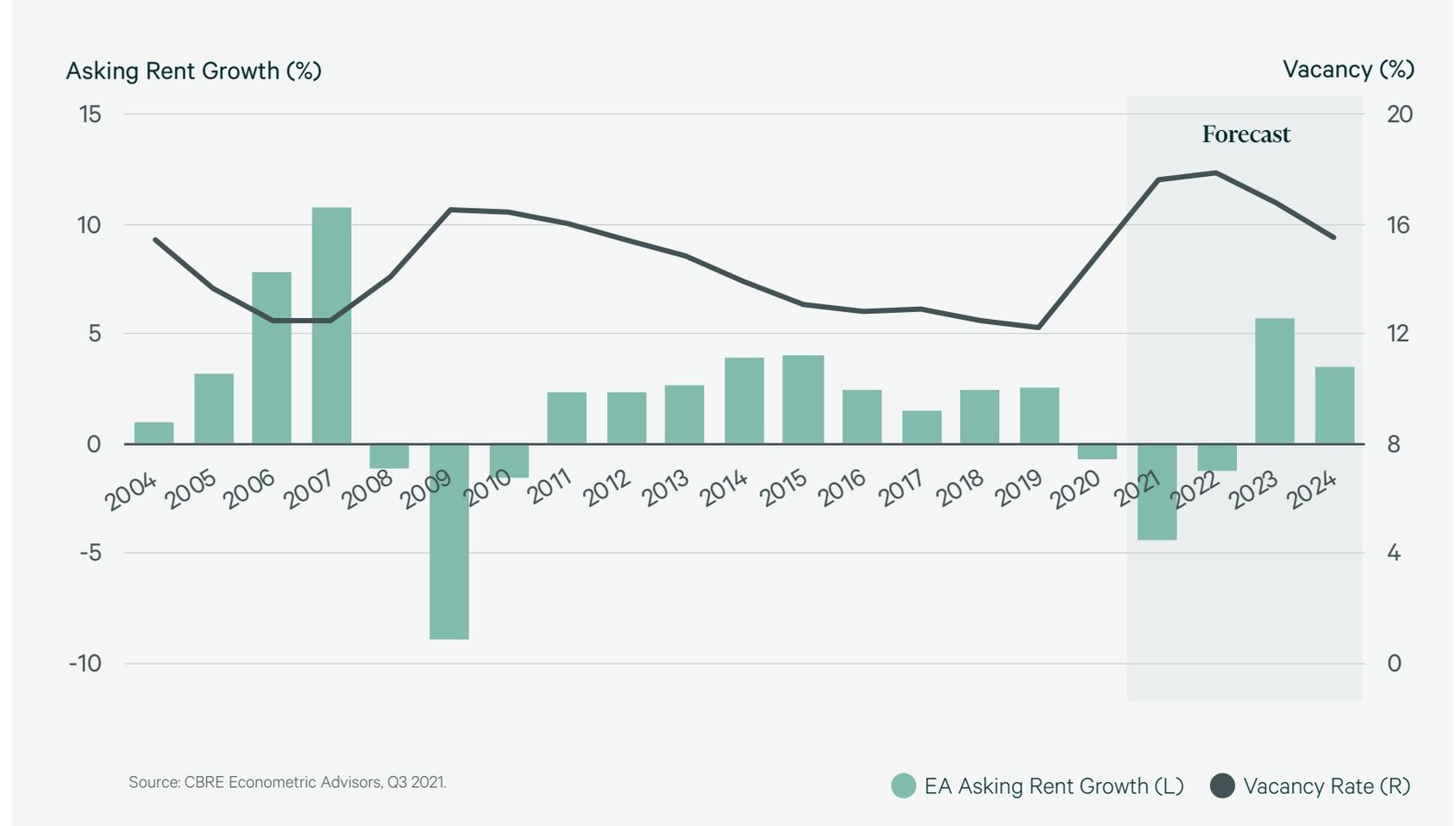
Throughout 2021, new lease transactions increased from pandemic lows, negative net absorption diminished and sublease space began to recede amid strong job growth nationally. These trends will accelerate in 2022—fueled by the expected creation of 1 million new office-using jobs—resulting in nationwide positive net absorption for the first time since Q1 2020.

The improvement in office demand will be greatest in markets hardest hit during the downturn, including Manhattan, Chicago, Seattle and Dallas. The relatively resilient Sun Belt markets of Austin, Miami, San Jose and Charlotte will also benefit in 2022 from company in-migration and the tech sector’s dynamic growth.

Despite the positive momentum, the national office vacancy rate will reach its highest level since 1993 in 2022 due to the delivery of more than 53 million sq. ft. of new office construction.

Average asking office rents will largely remain subdued for most of 2022, with downtown primary markets underperforming the suburbs in the near term but rebounding in the longer run. Several downtown office markets like Austin and Miami are already recovering robustly compared with their suburban counterparts. Over the next year, occupiers will have the opportunity to secure low rents in major markets like Manhattan, Los Angeles, San Francisco and Washington, D.C.

FIGURE 6: U.S. Office Rent and Vacancy Forecast



The rise of hybrid work

Workplace flexibility will become even more embedded in corporate business models next year. Our [research](#) suggests the average U.S. office employee will spend 24% less time working in the office, and our [2021 Occupier Sentiment Survey](#) revealed that 87% of large companies plan to adopt a hybrid work approach.

As a result, employers increasingly view the office as a place for collaboration and meaningful employee connection. Activity-based workplaces will become the new planning standard for companies to enhance employee productivity and wellness. Amenities that meet the daily needs of employees, help them establish and maintain relationships and offer experiences that represent the company's brand and values will become more important.

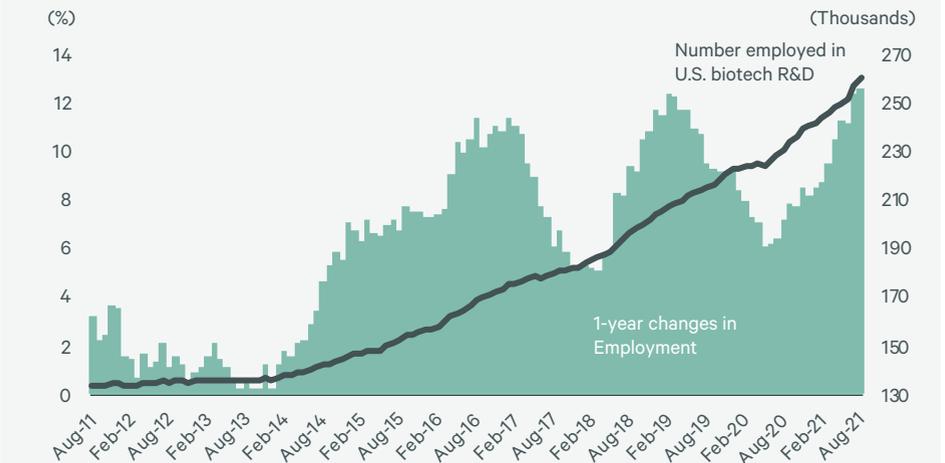
The shifting role of the office will likely accelerate a flight to quality, with office buildings that offer the most desirable technology, amenities and flexible space capturing a growing share of demand.

Life sciences impacting more markets

The life sciences sector will continue growing in key U.S. office markets throughout 2022, fueled by advances in biotechnology and record levels of venture capital and other sources of funding. This is resulting in the largest pipeline of life sciences laboratory construction on record, with 23.6 million sq. ft. underway in the nation's top 12 life sciences clusters as of Q3 2021. Average lab rents are at record highs in the premier life sciences clusters of Boston-Cambridge, the San Francisco Bay Area and San Diego. Life sciences' growing labor pool and new development activity continues to spread to emerging hubs such as Pittsburgh, Houston and Salt Lake City, among many others.



FIGURE 7: U.S. Biotechnology R&D Employment



Source: U.S. Bureau of Labor Statistics, October 2021.

24%

less time spent working in the office by the average employee

87%

of large companies plan to adopt a hybrid work approach



Trends to watch

The growing role of ESG

Environmental and sustainability issues, such as carbon emissions, the use of sustainable materials, energy efficiency and wellness enhancements, are becoming ever more important to occupiers and owners of office buildings. These will increasingly require ongoing measurement, as opposed to one-time certifications, which is now possible thanks to advances in technology. In the near term, ESG initiatives will focus on health and wellness improvements for employees and tenants, but some office owners will make significant investments in improving energy efficiency and reducing carbon emissions of their properties to enhance long-term value.

Hybrid work will stimulate demand for flex space

The shift to hybrid work will prompt occupiers to consider flexible office space for more agility. Flex providers were resilient and agile during the pandemic and will continue to shift their strategy to meet the demand for flexible space options. Flex office supply should grow in 2022 as providers resume acquiring new locations, landlords increase their own offerings and demand from small and large businesses grows.

04

Retail

Retailers are using space more efficiently, especially in grocery-anchored centers, which combined with limited development, higher consumer spending and economic growth, will invigorate the retail sector in 2022.

Retail's recovery stokes optimism and investment

The retail sector is recovering relatively well from the pandemic's major disruptions. Existing retail space is more efficient, with sales per sq. ft. improving due to few new stores being built and rising retail sales. The mall sector, thought to be in deep peril, is experiencing foot traffic above pre-pandemic levels and reporting double-digit sales growth. Investors, meanwhile, are taking a fresh look at retail's attractive yields compared with other asset classes. In addition, record levels of venture capital are targeting retail-focused companies.

