Real Estate Research

September 2022



Global Real Estate Strategic Outlook

IN A NUTSHELL

- War, inflation, rising interest rates, and the specter of recession have upended the global macro environment.
- These conditions are inconducive to financial performance across most asset classes. Real estate is no exception, although its ability to hedge inflation is a redeeming quality.
- We believe that real estate prices will largely stagnate over the next two years, resulting in low-single-digit, incomedriven returns. However, outcomes will vary widely across sectors and markets.
- We favor the industrial and residential sectors, which enjoy structural drivers independent from the economic cycle.
 Further, we believe that the US and Japan are better protected from valuation pressures, due to stronger rent growth and lower interest rates, respectively.

RECENT PERFORMANCE

Little more than two years after the onset of COVID, global real estate is once again facing a dramatic shift in the macro environment: War in Europe. Spiraling inflation. Tightening central bank policy. Stagnating economies. Financial volatility. None of these shocks, in isolation, rise to the level of a global pandemic. Yet cumulatively, they are roiling property markets and casting a shadow over the outlook.

Evidence of the immediate impact on real estate is patchy and inconsistent. Transaction activity was buoyant through the first half of 2022, albeit skewed toward the U.S. (volumes fell in Europe and Asia, particularly Germany and China).¹ The Global Real Estate Fund Index (GREFI) delivered total returns of 19.9% (trailing four quarters) in the first quarter of 2022, the highest since at least 2006.² The first quarter was likely too early to capture the effects of this year's global turmoil. Yet the U.S. Open-End Diversified Core Equity (ODCE) index also delivered the strongest four-quarter total returns (29.5%) in its history (since 1978) in the second quarter, a performance that was mirrored by transactions-based data, which showed prices accelerating through July.³ At a fundamental level, rents continued to climb briskly, with a few notable exceptions (retail centers in Asia and Europe, office buildings in the U.S.).⁴

Meanwhile, global REIT prices slid 20% in the first half of 2022 alongside the broader stock market, a slump only partially reversed by a mid-year rally. In the U.S., appraisal data showed an uptick in discount and cap rates in the second quarter (generally offset by higher cash flows). Anecdotally, investors and brokers reported thinning bidding pools and the re-pricing of transactions.

- ¹ Real Capital Analytics (RCA). As of June 2022.
- ² NCREIF. As of March 2022.
- ³ NCREIF (ODCE); RCA (transactions prices). As of July 2022
- ⁴ DWS. As of June 2022.
- ⁵ NAREIT. As of August 2022.
- ⁶ Altus. As of June 2022.
- ⁷ DWS. As of August 2022.

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1 / Real Estate Outlook

What to make of this convoluted picture? In our view, it is indicative of a landscape that is challenging for real estate, but not uniformly so. Tighter money and slowing economies are headwinds to performance. Yet elevated inflation, particularly when coupled with strong fundamentals, may temper their effects. Outcomes will hinge on the relative strength of these opposing forces, which will play out differently across sectors and regions.

Start with interest rates. Levered investors might struggle to cover debt service and secure loans if cap rate spreads to borrowing rates narrow. Yield-seeking investors might pivot to fixed income as bond yields rise. Concomitant declines in stock and bond markets could spill over to real estate via the "denominator effect" – multi-asset investors rebalancing portfolios out of real estate to restore target allocations.

Statistically, these pressures can be summarized by comparing cap rates to government bond yields. The relationship is by no means ironclad, because unlike most bond coupons, property cash flows can grow (or shrink), justifying lower or higher spreads. Nevertheless, as government bond yields have increased 100-150 basis points around the world this year (with the notable exceptions of China and Japan, where they have barely moved), the global margin has compressed well below its 20-year average (see Exhibit 1). A flat yield curve suggests that financial markets expect limited further upward moves in long-term interest rates, even as central banks push short-term rates higher. Nevertheless, barring an upgrade to investors' growth assumptions, cap rates appear likely to move higher.



Exhibit 1: Global Cap Rate Spread to Long-Term Government Bond Yields

Source: DWS (cap rates); Oxford Economics (long-term government bond yields).

Rising interest rates are linked to another macro challenge: slowing economies. In our view, the combined effects of elevated inflation (sapping consumers' spending power) and higher borrowing costs (softening housing and other interest-rate sensitive industries), along with residual supply-chain disruptions and other factors, will curb growth around the world in 2023, with Europe and the U.S. slipping into mild recessions. We believe that the slowdown will not be severe, thanks to strong household

⁸ Oxford Economics. As of August 2022

balance sheets and pent-up labor demand. Still, given the tight historical relationship between economic activity and real estate absorption (in the U.S., the correlation is 0.8 with demand lagging by two quarters), we believe that fundamentals will soften. Fortunately, global real estate is approaching this slowdown from a position of strength. While there are exceptions, vacancies generally sit well below their historical averages (see Exhibit 2). The industrial and residential sectors are especially tight. Moreover, development pipelines are constrained: In the U.S., inflation-adjusted construction spending is down 20% from its pre-COVID peak, owing in part to labor shortages and a 50% run-up in materials costs. In Europe, office deliveries are poised to plummet after peaking this year. Accordingly, while vacancies may increase as demand recedes, we believe that fundamentals will remain healthy overall, particularly relative to past economic downturns.

