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REAL ESTATE

Outlook for real estate

KEY THEMES FOR 2024

OPINION PIECE. PLEASE SEE IMPORTANT
DISCLOSURES IN THE ENDNOTES.

Introduction

Private real estate came back down to earth in 2023, hampered primarily by elevated interest rates which weighed on values. Global investment volumes continued to fall throughout the year, with less capital coming into the sector and with buyers and sellers generally unable to agree on price. As a result of this slowing market, we have identified key themes and opportunities for compelling investments across global markets and sectors for 2024, focusing on a mix of long-term structural tailwinds and bottom-up analysis.

Key themes for 2024

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Great variations amongst global markets

2

Disruption: What's cyclical and what's structural?

3

Refinancings create challenges, also opportunity

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Retail could be a quiet outperformer

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Continued need for affordable housing

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Setting up for a good vintage

1

Great variations amongst global markets

As we look across the global landscape, there are some common themes: inflation is moderating but sticky, interest rates remain elevated, value losses are subsiding, investment volumes are near 10-year lows and transactions arising from distress have remained muted despite pressures. However, we also see a lot of variation.

Valuations

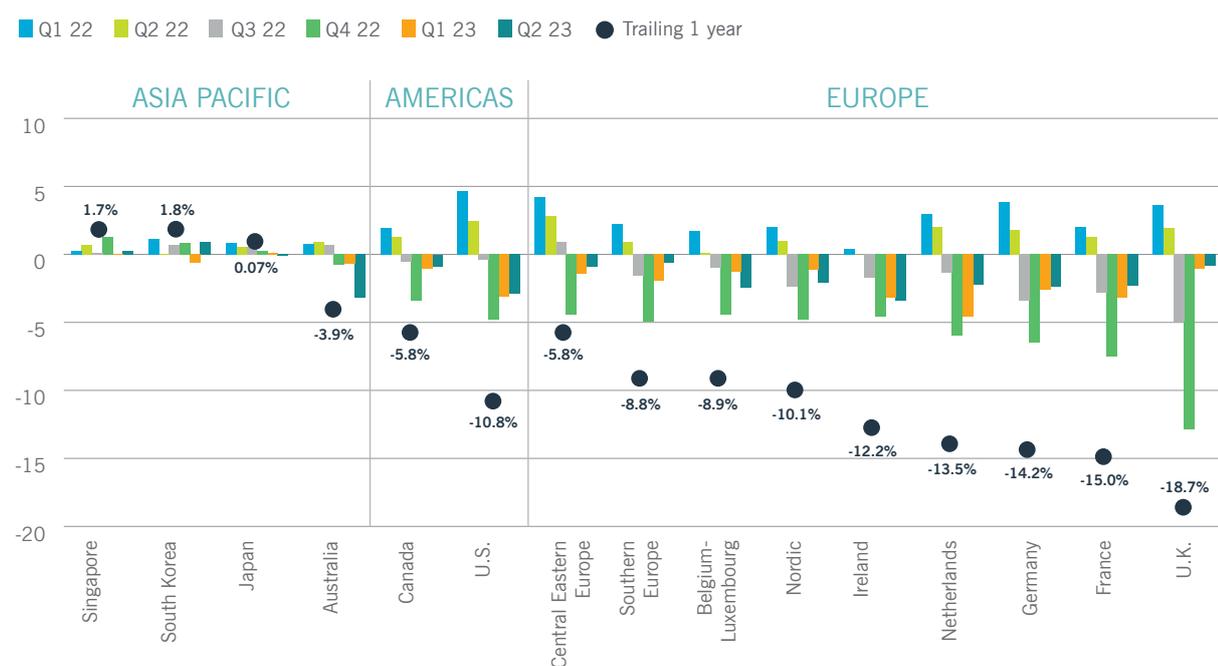
Values in Asia Pacific are holding up better than Europe or the U.S. (Figure 1). Relative to the other regions, both inflation and interest rate increases have been moderate, which explains some of the divergence. Interest rates are up across the region though, which has driven modest cap rate expansion. However, strong fundamentals and resilient occupier markets have supported rent growth, helping to

offset cap rate expansion. This has kept values relatively stable in the region – and in the case of South Korea and Singapore, resulted in decent value appreciation in the second quarter of 2023.

