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Inside Real Estate

ANNUAL STRATEGY OUTLOOK FOR 2023

Investing through turbulence: Separating signals from noise

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Key themes

Inflation and central bank policies are the signals, ignore the other noise. Inflation and corresponding central banking policies will be the two most important signals for investors to focus on. As inflation goes, so will central banks. The unambiguous signal from central banks is a clear focus on moderating inflation and that they will continue to tighten monetary policies until they have proof that their action has been effective.

Three scenarios for the global economy: Rolling recessions, hard landing, or immaculate disinflation. Our base case envisions a high probability of a series of rolling recessions across the developed world. While we are reasonably confident in our base case, we do believe two other scenarios could play out in the next 12 months: a hard landing, or an immaculate disinflation AKA a soft landing. The former involves persistently high inflation where central bankers continue tightening well into 2023, while the latter foresees a more favorable outcome where inflation recedes sooner than anticipated.

Outlook suggests slower 2023 for real estate investors. While 2022 started with sales volumes continuing to grow through the first half of the year, higher interest rates, above-trend inflation, and an uncertain macroeconomic environment have dampened investment activity during the second half of the year. As we enter 2023, commercial real estate will experience a highly uncertain period of price discovery.

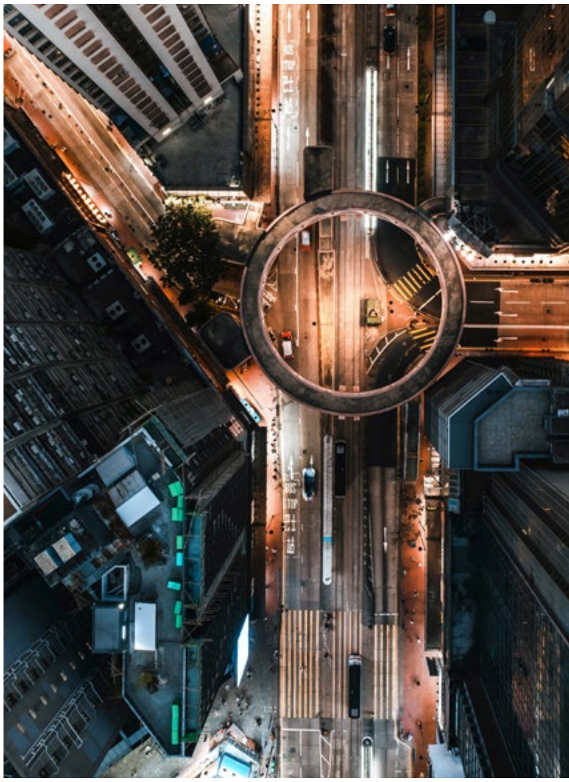
Debt markets will drive price discovery in commercial real estate. "Debt prices equity," as the old saying goes, and the most pressing macroeconomic issue for the sector today (and in 2023) is the cost of capital, which has increased significantly since central banks began their tightening cycle. The debt markets will drive price discovery in commercial real estate and provide increasing sense of valuations as we progress into 2023.

2023 is about playing defense, preparing for offense. With a recession likely, we think it is appropriate for investors to think defensively by focusing on resilient cash flows and capital value preservation. The strategic relative value of debt is very compelling. Yet it is also a time when nimbleness and the ability to identify relative values can be enormously beneficial. We believe that 2023 will be a year of playing both defense and offense, as market conditions change and evolve. Investors should consider an investment strategy that allows them to manage risks while also giving them the flexibility to pivot to higher risk when suited to their specific needs.

DIGITAL[1] and niche are merging to be the new core. Over the past several years, we have noted the increasing prominence of so-called niche property sectors as part of commercial real estate portfolios. As these sectors have become a more important part of the investment landscape, it has become more difficult to lump them into other sectors. We believe that the combination of DIGITAL and niche is creating a large addition to core real estate.

[1] DIGITAL – Demographic, Innovation, Globalization, Information & Technology long term drivers

CONTENTS



Investing through turbulence: Separating signals from noise

As the world economy is beginning to stall, the headwinds indicate a challenge to investors. With inflation levels at their highest in decades, central banks in developed markets are tightening monetary policy to slow growth. Sharp monetary policy reversal is challenging in the best of times; the path ahead is tougher given the context of great geopolitical uncertainty. Investors should expect turbulence over the next 12 to 18 months. Inflation and central bank policies are two key signals that will matter the most for investors in the year ahead amidst the inevitable noise that comes with shifting investment landscapes.

Until policymakers feel that they have inflation under control, they are unlikely to let up on policy tightening. Inflation may be stickier than anticipated, forcing central banks to be more reactive. For investors who crave certainty, this could mean operating in a "gray" zone with several questions taking time to settle. Will central banks insist on a 2% inflation target or will there be flexibility? How much unemployment will central banks tolerate? How soon will inflation turn? Such uncertainty not only elevates the probability of turbulence in the coming months, but also makes the economic outlook challenging to predict.

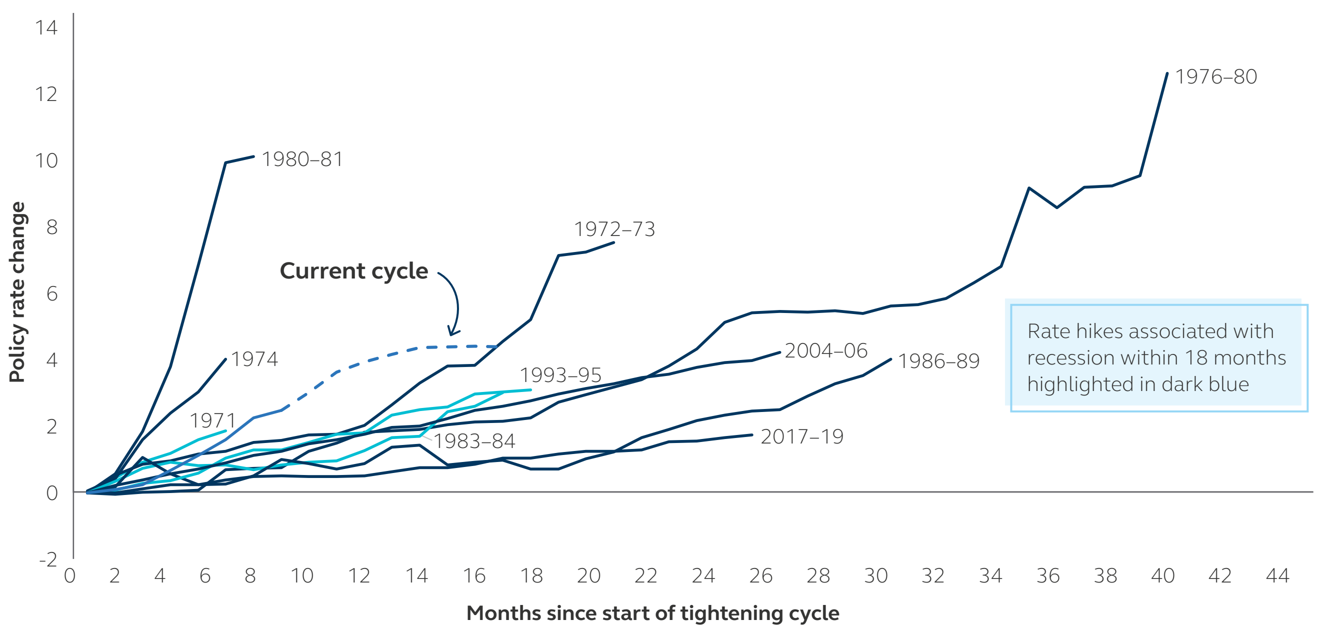
> For investors that crave certainty, this could mean operating in a "gray" zone with several questions taking time to settle.

Inflation and central bank policies are the signals, ignore the other noise

Inflation and the actions taken by central banks will be the two most important signals to focus on. The direction inflation takes will determine central bank policies. Arguably, the current economic environment and capital markets are almost entirely the work of central banks "pumping the brakes" to slow growth and cool inflation. The clear signal they are sending is that they want to firmly re-anchor inflationary expectations. In the 1980s, Federal Reserve (the Fed) chair Paul Volcker pushed the Fed Funds rate to historically high levels in a very short period, creating a severe recession that ultimately quashed inflation. History shows that few central bank tightening cycles have ended well for the economy (Exhibit 1). Investors will do well to heed this signal. But periods of turmoil also afford unique opportunities that investors should be prepared for as we enter a new cycle.

EXHIBIT 1: U.S. Fed tightening cycles have tended to pre-date recessions

Fed Funds rate during tightening cycles, percentage point



Source: Federal Reserve, Macrobond, Principal Real Estate, 2022

Three scenarios for the global economy: Rolling recessions, hard landing, or immaculate disinflation

Our base case envisions a high probability of a series of rolling recessions across the developed world. While we are reasonably confident in our base case, we do believe two other scenarios could play out in the next 12 months: a hard landing or an immaculate disinflation AKA soft landing. Under our hard landing scenario, inflation remains persistently high, and central banks continue to tighten into 2023. This pulls the global economy into a deep recession. The immaculate disinflation scenario revolves around the idea that the impact of monetary policy tightening will start to pull back inflation by year-end 2022 or early 2023, allowing central banks to pause. Given the uncertainty, we believe either a hard or soft landing have reasonable probabilities.

The key drivers across all scenarios are inflation and central banks' policies. We believe that fear of 1970s-style stagflation will motivate central banks to keep monetary policy tight until inflation metrics are measurably lower. Thus, the idea of a quick central bank "pivot" is somewhat low since we do not envision a scenario where a sustained increase in interest rates would be followed by an equally sharp loosening in monetary policies. This is a key reason why we believe that recessions across developed economies are a high probability in the next 12 months (Exhibit 2).

EXHIBIT 2: Rolling regional recessions are our base case

Three scenarios for the global economy, November 2022 - 2023

Scenario	Outlook	Inflation	Monetary policy	Consumers	Businesses	Employment
Modest recession Baseline 55%	Moderate recession of modest duration	Reversion close to central bank targets by end 2023	Rate hikes end in 1H 2023	Modest weakening	Minor decline in investment activity	Modest job losses
"Volcker's shadow" Downside 25%	Stagflation/ deep recession	Persistently high inflation	Tightening does not end until end 2023 or when clear signs of inflation falling	Severe weakening amid prolonged cost of living crisis	Moderate to severe decline in fixed investment, accompanied by increased bankruptcies in the commodity sector	Material job losses
"Immaculate disinflation" AKA soft landing Upside 20%	Soft but resilient growth	Sustained and material drop in headline inflation by 1Q 2023	Rate tightening complete by early 2023	Consumption remains elevated	Output remains at or above current levels	Limited job losses

Source: Principal Real Estate, December 2022

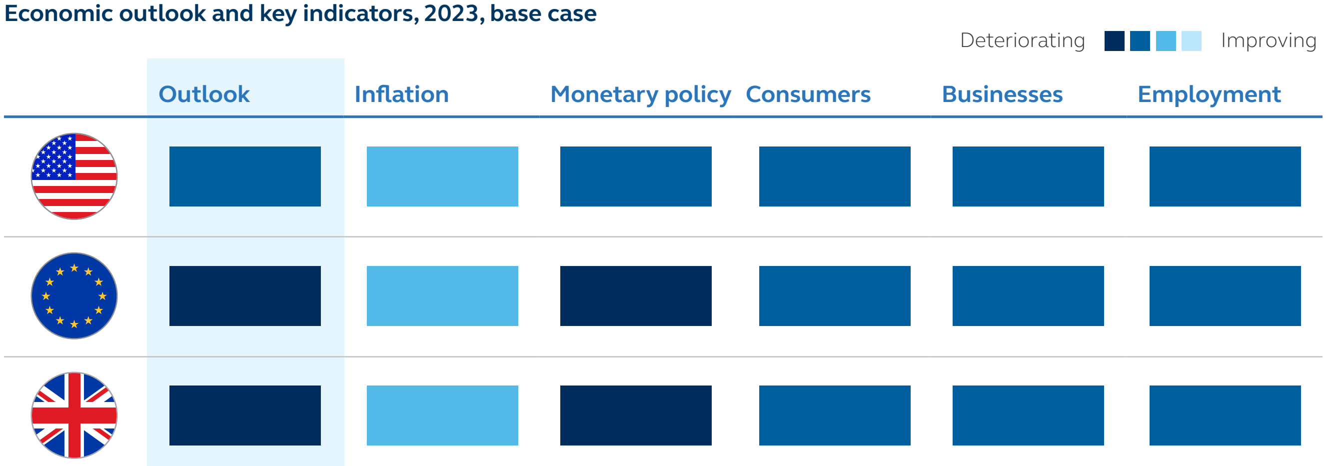
Our economic base case: Central bank pied piper leading economies to slowdown

Like the famed pied piper of Hamelin, central bankers are leading economies to their recessionary caves. We don't expect many of these global economies to escape the piper's call, but we do anticipate some sequencing of how they will enter the proverbial cave. We assign a high probability to a series of rolling recessions with the Eurozone leading the slowdown, as high energy prices compound a cutback in corporate investment. We expect the culmination of these pain points to occur during the winter months, tipping the economy into recession. In the U.S., the Fed and its path of rising interest rates are already tightening financial conditions. Corporate earnings will soon start to slow the labor market, likely triggering a recession in 2023. We had expected the UK to enter recession by year-end 2022, but a fiscal package capping energy price inflation has delayed it. Given falling consumer confidence and elevated costs, we expect the UK to also enter a recession in 2023.

Although recessions are always damaging, the lack of excessive corporate leverage and the fact that consumers are entering this downturn from a position of relative strength make us somewhat optimistic that the duration and severity will be modest. Excessive corporate leverage, typically a harbinger of severe consequences, is mostly absent, with most indebtedness at the sovereign level. That said, most key indicators (except for inflation) are expected to deteriorate over the forecast period (Exhibit 3).

EXHIBIT 3: Key metrics on growth suggest deterioration ahead

Economic outlook and key indicators, 2023, base case



Outlook	Inflation	Monetary policy	Consumers	Businesses	Employment
Risks of recession are uncomfortably high in the Eurozone, UK, and U.S.	Inflation remains ingrained in the economic outlook fueled by energy and supply chain related issues. However, we expect inflation metrics to improve in 12 months.	Monetary policy has tightened dramatically in the past several months. Policy risks remain elevated given the reactionary central bank framework.	Retail spending remains healthy but is at risk to turn over as discretionary income comes under pressure.	Corporate balance sheets are currently healthy, but profit margins have been squeezed by higher costs and labor shortages.	Markets remain resilient, but layoffs could be on the way. Europe's labor market structure could prove more defensive during a downturn.

Source: Principal Real Estate, December 2022

Key cyclical metrics, base case

Inflation

Price increases will be the most significant driver of monetary policy over the next 12 months. Supply chain disruptions, wage growth, and the cost of housing are all primary culprits of above-trend inflation, which has remained frustratingly sticky. Many of these metrics, however, are showing signs of waning, albeit slowly. While inflation remains sticky in the U.S., the situation in Europe is more challenging where inflation is being driven primarily by the supply of energy due to the conflict in Ukraine. The onset of the winter heating season coupled with supply constraints could result in elevated inflation over the coming months. In both regions, there appears to be no easy solution, as the primary drivers remain just out of the grasp of the central banker's policy tools.

Monetary policy

While it is a fair criticism that central bankers have fallen severely behind the inflation curve, there may be little they could have done to forestall the exogenous factors driving it. In the U.S., the Fed has publicly admitted that it is no longer attempting to meet its dual mandate of price stability and full employment, and that it will pursue trend inflation as its primary policy mandate in the near term. We are forecasting the Fed Funds rate to reach approximatively 5% in Q1 2023. The European Central Bank (ECB) has also taken some aggressive steps by increasing interest rates from 0% to 2.0% since June, and we expect the terminal rate to approach 2.75% to 3.0% by the summer of 2023. Unlike the U.S., however, the central bankers are not implementing quantitative tightening with the expectation that the Pandemic Emergency Purchase Program (PEPP) remains in place until 2024. The Bank of England (BoE) is expected to follow the Fed's front-loaded tightening, with the terminal rate likely to end at 4.5% in 1Q 2023.

Labor market

Labor markets in Europe, the UK, and the U.S. remain at or near full employment. Labor shortages are persistent with job openings still exceeding the number of unemployed workers. For inflation to trend downward in the U.S., there needs to be a reversal of hiring and a material increase in the unemployment rate. This may be hard to accomplish given reported labor shortages across most industries and managers reluctant to let workers go. In Europe, the job market is likely to lose some steam, as soaring prices and tightening liquidity are forcing employers to rethink production and investment activities. It is, however, unlikely that we see a significant drawdown in payrolls, thus keeping upward pressure on wages and complicating the task of taming inflationary pressures in the near term.

Business/profits

Winter may be coming for the corporate sector. Business surveys suggest slowing or contracting activity and sentiment. In Europe, the composite Purchasing Managers Index (PMI) has been below 50 since July as both services and manufacturing activities declined. Though U.S. surveys present a more optimistic picture, both business and consumer sentiment have wavered. In particular, the consumer price-sensitive University of Michigan survey has plummeted to all-time lows due to elevated energy prices, while small business optimism is trending at recessionary levels. Higher interest rates are also impacting consumer balance sheets and challenging discretionary spending budgets, which will filter to corporate profits as we enter 2023.

Consumers

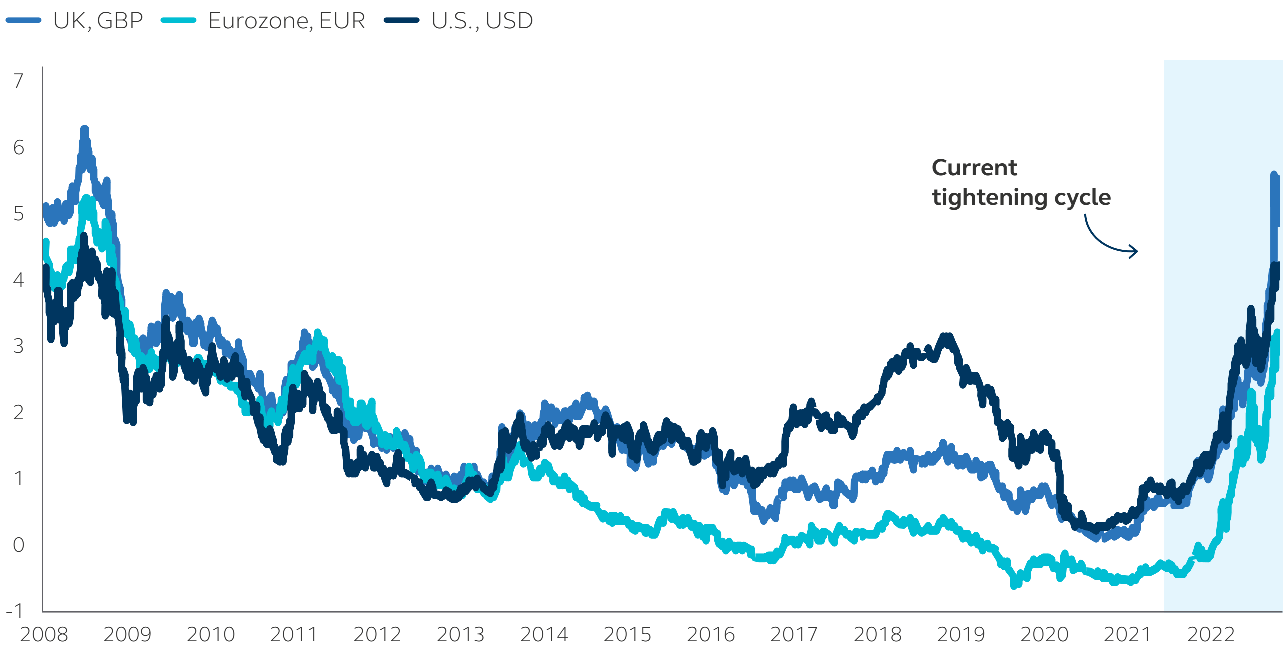
The bedrock of economic activity remains consumer spending, which has been dealt a severe blow by above-trend inflation over the past several months. Core retail sales in both the U.S. and Europe are being challenged and consumer credit has risen—a sign that household balance sheets will soon be vulnerable. Rising energy costs—particularly in Europe—will place an increasing burden on households. Elevated inflation and rising energy prices could depress consumer spending over the next couple of quarters, especially if the labor market begins to weaken.