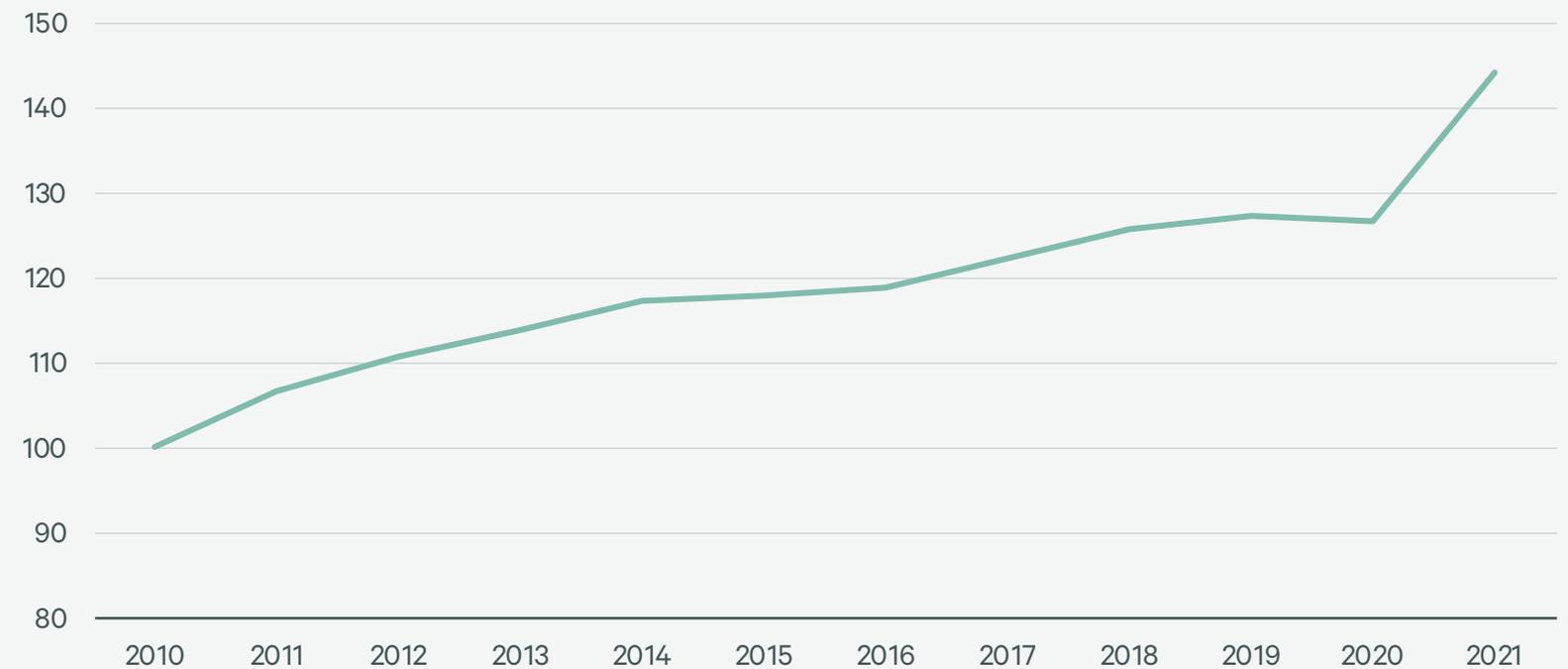
Productivity of retail space and consumer spending rising

Since 2010, sales per sq. ft. of U.S. retail space have been on the rise. From 2010 to 2020, retail sales grew 42%, while retail supply grew just 4%. The pandemic forced a temporary pause in this trend, but year-to-date activity in 2021 shows that retailers are using space more efficiently than ever.

Consumer spending is forecast to rise in 2022, as a build-up of personal savings during the pandemic is released. The revival of inbound international travel, responsible for more than \$150 billion in expenditures annually according to a 2019 U.S. Travel Association report, will provide an additional boost to retail in coastal and other tourism-focused markets.

FIGURE 8: Ratio of U.S. Retail Sales to Retail Sq. Ft.

Sales/SF Index (2010=100)



Note: The index shows the change in sales per sq. ft. of retail space in the U.S., including all centers over 20,000 sq. ft.
 Source: CoStar, U.S. Census Bureau, CBRE Research, Q3 2021.

Modest development pipeline aiding recovery

With developers focused on industrial and multifamily projects, the retail construction pipeline will remain modest heading into 2022. As supply chain issues impact building materials, including delayed deliveries and higher overall costs, retail development will remain constrained, allowing space productivity to improve even more.

Capital markets showing signs of life

Retail investment roared back in 2021. REITs increased acquisitions, which already reached their second-largest annual total over the past 10 years through Q3 2021. Grocery-anchored centers attracted \$5 billion in investment activity in the U.S. in Q3 2021, the segment's second-most active quarter over the last decade.

Grocery-anchored retail assets were resilient during the pandemic. This sub-sector adapted quite well to online innovations such as curbside pickup and third-party delivery services. With grocery-based e-commerce expected to grow more than 20% in 2022 and double by 2025, grocery-anchored centers will remain the gold standard of retail investment amid favorable supply-demand dynamics and attractive pricing on a risk-adjusted basis. And as debt liquidity for retail improves, the buyer pool will increase.

Other attractive assets for retail investors include those anchored by quick-serve restaurants with drive-thrus, banks, drug stores and smaller, single-tenant freestanding retail sites. Recent trading volume for such assets has been higher than the long-term quarterly average. Quick-serve occupiers are designing new drive-thru formats, with multiple purpose-built lanes, such as dedicated mobile pick-up lanes. These new designs will maximize the efficiency of the site's footprint while shrinking indoor dining areas.



The mall sector continues to surprise. Mall-owning REITs' Q3 2021 reports have been positive. Despite growing vacancy in lower-classed properties, foot traffic data from Placer.ai suggests an underestimated resilience within regional and super-regional malls. In July, indoor malls exhibited a year-over-two-year visit gap of just negative 0.1% for the month, with outdoor malls growing their total visits by 2.1%, suggesting a complete recovery in foot traffic.

Primary markets such as Atlanta, Boston, Houston, Phoenix and South Florida should outperform in 2022. Secondary markets like Jacksonville, Milwaukee, Orlando and Raleigh-Durham experienced heightened activity in 2021 and will carry that momentum into 2022.

With grocery-based e-commerce expected to grow by more than 20% in 2022 and double by 2025, grocery-anchored centers will remain the gold standard of retail investment.

Venture capital entering the retail sector

2021 has been a record year for venture capital investment in companies supporting the retail trade. Technology that drives e-commerce—logistics and supply chain management, in particular—is especially attractive. Investment activity is also high for mobile payment applications. Also known as m-commerce, this conduit of retail trade has been growing as a segment of total retail, with an estimated \$295 billion in U.S. retail sales in 2021 and up to \$660 billion in annual sales by 2025 when it will account for over 10% of total retail sales, according to eMarketer. Venture capital is also seeking investments in location analytics, enterprise software, artificial intelligence and machine learning. Funding this growing technology could help ease the stress on the supply chain, which remains an issue as the nation emerges from the pandemic.

These investments will also help brick-and-mortar retail. Mobile apps that support click-and-collect transactions will drive foot traffic at retail locations. In addition, fintech ventures such as Affirm and Klarna are partnering with retailers to offer “buy now, pay later” services, which are rapidly rising in popularity among millennial and Gen Z shoppers.

Active 2022 on tap for retail sector

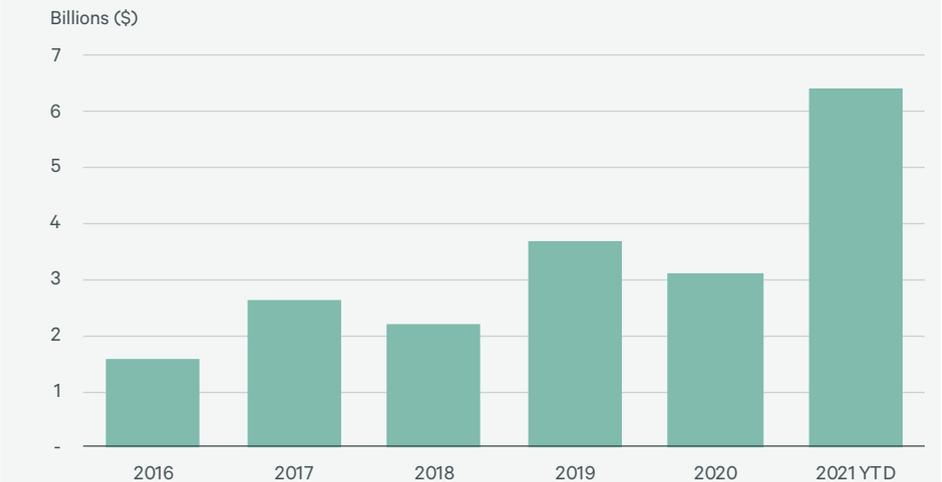
Foot traffic at retail centers will rise in 2022 as more pandemic restrictions are lifted. Occupiers are signing longer leases and investors are placing capital into retail assets, setting the stage for a busy 2022. The restoration of inbound international travel will also boost retail sales in gateway markets.