The environment in Europe is less certain. We expect European valuations to bottom out in the first quarter of 2024, and flatline for the rest of the year, before starting to improve in 2025. However, with refinancing starting in 2024 and ending in 2026, there is significant downside risk to the European real estate environment, which is compounded by prolonged uncertainty of recession, making the impact of repricing in early 2024 a tail risk.

The divergence between countries underscores the benefits of a diversified global portfolio.

Figure 1: Value losses are generally moderating



Source: MSCI, October 2023

Office markets

The office market is not the same everywhere, and we expect the factors behind this divergence to continue. The U.S. vacancy level has hit a new high and fundamentals are challenged nearly everywhere, with just 12 of the country's 50 largest office markets seeing vacancies below their long-term average. However, in Europe, half of markets still have vacancies below long-term averages, with all seven of the major German markets below average and Amsterdam nearly 600 basis points below. There's also great variation within markets – for example the vacancy rate in Paris is 7.7% but varies between the CBD at 3.5% and La Défense near 15%. In Seoul, the vacancy for class-A office buildings is at a record low of 2.2% with demand so strong that there are hotel-to-office conversions underway. This is in stark contrast to the U.S. market, where the government is beginning to offer incentives to convert empty commercial buildings into new affordable housing units.

Climate risk and ESG

The significance of climate risk and environmental, social and governance (ESG) factors in investment decision making varies by region, with European and Asia Pacific investors more unified in their approach to this than their U.S. counterparts. European corporations have overwhelmingly made science-based net zero carbon commitments (87% of France CAC 40, 70% of Germany DAX 30 and 69% of U.K. FTSE 100), meaning occupier demand for green commercial real estate space is strong. 42% of the U.S. S&P 500 has made a similar commitment. The rise of climate risk and environmental consideration in investment choices, we believe, is here to stay, and will only intensify in the long term.

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In Europe, half of markets still have vacancies below long-term average, with all seven of the major German markets below average and Amsterdam nearly 600 basis points below.

2

Disruption: what's cyclical and what's structural?



Future real estate portfolios that allocate to alternative property-types could not only benefit from enhanced diversification, but also from superior resiliency.

Generative artificial intelligence (AI)

AI is a platform-level shift similar in impact to the internet and smartphones. These innovation leaps took years – sometimes decades – to realize their full potential. The impact of generative AI is perhaps greater but may take longer, therefore patience and focus are key. Generative AI will compete with (but not replace) parts of companies and employees. Therefore, real estate practitioners must learn to use these tools and embrace them as co-pilots that enhance productivity and insights. These tools will enable knowledge work to be easily outsourced and redistributed, personalizing experiences at scale and reducing operational complexity. Innovations driven by generative AI have the potential to revolutionize underwriting, valuation, development, leasing, building operations and risk.

Battery/chip manufacturing

A global push towards electrification and AI will continue to generate demand for batteries and chips. This will create opportunities, particularly for former industrial cities. For example, Intel is investing \$20 billion into two semiconductor chip facilities in Columbus, Ohio and €30 billion in two chip facilities in Magdeburg and Dresden, Germany. Meanwhile, cities like Spartanburg and Savannah in the U.S. Southeast and Billy-Berclau in the North of France are seeing billions invested by car manufacturers

to manufacture electric vehicles (EVs) and EV batteries. In some cases, these investments (and the economic ripples generated) will create compelling opportunities across property sectors.

Alternative property types

In our view, alternative property types are favorably positioned for future resilience and outperformance as their fundamental demand drivers rely less on economic growth and more on demographics, healthcare and technology. Alternative property types include self-storage, manufactured housing and outpatient care facilities. One of the biggest drags on real estate returns is the cost of maintaining a real estate asset. On average, these costs are lower for alternative sectors (13%) than traditional real estate sectors (20%). Future real estate portfolios that allocate to alternative property types could not only benefit from enhanced diversification, but also from superior resiliency.

Transition to the low carbon economy

Despite regional variations, the structural drivers towards the decarbonization of real estate continue to increase, with market bifurcation between 'brown' and 'green' buildings already observed in some European office markets.