Debt markets are driving price discovery in commercial real estate

Commercial real estate has been challenged as both policy and economic uncertainty have depressed the flow of deals. However, the most pressing macroeconomic issue for the sector today and in 2023 is the cost of capital, which has increased significantly since central banks began their tightening cycle. Across both sides of the Atlantic, the five-year swap rates, a benchmark for borrowing costs, rose sharply during the autumn months, but have since moderated to 3.8% and 2.6% in the U.S. and Eurozone respectively (Exhibit 4). The increase was steeper in the UK where policy divergence between the Bank of England and Liz Truss' government caused temporary disarray across financial markets, forcing many lenders to suspend and reprice deals.

EXHIBIT 4: Debt markets hold the cards for commercial real estate investors

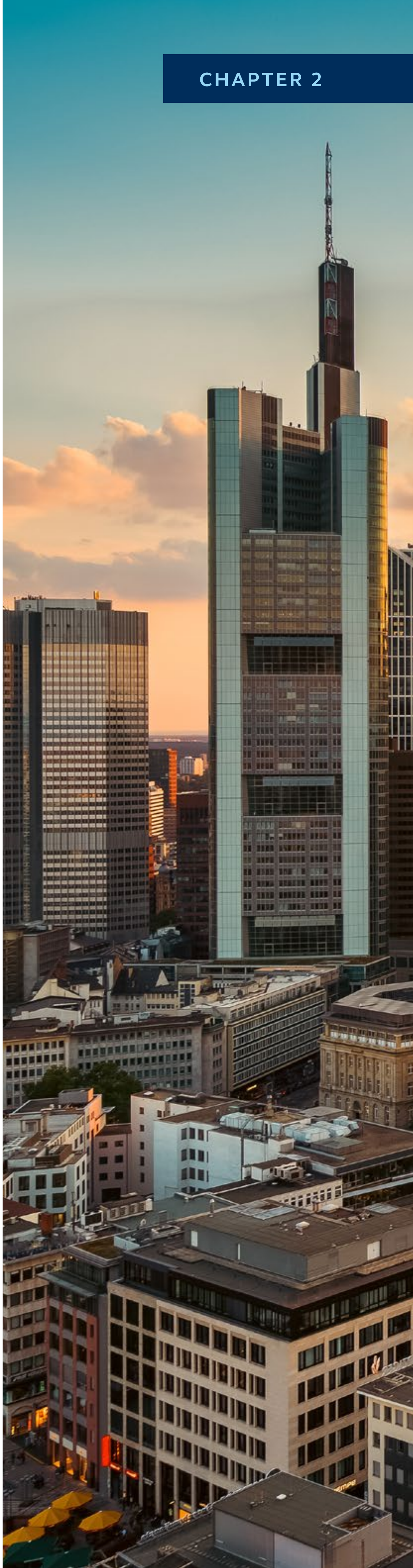
Five-year swap rates, %



Source: Macrobond, Principal Real Estate, Q3 2022

Tactical investment strategy: Separating signals from noise

The certainty that central banks are likely to keep monetary conditions tied to inflation data is a double-edged sword. Until inflation metrics decline materially, monetary policy is likely to remain tight. This suggests a challenging investment outlook and a defensive positioning near term. When inflation starts to fall, we also expect clear signals of policy shifts to trigger a strong appetite for risk. In our view, the path forward has never been so clearly demarcated, yet also so nuanced and challenging, making the separation of signals from the noise critical.



2023 is about playing defense, preparing for offense

With a recession looming, we believe it is appropriate for investors to think defensively by focusing on resilient cash flows and capital value preservation. The strategic relative value of debt is very compelling. Yet, it is also a time when nimbleness and the ability to identify relative values can be enormously beneficial. We believe that 2023 will be a year of playing both defense and offense, as market conditions change and evolve. Investors should consider an investment strategy that allows them to manage risks they deem appropriate, while also giving them the flexibility to pivot to higher risk when suited to their specific needs.

Use debt for defensive cash flow strategies

A key bookend in our investment strategy is debt with its defensive position in the capital stack and a focus on current cash flow. A rising interest rate environment helps floating rate loans while conservative underwriting ensures subordination levels stay preserved. Both private debt and Commercial Mortgage-Backed Securities (CMBS) can bookend such an approach, though the latter has greater volatility. A steep credit curve rounds out the strong relative value position of debt over our forecast period.

Public quadrants for risk-on nimble pivots

Investors with a higher risk bucket or a more tactical bent could opportunistically focus on investing in liquid public market instruments (CMBS and Real Estate Investment Trusts - REITs). Public market quadrants not only reflect a repricing in real estate values, making them relatively attractive (as of December 2022), but also allow investors to rapidly implement a risk-on tilt in their portfolios. While timing the trough in public quadrants is nearly impossible, particularly with a recession likely, they allow investors to nimbly access periods of market dislocation as well as be positioned for recovery when central bank policies shift, which is likely at some point over the time horizon of this report.

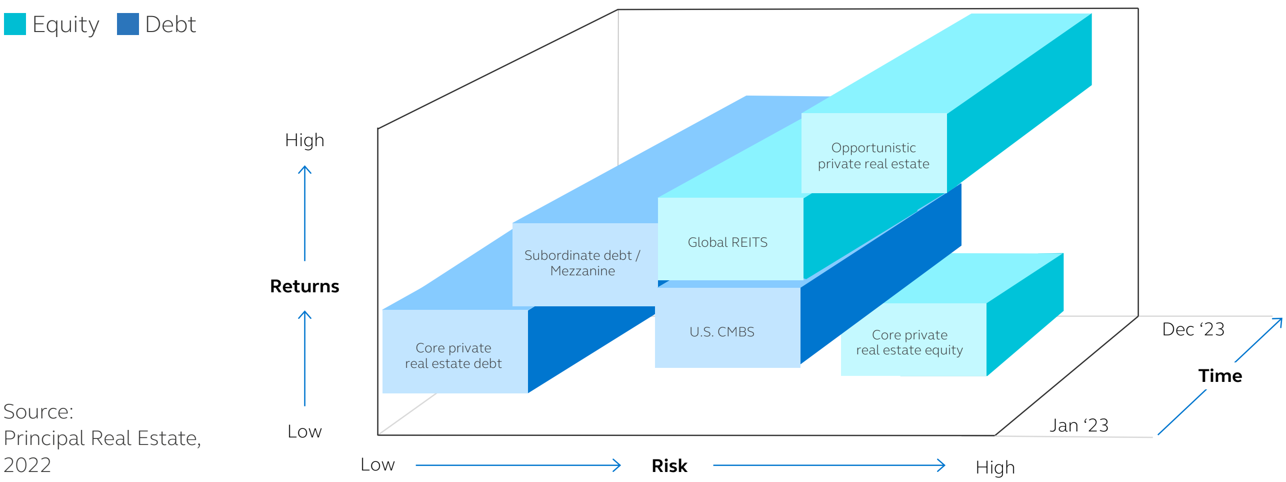
Opportunistic private real estate may offer additional alpha

As a result of current economic and capital market uncertainty—particularly in debt markets—2023 may offer some interesting opportunistic investment possibilities as deals get re-priced and capital stacks need recapitalization. Investors should keep dry powder available. We also feel ground-up development continues to provide a potentially favorable return profile if properly executed. Sectors of particular interest, which we discuss in chapter 3, are residential properties for rent and industrial warehouse sectors. Investors will need to be highly selective on location and quality to differentiate between existing or legacy assets in an uncertain environment.

Exhibit 5 reflects our investment strategy mix, with debt as a cornerstone, and public quadrants and opportunistic private real estate allowing more risk-on tactical tilts.

EXHIBIT 5: Stay defensive but prepare for offense in 2023

Investment strategy evolution



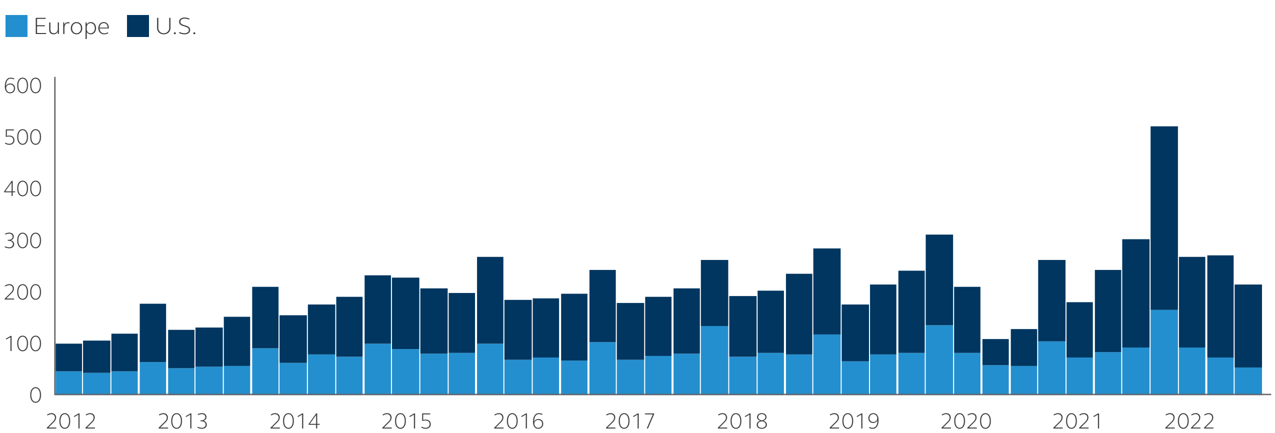
Source: Principal Real Estate, 2022

Outlook suggests slower 2023 for real estate investors

As the economy slows, we expect some weakness in the demand for commercial real estate. Since mid-2020, strong economic growth, accommodative interest rates, and generous fiscal stimulus have provided tailwinds for traditional core property types and emerging growth sectors. While 2022 started in a similar fashion, with sales volumes continuing to grow through the first half of the year, higher interest rates, above-trend inflation, and an uncertain macroeconomic environment have dampened investment activity during the second half of the year (Exhibit 6).

EXHIBIT 6: Transaction trends suggest a slower year in 2023

Sales transaction volume, billions, USD



Source: Real Capital Analytics, Q3 2022

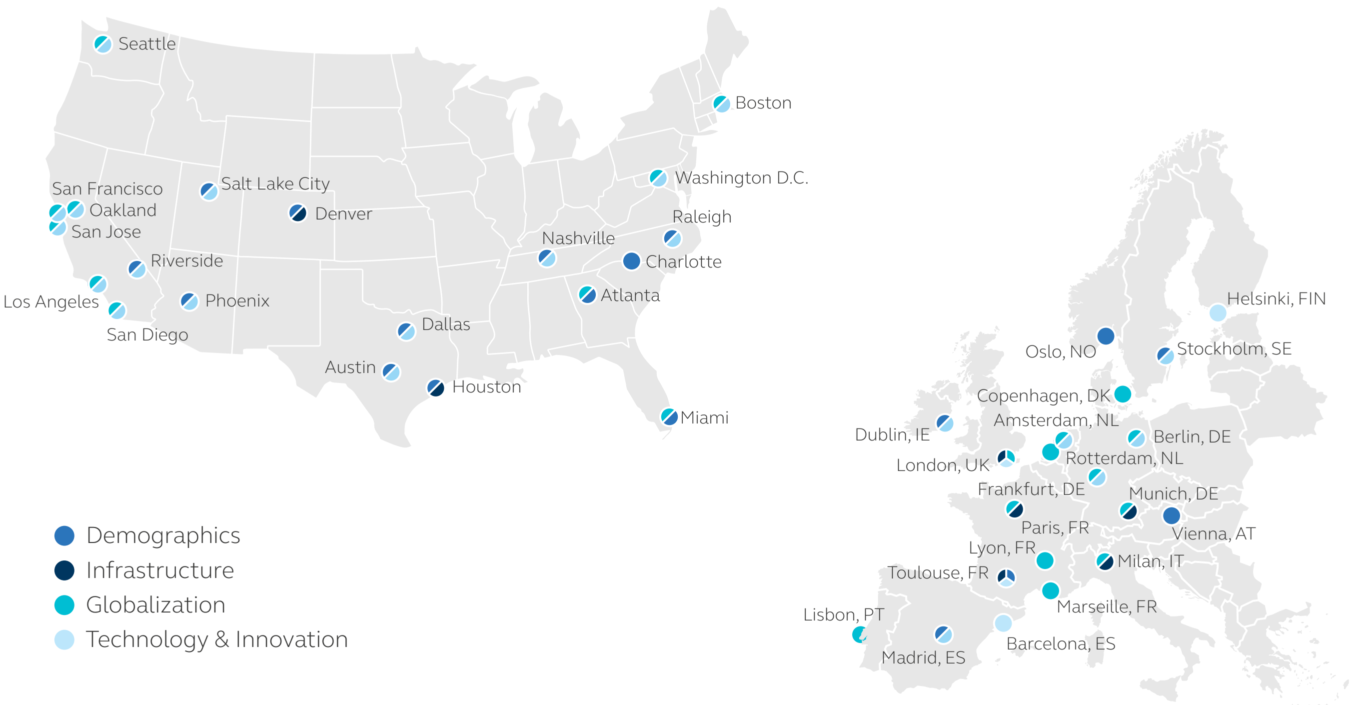
On a sequential basis, deal activity has slowed globally. Deals started repricing and bid-ask spreads have widened. The improvement post-summer has proved disappointing and lackluster deal volume presages a difficult start to 2023, particularly with rising borrowing costs, persistently above-trend inflation, and inefficient capital markets. As a result, our property outlook has diminished. There is nascent evidence suggesting that market fundamentals, which until recently had seen strong improvement almost across the board, have started to waver even across some of the stronger sectors of the past two years.

A thematic approach to real estate investment opportunities

Strategic property investment strategy: DIGITAL[2] and niche are merging to be the new core

In an uncertain economic and capital market environment, we believe it is important for investors to anchor their portfolios around DIGITAL property types and markets, with their resilient tenant drivers and cash flows. These should be a core underpinning of real estate portfolios and strategies. We believe a portfolio with DIGITAL markets and property types is potentially expected to outperform given the resiliency of their tenants, location, and cashflows. DIGITAL real estate will be the new core in our expectation, and we feel all investment strategies should try to overweight these drivers.

U.S. & Europe DIGITAL markets



Source: Principal Real Estate, December 2022

[2] DIGITAL – Demographic, Innovation, Globalization, Information & Technology long term drivers

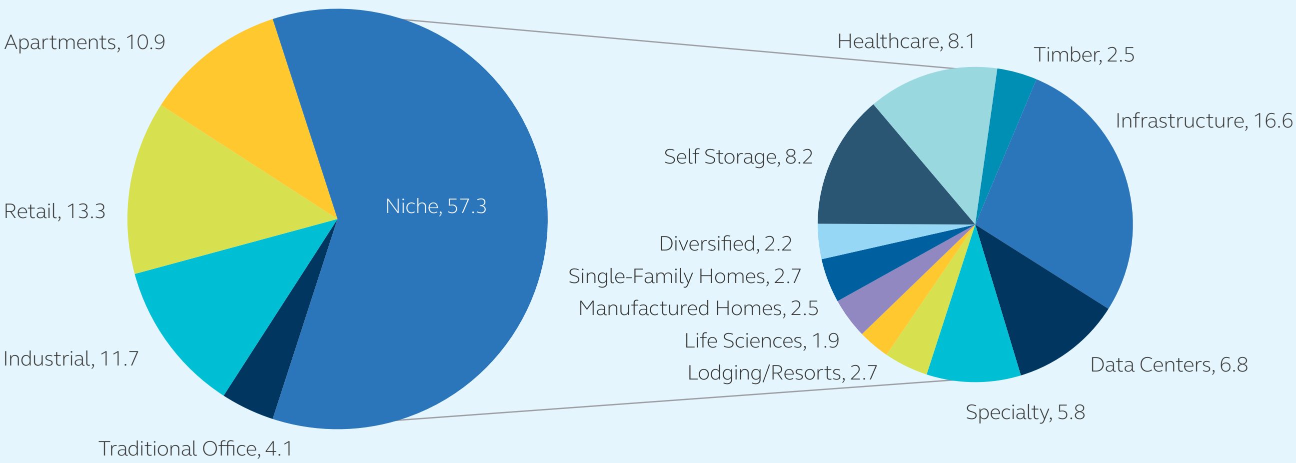
Niche no longer

Over the past several years, we have noted the increasing prominence of so-called niche property sectors as part of commercial real estate portfolios. As these sectors have become a more important part of the investment landscape, it has become more difficult to lump them into other sectors. For example, traditional office assets, which are under pressure today from structural headwinds, have dramatically different demand drivers than medical or life sciences offices. Other emerging sectors, such as data centers, which have historically been categorized as industrial, have little in common with large modern logistic facilities and have their own classification within the publicly listed REIT market. Even apartments, which have been a staple of core investor strategies, are no longer sufficient to describe the spectrum of rental living options that range from traditional suburban garden-style units to single-family rentals, student housing, and senior living.

Exhibit 7 shows the breakdown of the U.S. REIT market by property type, including a detailed breakdown of what many investors refer to as niche property sectors.

EXHIBIT 7: Public markets have embraced emerging sectors

U.S. NAREIT Index composition, %, as of September 2022

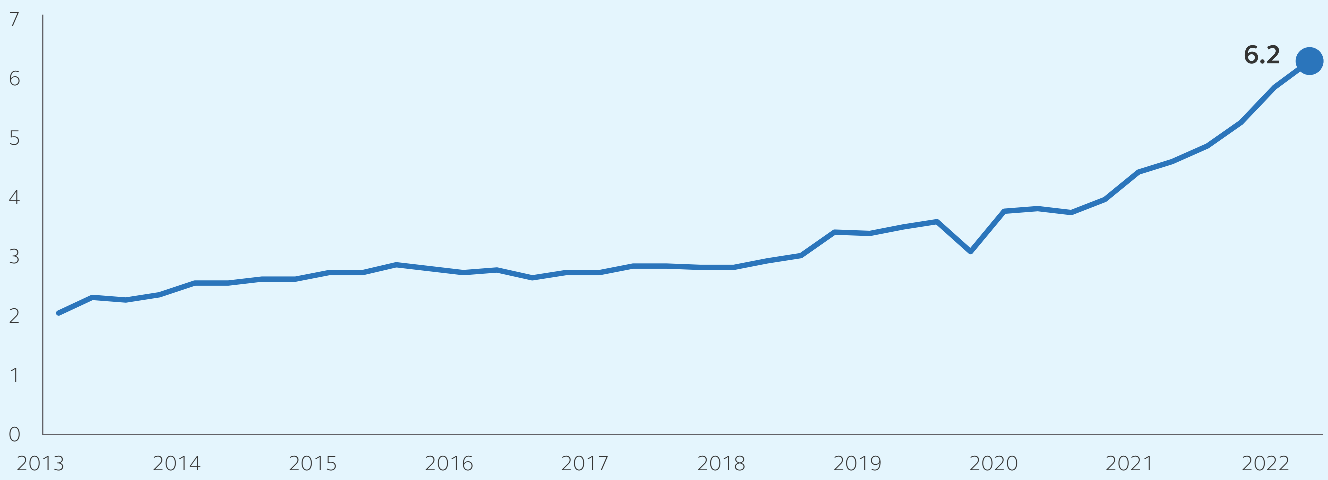


Source: NAREIT, Principal Real Estate, September 2022. U.S. NAREIT Index is the FTSE NAREIT All Equity REITs Index. Indices are unmanaged and individuals cannot invest directly in an index. Please see important information for index descriptions.