In most markets, open-air retail centers are seeing a boost in activity and will be the most sought-after asset class within the retail sector. Single-tenant drive-thru sites will also perform well and will fetch record-high prices in 2022.

Asking rents will appreciate the most in Sun Belt markets and Seattle. Overall rents within regional and super-regional malls will remain stagnant as struggling assets hope for redevelopment or repositioning, although Class A malls will outperform.



FIGURE 9: Venture Capital Placed in U.S. Retail-Focused Companies



Source: U.S. Bureau of Labor Statistics, October 2021.

\$295 B

estimated U.S. m-commerce retail sales for 2021

\$660 B

estimated U.S. m-commerce retail sales by 2025



Trends to watch

Partnerships between digital and traditional retail brands

Retailers are expanding their offerings, partnering with direct-to-consumer companies—often via branded kiosks or within department stores—that can add foot traffic for legacy stores and establish a physical presence for emerging retail brands.

Stores as a solution to supply chain issues

For the final “50 feet,” which remains one of the most expensive legs of the logistics process, physical stores will take on a greater role in 2022. Stores will make it easier for consumers to return goods, offer refunds and expand return locations.

Embracing ESG as an authentic aim of retailers

A growing share of consumers prefer ethically defensible brands, especially those focused on reducing carbon emissions and waste. Interest in the resale market is rising, as consumers feel the products are unique and a good value. Retailers could also take advantage by marketing their own secondhand products. Overall, Forrester estimates that 41% of U.S. consumers prefer to purchase environmentally sustainable goods.

05

Industrial & Logistics

Amid record demand, rent growth and investment activity, industrial real estate will stay hot in 2022. E-commerce's expansion will fuel the need for more warehouse space, as will the growing economy, population migration and the desire for "safety stock" onshore.

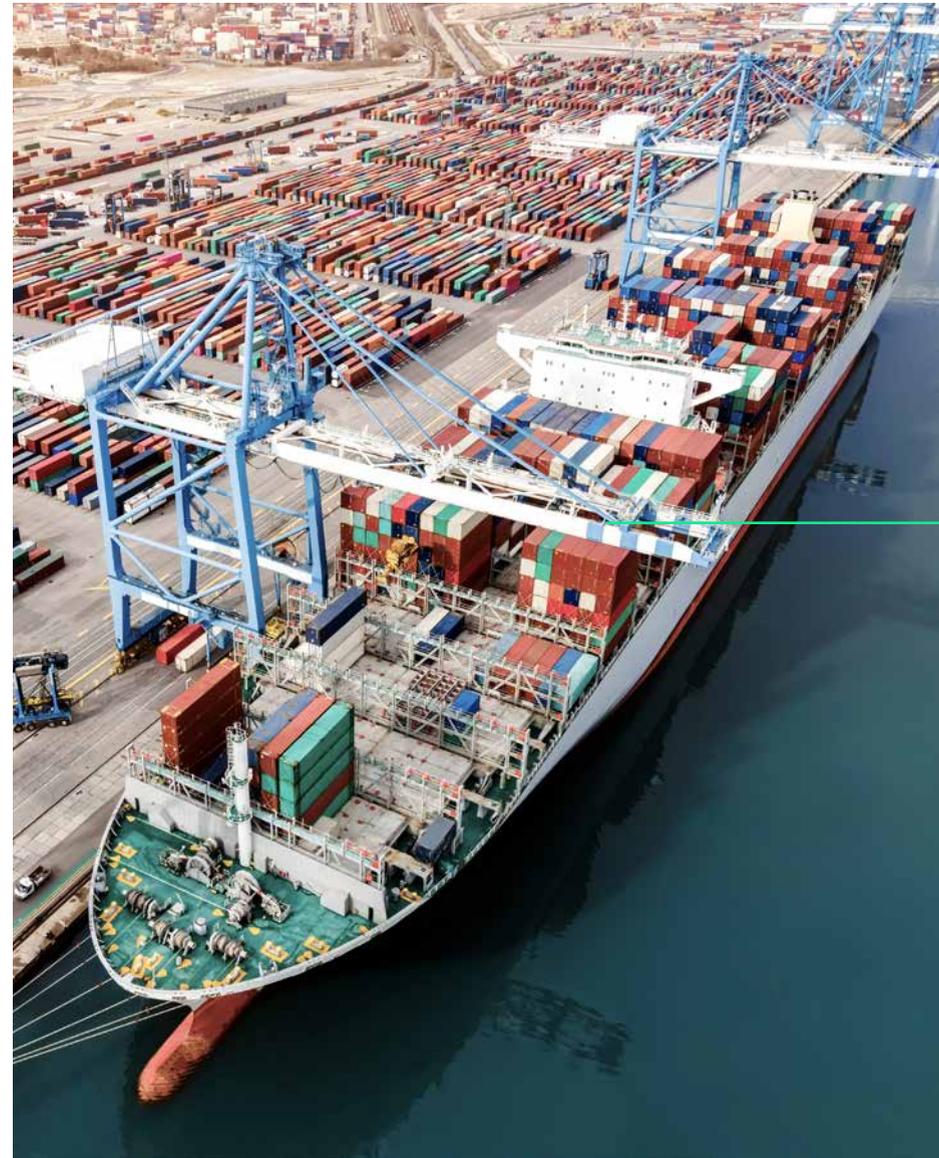
2022 will be another banner year for industrial real estate

On the heels of record transaction volume and rent growth amid extremely tight supply and high demand, the industrial real estate market will remain very strong in 2022. Demand will primarily be driven by growing e-commerce sales, the improving economy, population migration and the need for onshore “safety stock” inventory to avoid the supply chain disruptions of the past 18 months.

E-commerce sales exploded at the onset of COVID-19, rising to 21.6% of total retail sales in Q2 2020, up from 16.2% in the previous quarter, and are still above pre-pandemic levels at around 20% as of Q3 2021, according to CBRE Research. With consumers continuing to buy more goods online, e-commerce will keep expanding in 2022. Demand for space from e-commerce will trickle down the supply chain from retailers to wholesalers, who will need to hold more inventory. These businesses will continue to outsource to third-party logistics companies (3PLs) at a greater clip due to rising costs, a lack of available space in highly populated areas and challenges with finding enough workers to operate facilities.

Supply chain volatility will drive demand

The top concern for occupiers in 2022 will be rising transportation costs and supply chain delays. The cost to ship goods via ocean freight increased more than 200% in 2021 and the cost for domestic freight increased over 40%, according to Drewry Supply Chain Advisors and the Cass Freight Index. While the increases may ease as 2022 unfolds, transportation costs will likely remain elevated for the foreseeable future. Manufacturers are still not at full capacity amid pandemic-related shutdowns, and it will likely take them until 2023 to fully recover.



At the same time, demand for goods will continue to rise, leading to increased competition. This demand will keep supply chain costs elevated, including transportation. Transportation costs make up 40%-70% of a company's total logistics spend, while fixed facility costs, which include rent, make up only 3%-6%, according to CBRE's Supply Chain Advisory. While rents will continue to rise significantly, it will pale in comparison to rising transportation costs. Therefore, companies will continue to lease more space to cut down on transportation costs.

The top concern for occupiers in 2022 will be rising transportation costs and supply chain delays. The cost to ship goods via ocean freight increased more than 200% in 2021 and the cost for domestic freight increased over 40%.