Net zero carbon (NZC) market drivers are increasing the demand for low carbon buildings

- Investor demand: 83% of investors consider or plan to consider climate risk when making investment decisions¹
- Occupier demand: 34% of companies as a proportion of global market capitalization have now committed to science-based decarbonization goals²
- Regulation: expansion of disclosure requirements and minimum standards for buildings

NZC enablers are supporting the decarbonization of real estate

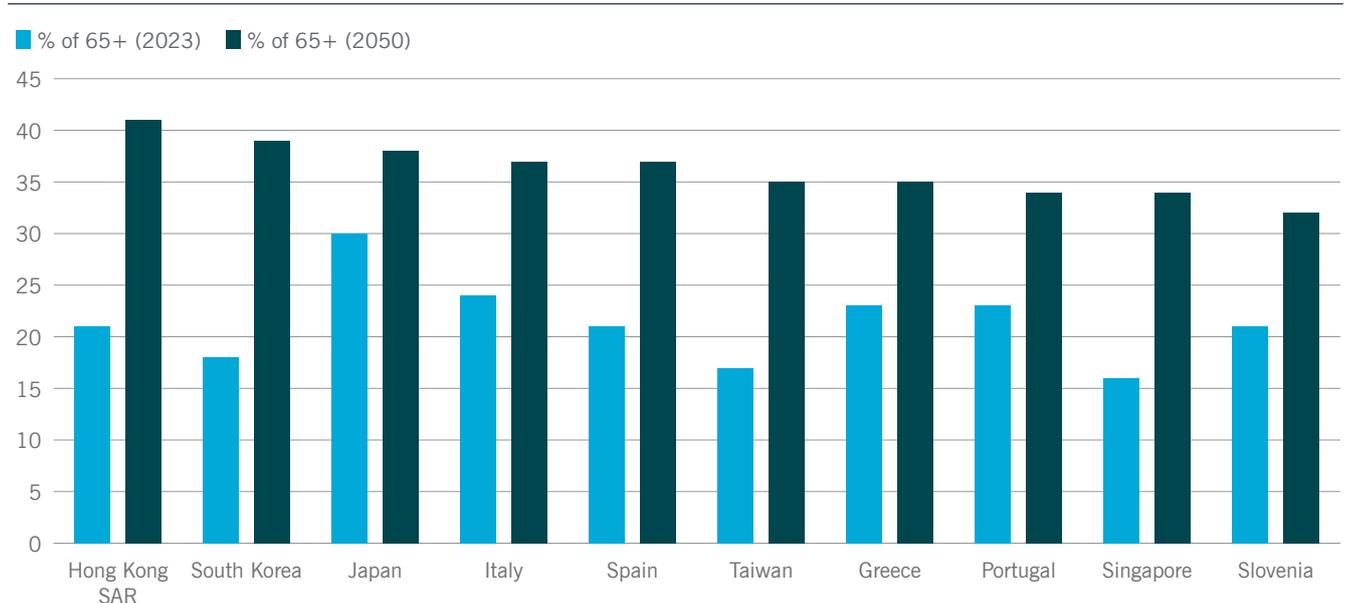
- Grid decarbonization: global renewable capacity almost doubled between 2014 and 2020 and is forecast to increase by between 50% and 180% between 2021 and 2026³
- Green technology: the cost of green technologies has decreased rapidly in the last decade
- Growth of the green economy: skills and knowledge growth enables the delivery of green buildings

Aging populations

The world is aging rapidly, with 10% of the global population older than 65 years old today versus just 8% in 2013 (or an additional 228 million seniors). This demographic headwind will become even more pronounced in the coming years, with another 800 million more seniors globally by 2050.

Across many of the most developed, but also fiscally challenged Asia Pacific and European countries, more than a third of the population may require aged homes and care (Figure 2). Demand is expected to rise exponentially faster than future supply, against an already current low provision rate not even accounting for the sharply rising number of single elderly households worldwide. There is an urgent need for the private sector, in consultation with policymakers, to fill this urgent supply gap. There are ample opportunities to build up an attractive portfolio of senior housing assets across global cities that can deliver strong risk-adjusted returns backed by structural tailwinds.