In the U.S., private investors have increasingly started looking for investment opportunities outside of the traditional NCREIF National Property Index (NPI) and NCREIF Open-End Diversified Core Equity Index (ODCE) definitions from the early 1980s. But progress has been slow, as private investors benchmarking to these indexes are reluctant to take on additional tracking error in search of greater returns. This is changing. Exhibit 8 shows the rapid growth of alternative property types within the NCREIF research database, which have more than tripled in a little less than a decade.

EXHIBIT 8: Private market real estate alternatives have increased rapidly

Niche property types share of NCREIF National Property Index (NPI), %



Source: NCREIF Research Database, Principal Real Estate, Q2 2022. Indices are unmanaged and individuals cannot invest directly in an index. Please see important information for index descriptions.

In our property sector and strategy suggestions that follow, we will address these sectors as core property types going forward. These property types also engage with one or more DIGITAL growth drivers, making them increasingly, we believe, a core holding for any institutional real estate portfolio.

Many of these sectors have played an increasingly prominent role in our strategy suggestions over the past three years and will, in our opinion, become a bedrock of institutional commercial real estate portfolios going forward.

Data centers: Our DIGITAL favorite

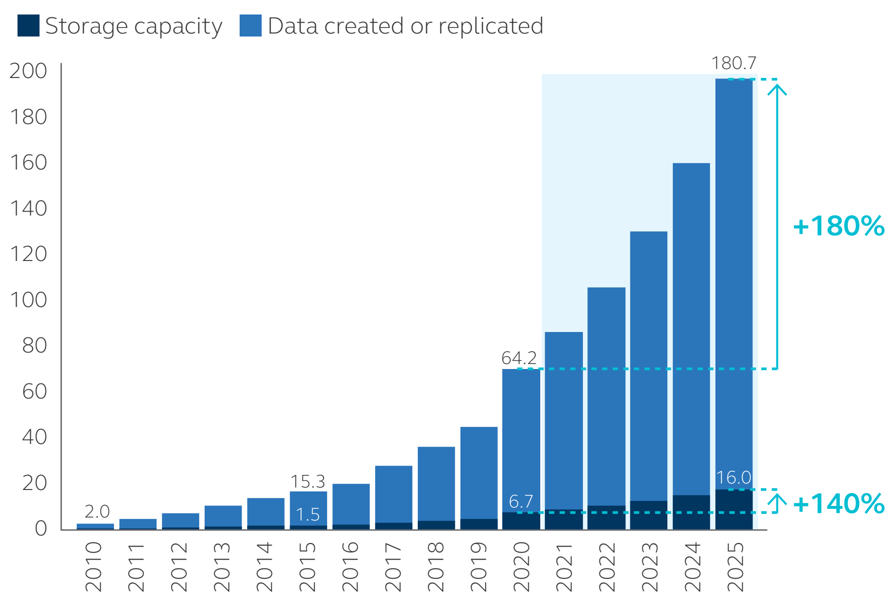
Digital technologies have transformed numerous aspects of society and the economy. Work, education, healthcare, and shopping are a few examples of activities that individuals and businesses now perform online. The current digital transition is so significant that the European Commission refers to the years leading to 2030 as the "Digital Decade". Globally, ambitious digital mandates are underway to strengthen and expand digital data capabilities, including enhancing business usage of cloud technology, digitalizing public services, and extending 5G capabilities.

The importance of data and digital technology can be seen in Exhibit 9, which shows that the amount of digital data created over the next five years will be greater than twice the amount of data created since the advent of digital storage. The adoption of new technologies including self-driving vehicles, smart buildings, and personal devices, in conjunction with the growing penetration of internet in developing markets are the main drivers behind this exponential growth. IDC, a global market intelligence provider, estimates that the volume of data in the world will pass 180 zettabytes by 2025. For reference, a single zettabyte is equivalent to one sextillion bytes, or a one followed by 21 zeros, enough data to fill 250 billion DVDs. Put simply, that's a lot of data which will drive significant investments in storage infrastructure.

Data centers are the engines that drive our relentless consumption of data, as more and more systems become driven by some form of automation. Data centers are attractive in that they occupy physical infrastructure space but are also vital to the virtual infrastructure on which modern society depends. It is an asset class that sits at the intersection of infrastructure and real estate, and one which touches nearly all of our key DIGITAL characteristics.

EXHIBIT 9: Data creation continues to expand at an exponential pace

Volume of data generated vs. global storage capacity, zettabytes



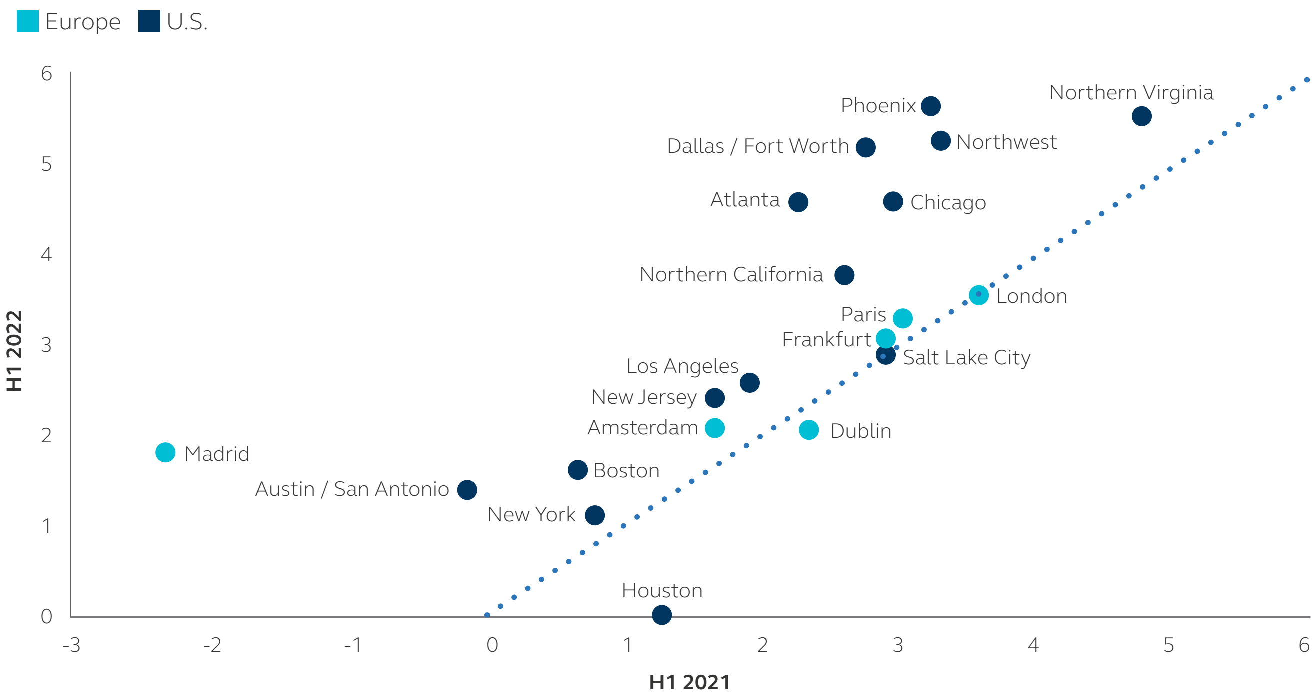
Source: IDC, 2022

No shortage of demand

Tenant demand for existing space has continued to increase globally. Take-up in Europe's five largest markets, namely Frankfurt, London, Amsterdam, Paris, and Dublin, was driven by near-record demand from hyperscalers, the largest cloud computing providers, which continue to aggressively expand their operations to accommodate end users' needs, including social media, entertainment, gaming, and cloud services. In the U.S., net absorption of space (see Exhibit 10) has accelerated in most key markets, particularly in the largest data center clusters including Northern Virginia and Phoenix. Growing demand has not been equaled by the supply side, due to green principles and power grid limits imposed by local government. For example, Amsterdam has implemented a two-year moratorium on new developments and Dublin has halted new projects due to power constraints. These setbacks have caused large operators to pursue build-to-suit solutions, often beyond mature markets.

EXHIBIT 10: Global demand for data centers continues to accelerate

Net absorption by market, natural log of megawatts (MW)



Source: JLL Research, Principal Real Estate, H1 2022

Perhaps a most significant development from an investment performance perspective is the increase in rental rates, which marks a reversal in the declines experienced over the past few years. Record low vacancy rates in key markets and accelerating demand have shifted the balance of pricing power toward landlords. We anticipate that this shift will result in higher rates and contract escalations going forward. This will be important, as operators are tenants that are not entirely immune to rising energy prices, supply chain issues, and labor shortages that have created issues across property types.

Structural durability of demand

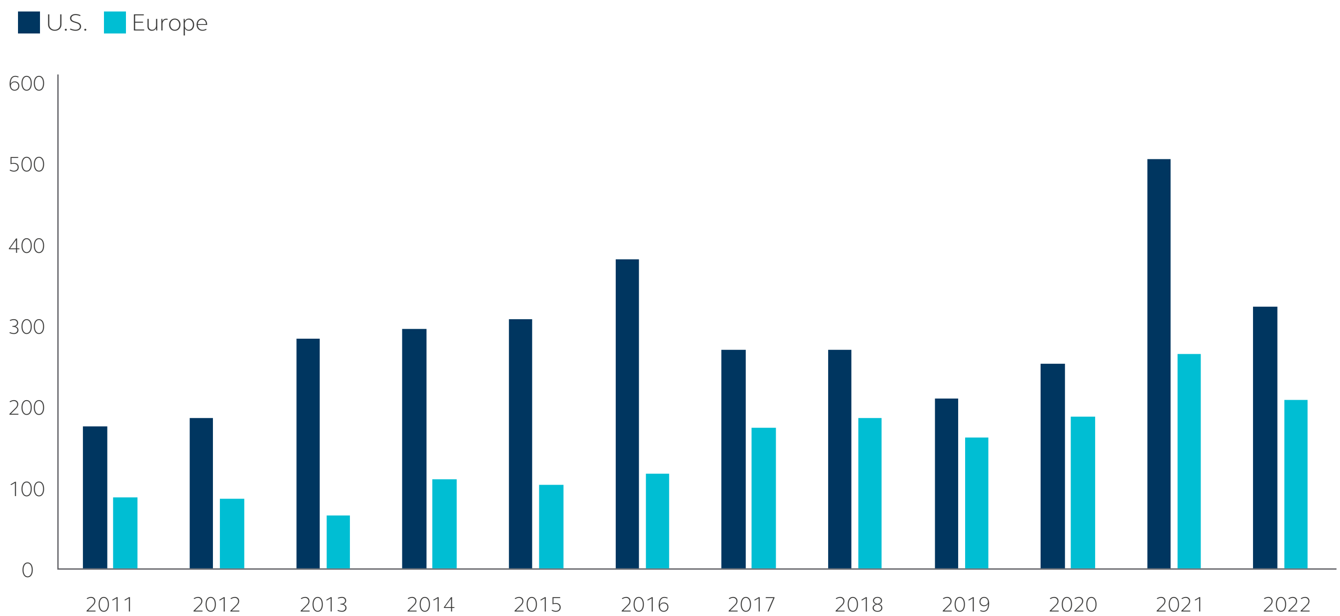
Data centers are facing some of the issues common to many property types late in a cycle—namely, shortages of space and limits to expansion capacity. One problem that will not face the sector, however, is a shortage of demand. Demand for data centers has proven perhaps the most durable of any property type. The exponential increase of data and utilization of cloud computing capacity will continue to support the sector over the next 12 to 18 months. As we look through the current capital market environment, data centers should, in our opinion, provide a healthy source of income growth for investors.

Industrial: Cyclical factors rein in growth, but the structural story is intact

Industrial has been on a record-setting tear globally, with both cyclical and secular tailwinds benefiting the sector. Strong economic growth and record levels of consumer spending have fueled both the demand for goods and the flow of international trade globally. Simultaneously, e-commerce has gained market share within the retail sector, thus creating demand for new warehouses. Add decades of globalization to the mix, and you have the right conditions for industrial to potentially do well (Exhibit 11).

EXHIBIT 11: Industrial demand remains resilient in the face of slower growth

U.S. and Europe industrial net absorption, MSF



Source: CBRE EA, CBRE ERIX, Principal Real Estate, Q2 2022

In both the U.S. and Europe, the warehouse sector continues to perform well, but is facing different market dynamics as we turn the corner into 2023. The U.S. industrial sector is approaching a tipping point, where it is partially a victim of its success. Positive net operating income (NOI) growth and demand have attracted capital to the sector and spurred outsized development pipelines, which has put investors at risk as we head into a slower growth environment. Though the sector will likely continue to benefit from secular tailwinds, the next 12 to 18 months will be a period of moderation and price discovery given our forecast of recession and short-term dislocations in capital markets.

In Europe, the sector remained resilient in the first half of the year driven by strong occupier demand, despite mounting pessimism regarding the economic outlook and the energy crisis. The supply chain disruption coming from the Chinese Zero-COVID policy, as well as heightened geopolitical tension, is forcing companies to replace their just-in-time inventory management approach and to take up additional warehouse space to accommodate higher inventory levels.

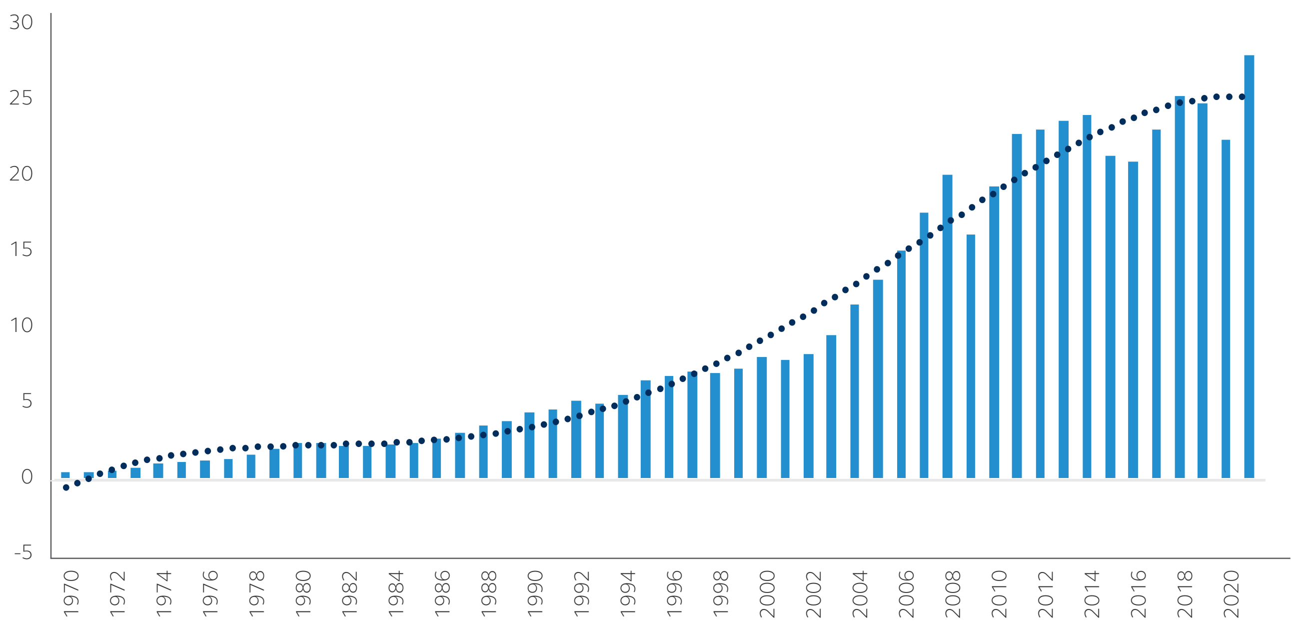
Slow-balization

Of particular importance to the industrial sector over the next several years—and particularly in the next 12 months—is the state of global trade. Some investors believe that decades of globalization have ended and countries are heading to more nationalistic trade policies. No doubt, global trade as a share of GDP over the past several years has plateaued after decades of growth following the Second World War. It is, however, more likely a function of saturation and shifting supply chains, than a signal that we are entering a period of de-globalization.

The transition, however, has mattered little to U.S. and European investors. This may be partially explained by the continued growth of trade on an absolute basis. If we look at the flow of goods, it suggests that developed economies remain open and increasingly reliant on global supply chains. Trade levels, as measured in global exports, have never been higher (Exhibit 12). The outlook is also optimistic, with the International Monetary Fund (IMF) predicting that the Eurozone and U.S. import volume of goods will keep increasing through 2027, sustaining the case for investing in modern logistic assets.

EXHIBIT 12: Global trade levels have never been higher

Exports of goods and services, trillions of current U.S. dollars



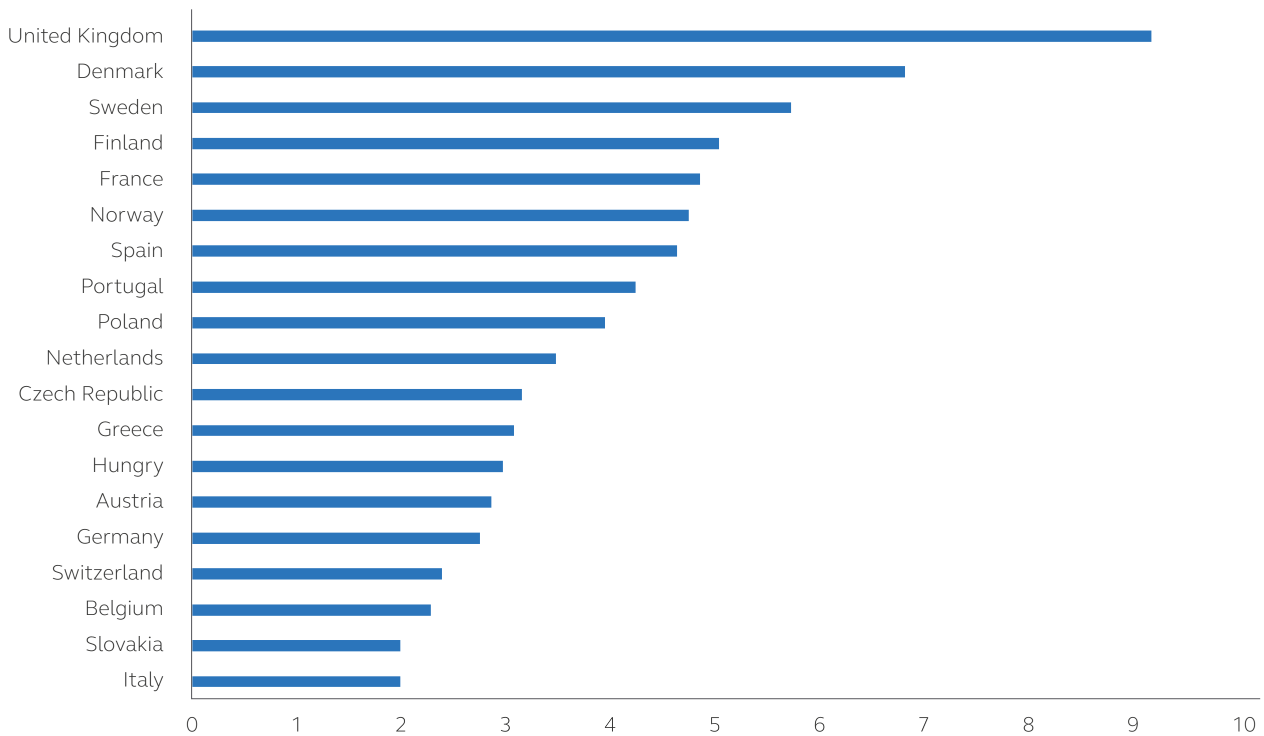
Source: World Bank, Principal Real Estate, 2022

The stumble of e-commerce not affecting industrial demand

E-commerce remains one of the dominant secular drivers for the industrial sector, in both the U.S. and Europe. In the U.S., however, the shutdowns induced by the COVID-19 pandemic spurred on a wave of consumers who had previously been reluctant to fully embrace online shopping. At the height of the pandemic, U.S. growth was super-charged. Online sales increased to 16% of overall sales before retreating, as the economy reopened toward the end of 2020. In Europe, after the peak of the COVID-19 pandemic, e-commerce has become even more firmly anchored in the economy and society. However, significant differences remain across countries. The percentage of GDP comprised of e-commerce sales ("E-GDP") ranges from 10% in the UK to 3% in Germany and 2% in Italy, pointing to further growth potential in the years ahead.

