

Industrial real estate is a "DIGITAL" poster child



INDRANEEL KARLEKAR, PH.D.

Global Head of Research & Portfolio Strategies



ARTHUR JONES

Senior Director, Research

Executive summary:

- The industrial sector is a DIGITAL* poster child due to structural demand driven by e-commerce and supply chain modernization.
- Although the era of hyper-globalization has ended, there is little evidence suggesting we are moving back to a closed economic model.
- There is a need for new and varied industrial stock given obsolescence and changing tenant needs, which continues to drive demand for new-build inventory.
- Strong market fundamentals for warehouse space have translated into outsized investor demand, driving NOI growth and record capital appreciation.
- New supply is a risk, but long-term demand drivers continue to make the sector attractive.
- Our preferred strategies focus on shorter-term development and merchant-build facilities in DIGITAL markets.

E-commerce and re-aligned supply chains have transformed the industrial sector

E-commerce as a dominant retail force in the U.S. has been a transformative structural driver for the industrial sector over the past 20 years. The shutdowns induced by the COVID-19 pandemic catalyzed a wave of consumers who had previously been reluctant to fully embrace online shopping. Even today, online shopping has continued to



*DIGITAL: Demographics, Infrastructure, Globalization, Innovation & Technology

These are the current views and opinions of Principal Real Estate Investors and are not intended to be, nor should they be relied upon in any way as a forecast or guarantee of future events regarding particular investments or the markets in general.

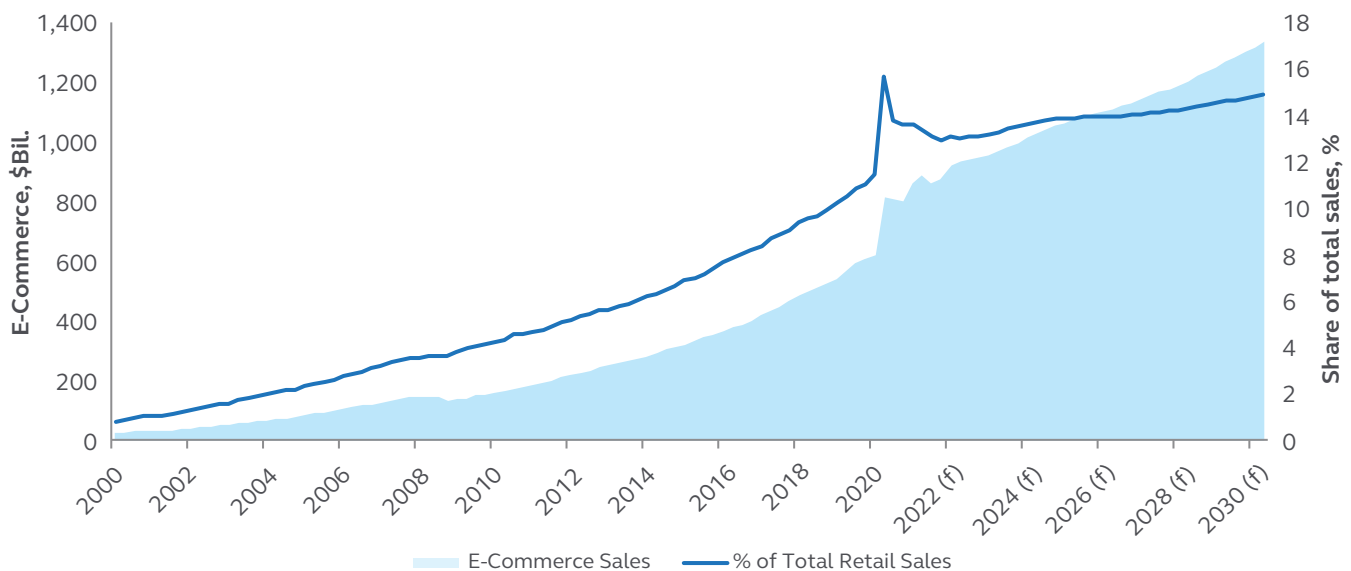
transform both U.S. and global supply chains as retailers strive to deliver goods faster and more efficiently. The shift is spurring innovation and sophistication in distribution methods, including transformations of port infrastructure and development of last-mile facilities.