Figure 2: Many aging economies are in Asia Pacific and Europe



Source: Oxford Economics, October 2023

3

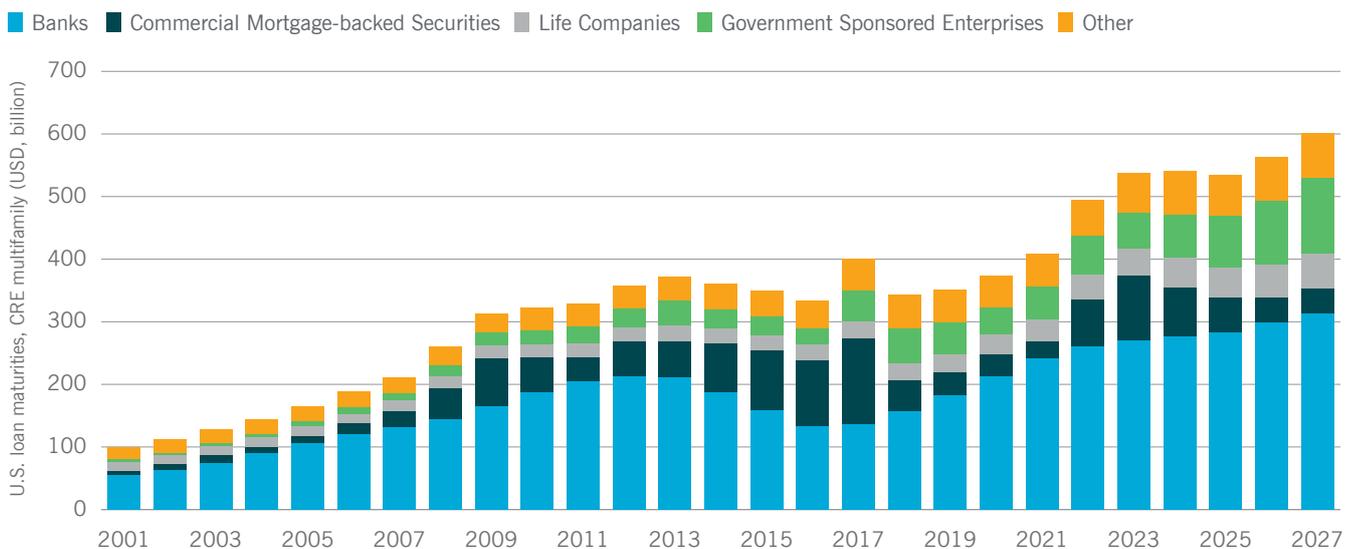
Refinancings create challenges, also opportunity

Interest rate increases since 2021 are raising the risk of upcoming refinancings for maturing commercial real estate (CRE) loans leading to loan impairments, collateral enforcement and distressed sales (Figure 3). Debt costs at refinancing will be significantly higher than at origination, and available loan-to-value (LTV) will be lower from almost all lenders (but especially the banks), leaving sponsors with a capital shortfall. On the collateral side of the equation, depending on the timing of the original loan, valuations and income may be lower in vulnerable

sectors like offices, hotels and retail, putting LTV and interest coverage ratio covenants under further pressure.

But there are mitigating factors that could limit the downsides. First, the industrial and apartment sectors in the U.S., U.K. and most developed markets are likely to have seen valuation growth over the course of the loan, so LTV ratios at maturity should be lower than at origination.

Figure 3: Upcoming CRE loan maturities will be a wave, rather than a wall



Source: Trepp, 2023

Secondly, the lower LTVs in the recent cycle mean the amount of debt due for expiry is a lower share of the market than we saw during the global financial crisis (GFC). Thirdly, lower leverage meant that the equity cushions that were built into the lending process were larger than in the GFC, so the risk of distress was lower. NCREIF data suggests that an average U.S. office or retail five to seven-year loan maturing in October 2023 will have seen its LTV increase since origination due to market valuation movements, but only by a quarter, taking a 70% LTV loan to 87.5% LTV. Such movements will cause difficulties at

renewal but will be easier to solve than an LTV of over 100%. In the U.K., MSCI data suggests expiring office loans will be in a similar position, but U.K. retail loans look in a more perilous position.

Because of this, we can expect to see a rise in distressed sales due to refinancing problems, but not a tsunami. Further, this could provide opportunities for alternative lenders to lend at relatively modest LTVs but at much greater returns due to higher funding costs and margin expansion as traditional lenders aim for lower sections of the capital stack.