EXHIBIT 13: E-commerce is firmly anchored in the economy and society across Europe

E-commerce spending as a percentage of GDP (e-GDP) in 2021

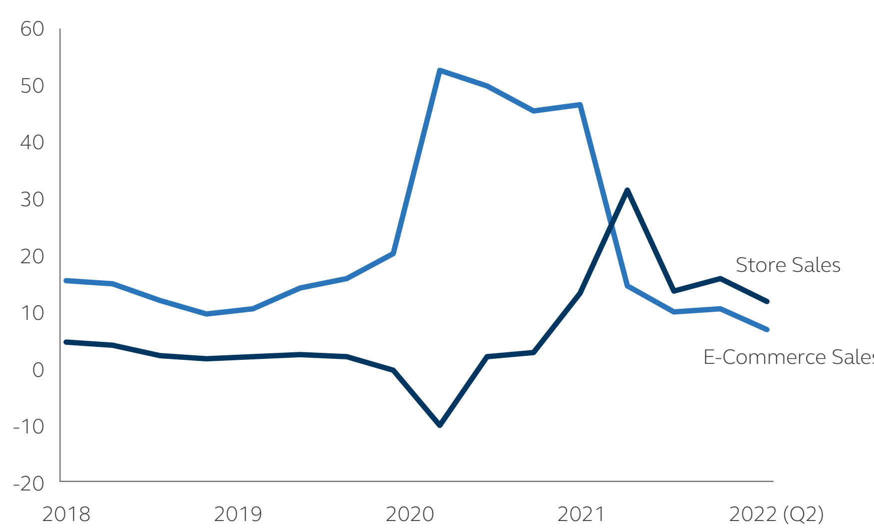


Source: European eCommerce Report, 2022

Among the more noteworthy stories over the past 12 months has been Amazon's decision to pull back from its warehouse leasing and even release space back to the market that it deemed unnecessary. Into that void, however, other major e-commerce players and logistics firms have picked up the slack, and even pushed vacancy rates and availability to near-record lows in most major markets. We anticipate that the continued growth in e-commerce sales will help support sustained demand for the industrial sector.

EXHIBIT 14: E-commerce growth no longer outpacing brick-and-mortar stores

U.S. e-commerce and store sales, year-on-year % change



Source: Census Bureau, Moody's Analytics, Principal Real Estate, Q2 2022

Development and slower growth

Perhaps the most pressing issue for the U.S. industrial market today is the level of new supply being delivered to the market. At present, much of this development is compartmentalized to the port and major logistics markets; still, the rate of new development remains near record levels on both an absolute and relative basis. Presently, under-construction projects amount to nearly 4% of existing industrial stock in the U.S. In both the U.S. and Europe, we expect deliveries over the next two years to meet or exceed their historical averages over the next two years (Exhibit 15).

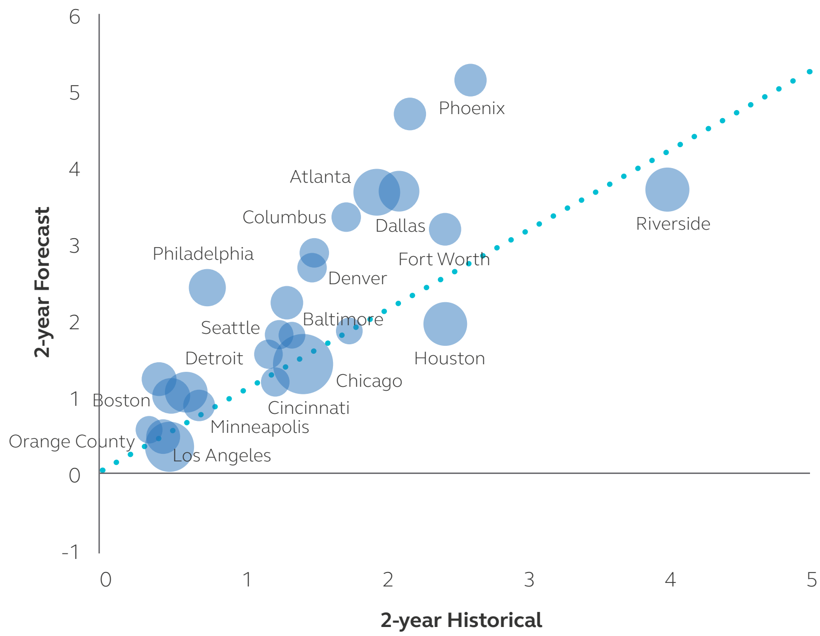
Though differences in the data make comparisons difficult, new development in Europe remains on the same trajectory. In both regions, however, most of the existing warehouse stock is at least 30 years old, and a third of large warehouses (400sf +) in the U.S. have been delivered in just the past decade. The increasing prevalence of e-commerce and the pursuit of next-day delivery means that even warehouses built 10 years ago are facing obsolescence at an alarming rate. Demand for state-of-the-art warehouses will help offset new development, which today is often pre-leased upon delivery.

Investors would be wise to remain long in the industrial warehouse sector

We continue to view the warehouse sector as a top performer within the commercial real estate asset class. While we see some value declines in the offing due to a weakening economy, we believe that in place, leases and strong demand for high-quality and well-located assets will continue to offer investors more stable income returns over the next 12 to 18 months. We suggest private equity and debt strategies on a selective basis in core markets and see value in ground-up development in markets with strong underlying tenant demand.

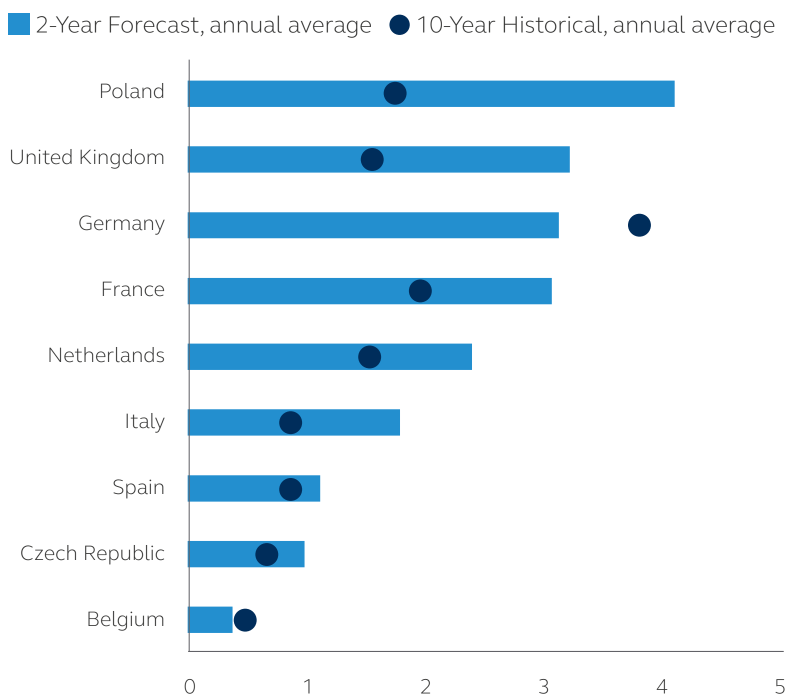
EXHIBIT 15: Industrial deliveries should remain robust in the U.S. and Europe

U.S. industrial completions, average annual % change in stock



Bubble size represents market sized by net rentable area in square feet
Source: CBRE EA, Principal Real Estate, Q2 2022

European logistics completions, millions of square meters



Source: CBRE, Principal Real Estate, 2022

Life sciences: Cyclical challenges with secular tailwinds

The life sciences sector has experienced outsized growth over the past two years. The sector was the darling of the pandemic, as multiple COVID-19 vaccines and therapeutics were fast-tracked in what was perhaps the greatest industry mobilization since the Second World War. It was the perfect catalyst for a sector that had steadily gained momentum over the past 20 years in response to an aging population in the developed world, particularly in the U.S. where healthcare spending as a share of GDP has grown to nearly 20%.

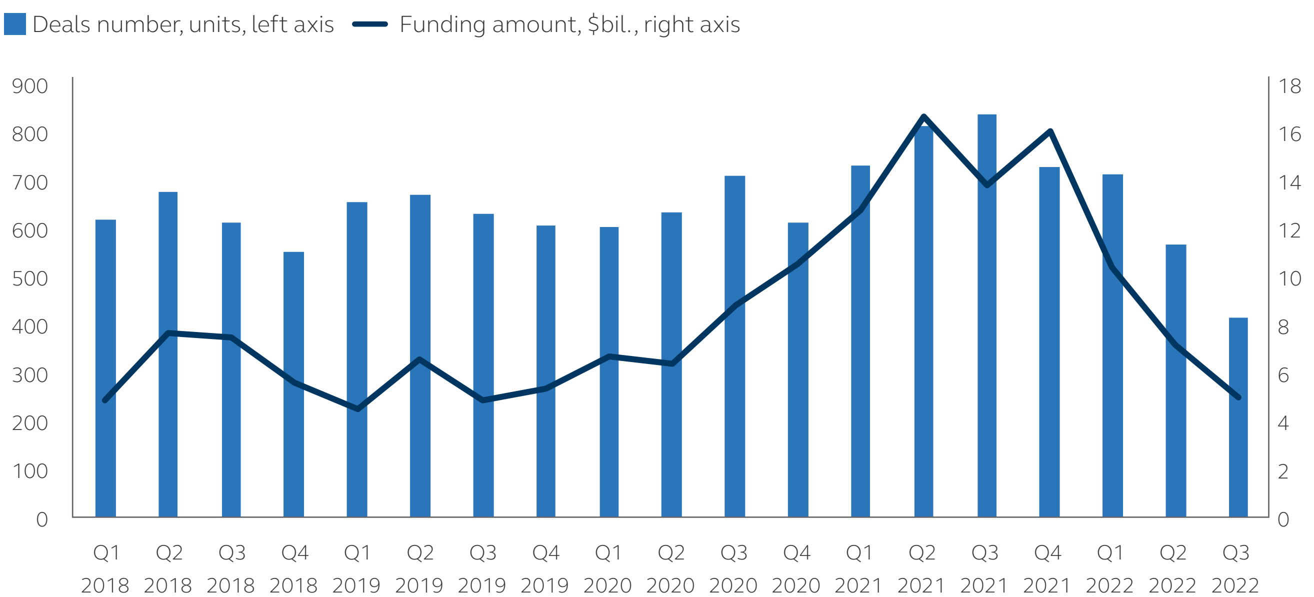
Though data are limited on the sector, nearly all indicators from the public sector suggest that market fundamentals have remained positive. Hiring within the sector is healthy and demand is largely a secular matter, which makes the life sciences sector a compelling story amid elevated capital market uncertainty and slowing headline economic growth. As a result, we anticipate that the sector will potentially be able to overcome near-term cyclical challenges facing most sectors and outperform on a relative basis.

Funding challenges

One of the key attributes of the life sciences industry is its non-cyclical nature, which often allows it to outperform during periods of economic turmoil. Despite this, the sector is facing its challenges today. The most recent capital market's swoon has been particularly unkind to technology companies. We have witnessed a shift in the venture capital cycle which had been funneling capital to life sciences companies. Quarterly funding for digital health companies, a growing segment within the life sciences sector, has declined from nearly $17 billion at its height during the pandemic to just $5 billion during the third quarter of this year (Exhibit 16).

EXHIBIT 16: Life sciences funding not immune to capital market volatility

Global digital health deals and funding



Source: CB Insights, Principal Real Estate, Q3 2022

In public markets, the life sciences sector has underperformed the REIT benchmark through 2022, as investors have become increasingly concerned that leasing momentum could falter. Smaller and mid-size biotech companies have seen more constraints in access to public markets with IPO and secondary offerings stepping down and smaller to mid-size stocks selling off.

Reasons for optimism

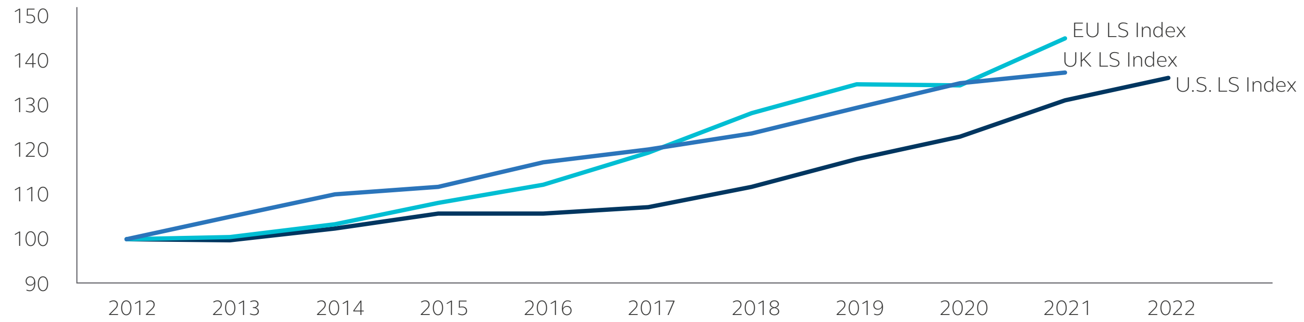
Despite recent headwinds impacting the life sciences sector, underlying fundamentals remain in very good shape in both the U.S. and Europe. Secular drivers such as an aging population, which will increase demand for medical care and innovative therapeutics, should support long-term demand in our opinion.

Despite recent headwinds for smaller and mid-size biotech firms, the market for space has become bifurcated rather than soft. Larger life sciences firms (Pfizer, Johnson and Johnson, Novartis) remain well capitalized and in the market for lab space despite funding issues that are vexing smaller players. For example, the UK is at the forefront of life sciences in Europe, and though fundraising has reduced this year, take-ups and pre-lettings remained robust, pushing the availability of labs at scale to nearly zero in the most sought-after locations.

Employment is also another factor that suggests healthy structural demand over the next 12 to 18 months. Since 2000, employment in the life sciences industry[3] has grown at more than twice the rate of total nonfarm payroll employment (see Exhibit 17). In the U.S., the pipeline for life sciences talent is also expanding, with degrees in Biological and Biomedical Sciences increasing by 103% over the past 15 years, which will support growth in the demand for both workers and commercial space.

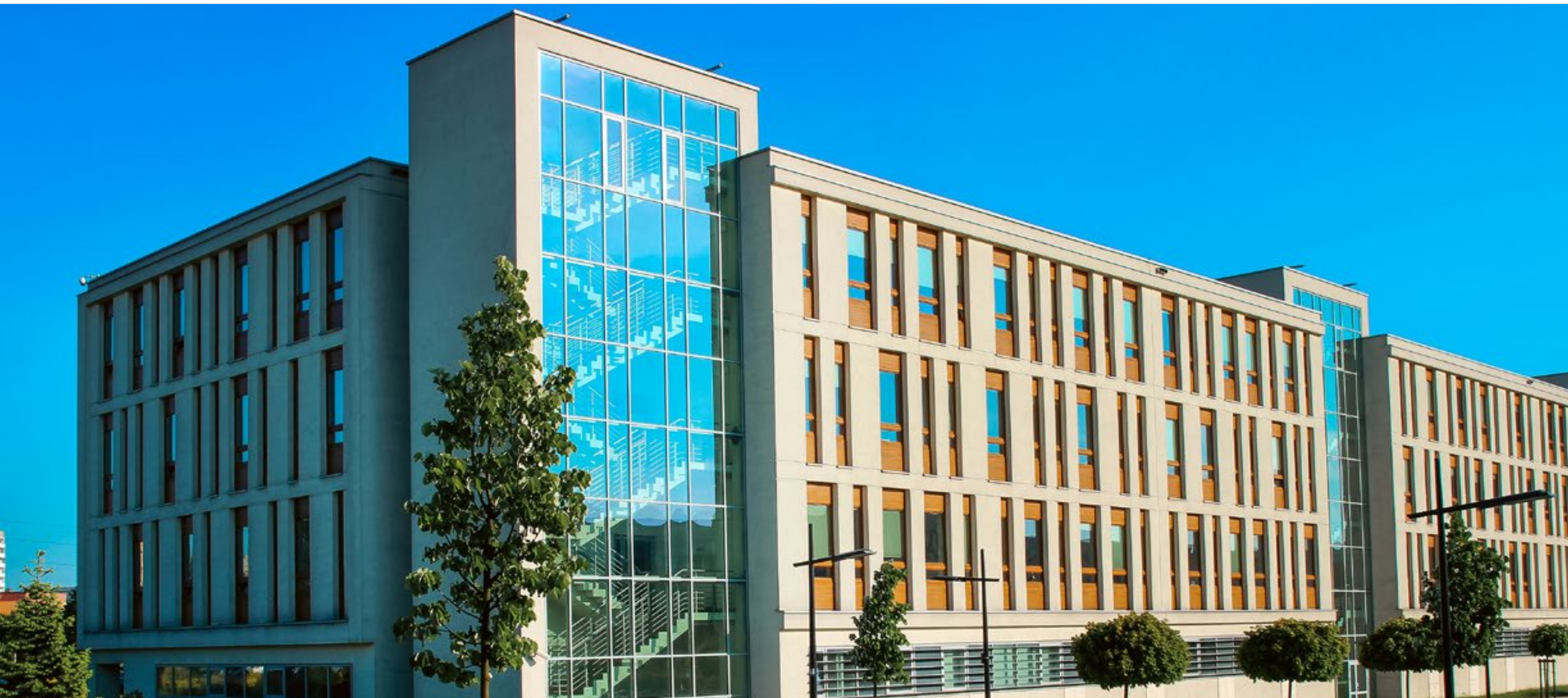
EXHIBIT 17: Demand for life sciences space supported by outsized employment growth

Change in life sciences employment, 2012=100



Source: Eurostat, ONS (UK), Moody's Analytics, Principal Real Estate, Q2 2022.
The UK employment data comes from the United Kingdom Office of National Statistics. The EU Statistic represents the 27 current EU countries and comes from Eurostat. The U.S. statistic comes from Moody's Analytics.