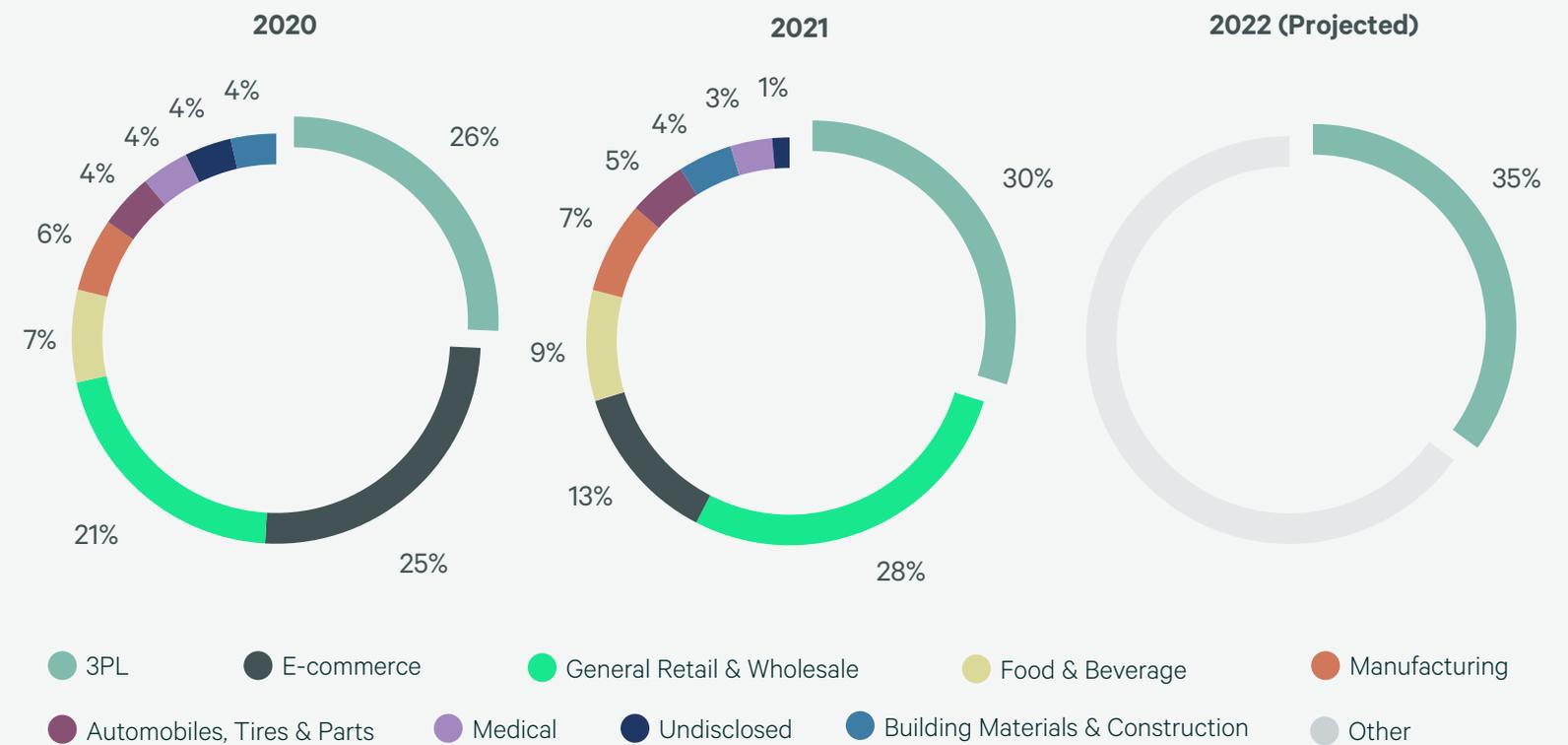
Outsourcing to accelerate in 2022

3PLs led industrial leasing activity in 2021 with a market share of 30%, compared with 13% for e-commerce. 3PLs will expand further in 2022 as companies look to reduce direct logistics costs and avoid the hassle of finding space in record-tight markets with limited labor availability. As a result, 3PLs' market share will increase in most U.S. markets as vacancy rates decline, rents increase and labor markets further tighten, leading to a projected leasing market share of 35% by year's end. Notwithstanding, 3PLs will need to overcome labor shortages, leading to the greater use of automation and other technologies to lower the reliance on human labor.

Manufacturing on the rise

Companies will also look to onshore more manufacturing. U.S. manufacturing output was solid in 2021, bolstering real estate fundamentals for manufacturing space, including positive net absorption, lower vacancy rates and record-high rents. This will continue in the coming year with technology, defense, automobile and medical companies leading the way. While demand for manufacturing facilities will increase in traditional Midwest and Southeast markets, Arizona, Texas and Florida are expected to be the top growth markets for manufacturing real estate in the coming year, largely because of growing populations, available land and business incentives.

FIGURE 10: 3PLs Capture Larger Market Share, 2020, 2021 and 2022 (Projected)



Source: CBRE Research, August 2021.

Emerging logistics markets

The top emerging markets for distribution facilities will once again be those with growing populations and superior logistics hub connectivity. Population growth will be robust in the Southwest and Southeast, stimulating demand for logistics real estate in those regions. Markets like Nashville, Las Vegas, Reno, Central Valley California, Salt Lake City, Central Florida, San Antonio and Austin should see significantly more activity in 2022. As companies look to alternative transportation modes, occupiers will also flock to inland port markets with air and rail connectivity like Louisville, Memphis, El Paso, Columbus, Indianapolis, Kansas City, St. Louis and Greenville.

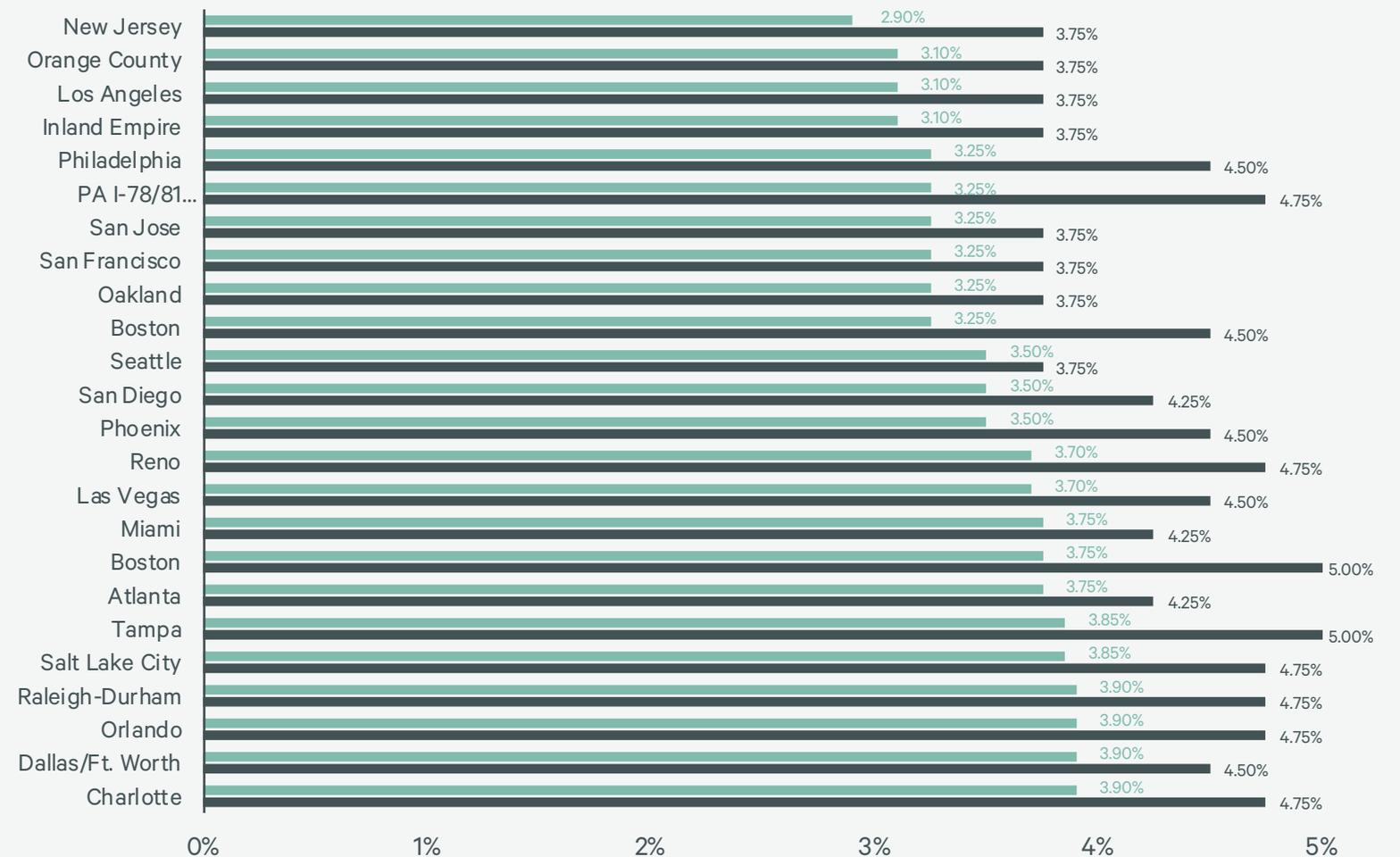
Supply pipeline keeping up with demand

A record-setting 448.9 million sq. ft. of space was under construction as of Q3 2021. The elevated level reflects both projects that broke ground in 2021 and 2020 starts that were unable to be completed amid the COVID-19-related disruptions. Still, occupier demand continues to outstrip supply. If this trend continues in 2022, availability will remain tight, particularly for Class A space, leading to a higher number of lease renewals. While this will support high rents, it may slow the pace of new leasing activity in 2022.