4

Retail could be a quiet outperformer

We believe select segments of the global retail market are poised for outperformance. Years of negative sentiment have driven down values, creating a more attractive entry point for new investors. Construction activity has also been depressed, which has helped occupancies recover in many markets. Meanwhile, many of the less relevant tenants have gone by the wayside and the tenants that have stepped up are more suited to compete in today’s environment. There are undoubtedly still challenges, but overall, the sector is starting to look up – particularly in necessity retail.

U.S. retail

Grocery-anchored and necessity-based retail is seeing all-time low vacancies in the U.S. (Figure 4). A restricted construction pipeline, retailer expansions that follow customers to the suburbs, and the dearth of high-quality vacancies have been favorable for landlords. Meanwhile, open-air retail formats are demonstrating signs of sustainable growth in the face of shifting consumer behaviors.

Europe retail

Retail parks (grocery-anchored and convenience retail assets) located outside of the urban core have

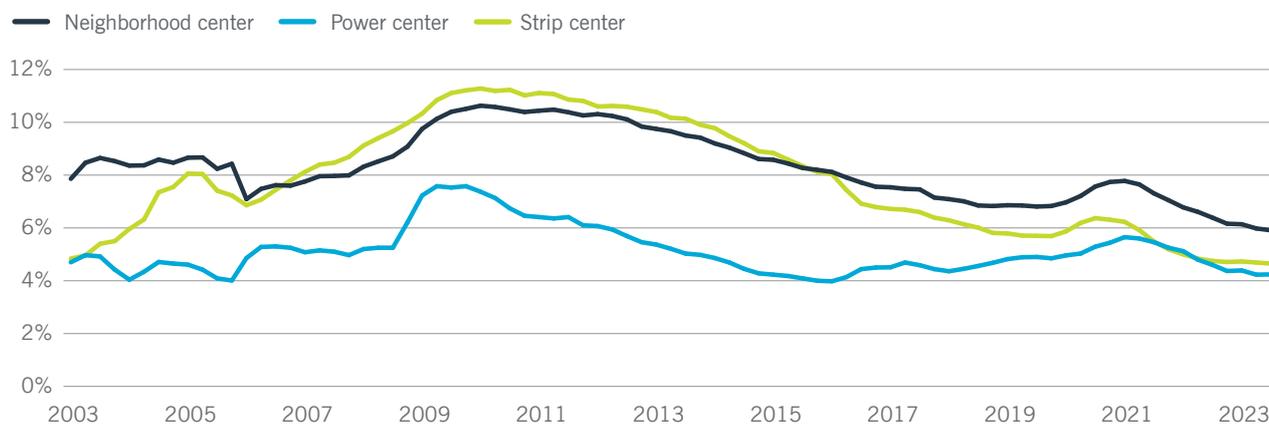
generally healthy fundamentals today and offer attractive investment opportunities. Malls continue to struggle, even for prime centers, but the latest wave of post-pandemic closures is abating.

Asia Pacific retail

Pent-up demand following border re-openings has led to a strong rebound in tourist-related spending across many regional economies. Domestic consumption has also benefited from robust labour market conditions. Already facing high vacancies, rents for high street and prime shopping centres are likely to stay subdued. However, grocery-anchored, sub-regional malls and convenience retail are interesting propositions in this current macro climate, especially if pricing adjustments allow for an attractive entry point.

While nuances exist across regions, we maintain high conviction around necessity retail. We believe this segment will outperform in the face of a fragile global economy. As consumers continue to require essential items, trade down, and stay local due to hybrid work, we continue to focus on the retail formats which benefit from these trends.

Figure 4: U.S. vacancy rates for neighborhood retail is at a historic low



Source: Costar, October 2023

5

Continued need for affordable housing

Across the globe, the residential market faces mounting challenges. Housing demand far outweighs supply, resulting in highly inflated house prices and rental tones pricing out large cohorts of the population on lower incomes, increasing the number of rent-burdened households. While the lack of affordable provision has been growing for decades, most recently inflation, rising interest rates, a pause on housing developments and increased demand has exacerbated the problem and the need for affordable housing is more pressing than ever.