[3] Life sciences industry defined as the sum of pharmaceuticals and medicines; research and development in the physical, engineering, and life sciences, and Medical and diagnostic laboratories industries.

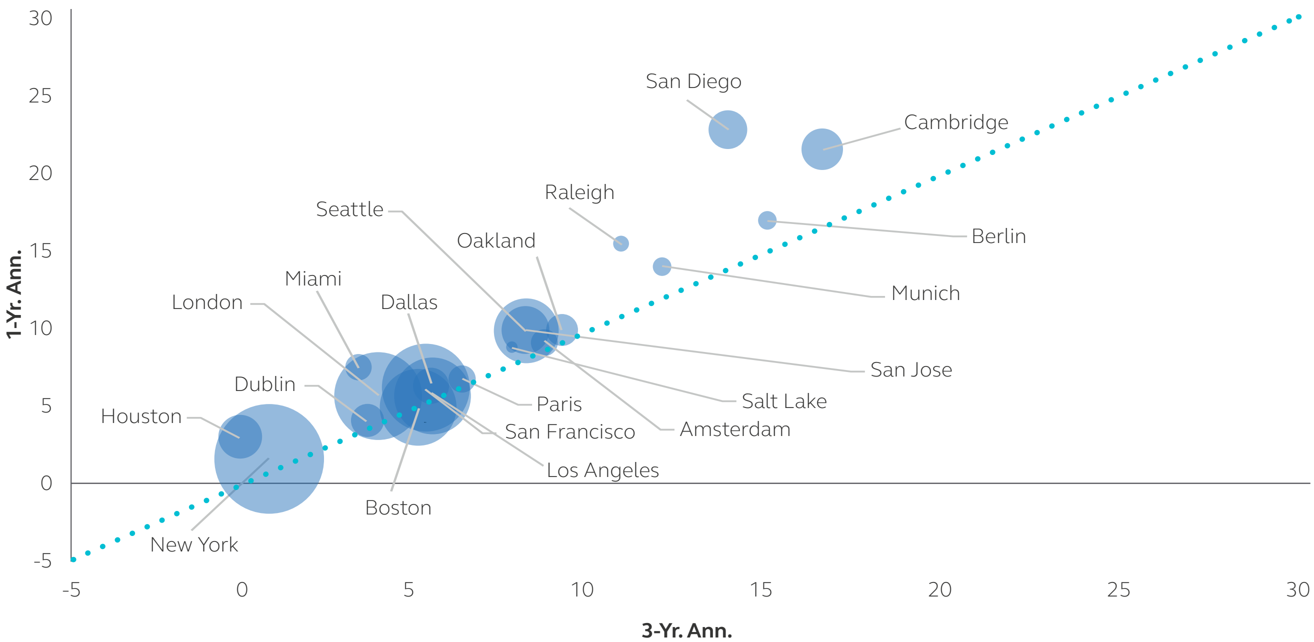


Healthy return profile

Though data are scarce for life sciences properties, regional office performance suggests that metro areas with existing and emerging biotech clusters have a decided performance advantage. Exhibit 18 displays annual returns for private equity office properties over the past three years. At a time when office demand—from both investors and tenants—has remained weak, total returns have performed surprisingly well, particularly in metro areas with high concentrations of technology and life sciences employment. In the U.S., the highest industry and funding concentrations remain in the San Francisco Bay area and Boston's Cambridge metro division. While not all life sciences metros have performed equally well, top markets have seen an acceleration in returns and have outperformed the broader market benchmark.

EXHIBIT 18: Life sciences metros have supported office performance

Office total return in life sciences markets, %



Source: NCREIF NPI, MSCI, Principal Real Estate, Q2 2022

Structural durability will support investment performance

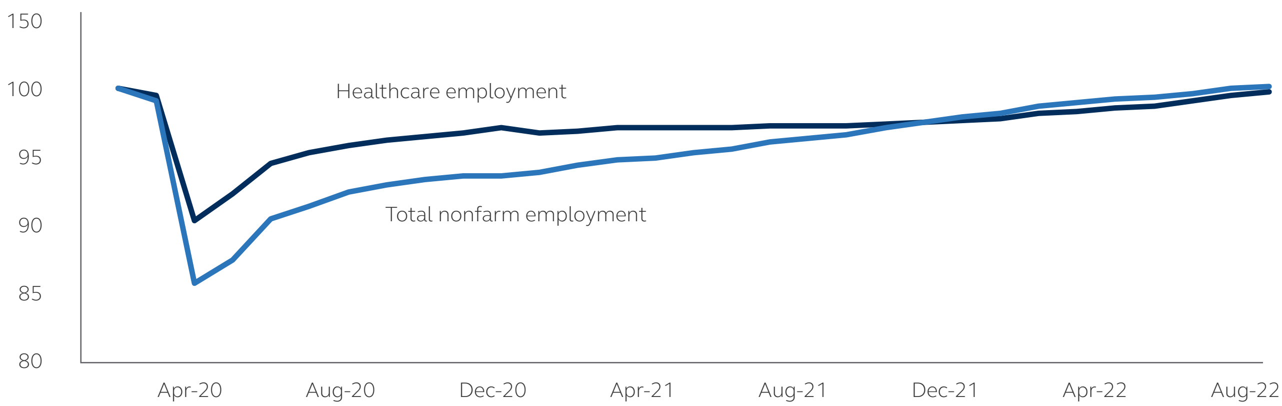
The life sciences are contending with the same cyclical forces impacting other property types. High interest rates, inflation, and economic uncertainty have frustrated capital markets across the board. While the sector has underperformed relative to its public market peers, we feel that the structural durability and relatively non-cyclical nature of the sector will remain attractive. Top-tier tech clusters including Cambridge, the Bay Area, and the Golden Triangle which consists of Cambridge, Oxford, and London will remain magnets for life sciences tenants.

Medical office: Recovering from the pandemic

Intimately linked to the life sciences story is the secular demand for medical offices. The irony of the pandemic was that the healthcare industry and medical office were dealt a severe blow despite record levels of healthcare utilization. In reality, medical office, along with life sciences, is one of our DIGITAL property types with perhaps the best long-term demand drivers—the aging population and shifting demand for medical care. Consequently, the sector is often cited as one of the most recession proof within real estate. Since the pandemic, the U.S. labor market for healthcare workers has recovered rapidly, recouping nearly all of the 1.6 million jobs lost during the shutdowns (Exhibit 19). Most importantly, the healthcare industry is driving the demand for medical office space.

EXHIBIT 19: Healthcare deferred during the pandemic

Healthcare total nonfarm payroll employment, Index (February 2020 = 100)



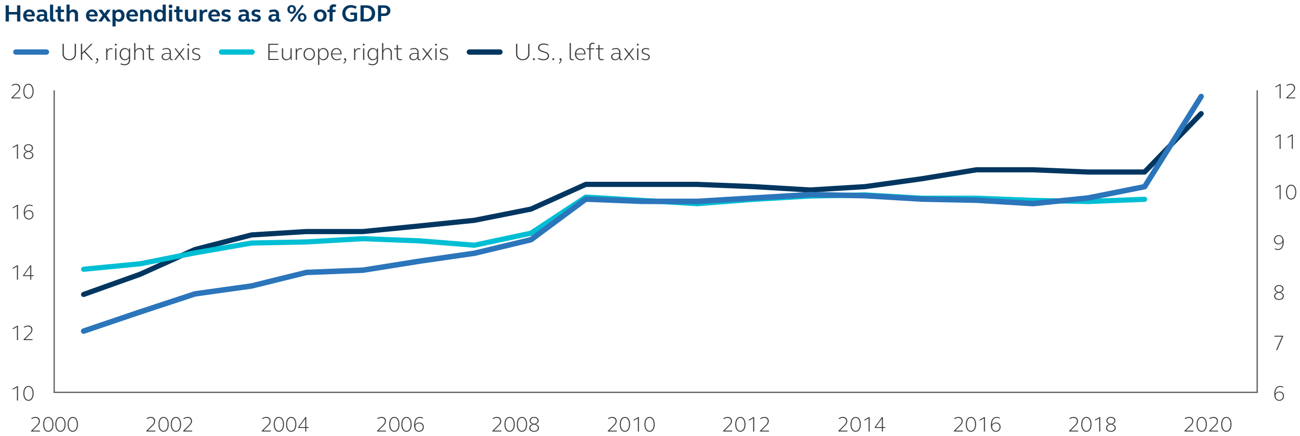
Source: BLS, Moody's Analytics, 2022

Built-in resiliency

The medical office sector has one of the best built-in secular drivers of any property type: an aging demographic base. As the U.S. and European populations continue to age, the demand for healthcare across the spectrum of care rises. Today, the U.S. and most European populations are among the oldest in the world. The median age of the U.S. population is just over 38 years old, while the European median is 44 years old, compared with the global median of just 31 years old. As Exhibit 20 shows, the demand for healthcare services as measured by the share of GDP has increased steadily over the past 20 years. In the U.S., healthcare spending as a share of economic output remains among the highest in the world.

EXHIBIT 20: Global healthcare expenditures accelerating

Health expenditures as a % of GDP



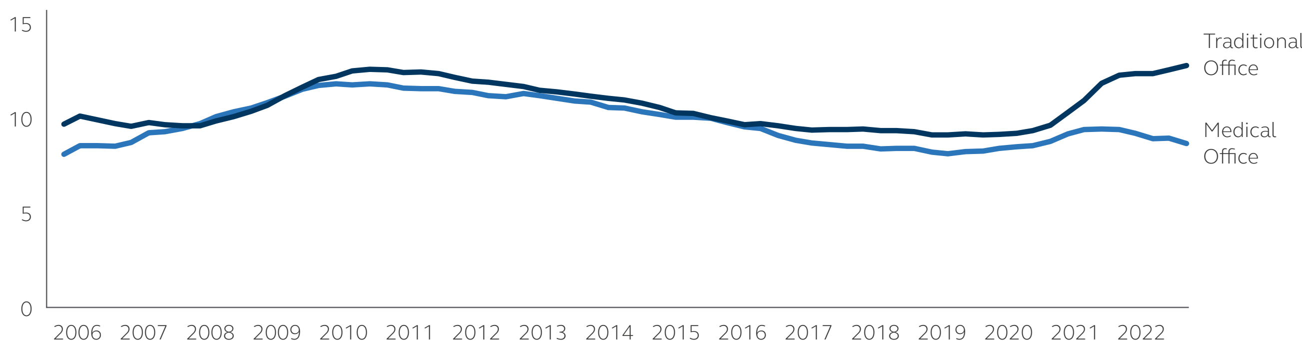
Source: World Bank, CDC, Principal Real Estate, 2022

Medical work from home?

A key innovation that has gained traction over the past few decades and particularly during the pandemic is telemedicine. Though telehealth increased dramatically during the pandemic, from roughly 1% of all healthcare visits before the pandemic to as much as 80% in places where the pandemic hit the hardest, utilization rates have since retreated.[4] Although remote medical services can help reduce office visits and allow doctors to see an increasing number of patients, they cannot replace in-person care. In that sense, medical offices have not suffered the same fate as their traditional office peers. Data from CoStar shows that medical office vacancy rates have fallen significantly in the last two years to just 8%, while traditional offices have seen utilization rates decline and occupancy rates fall to their lowest levels since the Global Financial Crisis (GFC).

EXHIBIT 21: Medical and traditional office vacancy rates are diverging

Average vacancy rate, %



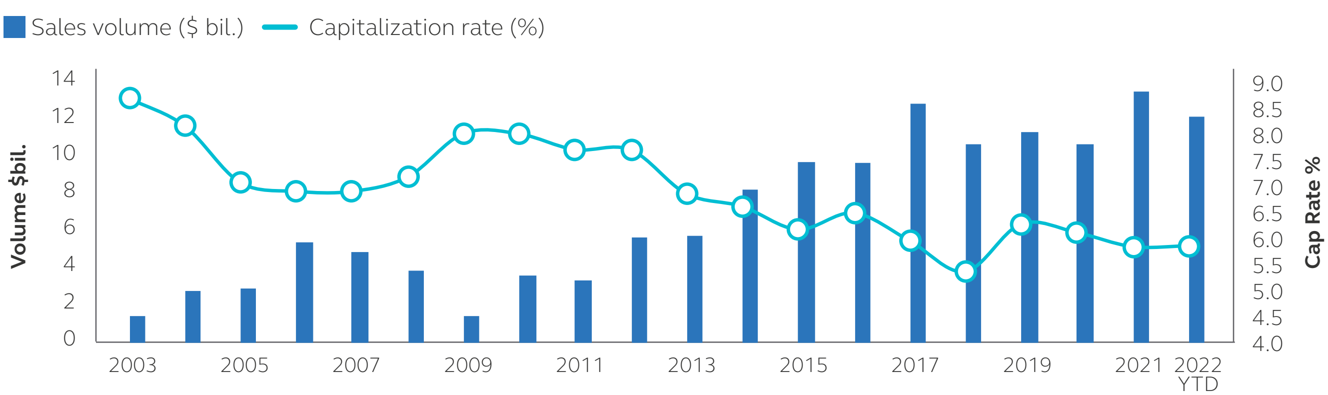
Source: CoStar, Q2 2022
Note: includes 54 major U.S. markets

Investor demand remains stable

Structural demand for medical office assets has increased, as the sector has begun to emerge as an alternative to traditional offices. The sector currently faces the same capital market headwinds that the rest of the industry has dealt, with cap rates widening over the past six months. Yet, deals transacted in the first half of the year have shown relatively stable pricing and solid investor demand. Transaction volume through September has nearly matched 2021, which cannot be said for many other sectors at this stage. Due to the structural and inelastic demand for medical services, the healthcare sector remains one of our preferred sectors in 2023.

EXHIBIT 22: Investor demand for medical offices remains high

Medical office transaction volume and cap rate



Source: Real Capital Analytics, Principal Real Estate, September 2022

[4] National Survey Trends in Telehealth Use in 2021: Disparities in Utilization and Audio vs. Video Services, https://aspe.hhs.gov/sites/default/files/documents/4e1853c0b4885112b2994680a58af9ed/telehealth-hps-ib.pdf

Residential: Diversity and growth go hand in hand

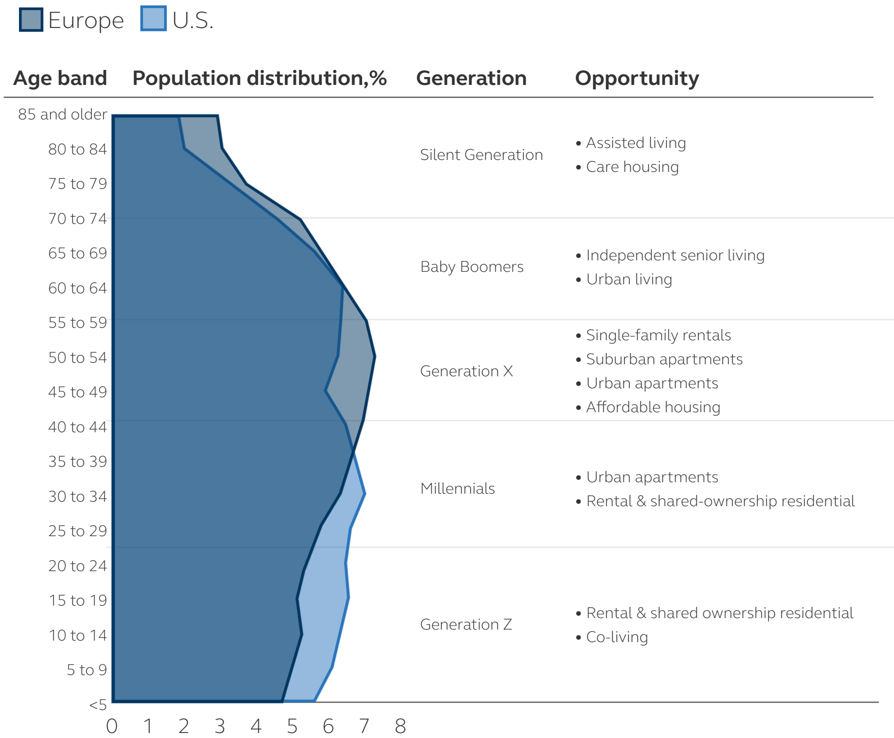
The residential sector is deep and broad and is one of our preferred DIGITAL ideas. Though long considered one of the more recession-resilient sectors, we realize that residential remains susceptible to changes in the economic environment. Despite a darker outlook for the economy, the sector continues to be undersupplied, particularly within its moderately priced subtypes. In both the U.S. and Europe, occupancy levels are far above their equilibrium levels and even a moderate slowdown in leasing activity would allow the sector to potentially outperform on a relative basis over the next 12 months.

Shifting demographics and economics in the post-COVID world

Demographic changes are altering the demand landscape for housing. For example, Millennials (those aged 26 to 41) are now the dominant population group in both the U.S. and Europe, accounting for roughly 20% of the population in each region. Including Generation Z, the prime-age renter cohort accounts for roughly 40% of the total population.

Despite such a large share of renting age population, both the U.S. and Europe are relatively old, a trend that will increase over the next decade. Exhibit 23 shows the distribution of the population in each region. As a result of these aging and distinct populations, the structural demand for housing remains healthy but requires an increasingly diverse array of housing solutions.

EXHIBIT 23: Different population groups require different housing solutions



Source: Census Bureau, Eurostat, Moody's Analytics, 2022

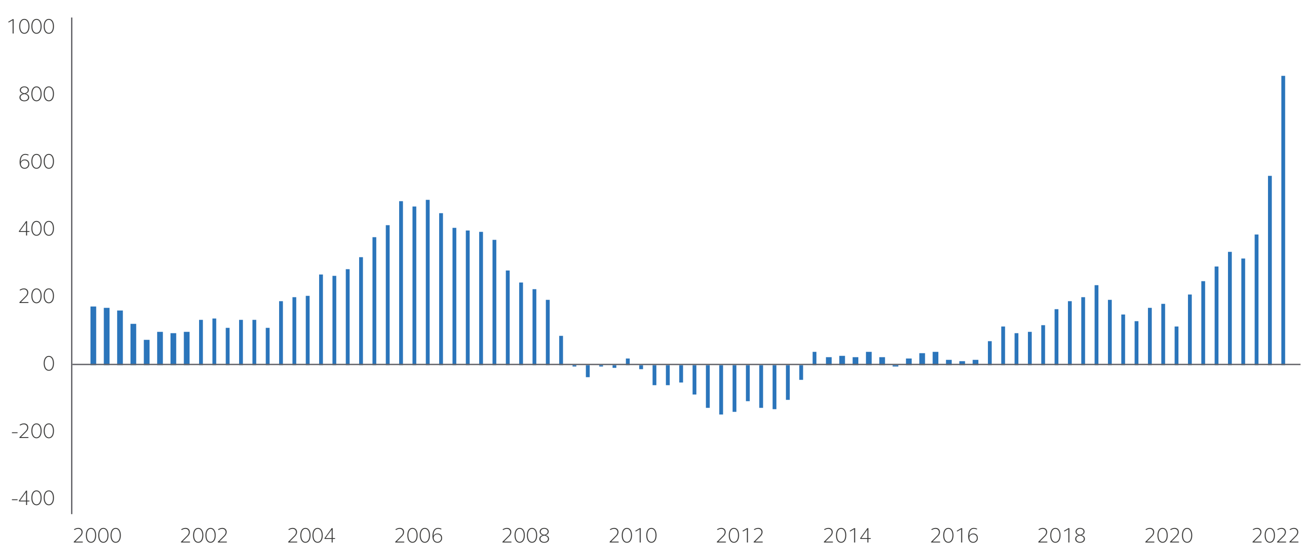
The economics of single-family ownership remains challenged

A key trend favoring residential properties for rent is the skewed nature of economic and wealth distribution. Slower and below-trend wage growth over the past few decades, particularly in the U.S., has tilted the metrics of home ownership in favor those at the upper end of the income distribution. Cyclically, the situation has been exacerbated, with rising interest rates pushing the conforming fixed-rate 30-year mortgage to roughly 7% as of this writing. In the UK, the average rate of two-year fixed-rate mortgages, a key indicator of housing borrowing costs, has recently climbed to 6.4%, a level not seen since 2008, further squeezing the finances of more than two million homeowners with adjustable-rate mortgages that will need refinancing in 2024, and lowering affordability of prospective new buyers. In the Eurozone, banks and lenders are imposing tighter income tests and lower limits to the overall amounts prospective buyers can borrow.