Investors bidding up assets in emerging markets

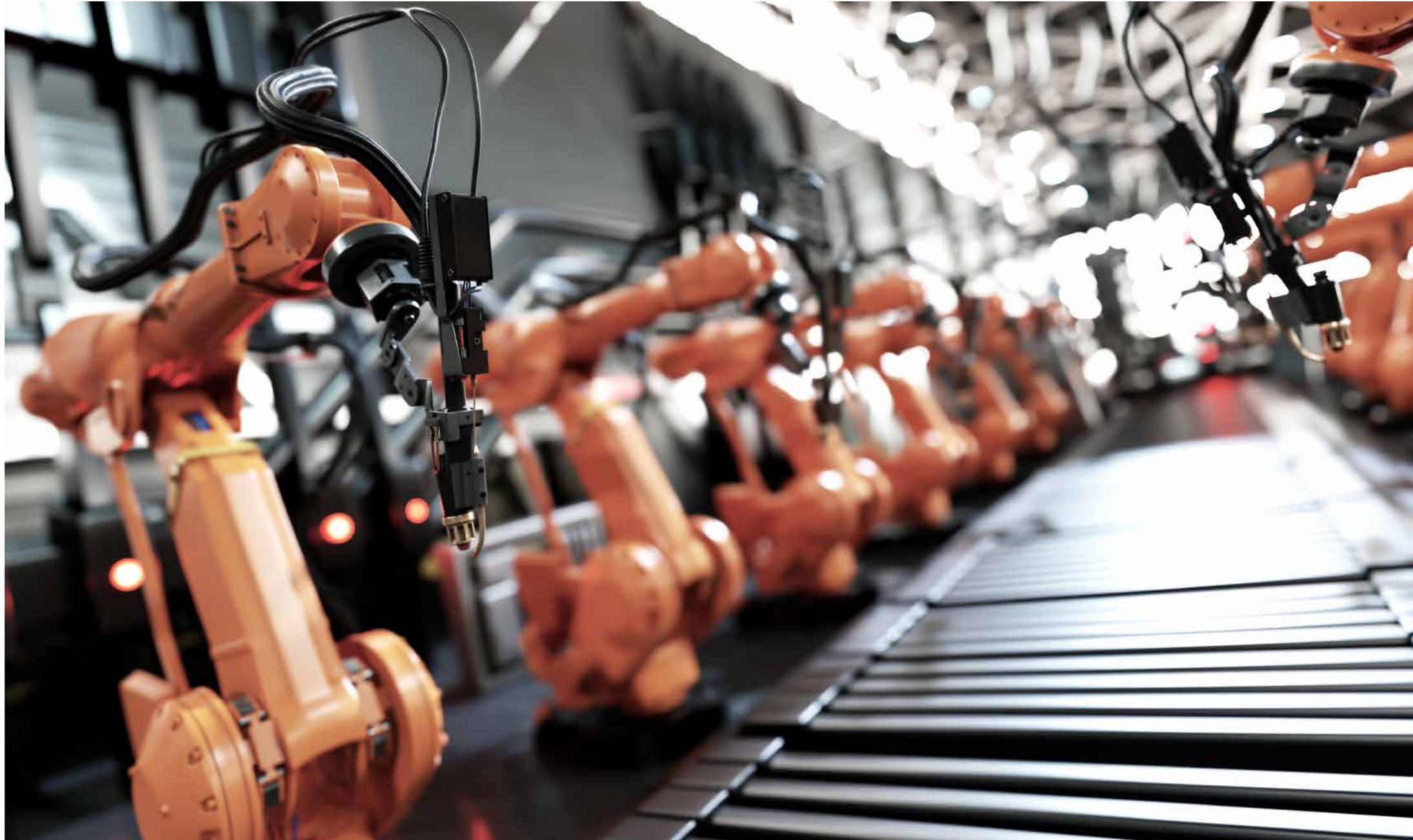
Robust investor appetite for industrial assets will push up prices and further compress cap rates across markets and product types in 2022. The cap rate spread between primary and secondary markets will continue to narrow in 2022. Phoenix and Las Vegas will post cap rates in line with the Inland Empire, Indianapolis and Columbus cap rates will drop to Chicago levels, and prices in the PA I-78/81 Corridor will come close to those in the New Jersey markets. We also expect Northern and Central Florida cap rates to approach those of South Florida in the coming year. With institutional capital flowing into the market, it will remain difficult for new investors to find Class A space to purchase. As a result, we expect more capital to target Class B facilities, lowering cap rates for this product type.

FIGURE 11: Cap Rate Compression Continues for Industrial Assets



Source: CBRE Research, Q3 2021.

● H1 2021 ● H1 2020



Trends to watch

Automation on the rise

Increased demand from industrial occupiers, combined with an extremely tight job market, will lead to the expansion of automated technology and robotics. Since automation will require building amenities found mostly in newly constructed facilities, this will increase the demand for first-generation facilities in 2022 and beyond.

ESG to impact industrial

Given the need to reduce carbon emissions, the industrial sector will face more regulatory pressure, particularly for energy efficiency. While much of this effort will likely be focused on improving passenger and freight transportation efficiency and reducing manufacturing emissions, warehousing may be impacted as well. Consequently, developers may use more sustainable construction materials like timber instead of concrete and steel.

06

Multifamily

The multifamily sector is set for a record-breaking 2022 amid solid fundamentals and heightened investor interest. With tremendous liquidity and a growing range of debt options available, multifamily pricing will be as strong as ever.

Record-high demand and construction pipeline

The U.S. multifamily sector is poised to finish 2021 with overall occupancy and net effective rents above pre-pandemic levels. While certain markets face challenges, the overall health of the sector will lead to a record 2022.

The growing economy is boosting household formation, which had been artificially suppressed by the pandemic. New households are catalyzing demand for rentals, which is expected to match the pace of new deliveries in 2022. We forecast multifamily occupancy levels to remain above 95% for the foreseeable future and nearly 7% growth in net effective rents next year.

Construction will remain elevated in the near term. Completions in 2021 will likely reach a new high, and another 300,000-plus units will be delivered in 2022. For context, deliveries averaged 206,000 units annually since 2010 and 171,000 per year since 1994.

Despite strong demand, the volume of new Class A product coming online will limit the performance of higher-quality assets. However, Class A rents were most negatively affected during the crisis and there is more room to recover. Overall, we project 8% growth in urban effective rents in 2022. These exceptional growth rates will moderate to 3% in 2023 and slightly below that in subsequent years. These strong fundamentals, together with the expectation that debt will remain available and at a relatively low cost, is welcome news to developers as construction costs rise.



+95%

forecast multifamily
occupancy levels

+300k

new units expected to
deliver in 2022

8%

projected growth in
urban effective rents
in 2022

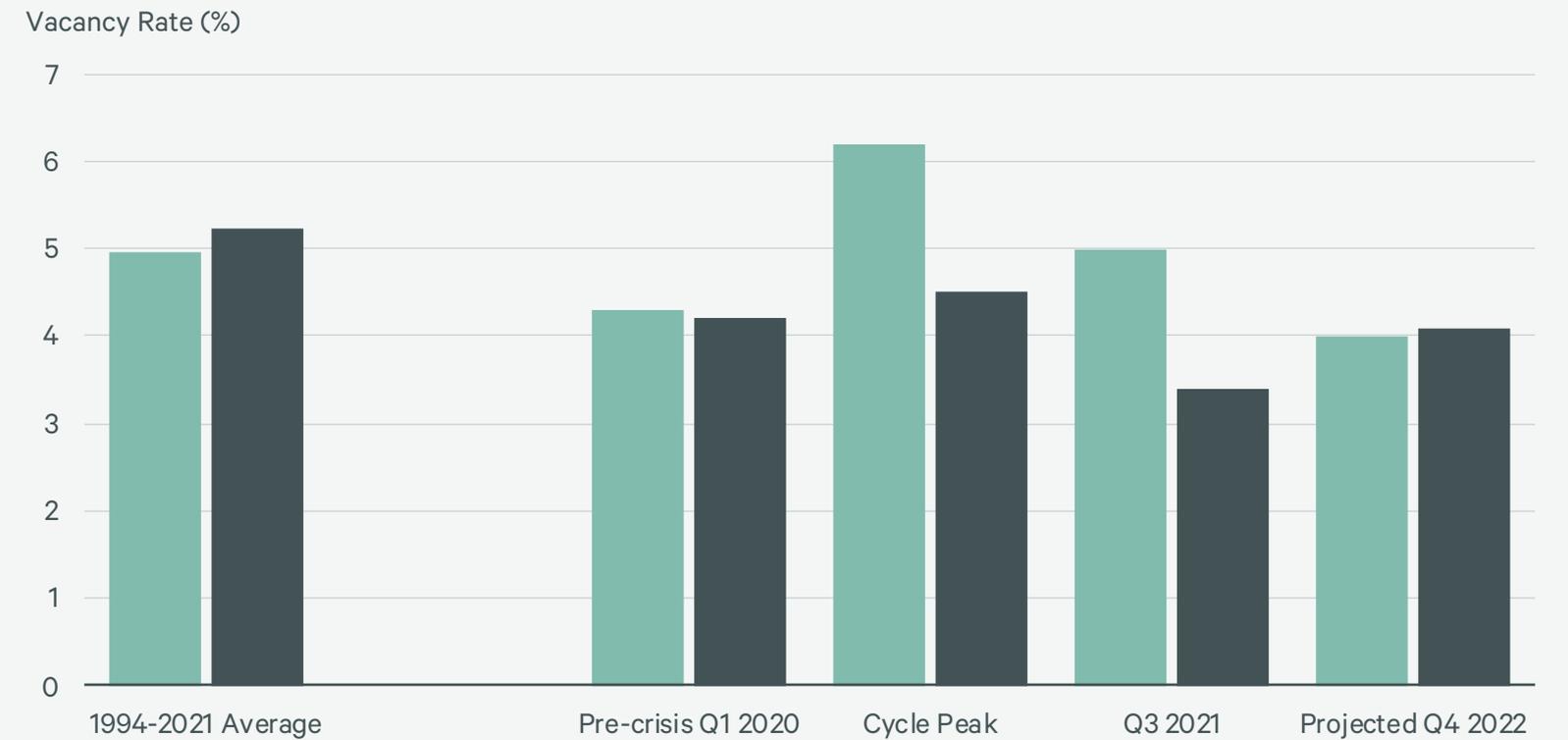
From urban to suburban—and back again

Downtown multifamily properties are filling back up and occupancy rates are nearing pre-pandemic levels, spurred by a confluence of factors: fewer restrictions on urban amenities, higher vaccination rates, a growing willingness to use public transit, the reopening of college campuses and more workers returning to the office.