The problem is a global issue, but the solutions will vary from country to country. Governments across the globe have approached affordable housing provision in diverse ways. Some have been active in the physical provision of state-owned affordable homes, while others provide enhanced subsidies to private capital to build and operate affordable homes. The U.S. provides the most mature institutional market for affordable housing boosted by state-backed financial incentives including the Low-Income Housing Tax Credit (LIHTC) program, which supports affordable housing through public-private partnerships.

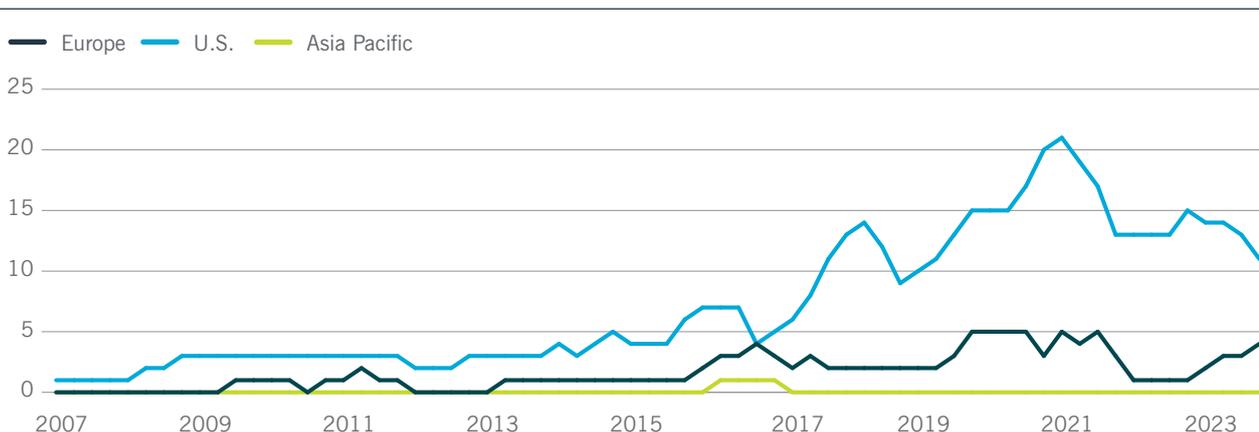
Moving across to Europe, the landscape of state subsidies becomes more complex or non-existent. In Asia Pacific, this sector is still primarily government

driven, with a greater emphasis on public housing for low-income families. To date, this has prevented more institutional capital investing into the sector and while sentiment for affordable housing investment has increased, investment transactions remain limited (Figure 5).

To solve the problem, there is a requirement for stronger private and public partnerships (especially outside the U.S.) with viewed increased opportunities for investors within the sector:

- The sector delivers consistent income due to high occupancy rates and security of income backed by government incentives
- The U.S. market has recorded outperformance of the affordable housing sector during economic downturns, creating strong portfolio diversification benefits
- The availability of government subsidies or accretive finance options help boost investor returns
- Affordable housing initiatives help regenerate communities by providing sustainable places for people to work and live - enhancing capital values and fundamentally driving attractive outcomes for both investors and society

Figure 5: Global investment activity: % of subsidized residential transactions versus all residential