In other words, rapid home price appreciation and higher rates have conspired to make the cost of home ownership relative to renting higher than ever before (Exhibit 24). At current levels, home ownership is simply not attainable to many households at or near median income, which means a growing share of the population will be renters by necessity. While this may be bad news for the single-family market over the next 12 to 18 months, it creates sustained demand for a variety of rental options.

EXHIBIT 24: Home ownership costs at an all-time high in the U.S.

National cost of owning vs. renting single-family starter home, $ per month



Source: CoStar, NAR, Federal Reserve, Moody's Analytics, Principal Real Estate, Q2 2022
Note: Cost to own assumes purchase of a home at 80% of median home price, with a 5% down payment and a 30-year fixed rate mortgage. We include PMI insurance at 1% of loan value. Maintenance costs are included assume 1% of purchase price annually.

Moderately priced housing

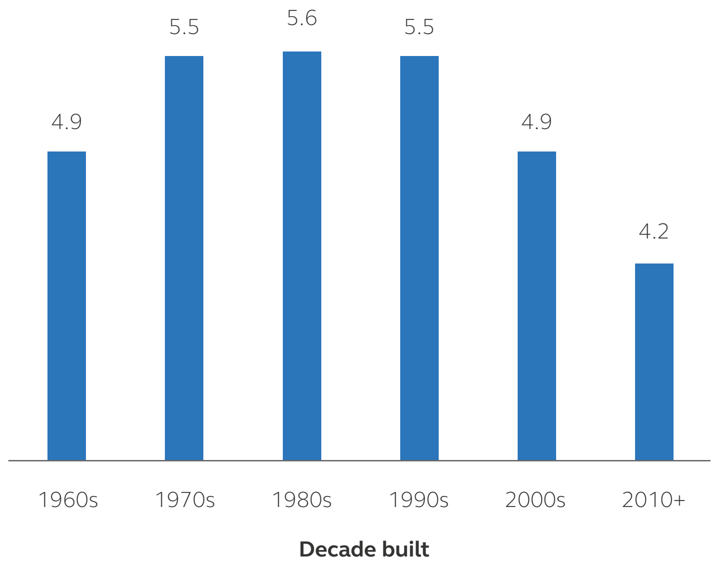
Perhaps the largest challenge in the housing sector today is the ability to match existing demand with affordably priced supply. Over the past two decades, new housing supply has failed to keep pace with household formation and population growth, resulting in a shortfall of roughly 1.4 million multifamily units in the U.S. Increases in the cost of shelter have outstripped household income growth by 16% as measured by the Consumer Price Index (CPI) for rent of shelter—a conservative measure of the rental inflation. These dynamics have created an increasing need for affordable housing.

Affordable housing is generally thought of as between 60% and 120% of a standard housing budget—roughly a third of median household income, which today ranges between roughly $1,065 and $2,131 per month, assuming a median annual household income of roughly $70,000. The U.S. national average for an institutionally managed two-bedroom unit is about $2,000, which is the top-end of that range but varies widely by the market; thus, limiting the options for many renter households in an increasingly tight market.

The shortage of moderately priced units creates both a challenge and an opportunity for investors. Though difficult to develop on a cost basis, existing moderately priced units, particularly older vintage, have shown a propensity to outperform. Exhibit 25 shows rental performance over the past five years on an annualized basis for units built by decade. Over this period, older units have outperformed those that have delivered since 2000, leading to greater NOI growth for investors.

EXHIBIT 25: Older units can provide stronger rent growth

Apartment rent growth by building vintage, annualized % change, 2017-2022



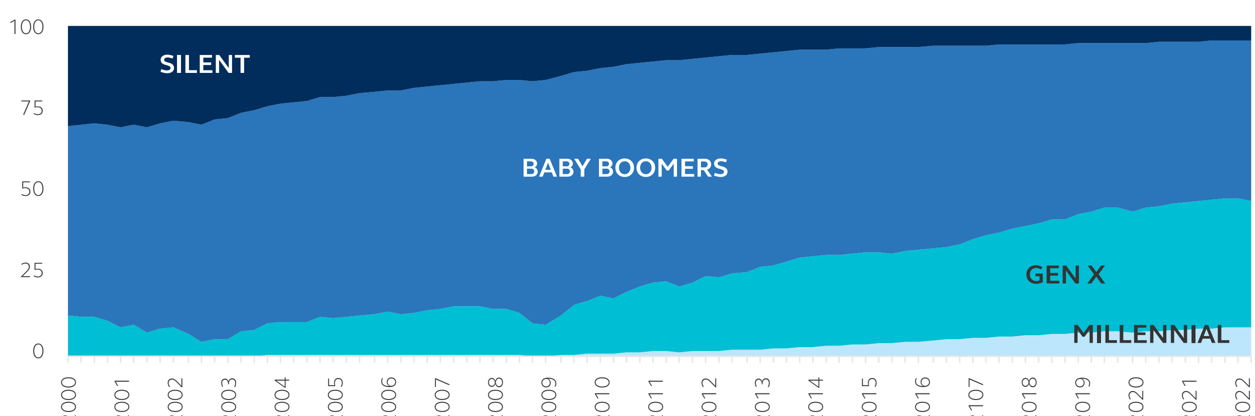
Source: CBRE, Principal Real Estate, Q2 2022

Single-family rentals

Single-family rentals remain a small but growing sector within the broader residential property type. An acute shortage of both rental units and single-family homes for sale, along with higher costs of homeownership, continue to bolster demand for these rentals. Perhaps the most pressing issue facing housing and driving demand for single-family rentals is the wealth gap between potential first-time homebuyers today relative to those of previous generations. Millennials continue to lag far behind prior generations in terms of both income and wealth accumulation on both an absolute and relative basis (see Exhibit 26). Today, they have a much smaller share of overall wealth than Generation X at the same point in time in their age progression.

EXHIBIT 26: Where will Millennial down payments come from?

Wealth by generation, % of total



Source: Federal Reserve Survey of Consumer Finances and Financial Accounts of the United States, 2022

Though there are many reasons for this lag, the bottom line is that it has been difficult for many Millennials to save enough for first-time home purchases. Wage growth has failed to keep up with home price appreciation, particularly over the past two years where home price growth has averaged nearly 20% on an annual basis. Still, the demand for space has not been curbed by this wealth and income imbalance. As Millennials age, they seek more space for their expanding families, and single-family rentals have become an increasingly attractive option.

While the sector continues to screen well as one of our preferred DIGITAL strategies, it remains one of the more cyclically susceptible subsectors within residential. Though housing tends to have a relatively low-price elasticity of demand, there are many substitutes within the sector—single-family rental being one of the more expensive on a relative basis within the residential for-rent market. The growth in the supply of single-family home inventory for sale, along with higher interest rates, has softened the sector as affordability is eroded further. This may ultimately help scale the institutional market and provide for new rental supply on a more attractive basis.

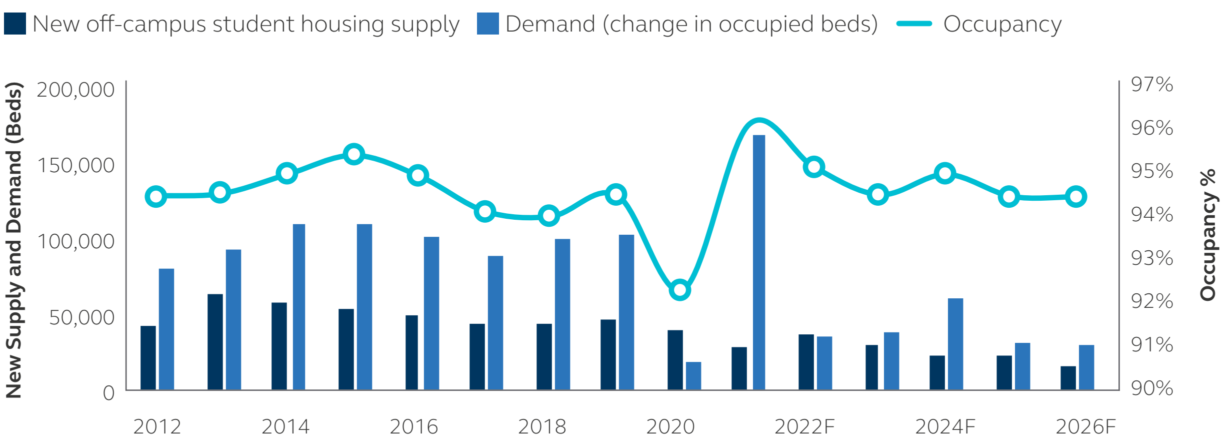
Student housing

After suffering during the pandemic from remote or hybrid learning models, student housing fundamentals have recovered. The student housing sector is benefiting from a relaxing of pandemic-related restrictions and demand for private units remains very strong.

In the U.S., robust tenant demand for the 2022-2023 school year has outperformed expectations year-to-date and set the stage for solid performance (Exhibit 27). Enrollment trends have also improved from their pre-pandemic levels, but this is counter to secular trends for the sector. Longer-term risks to the sector include a plateau in enrollment rates due to emerging alternatives to traditional four-year universities. Rising rates will also add a burden to students who require debt to underwrite their educations. Site selection and asset quality will remain extremely important but the silver lining today is that the sector enters a period of economic uncertainty from a position of strength.

EXHIBIT 27: Student housing demand healthy for now

Privately-owned student housing



Source: Axiometrics, Principal Real Estate, Q2 2022

Occupancy of student housing units is already at record highs in several European university hubs as well. Demand is expected to increase in the medium term amid rising participation rates in higher education, growth in international student flow, and supportive government policies. Additionally, this asset class is well poised to navigate the current economic climate as being relatively recession-proof. The UK remains the largest European student housing market by far, accounting for roughly 50% of all transactions. However, activity in other markets such as France, Germany, and Spain is expected to increase.

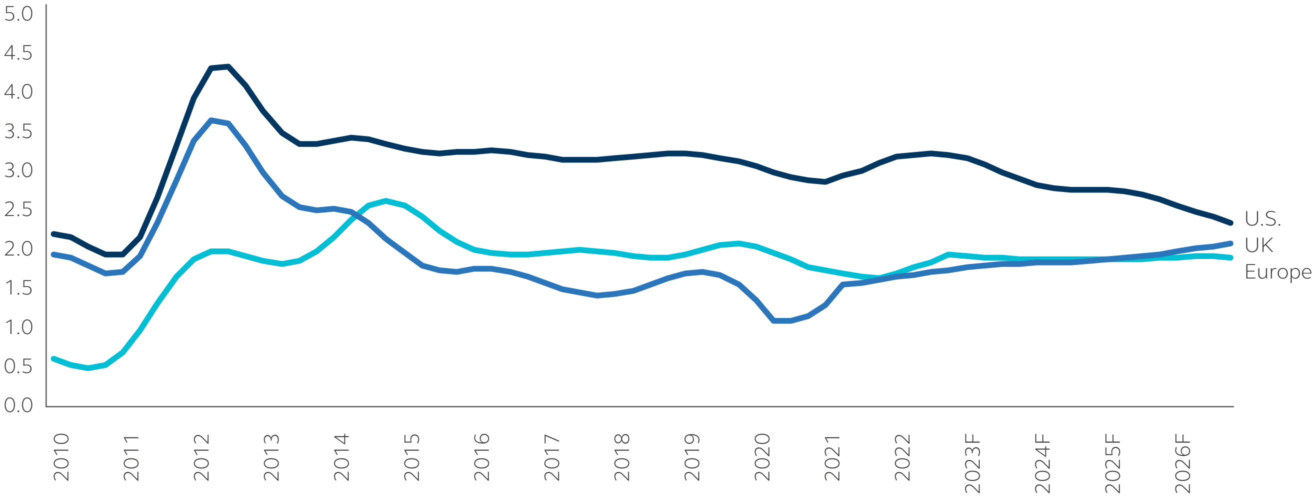
Senior housing

Along with medical office and student housing, the senior housing sector was among the biggest losers during the pandemic. Occupancy rates declined to 77.9% in the U.S. during the depths of the pandemic and remained depressed over the course of the past two years. This was partly because nursing homes and senior living facilities were hot spots for infections in the early stages of the pandemic. With the advent of multiple vaccines and therapeutics, the sector is on the cusp of a full recovery, which at the current pace of occupancy improvements we believe should occur within the next 12 months.

On a structural basis, the demand for senior housing remains strong. The primary demand driver remains population growth among individuals aged 65 and older, which is one of the fastest-growing demographic groups in the developed world. In the U.S., the population growth of individuals aged 65 and older is projected to increase to a rate of 2.6% on an average annual basis over the next five years, which compares with a total population growth of 0.4% over the same period. The data in Europe (1.9% and 0.1%) and the UK (1.9% and 0.6%) mirror these trends and suggest increased demand for senior housing across the spectrum, from assisted living to memory care facilities.

EXHIBIT 28: Demographics dictate demand for senior living

Persons aged 65 years and older, population growth, year-on-year % change



Source: Eurostat, UK Office for National Statistics, Census Bureau, Moody's Analytics, Q2 2022

In the near term, the primary challenge to the sector remains the availability of labor and cost, followed by inflation and higher interest rates. Pricing for senior living facilities tends to reflect a premium over other residential formats due to its capital- and labor-intensive nature. In the U.S. in particular, facility revenues are driven by an individual's ability to pay, which presents challenges as they move up in level of care. This may be less of a concern in Europe and the UK, where universal healthcare insurance allows for social underwriting of risk to a greater degree. But since the dependency ratio is increasing sharply across Europe (the number of people aged 65 and older to those of working age), countries will find it increasingly difficult to finance elderly care expenditures. Private operators, and real estate investors, may seize the opportunity to expand and consolidate their presence in what is still a highly fragmented sector with solid long-term drivers.

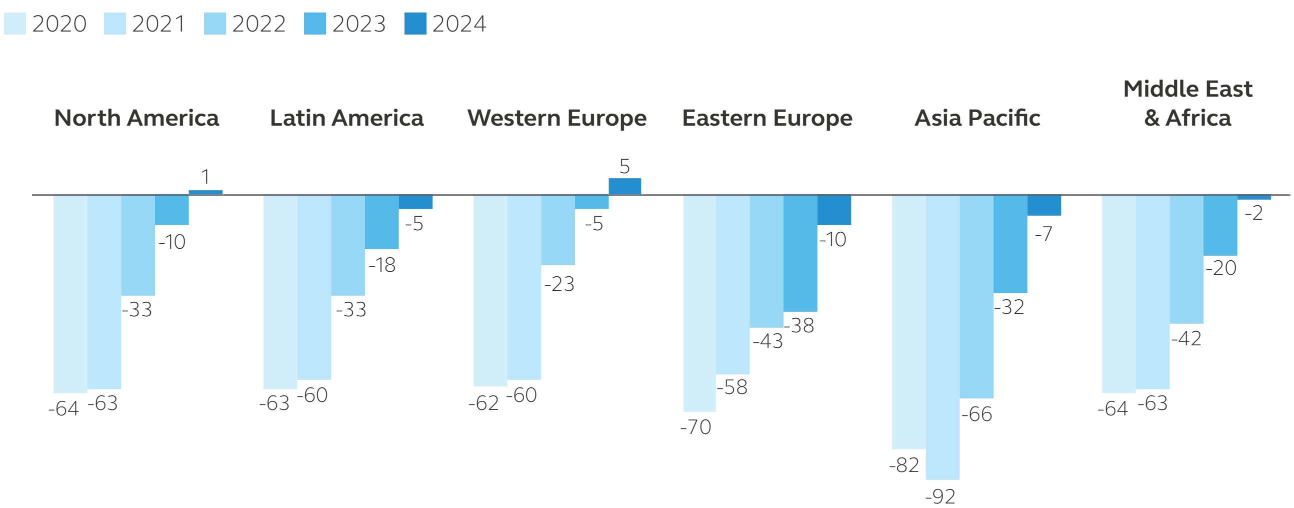
Leisure: building on momentum, bracing for cyclical turbulence

The lodging sector has performed well over the past year, as occupancy and room rates have recovered sharply. International travel has picked up across all continents but continues to trail its pre-pandemic levels. Though the pandemic has largely transitioned to an endemic and most facets of how live, work, and play have returned to normal, vestiges of the global health crisis can be seen.

Business travel in the U.S., for example, is just starting to normalize. With virtual meetings and conferences still replacing in-person interaction, there remains a question about a "full" return to normal. COVID-19 travel protocols have not entirely disappeared, and the lingering memory of the pandemic may still weigh on travelers' minds as they decide to plan holiday and vacation travel (Exhibit 29). Similarly in Europe, the sharp recovery in the sector seen during the summer months was driven by the leisure segment, with a particularly strong performance of luxury operators across major tourist destinations, such as Barcelona, London, Paris, and Rome.

EXHIBIT 29: People are traveling again

Inbound travel by region, % difference from 2019 level



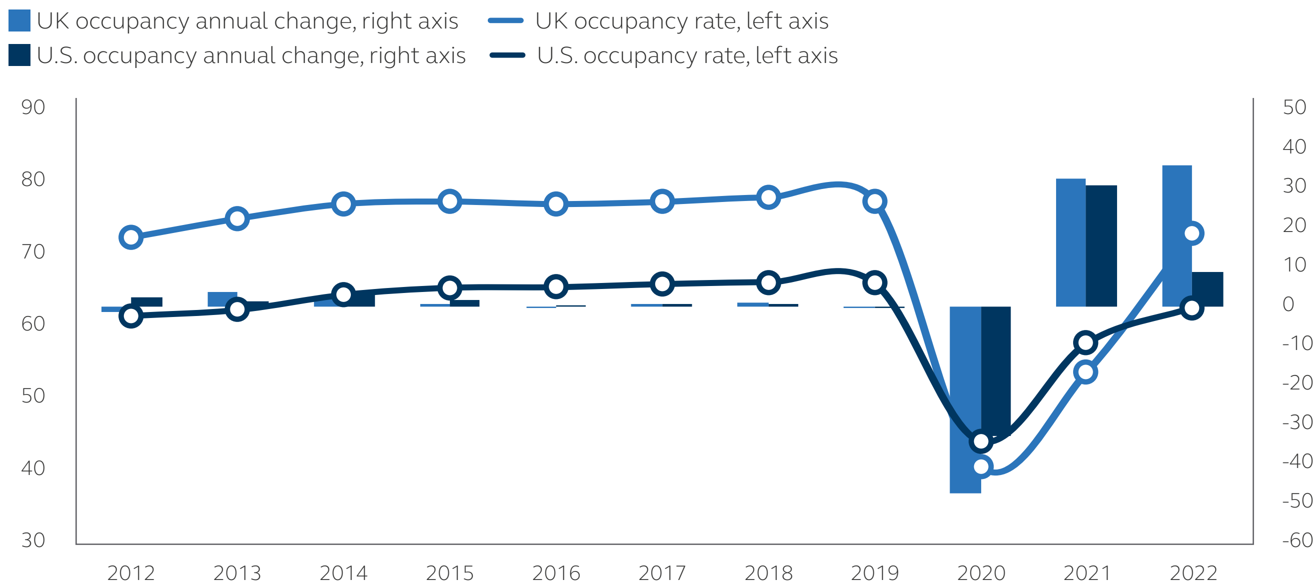
Source: World Travel and Tourism Council, 2022

Good fundamentals, challenging operating conditions

Hotel operators are certainly benefiting from the increase in travel, and 2022 by most measures was a great year for the sector. Operating income is increasing, and room occupancy is above equilibrium (see Exhibit 30). Though there remains some bifurcation between smaller markets and larger gateway cities, the gaps have narrowed, aided by the resumption of corporate travel, which has materially lagged the leisure sector. The pick-up in business travel has also narrowed the large gap between different segments—particularly resorts, mid-scale, and luxury. Although some price inelasticity remained in place for luxury hotels, operators generated better than anticipated results from charting meaningfully higher room rates compared with pre-pandemic levels.