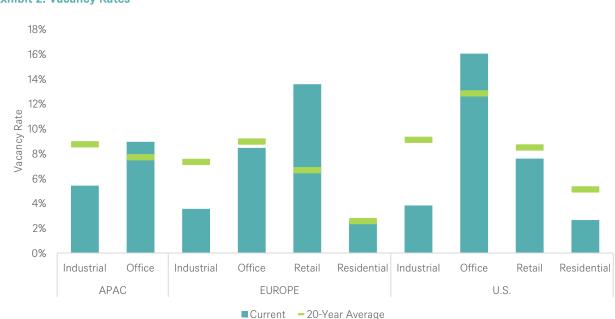


Exhibit 2: Vacancy Rates

Source: DWS. As of June 2022.

Higher interest rates, an economic slowdown, and constrained development are ultimately byproducts of the principal economic challenge of this post-COVID cycle: inflation. Hovering near 10% in Europe and the U.S. and somewhat lower in Asia, it has reached levels not seen in most advanced economies since the early 1980s. ¹² In our view, inflation will moderate as supply chains untangle and recessions curb demand. Still, this process will take time: we believe that inflation will remain historically elevated (3%-6% in most advanced economies) through 2023, with upside risks stemming from labor shortages (fueling wage pressures) and geopolitical uncertainties (impacting energy, food, and supply chains).

In our view, real estate has earned a well-deserved reputation as an inflation hedge. In the U.S., residential rents have exhibited a strong correlation with non-housing inflation, rising sharply during the 1970s despite multiple recessions (see Exhibit 3). No surprise, therefore, that industrial and residential rents have jumped 15% over the past year as inflation has resurfaced. Office and retail rents have been less sprightly, but even so, net operating income (NOI) increased 11.5% year-over-year across core

⁹ Bureau of Economic Analysis (GDP); CBRE-EA (absorption, equal-weighted across the office, industrial, retail, and apartment sectors). As of June 2022.

¹⁰ Census Bureau (construction spending); Engineering News-Record (building-cost inflation); Bureau of Labor Statistics (materials prices). As of June 2022.

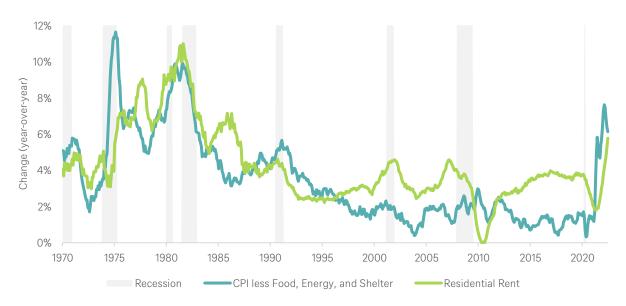
¹¹ DWS. As of August 2022.

¹² Oxford Economics. As of August 2022.

¹³ CBRE-EA. As of June 2022.

U.S. real estate in the second quarter of 2022, nearly a four-decade high.¹⁴ Asia and Europe have been weaker so far, but history suggests that higher construction costs and nominal incomes will feed into rents over time.¹⁵

Exhibit 3: U.S. Inflation and Residential Rents



Source: Bureau of Labor Statistics (CPI); Bureau of Economic Analysis (residential rents); NBER (recession). As of June 2022.

In theory, it is possible for real estate prices to increase amid rising interest rates and recession, provided inflationary rent growth is sufficiently strong. These dynamics are reminiscent of the 1970s and early-1980s, a period marked by energy crises (in 1973 and 1979), rampant inflation, soaring interest rates, and economic volatility. In the U.S., commercial real estate prices increased 8% annually from 1970-1984, roughly double the average of the past 40 years. There is no guarantee that history will repeat itself. However, provided interest rates do not increase much further and recessions are mild, we believe that inflation will help pave the way to a soft landing, with capital values remaining roughly flat over the next two years (in nominal terms), albeit with substantial variation across sectors and markets.

¹⁴ NCREIF. As of June 2022

¹⁵ DWS. As of August 2022.

¹⁶ Federal Reserve. As of June 2022.

2 / Investment Strategy

We believe that industrial and residential properties will prove resilient. Both sectors enjoy structural tailwinds that could sustain demand even if economic growth falters: e-commerce and efforts to strengthen supply chains in the case of Industrial; chronic under-building in the case of Residential. The latter is also habitually defensive, as people usually find ways to stay in their homes if they lose their jobs, using savings or government assistance. Moreover, shorter lease terms often allow owners to capture inflationary rents more readily. In both sectors, we believe that rental income will increase more than cap rates through 2024, driving modest appreciation (see Exhibit 4). Specifically, we favor infill logistics properties and regional residential markets (e.g., Osaka, Bristol, and Austin).