For their part, online sellers have generated impressive growth in e-commerce sales and penetration into overall retail sales. Over the past cycle, we have seen

online sales increase from 4.6% of all retail sales to 11.4% just prior to the pandemic in 2020. At the height of the pandemic this growth was super-charged as online sales surged to 16% of overall sales before retreating as the economy reopened toward the end of 2020. Today e-commerce accounts for roughly 13% of all retail sales in the U.S. and is predicted to steadily increase with its share approaching 16% by the end of the decade (Exhibit 1).

Exhibit 1: E-commerce penetration will continue to support industrial demand

E-commerce sales



Source: U.S. Census Bureau, Moody's Analytics, Principal Real Estate Investors, Q4 2021.

Principal Real Estate Investors recognizes the long-term impact of both e-commerce and the increasing prevalence of technology in the economy and across the commercial real estate sectors. Industrial properties—and the warehouse subsector in particular—are at the forefront of these trends and are driving increased tenant and investor demand.

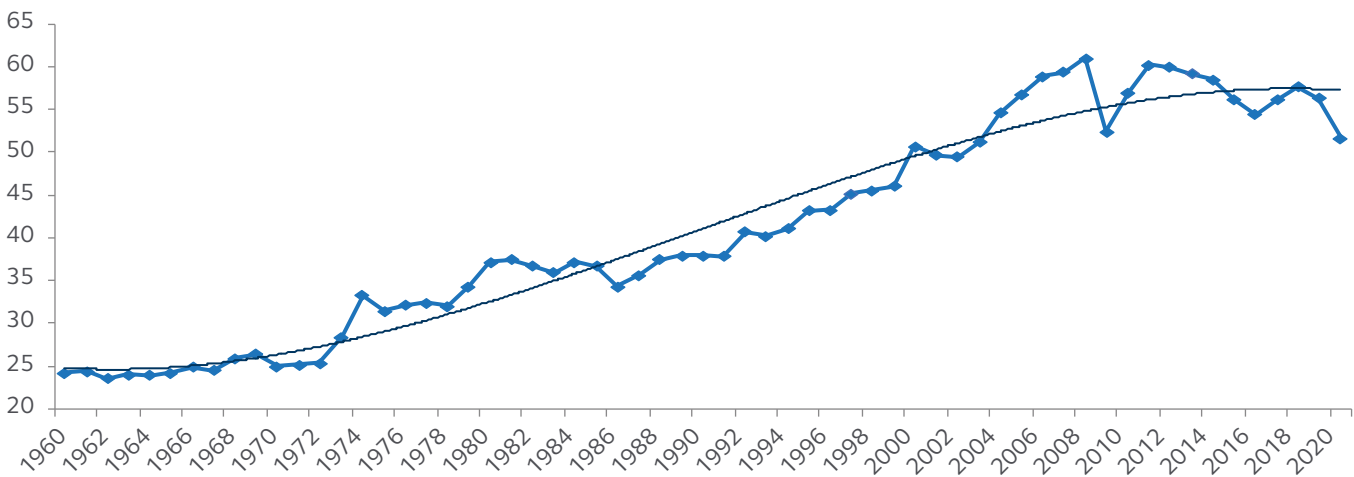
The end of hyper-globalism is not the end of the open economy

The industrial warehouse sector in the U.S. was among the primary beneficiaries of the period of hyper-globalization beginning in 1960s. At that time, the U.S. economy was an industrial power with manufacturing accounting for roughly 30% of total payroll employment—today that figure is less than 9%. While part of this decline can be attributed to increases in worker productivity and automation,

a vast majority of the decline is due to increases in global trade and the outsourcing of manufacturing. Since 1960, globalization—as measured by trade as a share of World GDP—occurred at an exponential pace (Exhibit 2) increasing from 25% to just over 60% as emerging economies were able to produce goods cheaper and faster than most major industrialized nations, including the U.S.