EXHIBIT 30: Hotel demand healthy

U.S. and UK hotel occupancy rate and annual change, %

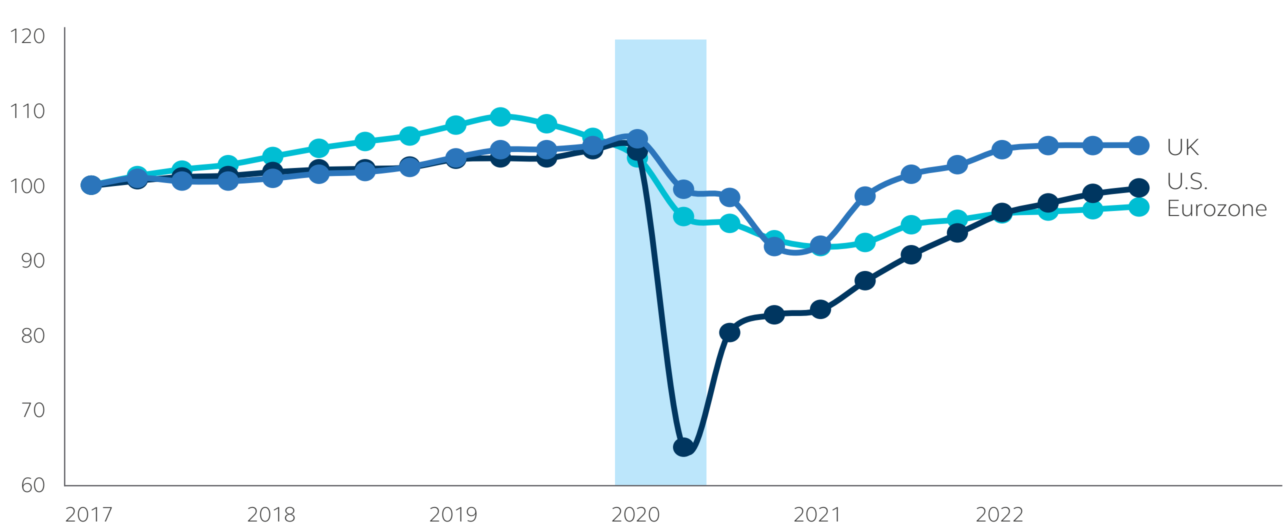


Source: CoStar, September 2022

Though the hotel sector has taken steps to recovery, challenges lie ahead. Operators are still reporting that business remains below pre-pandemic levels. Room occupancy remains strong and has improved over the past 12 months, but there is more room for improvement. Labor shortages have also impacted services for operators across all chain-scales. While most industries have been impacted, leisure and hospitality remain among a few industries that have failed to reach their pre-crisis peak on both sides of the Atlantic (Exhibit 31). In Europe, the lack of staff in hotels, resorts, airports, and tour operations was particularly widespread. In the UK, Brexit and COVID reduced the availability of EU workers. In southern countries, many workers who lost their jobs during the pandemic moved on to other sectors less affected by seasonality or new waves of restrictions, such as construction and warehousing.

EXHIBIT 31: Labor shortages weigh on hiring in hospitality industries

Employment: Accommodation and food service activities, Index Q1 2017 = 100



Source: Eurostat, UK Office of National Statistics, BLS, Moody's Analytics, Principal Real Estate, Q2 2022

Labor shortages and high rates of both wage and operating cost inflation threaten the ability of hotel owners to increase prices. Both business and leisure travelers will be reticent to pay higher prices without a concomitant increase in service, particularly when both corporate and household budgets are under pressure.

Cyclical headwinds

The lodging sector is one of the most sensitive to shifts in the business cycle. Though the sector has maintained a good deal of momentum despite slower GDP growth, which is typically a harbinger of difficulty for the sector, travel is one of the most negatively impacted sectors during recessions. Not only do hotels have the shortest lease length of any sector at just one night, but travel is also considered non-essential for households and a variable cost expense for corporations. But there are still pockets of strength in the sector, such as leisure luxury operators in sought after locations, which are likely to perform better on a relative basis, especially in Europe where the energy and cost of living crises are mostly affecting families in low- or middle-income levels.

European hotels offer opportunities for value-add investors

Travel is inherent to human nature—be it for leisure or business. COVID-19 shuttered global travel jeopardizing not only many hotel operators but the whole premise of travel. But human endeavour is not to be denied and with a wide plethora of medical options helping ease COVID concerns, 2022 has been the year of travel rebound, particularly leisure travel. However, the adage of "no free lunch" is now being seen as world economies head towards recession and hotel owners and operators look anxiously at a weaker travel outlook for next year. In the case of Europe, which saw one of the strongest recoveries in travel, we believe soft growth in 2023 may offer some compelling investment opportunities that will allow investors to ride the recovery that may ensue. We believe European hotels are structurally well supported by a global pool of visitors but could be cyclically challenged over the next 12 to18 months as operators face a trifecta of higher energy and labor costs along with much higher cost of debt capital. Such conditions could be particularly difficult for smaller operators/owners to navigate thus opening the door to attractive repositioning and recapitalization opportunities for skilled hotel investors.

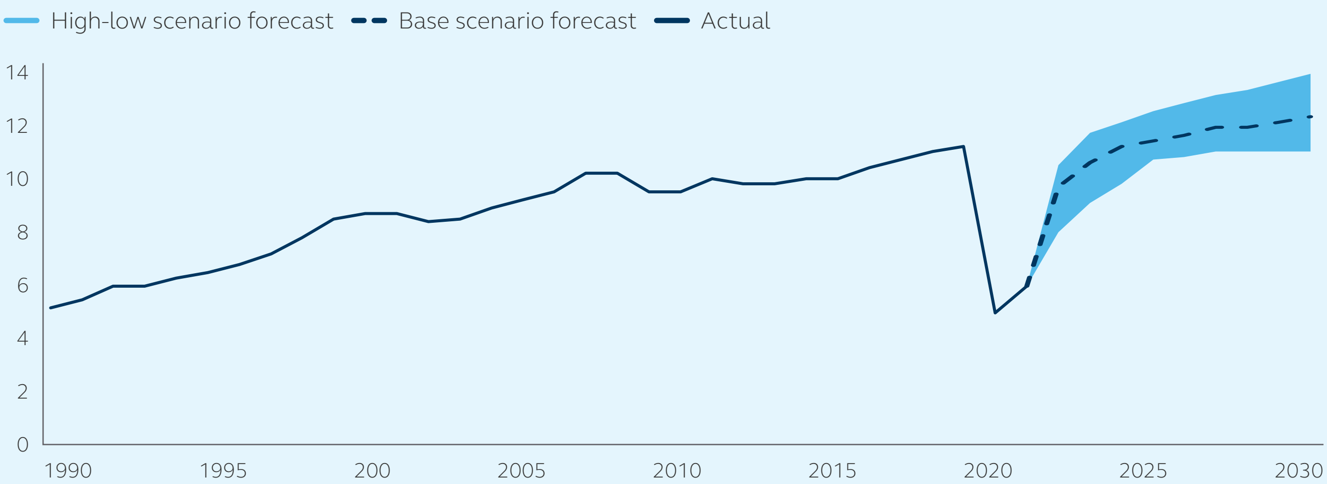
The European hotel market is highly fragmented with over 60% of hotel rooms still independently operated and owned. Although very well located, some of these assets have suffered years of underinvestment and poorly constructed leases, thus performing below full potential. If economic growth weakens in the coming months, as we believe it will, consumers and companies will cut discretionary spending including holidays, incentive travel and business trips. A decline in lodging demand, combined with higher utility bills, labor costs and interest rates will prove particularly challenging for those independent hotel operators whose finances were already strained by two years of COVID-19 restrictions.

The next 12 to18 months could create conditions for acquiring well-located hotels at cyclically low values and reposition them through a combination of lease restructurings and targeted capital expenditure. We are already seeing values starting to fall in certain areas of the hospitality sector, and we would consider acquiring poorly managed, distressed assets at discount; adding value through operational and capex initiatives; and resell the property after it has been repositioned and the hotel market is back on the road to recovery.

The post pandemic boom has shown tourism can bounce back quite quickly when economic conditions normalize, and the next property cycle will be no exception. In other words, 2023 will offer a rare window to enter a sector at a cyclical low but with strong long-term fundamentals. According to the IMF, travel and tourism have been one of the fastest growing economic sectors over the past decades. The number of international arrivals, a gauge of the industry's health, increased from 25 million in 1950 to 1.4 billion in 2018, with Europe accounting for circa half of the total. Growth potential remain very positive over the medium term since an additional large share of people worldwide are projected to acquire tourism mobility status in the next decade.

EXHIBIT 32: The number of European flights is expected to break above pre-pandemic high in 2024

Number of flights in Europe, annual, million



Source: Eurocontrol, April 2022

The challenged duo: U.S. office and retail

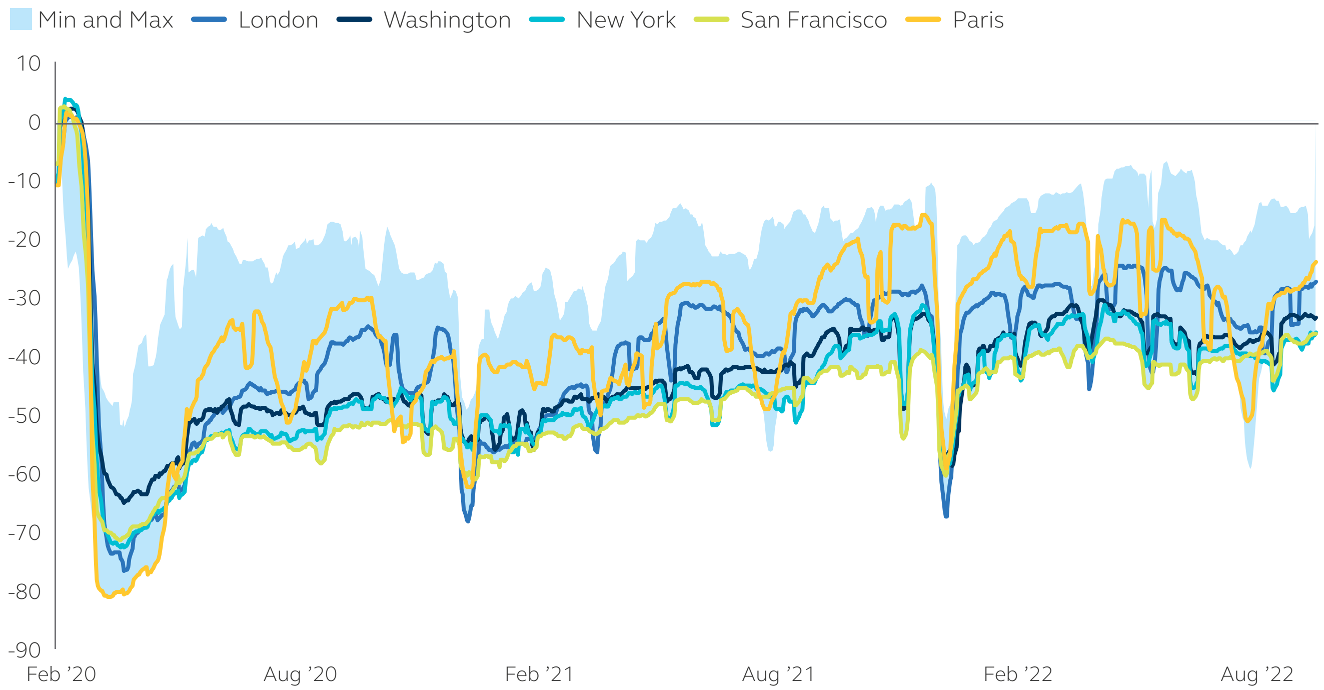
Our DIGITAL property types offer structurally resilient occupiers and cashflows that should prove resilient against economic slowdowns. Conversely, U.S. office and large format retail face cyclical challenges and structural weaknesses that put their occupiers in a position vulnerable to economic stress. As such, we place these property types on the caution list for investors for 2023.

Traditional office: From secularly challenged to secular downfall?

Two years after the pandemic began, we have returned to many pre-pandemic routines, as evidenced by data tracking how much we drive, fly, dine out, and attend events. The one exception is that few people, particularly in the U.S., seem to want to return to the office. Utilization rates remain well below pre-pandemic norms for office workers, and survey data tell us that telework remains above its pre-pandemic norms. The question of whether we will ever fully return to the workplace remains unanswered, which continues to concern office building owners who depend on high levels of occupancy to generate revenue.

EXHIBIT 33: Workers remain reticent to return to the office

Daily office visitors against pre-pandemic baseline

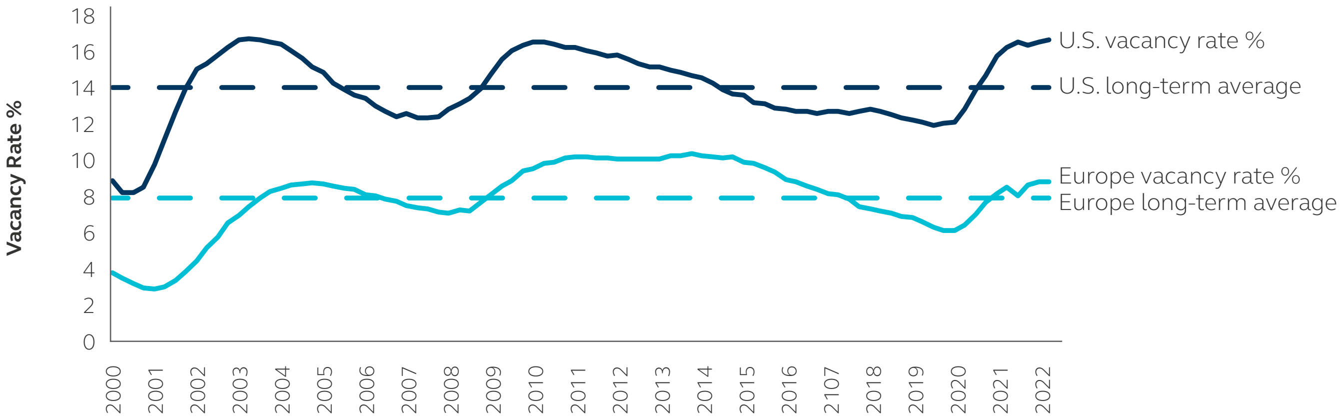


Source: Google workplace mobility index, October 2022.
1. Baseline is the median value for the 5 weeks from Jan 3 to Feb 6, 2020. The index is smoothed to the rolling 7-day average.
2. Min and max include Los Angeles, New York, Philadelphia, San Francisco, Washington, Amsterdam, Berlin, London, Milan, and Paris.

While the situation is not nearly as acute in Europe, the U.S. office sector is the weakest it has been since the GFC. In both geographies unemployment rates are well below their full-employment thresholds, often a key barometer for office demand, yet vacancy rates have continued to rise. In the U.S., for example, the national vacancy rate has increased to 17.1%, the highest rate since the Savings and Loan crisis of the early 1990s. In Europe too, the office vacancy rate has increased above its long-term average to 8.9%, and take-up has stabilized at around 20% below pre-pandemic levels as occupiers reconsider working practices and floorspace needs. Although organizations would like to get workers back into the office en masse, it has proven difficult. Labor shortages coming out of the pandemic have given workers both pricing power and the ability to negotiate based on working arrangements and location.

EXHIBIT 34: Slack in the office market remains a persistent issue

Office vacancy rate



Source: CBRE EA, CBRE ERIX, Principal Real Estate, Q2 2022

In the U.S., net absorption of space has all but stalled after a brief rebound during the second half of 2021 and is now slow enough to be outpaced by moderate levels of new supply. The outlook for the sector is unlikely to improve over the next 12 to 18 months as the economy stalls. This will certainly have an impact on hiring and corporate decisions about lease renewals over the coming months. To compound issues, both regional and money center banks are hesitant to lend on traditional office assets. In the current environment, this means a lack of capital to refinance debt obligations.

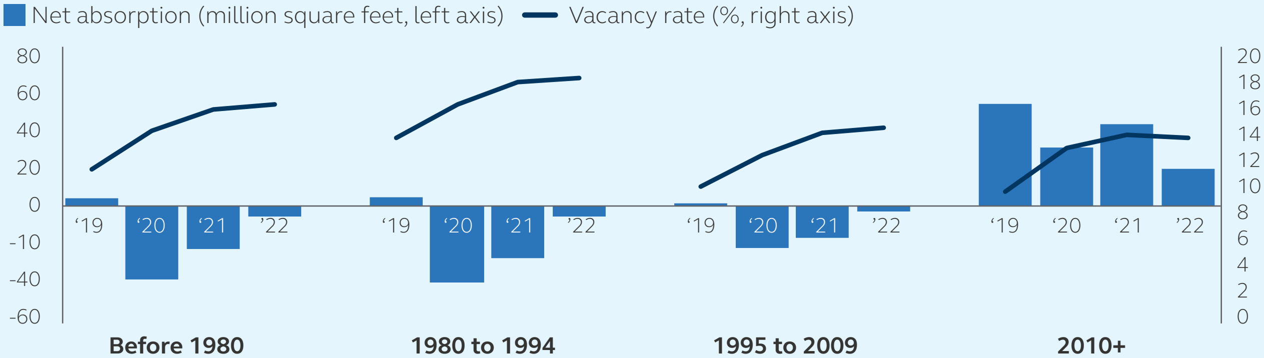
From a private equity perspective, investors have also looked to pare down their exposure to this sector. Office exposure in the NPI has declined from 35% before the pandemic to just 27% as of the writing of this report. Office valuations are almost certain to move lower over the next 12 to 18 months and the sector will underperform in a recessionary scenario. But it is important to point out meaningful differences exist within traditional office assets.

Higher-quality assets have better fundamentals

Exhibit 35 shows the U.S. office sector performance by vintage. As mentioned earlier, a vast majority of the U.S. office market is more than 30 years old. Much of that stock is in suburban and ex-urban locations—a kind way of saying that it is obsolete. Newer office buildings, particularly those built within the last decade, have fared extremely well, even during the pandemic. Office assets delivered since the end of the GFC have seen vacancy rates 300 basis points below the overall average for the sector and did not experience a single year of negative net absorption since the pandemic.