Source: MSCI, RCA, October 2023

6

Setting up for a good vintage

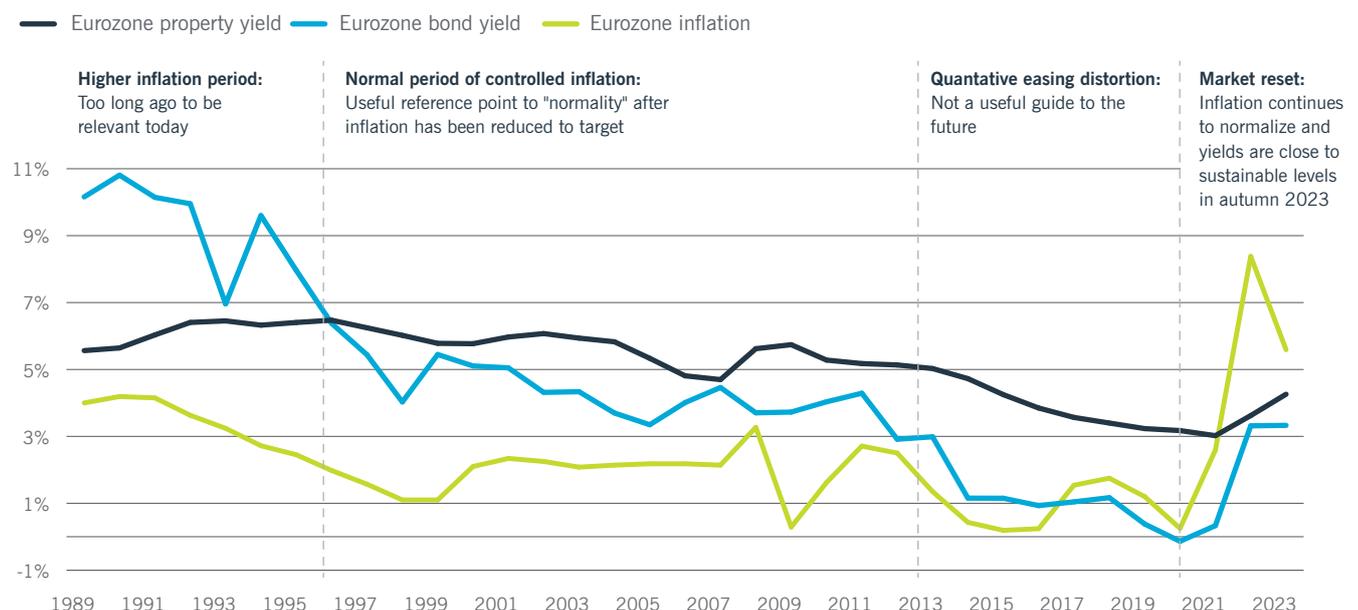
With quantitative easing and ultra-low interest rates being phased out, real estate pricing has reset to levels consistent with a more normal financial market environment. Most importantly, real estate has been restored to fulfill its traditional role in portfolios, which is providing income, a risk-dependent equity kicker, diversification and a degree of inflation hedging. To a large degree, the resilience of real estate is due to buoyant occupier markets across continents and across almost all property types. Markets are supported by solid demand as structural tailwinds continue for a wide range of sectors such as residential, data centers, logistics, senior living, student housing and medical offices to name just a few. This dynamic is aided by low construction levels caused by limited financing options and high construction costs.

Values have come a long way to adjust to the new financial market environment and we expect that, save for additional unexpected negative macro shocks, most investment markets will have bottomed

out by the end of 2023. There is too much uncertainty to expect interest rates to improve markedly in the short run, but over the medium term, more accommodative conditions should support property values again. However, even with a more pessimistic outlook on interest rates, 2024 is set to be a good vintage for real estate. Market dislocation, not least caused by debt workouts, will unlock opportunities for well-capitalized investors.

Investors are advised to study the period from the late 90s to the early 2010s, when low inflation and moderate interest rates provided a stable environment for property markets. The early 1990s had high inflation and interest rates much higher than today, and serves as a cautionary tale, but lessons from that era are of limited relevance for today since markets have evolved to operate completely differently. Quantitative easing deployed by central banks from the mid-2010s has led to market distortions, which would be misleading as a guide to future market developments (Figure 6).

Figure 6: Back to the future – markets close to restoring balance



Source: Nuveen Real Estate, PMA, Oxford Economics, Q3 2023

Conclusion

While market turbulence will proceed into 2024, we believe that real estate continues to present an opportunity for investors with compelling drivers of value in economic divergence, ESG investment and in select sector opportunities such as retail and affordable housing.

For more insights into real estate visit nuveen.com/global/insights/real-estate



Nuveen Real Estate

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Managing a suite of funds and mandates, across both public and private investments, and spanning both debt and equity across diverse geographies and investment styles, we provide access to every aspect of real estate investing.

With over 85 years of real estate investing experience and 800+ employees* located across 30+ cities throughout the United States, Europe and Asia Pacific, the platform offers unparalleled geographic reach, which is married with deep sector expertise.

¹ ANREV/INREV/NCREIF Fund Manager Survey 2022. Survey illustrated rankings of 143 fund managers globally by AUM as at 31 Dec 2022; updated annually.

*Includes 395+ real estate investment professionals, supported by a further 400+ Nuveen employees.

Source: Nuveen, 30 September 2023.

For more information, please visit nuveen.com/realestate

Endnotes

1 Nuveen Equilibrium Survey, 2023

2 SBTi progress report

3 IEA

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