Exhibit 2: Globalism may have reached its saturation level

Trade as a share of GDP (%)



Source: World Bank, Principal Real Estate Investors, 2021.

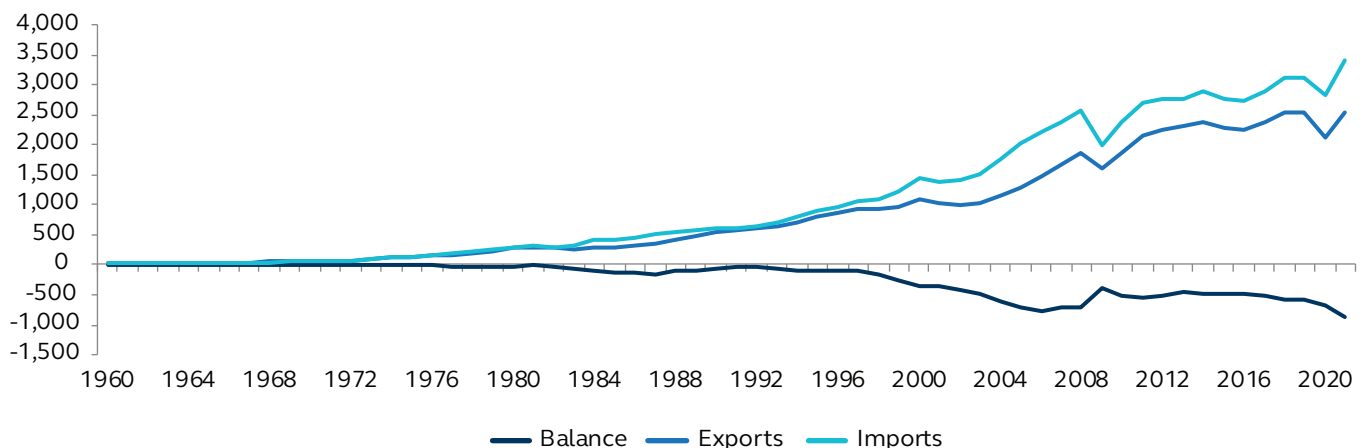
Global trade as a share of the economy reached its peak in the early 2000s aided by both global and regional trade agreements. Since the global financial crisis (GFC), however, the share of trade has plateaued and even declined more recently, suggesting that the era of hyper-globalization has ended.

The transition, however, has mattered little to U.S.—or global—industrial demand. This may be partially explained by the continued growth of trade on an absolute basis, suggesting that on a share basis global trade may have simply reached its saturation level. In fact, looking at the U.S. trade balance, there is evidence

that the economy remains open and reliant on global supply chains. The most recent data available shows that, both imports and exports have never been higher and the trade deficit for goods has increased to its highest level on record (see Exhibit 3). In other words, the flow of imports and exports along the U.S. supply chain—the primary driver of demand for warehouse space—has never been higher. It is also arguably the case that the speed of which goods are being demanded is also contributing to increasing warehouse demand because of next day delivery goals set by major online retailers.

Exhibit 3: Globalization of the U.S. economy continues

U.S. global trade, (\$ Billions)



Source: U.S. Census Bureau, Economic Indicator Division, 2021.

We believe the industrial sector’s ties to global trade will remain a net positive despite growing protectionism and ongoing supply chain disruptions. That said, some weakness in global supply chains is likely to persist, which may force businesses to pivot towards greater import substitution where possible, or towards alternative trading partners. In fact, the global trade in textiles is a great example of diversification in trading partners—whereas China was the primary exporter of textile apparel to the U.S. a decade ago, many other Asian and Latin American countries now fill that role.