Urban areas saw an average vacancy rate increase of nearly 200 bps during the peak of the pandemic. As of Q3 2021, urban vacancy rates average 5%, just 70 bps above their pre-crisis level, and are expected to fall to 4% by the end of 2022. By contrast, suburban properties fared better, as both secular and cyclical factors— income uncertainty, a preference for outdoor options, a need for more space and more millennials with growing families requiring schools—drove demand for apartments in lower-density and lower-cost submarkets.

As of Q3 2021, urban vacancy rates average 5%, just 70 bps above their pre-crisis level, and are expected to fall to 4% by the end of 2022.

FIGURE 12: Urban Vacancies Expected to Fully Recover in 2022; Suburban Vacancy Remains Stable



Source: CBRE Econometric Advisors, RealPage Inc., Q3 2021.

● Urban ● Suburban

Investors still favor multifamily

We predict U.S. multifamily investment volume will reach a record of nearly \$213 billion in 2021 (year-to-date volume totaled \$179 billion through Q3 2021), well above 2019's level of \$193 billion. For 2022, we expect at least a 10% increase from 2021 to \$234 billion.

While capital continues to flow from both domestic and foreign sources, the targets seem to be shifting. Investors find strong non-coastal markets more acceptable than ever and there is also a growing trend toward favoring ESG-compliant assets, especially from European investors.

The Federal Housing Finance Agency (FHFA) established a \$78 billion cap on multifamily purchase volumes for Fannie Mae and Freddie Mac for 2022, up 11.4% from 2021. This level of liquidity should facilitate strong value growth. In addition, we expect a resurgence in the flow of foreign capital targeting multifamily assets. Liquid multifamily debt capital markets, which includes traditional lending sources and alternative lenders like debt funds and mortgage REITs, will further stabilize and could even compress cap rates—even as interest rates rise.

Investment strategies for 2022

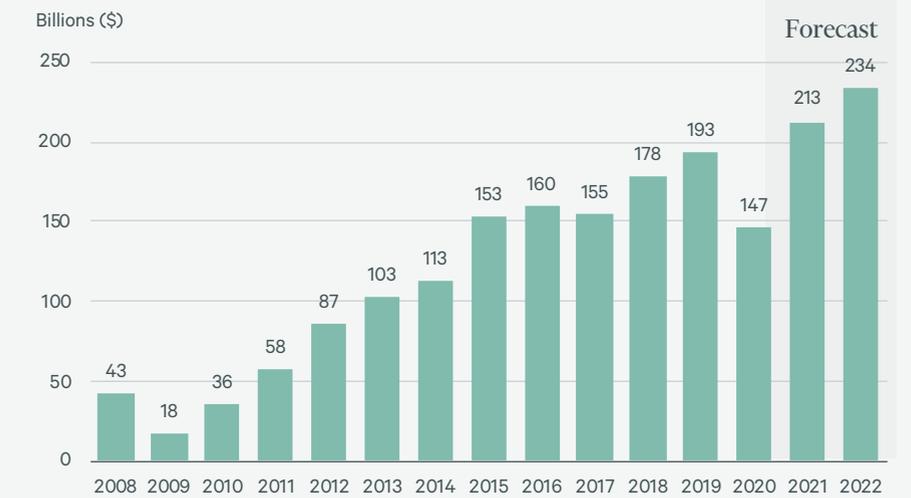
As always, multifamily investment strategy relies on a balance between risk and reward. Class A assets in urban areas—particularly in gateway cities—present tremendous opportunities. These markets were hit hard during the pandemic-led downturn but have the most favorable outlook over the near and medium term. However, they also present some downside risk amid new domestic migration patterns.

Lower-risk, lower-reward markets include strong secondary ones that were less affected by the pandemic. Markets like Atlanta, Dallas, Denver and Philadelphia are expected to offer more modest income and appreciation returns compared with gateway markets and a relatively stable investment return outlook.

Markets with increased regulation—particularly those with new or proposed rent controls—limit the income opportunities from rent growth and require greater operational efficiency to drive NOI.



FIGURE 13: Multifamily Investment To Set New Records in 2021 and 2022



Source: CBRE Research, Real Capital Analytics, Q3 2021.

\$234 B

predicted U.S. multifamily investment volumes for 2022

+11.4%

increase in FHFA cap on multifamily purchase volumes for 2022



Trends to watch

The rise of single-family rentals

The single-family rental market will gain traction with both renters and investors as more millennials reach child-rearing life stages. Urban apartment operators will rely more on Gen Z to backfill the resulting vacancies.

Return to the office will spur urban demand

Rising office occupancy will boost urban multifamily demand. We project that U.S. office workers will spend an average of 3.4 days per week in the office going forward, down a full day from the 4.4-per-week average in 2018. While living near the office may not be as important in the future, it will remain a key consideration for many renters.

07

Hotels

While the hotel sector could face renewed travel restrictions, we expect higher occupancy levels from an increase in inbound international and business travel in 2022.

International travel: The recovery catalyst for many U.S. gateway markets

Even though hotel demand plummeted by 57% early in the pandemic, leisure travel was enough to double the overall hotel occupancy rate from its pandemic low by late summer 2020. By July 2021, overall revenue per available room (RevPAR) reached 94% relative to 2019, according to Kalibri Labs. What’s still largely missing, however, are individual business, group business and international travel bookings. As a result, core urban areas—particularly U.S. gateway cities—are languishing, with some markets down as much as 67% in RevPAR relative to 2019.

Business travel and group demand are constrained by corporate travel budgets and policies, which took a hit as the delta variant swept the U.S. in late summer 2021. The omicron variant will impact business travel, particularly in the early part of 2022.

However, the easing of inbound international travel restrictions will catalyze hard-hit global gateway cities in the U.S. and aid the recovery over the course of 2022. As recently as August 2021, international travel was down nearly 78% relative to 2019.

For 2022, we expect inbound travel, led by leisure travelers from Europe and Asia-Pacific, to drive increased hotel demand.

FIGURE 14: Border Entrants

Rank	YTD August 2019	Rank	YTD August 2021
1	Canada	1	Mexico
2	Mexico	2	Canada
3	United Kingdom	3	Colombia
4	Japan	4	Peru
5	China	5	Ecuador
6	South Korea	6	Dominican Republic
7	Brazil	7	India
8	Germany	8	Guatemala
9	France	9	Argentina
10	India	10	Costa Rica

Source: National Trade and Tourism Office, September 2021.

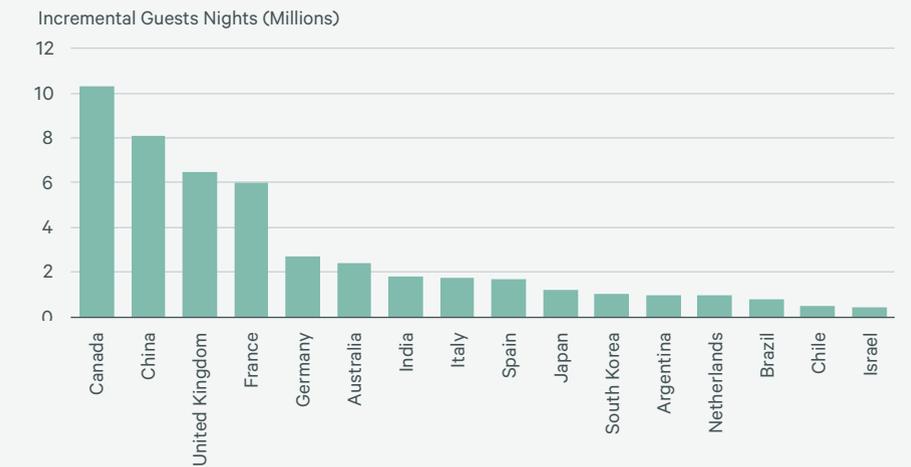
Based on vaccination rates by country and several key consumer sentiment surveys, we forecast the rollback of international travel restrictions for vaccinated travelers to account for approximately one-sixth of our 23% total revenue growth forecast for the hotel sector in 2022.

The benefits will not be uniform. Resorts and all-inclusive destinations will continue to be strong performers in 2022 as travelers seek simplicity and price certainty. Already operating at 13% above 2019's summer RevPAR, Miami has benefited from the shift in travel patterns, and thus may end up with less growth. Harder-hit markets like San Francisco and New York, with RevPAR still down 61% and 56%, respectively, compared with 2019, may benefit more in 2022. Overall, supply growth will continue to moderate given increased construction costs and labor shortages.

Harder-hit markets like San Francisco and New York, with RevPAR still down 61% and 56%, respectively, compared with 2019, may benefit more in 2022.