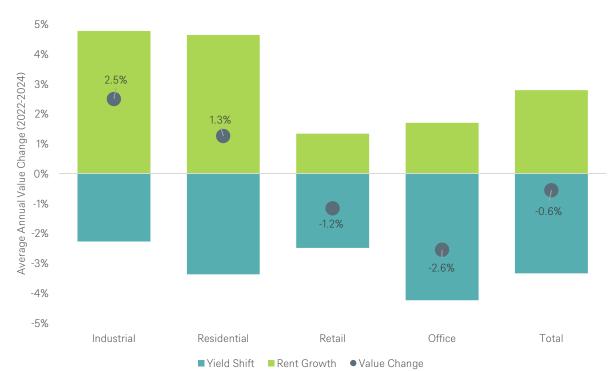


Exhibit 4: Global Sector Value Change (2022-2024 Average)

Source: DWS. As of August 2022.

Conversely, office property is historically pro-cyclical, and remote working might only worsen its prospects in a downturn. There are caveats: In some European markets (e.g., Germany), vacancy rates are low and contractual rents may be explicitly indexed to inflation. State-of-the-art, environmentally friendly "Next Generation" buildings may continue to enjoy a flight to quality, as companies strive to bolster their ESG credentials and entice talented employees. In Asia, a cultural affinity for office-based interaction may blunt incursions from remote working. In general, however, we believe that sluggish rents will fail to offset the effects of higher interest rates, dragging values meaningfully lower.

Retail property is also expected to underperform. E-commerce may decelerate from its frenetic, COVID-lockdown pace, but we believe that its long-term growth remains intact. Over the near-term, the combination of an inflationary squeeze on disposable incomes, recessionary job losses, and a post-pandemic pivot from goods to services spending may add further headwinds. There are exceptions, however. In the U.S., neighborhood and community centers appear to have turned the corner: their

vacancy rates have dropped to their lowest levels in 17 years and their necessity (e.g., grocery) and service-oriented (e.g., health care) tenants are largely resistant to recession and e-commerce.

From a geographic perspective, no region will escape the challenging macro climate unscathed, in our view, but the timing and intensity of the cycle will vary (see Exhibit 5). Europe is at most immediate risk of value declines: its low yields are more vulnerable to rising interest rates, while its economy and real estate fundamentals are more exposed to the war in Ukraine (the UK is a partial exception, as Brexit had already depressed valuations). The U.S. will endure similar interest-rate pressure, but its preponderance of high-performing industrial and residential properties and healthier retail sector will support superior rent growth. The outlook for Asia is mixed: Rising interest rates are expected to take a toll on Australia and South Korea. However, Japan is expected to be among the top-performing markets in the world, thanks to low and stable interest rates.

5% 4% Average Annual Value Change (2022-2024) 3% 2% 1% 0.4% 0.2% 0% -1% -0.6% -2% -2.5% -3% -4% -5% -6% US APAC Global Furone ■ Yield Shift ■ Rent Growth ● Value Change

Exhibit 5: Regional Value Change (2022-2024 Average)

Source: DWS. As of August 2022.

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Real Estate Research Team

Office Locations

Chicago

222 South Riverside Plaza 34th Floor Chicago IL 60606-1901 United States Tel: +1 312 537 7000

Frankfurt

Mainzer Landstrasse 11-17 60329 Frankfurt am Main Germany Tel: +49 69 71909 0

London

Winchester House 1 Great Winchester Street London EC2N 2DB United Kingdom Tel: +44 20 754 58000

New York

875 Third Avenue 26th Floor New York NY 10022-6225 United States Tel: +1 212 454 3414

San Francisco

101 California Street 24th Floor San Francisco CA 94111 United States Tel: +1 415 781 3300

Singapore One Raffles Quay South Tower 20th Floor Singapore 048583 Tel: +65 6538 7011

Tokyo

Sanno Park Tower 2-11-1 Nagata-cho Chiyoda-Ku 18th Floor Tokyo Japan Tel: +81 3 5156 6000

Teams

Global

Kevin White, CFA

Global Co-Head of Real Estate Research

Simon Wallace

Global Co-Head of Real Estate Research

Americas

Brooks Wells Head of Research, Americas

Ross Adams Industrial Research

Ana Leon Retail Research

Liliana Diaconu, CFA

Office Research

Joseph Pecora, CFA Apartment Research

Sharim Sohail

Property Market Research

Europe

Ruben Bos, CFA

Property Market Research

Siena Golan

Property Market Research

Carsten Lieser Property Market Research

Tom Francis

Property Market Research

Rosie Hunt

Property Market Research

Martin Lippmann

Property Market Research

Asia Pacific

Koichiro Obu

Head of Real Estate Research, Asia Pacific

Natasha Lee

Property Market Research

Hyunwoo Kim

Property Market Research

Seng-Hong Teng

Property Market Research

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AUTHORS



Kevin WhiteGlobal Co-Head of Real Estate Research



Simon Wallace Global Co-Head of Real Estate Research

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