EXHIBIT 35: Newer offices have been resilient to office occupancy trends since the pandemic

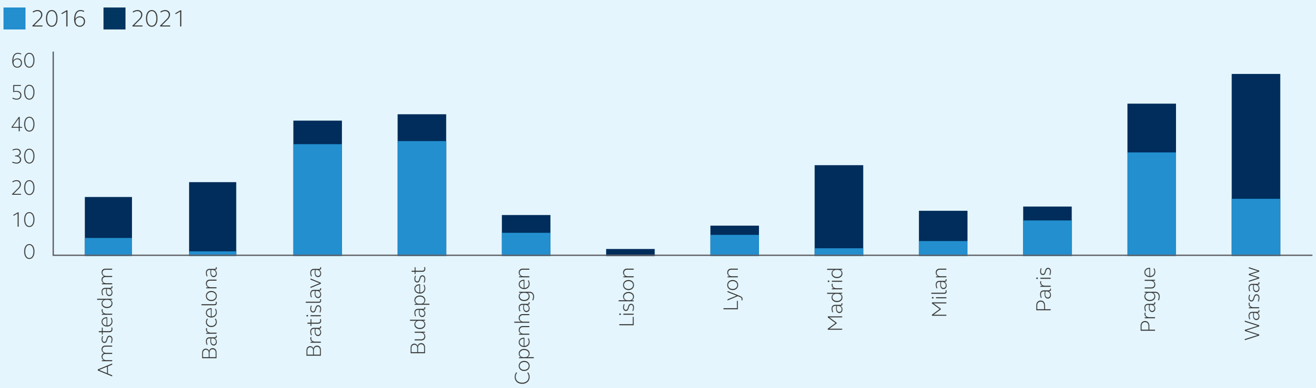
Office net absorption and vacancy rates by vintage



Source: CBRE EA Peer Select, Principal Real Estate, Q2 2022

Similarly in Europe, competition for high-quality and sustainable office spaces has intensified as organizations are prioritizing the reduction of their emission footprint. Achieving carbon neutrality is set to become an ever-higher priority for businesses, governments, and investors going forward, accelerating the movement towards modern buildings with Environmental, Social, and Governance (ESG) credentials, greater amenities, and optimal locations. Urban centers in modern cities with an abundance of high-quality assets and green buildings, including Frankfurt, London, and Paris, will be beneficiaries of this trend.

EXHIBIT 36: Share of environmentally certified offices of total office stock, %, 2016 vs. 2021



Notes: certifications include BREAM, LEED, DGNB, HQE, and WELL. Data for Paris and Lyon exclude LEED and 'in-use' certificates.
Source: CBRE, 2022

The key to the successful execution of an office strategy will be maintaining occupancy through engagement. Space efficiencies that were touted following the GFC have given way to space de-densification. Employers are attempting to increase office attendance by attracting workers through the use of amenities and by creating an environment that caters to both collaboration and individual productivity. Older assets will need to be retrofitted to accommodate more modern amenities at increasingly high price points, which could adversely impact investment performance in an increasingly competitive market for tenants. The high cost of re-positioning some office assets will mean that some will be better off repurposed for other uses and the natural selection of offices will continue.

Market selection remains a key factor

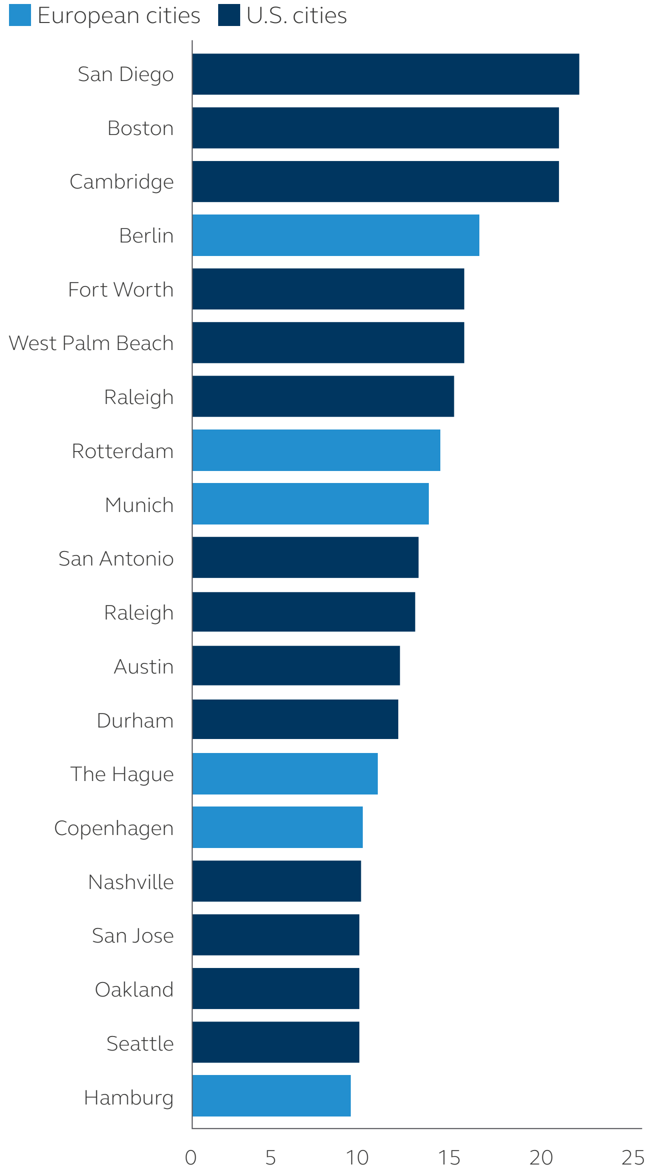
Investors should focus their exposure on regions with strong underlying growth drivers. Despite low demand and utilization during and following the pandemic, office markets with strong in-migration and concentrations of high-tech industries continue to perform well, in some cases even outperforming other sectors within the NPI. Exhibit 37 shows that on a 12-month trailing basis, the total return for the U.S. office averaged 6.1% underperforming the broader index. The top five markets, however, all experienced double-digit returns. Among those metros, San Diego, Cambridge, and Raleigh are all considered life sciences clusters. Austin has also benefited from large-scale relocations of Silicon Valley firms due to lower costs of living and favorable costs of doing business relative to northern California.

In Europe too, office investors face similar challenges. The office sector has on average performed in line with the broader property sector this year, but there are wide disparities around this mean, with Switzerland and the Benelux being the most resilient while the Nordics and Germany experienced the weakest performance (companies listed there are amongst the most leveraged in the sector).

The prospects for long-term office demand remain unclear and strongly debated among real estate investors. While there has been a strong rebound in employment and hiring as the economy recovered from the COVID shutdowns, working from home remains surprisingly widespread and is likely here to stay. Although daily office occupancy is still well below pre-pandemic levels in most markets, it is important to recognize that this trend will have diverging impacts on different types of office assets. The current environment is increasingly nuanced, with asset quality and geographical differences acting as key differentiators.

EXHIBIT 37: Some office markets performed extremely well following the pandemic

U.S. and Europe total return 12-month trailing % to Q2 2022: Top markets



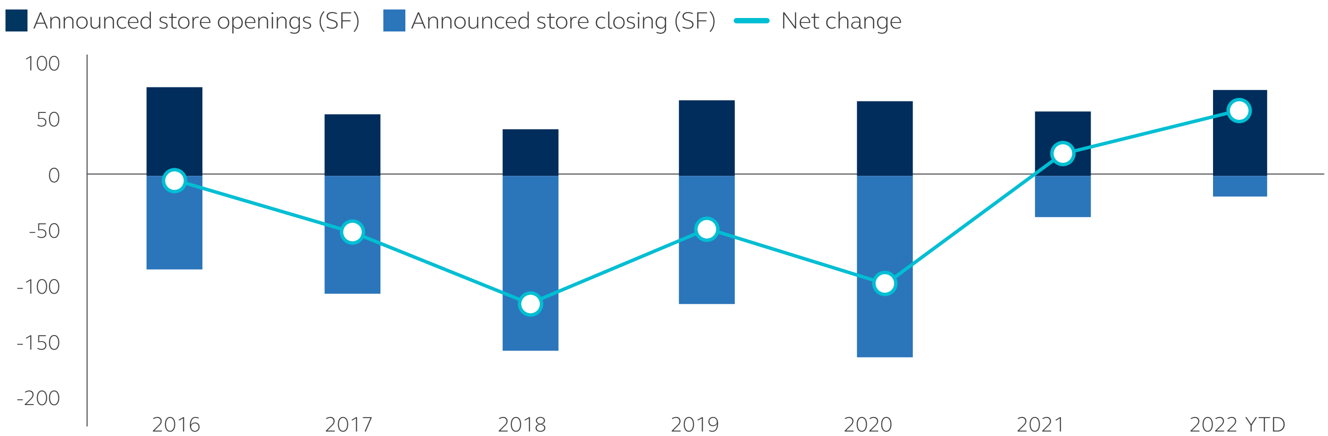
Source: NCREIF NPI, MSCI, Principal Real Estate, Q2 2022

Is the retail apocalypse over?

The retail sector entered what many thought was a death spiral with the onset of the pandemic in early 2020. Since the middle of 2021, however, an upshift in retail spending, a retracing of e-commerce penetration, and a resurgence of foot traffic have boosted prospects for most shopping formats in both the U.S. and Europe. In the U.S., the most compelling evidence is seen through the positive momentum in store openings (Exhibit 38), which have been positive since 2021. While retail will certainly continue to evolve along with the way consumers shop, the death of the in-person retail experience has been overblown.

EXHIBIT 38: Brick and mortar retailers continue to expand

U.S. store openings and closings, million square feet



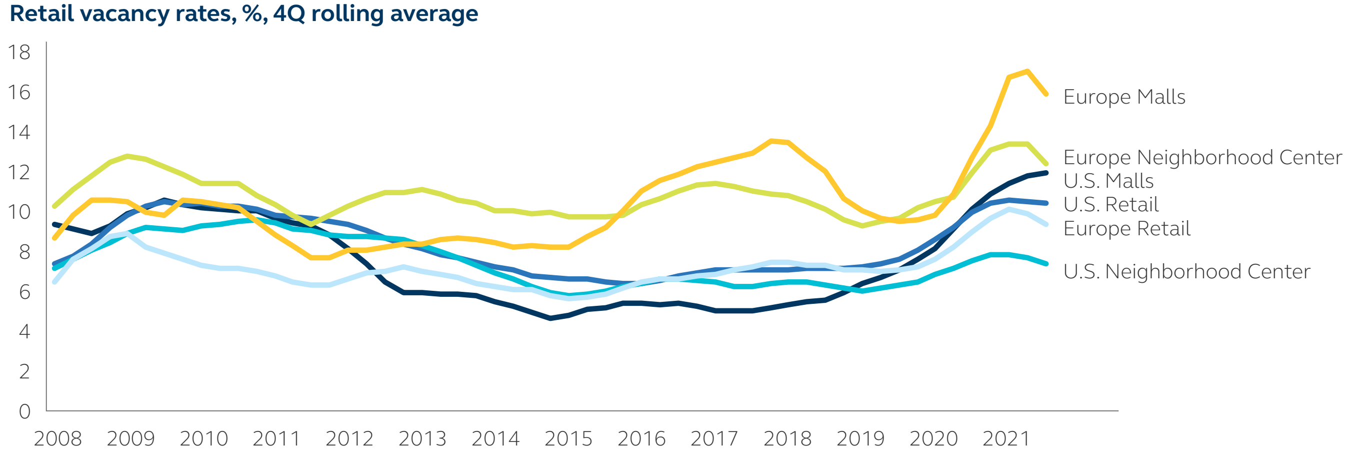
Source: CoStar Strategy, Q2 2022

Retail in a state of recovery for now

Fiscal stimulus—particularly in the U.S.—had left households with excess cash to spend, allowing the retail sector to enter its first period of recovery in half a decade. Today, despite economic headwinds and higher than trend inflation, consumer spending has held up, allowing retailers to expand their leasing footprints for the first time in years. Although not all formats are enjoying the same success, the outlook has become more challenged given the headwinds to the sector in the months to come. Exhibit 39 highlights the current balance of the retail market in Europe and the U.S. Large shopping centers remained challenged in both regions, still feeling the effects of years of e-commerce penetration that has hollowed out many commodity-based anchors responsible for generating retail foot traffic in shopping centers. Consequently, we are less confident on the outlook for commodity-type, large-format malls.

EXHIBIT 39: Retail performance strongest among necessity-based operators

Retail vacancy rates, %, 4Q rolling average



Source: MSCI, NCREIF NPI, Principal Real Estate, Q2 2022

Today, the state of retail is generally in parity in the U.S. and Europe, as labor markets remain tight with jobs plentiful and wages growing. Consequently, retail productivity is elevated, and rental trends have improved dramatically. Challenges await in both regions, however. In the U.S., although consumer spending continues to grow, it is at a slower pace than 2021. The lack of fiscal stimulus, higher costs due to inflation, and lower levels of consumer sentiment are beginning to weigh on discretionary purchases. The uncertain economic outlook will likely take some of the wind out of the retail sector's recovery and dampen capital market trends over the next 12 to 18 months.

Meanwhile in the Eurozone, retail sales have already started to contract. The geopolitical events involving Russia and energy embargos have pushed inflation to all-time highs. Under this scenario, retail spending is likely to decline further, and with operators' margins being squeezed. Some large retail chains have already trimmed their profit forecasts as the rise in inflation is not only affecting consumers' confidence, but also operators' input costs and staff wages.

On an absolute basis, our outlook has become a great deal more constructive from last year. However, it only heightens the importance of our belief that investors approach the sector with a philosophy of investing with a focus on higher productivity subsectors, such as those that cater to value, necessity, and convenience.

Investors should stay focused on non-discretionary retail format

Over the next 12 months, we expect capital to be more selective as we encounter a period of price discovery. As a result, relative value will be increasingly important in an increasingly challenging environment. We suggest that investors maintain focus on the very top quality within the sector, starting with grocery-anchored centers along with well positioned power centers with value focused tenants, which should potentially provide access to high quality cash flows even in a weaker economic environment. Retail within a mixed-used development anchored by residential communities may also provide investors with interesting options, particularly those with outdoor shopping and experiential retailers. Investors may also want to be mindful of repositioning opportunities for smaller centers with an eye on value and convenience-based operators.

Property type investment strategy

The world economy is on the precipice of a challenging 2023 and we suggest that real estate investors stay focused on resilient cash flows and capital value preservation. From an investment strategy perspective, we lean towards debt as a cornerstone holding while still remaining tactically flexible to step into public quadrants and opportunistic private real estate.

From a property type perspective, we believe that regardless of quadrant, investors should keep a strong focus on DIGITAL drivers. Property types that have exposure to one or more DIGITAL drivers are in our view more durable from an occupancy, and hence cashflow, perspective. In turn, consistent cashflows should also help preserve capital values at a time of ongoing structural changes in real estate demand accompanied by growing weakness in the underlying economy. Our DIGITAL property matrix embraces the rapidly growing alternative or niche property types. The merger of the two is becoming the new core for real estate investors.

EXHIBIT 40: DIGITAL[5] property types should be more resilient[6]

Tactical (short-term) and strategic (long-term) outlook by sector

Negative Positive

Sector		Outlook		Strategy
		Tactical	Strategic	
Industrial	Industrial			Coming to end of business cycle boom and potential for oversupply. Values nearing peak
Office	Europe CBD			Focus on smaller markets with DIGITAL attributes
	U.S. CBD			Very selective, focus on growth markets with DIGITAL drivers
	Europe Suburban			Focus on markets near research universities and tech employment growth
	U.S. Suburban			Focus on lower cost cities, strong education hubs
	Medical			Demographics favorable for longer-term demand
Retail	Convenience/discount			Solid drivers, but demand is putting some pressure on pricing. Difficult for e-commerce to disrupt
	N&C Center			E-commerce resistant (particularly with stronger grocer presence) and allows a value-oriented element
	Power Centers			Focus on centers with value and home improvement elements. Pricing is favorable but not great
	Malls			Low conviction on strategic outlook, short-term debt strategies at the right basis
Residential	Suburban Apartment			Focus on renters by necessity 80-120% of median income in markets with high barriers to entry
	Urban Apartment			Focus on high-cost/high-tech metros where single-family housing less affordable
	Single-family			Takes advantage of wealth/generational gap and need for space
Alternatives	Data Centers			Positive outlook but may behave more like a bond longer term
	Europe Hotels			Healthy recovery in travel; tactical opportunity in a fragmented owner/operator market
	U.S. Hotels			Domestic leisure travel recovered; price discovery challenging near term
	Life Sciences			Pricing may be an issue in the near term, but remains a long-term strategic opportunity
	Student Housing			Demand recovery and poised to offer interesting opportunities long-term
	Senior Living			Look for a boom in the next 10-15 years, but in the U.S. the sector is prone to over-supply

Source: Principal Real Estate.
[5] DIGITAL: Demographics Infrastructure, Globalization, Innovation & Technology
[6] Color indicates relative outlook
N&C Center = Neighborhood center

> We believe that investors with a long-term view of commercial real estate drivers will do well to adopt a strategic focus on demographic growth, technological innovation, and the evolution of socio-economic undercurrent.

Preparing for the next cycle

Our outlook for investors this year is far more cautious than others from recent history. For the first time since the global financial crisis, we have adopted cyclical recession as a high probability in our 12-month outlook, which will invariably affect demand for commercial properties. Consequently, traditional property types will experience increased pressure from both fundamental and capital market perspectives.

While we feel this will create a challenging investment environment to navigate and potentially sideline some sources of capital, it will also create new opportunities for cash investors and those willing to lean into a higher interest rate environment. Moreover, along with the shifting economic landscape, property sectors have also evolved, and we believe that investors with a long-term view of commercial real estate drivers will do well to adopt a strategic focus on demographic growth, technological innovation, and the evolution of socio-economic undercurrents.

These factors are at the heart of our DIGITAL framework and help disentangle crosscurrents in demand across property types, not just over the next year, but over the next decade as well. We believe the strategies and property types we identify through our DIGITAL framework will allow investors to stay steadfastly focused on the macro signals that are going to be critical to watch in 2023, but also to prepare for the period of growth and renewal that will potentially follow.

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[7] Managers ranked by total worldwide real estate assets (net of leverage, including contributions committed or received, but not yet invested; REOCs are included with equity; REIT securities are excluded), as of 30 June 2022. "The Largest Real Estate Investment Managers," Pensions & Investments, 3 October 2022.

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

[9] As of 30 September 2022. Includes clients of, and assets managed by, Principal Real Estate Europe Limited and its affiliates. Does not include assets that are managed by Principal International and Retirement and Income Solutions divisions of Principal. Due to rounding, figures shown may not add to the total.

[10] As of 31 December 2021. Excludes public REIT transaction volume.

[11] As recognized by the Global Real Estate Sustainability Benchmark (GRESB) assessment, 4-Star rating seventh consecutive year for U.S. Core Strategy, 2022, top 40% worldwide performance; data as of December 2021; ENERGY STAR: Partner of the Year, Sustained Excellence 2018–2022, April 2022. In order to receive a ranking, the Firm paid GRESB an application fee to be evaluated and rights to use the rating. Principal Global Investors became a signatory of the Principle of Responsible Investing in 2010.

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