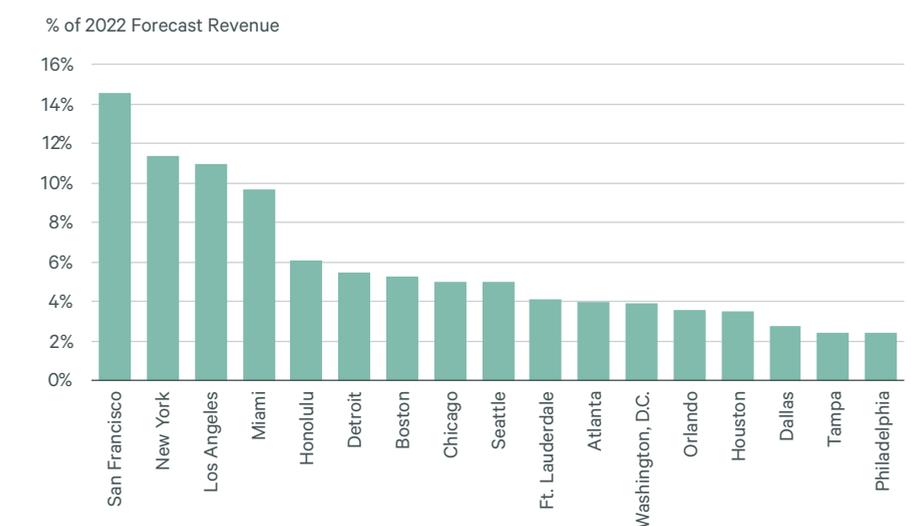


FIGURE 15: Incremental Hotel Guest Nights



Source: National Travel and Tourism Office (September 2021), Our World in Data (November 2021), Deloitte State of the Consumer Tracker (October 2021), Brand USA (2020), CBRE Hotel Horizons (November 2021).

FIGURE 16: Incremental International Revenue As % Of 2022 Forecast Revenue



Source: National Travel and Tourism Office (September 2021), CBRE Hotel Horizons (November 2021).

The resumption of inbound international travel will provide a lift to hotel fundamentals in 2022. When combined with the continued recovery in individual and group business travel, this might just make the difference between profits and losses for some struggling hotel operators.

To date, investor demand for hotel assets has mirrored consumer demand trends, with many leisure-oriented hotels trading hands at premiums seen before the pandemic. As the pace of recovery in corporate and group demand unfolds, we expect pricing for group and corporate-oriented hotels will increase.

The resumption of inbound international travel will provide a lift to hotel fundamentals in 2022. When combined with the continued recovery in individual and group business travel, this might just make the difference between profits and losses for some struggling hotel operators.



Trends to watch

The return of business and international travel

Business and convention travel will slowly rebound, with “bleisure” becoming more common as business travel, still less frequent, will include additional leisure travel days. Meanwhile, the return of international travelers will provide a much-needed boost to global hubs that have been particularly hard hit by the pandemic and have experienced a slower recovery.

Getting back to business as usual

For hotels that have been limiting occupancy levels and amenities to stay open, we expect to see lower operating margins but strong cash flow growth, as accelerating top-line trends will be partially offset by wage pressures and the resumption of normal amenity and service levels. Overall, hotel owners will work to drive rates instead of chasing occupancy.

08

Data Centers

Data center needs will continue to grow as cloud service providers and social media and content streaming companies expand and 5G, AI and edge computing gain traction, spurring development of additional capacity nationwide.

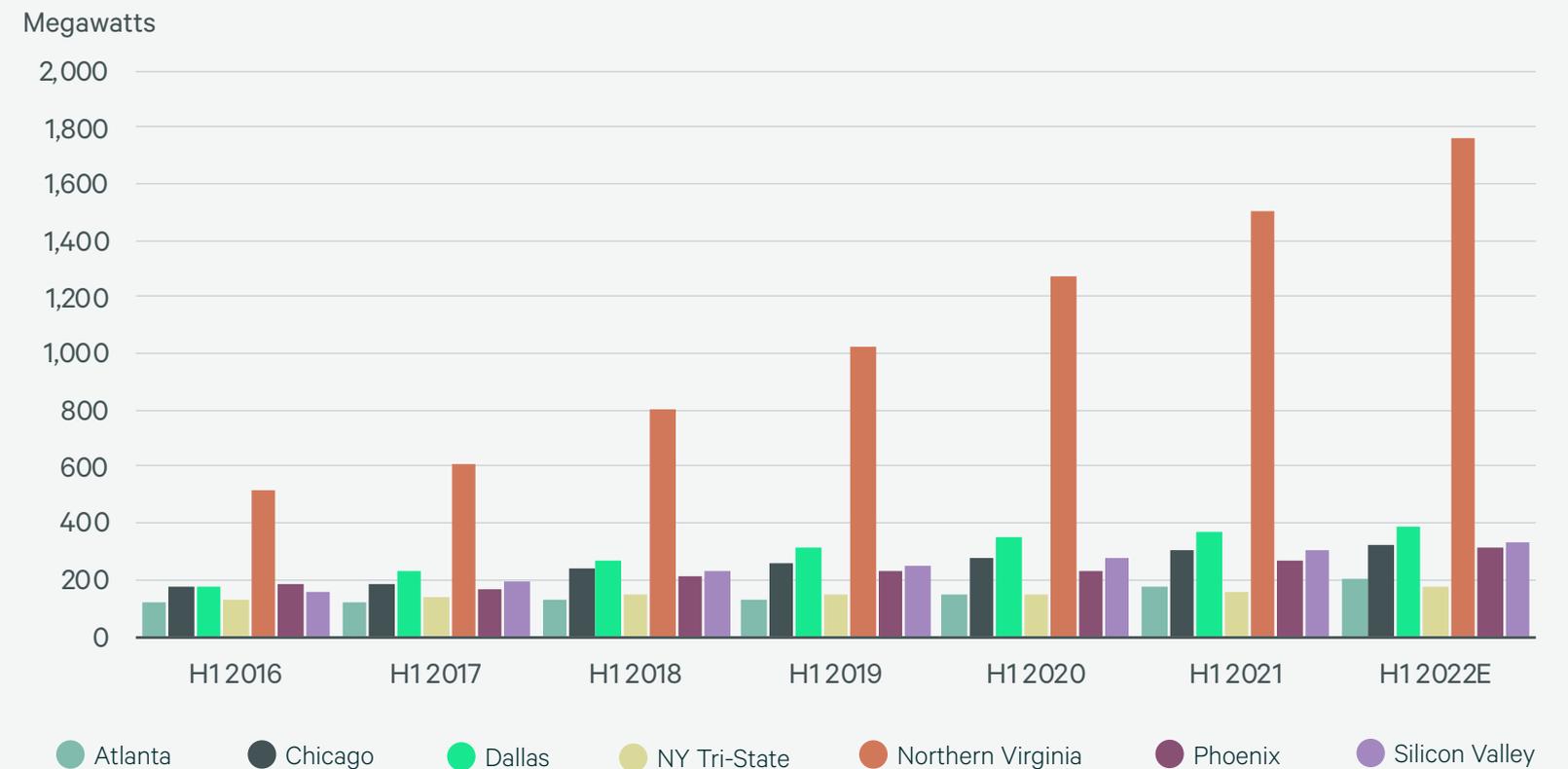
Data center development flourishing

Data centers are becoming an ever more important and larger commercial real estate asset class as businesses expand their digital infrastructure. With emerging technologies like 5G, AI and edge computing adding to already high demand for data centers, development will increase in 2022, spurring growth in established primary markets, as well as secondary and tertiary markets.

Since 2016, wholesale colocation inventory in primary markets (Northern Virginia, Silicon Valley, Chicago, New York Tri-State, Dallas, Phoenix and Atlanta) has more than doubled to 3.08 gigawatts (GW). With 527.6 megawatts (MW) under construction in primary markets—an increase of nearly 350 MW from 2016—the accelerated growth of the data center sector will continue in 2022.

With 527.6 megawatts (MW) under construction in primary markets—an increase of nearly 350 MW from the first half of 2016—the accelerated growth of the data center sector will continue in 2022.

FIGURE 17: Primary Market Inventory



Source: CBRE Research, CBRE Data Center Solutions, H1 2021.

With 290.5 MW currently under construction and an additional 586.5 MW of planned future capacity, Northern Virginia is expected to outpace all other North American markets through 2022.

Space and power limitations could constrain new development, which may cause an increase in colocation asking rates and lead more developers to explore vertical construction of data centers. Silicon Valley, also facing a potential squeeze in new supply due to space and power needs, is still on track to grow its inventory by more than 50 MW in 2022.

Secondary markets will continue to grow as developers seek to expand capacity, focusing on affordable land in favorable climates, network connectivity, clean and inexpensive power sources and favorable tax incentives. Hillsboro, Oregon, which possesses many of these qualities, is expanding faster than other secondary markets and will see increased activity through 2022.

Asking rates dip as new supply delivers

On average, pricing continues to decline across both primary and secondary markets, largely due to more competition as new data centers come online. Some lower-vacancy markets, as well as markets facing potential supply bottlenecks, are beginning to see prices flatten out or, in some instances, tick up. We anticipate this trend to continue in 2022, with space availability and power having the largest impact on asking rates. High-quality, highly connected assets such as carrier hotels will continue to command a premium for both new and existing tenants.

ESG drives changes in data center operations

As companies evaluate their digital transformation in relation to their ESG initiatives, both providers and end users will seek clean power solutions. Providers attempting to satisfy the environmental standards of their customers, or to meet their own carbon neutrality targets, want to lessen their reliance on traditional, carbon-intensive fossil fuels by powering their operations with clean, affordable energy. Industry professionals are focused on solving this issue, though it remains difficult as rapid growth and an ever-increasing demand for power persist. These environmental considerations will likely impact site selection, benefiting markets with an abundance of clean energy like Montreal and Hillsboro, Oregon, and adding challenges to markets with tighter resource restrictions like water conservation in Phoenix, Las Vegas and Salt Lake City.

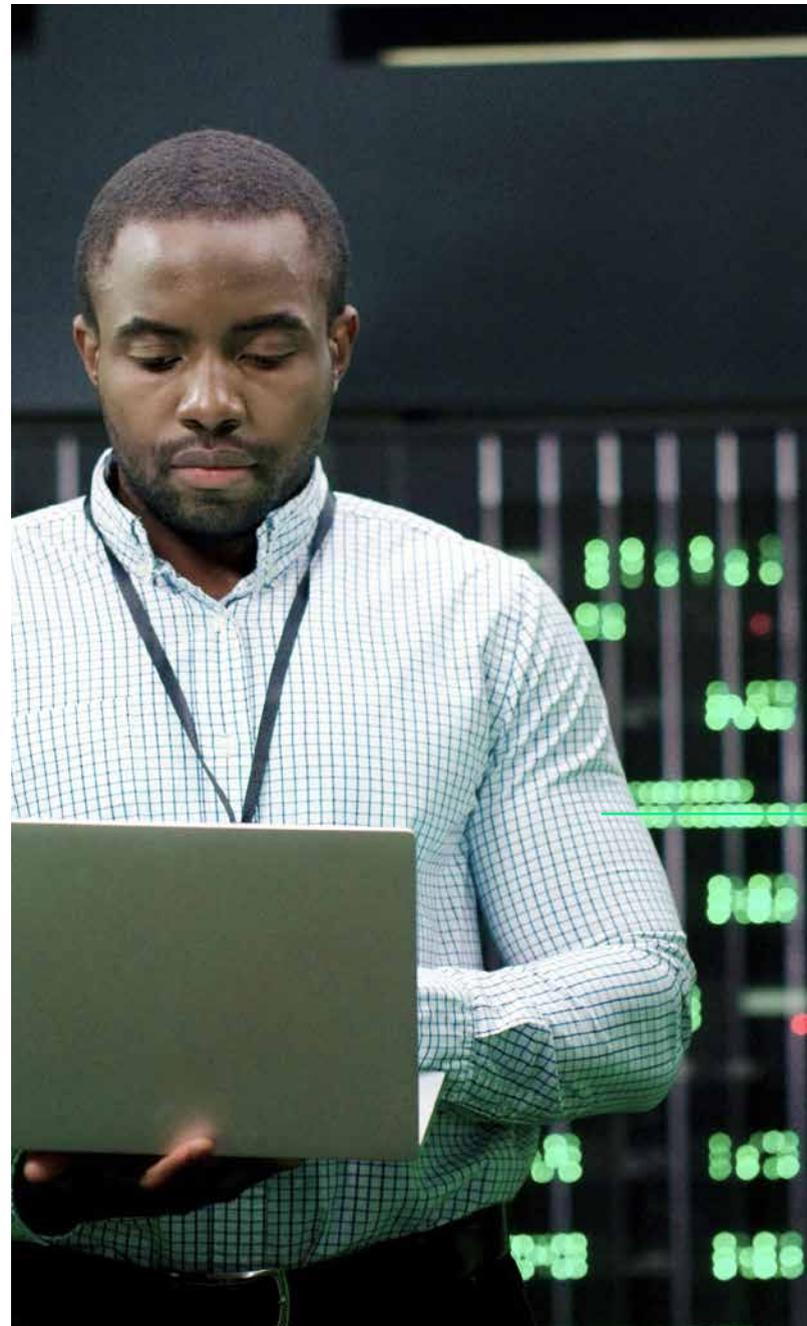
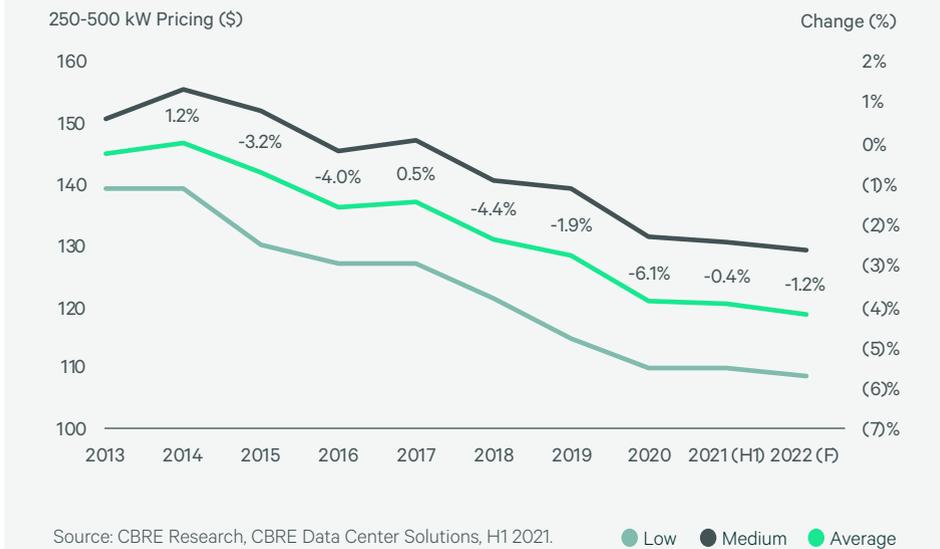


FIGURE 18: Average Asking Rental Rate with Y-o-Y % Change for Primary Markets



Providers attempting to satisfy the environmental standards of their customers, or to meet their own carbon neutrality targets, want to lessen their reliance on traditional, carbon-intensive fossil fuels by powering their operations with clean, affordable energy.

Potential supply chain interruptions

Supply chain disruptions, notably from the continued global impacts of the pandemic on international trade, could inhibit data center development and delay the delivery of new supply. As uncertainty looms amid pandemic-related restrictions for markets outside of the U.S., particularly in Asia-Pacific, material shortages and increased shipping delays into U.S. ports have the potential to delay new facility developments and impact refresh cycles of data centers. These delays could drive up costs, potentially raising rents in affected markets 4%-6%.

As uncertainty looms amid pandemic-related restrictions for markets outside of the U.S., particularly in Asia-Pacific, material shortages and increased shipping delays into U.S. ports have the potential to delay new facility developments and impact refresh cycles of data centers.



Trends to watch

Going vertical in land-constrained markets

Markets with limited land availability will begin to see more vertical construction of data center space. There will also be a continued premium in asking rates at highly connected, high-quality data centers.

Power availability key

Power requirements for data center occupiers will continue to grow, leading to larger lease deals and lower rents on a per kilowatt basis in 2022. Power constraints will remain the biggest threat to new developments in markets like Northern Virginia and Silicon Valley. ESG initiatives will also prompt providers to seek renewable and more efficient energy sources to power their centers.

Contacts

Research Leadership

Richard Barkham, Ph.D.

Global Chief Economist
& Global Head of Research
+1 617 912 5215
richard.barkham@cbre.com

Julie Whelan

Vice President
Head of Global Occupier Thought Leadership
+1 617 912 5229
julie.whelan@cbre.com

Henry Chin

Global Head of Investor Thought Leadership
& Head of Asia Pacific Research
+852 9148 3063
henry.chin@cbre.com

Report Contacts

James Breeze

Senior Director
Head of Global Industrial & Logistics Research
+1 602 735 1939
james.breeze@cbre.com

Ian Anderson

Senior Director
Head of Americas Office Research
+1 215 561 8997
ian.anderson2@cbre.com

Matt Vance

Senior Economist
Head of Americas Multifamily Research
+1 312 780 1252
matthew.vance@cbre.com

Darin Mellott

Director of Research, Americas
+1 801 869 8000
darin.mellott@cbre.com

Rachael Rothman

Head of Hotels Research
& Data Analytics
+1 804 201 2004
rachael.rothman@cbre.com

Brandon Isner

Director
Head of Americas Retail Research
+1 305 381 6407
brandon.isner@cbre.com

Ed Socia

Director
Head of Americas Data Center Research
+1 303 583 2053
edward.socia@cbre.com

Matthew Walaszek

Director of Research
Global Industrial & Logistics
+1 312 297 7686
matthew.walaszek@cbre.com

Taylor Jacoby

Director
Capital Markets Research
+1 202 585 5547
taylor.jacoby@cbre.com

Christine Bang

Senior Research Analyst
CBRE Hotels
+1 917 543 9698
christine.bang@cbre.com

© 2021. All rights reserved. This report has been prepared in good faith, based on CBRE's current anecdotal and evidence-based views of the commercial real estate market. Although CBRE believes its views reflect market conditions on the date of this presentation, they are subject to significant uncertainties and contingencies, many of which are beyond CBRE's control. In addition, many of CBRE's views are opinion and/or projections based on CBRE's subjective analyses of current market circumstances. Other firms may have different opinions, projections and analyses, and actual market conditions in the future may cause CBRE's current views to later be incorrect. CBRE has no obligation to update its views herein if its opinions, projections, analyses or market circumstances later change.

Nothing in this report should be construed as an indicator of the future performance of CBRE's securities or of the performance of any other company's securities. You should not purchase or sell securities—of CBRE or any other company—based on the views herein. CBRE disclaims all liability for securities purchased or sold based on information herein, and by viewing this report, you waive all claims against CBRE as well as against CBRE's affiliates, officers, directors, employees, agents, advisers and representatives arising out of the accuracy, completeness, adequacy or your use of the information herein.