We are also beginning to see a shift within high-tech manufacturing. Other Asian countries are increasingly providing competition to Chinese outsourced vendors. Though evidence of increased U.S. onshoring are scant, rising inflation, cost of production, and disruptions along Asian supply chains could allow some domestic manufacturers to compete where skillsets and costs are comparable. As a result, even though market sources may change, we anticipate globalization will still play an important role in the movement of goods.

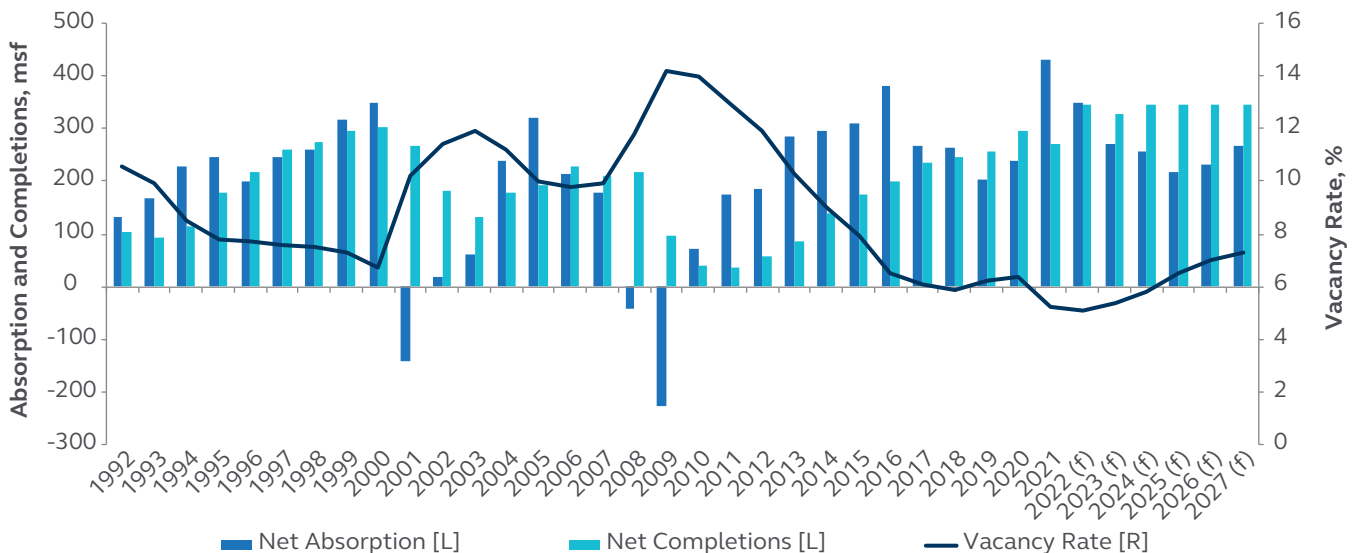
Industrial fundamentals poised for growth

The industrial market has perhaps never been on more solid footing. Demand remains healthy enough to offset late-cycle surges in supply, and vacancy rates have never been lower. Anecdotal evidence suggests the only headwind offsetting even stronger demand is the lack of adequate space to lease. Outside of major gateway ports along the west coast, it would appear that the North American supply chain is firing on all cylinders as strong household and business balance sheets have fueled an impressive consumer recovery.

While consumer spending simply cannot repeat its stimulus fueled performance of 2020, it is forecast to outperform its historical average with retail sales averaging mid-single digit growth in 2022 before reverting to trend. Market fundamentals are showing signs of improvement as demand continues to outpace new supply. The national availability rate has fallen 920 basis points (bps) since its post-GFC peak in 2010 to 4.8%, its lowest level on record. Though development pipelines remain highly active, demand has been more than adequate to both offset new supply and preserve healthy rent and NOI growth. We project that availability of industrial space will remain below its equilibrium levels on a go-forward basis allowing landlords to maintain their pricing power in the market (Exhibit 4).

Exhibit 4: Industrial market fundamentals remain on point

Industrial space market fundamentals



Source: CBRE-EA, Principal Real Estate Investors, Q4 2021.



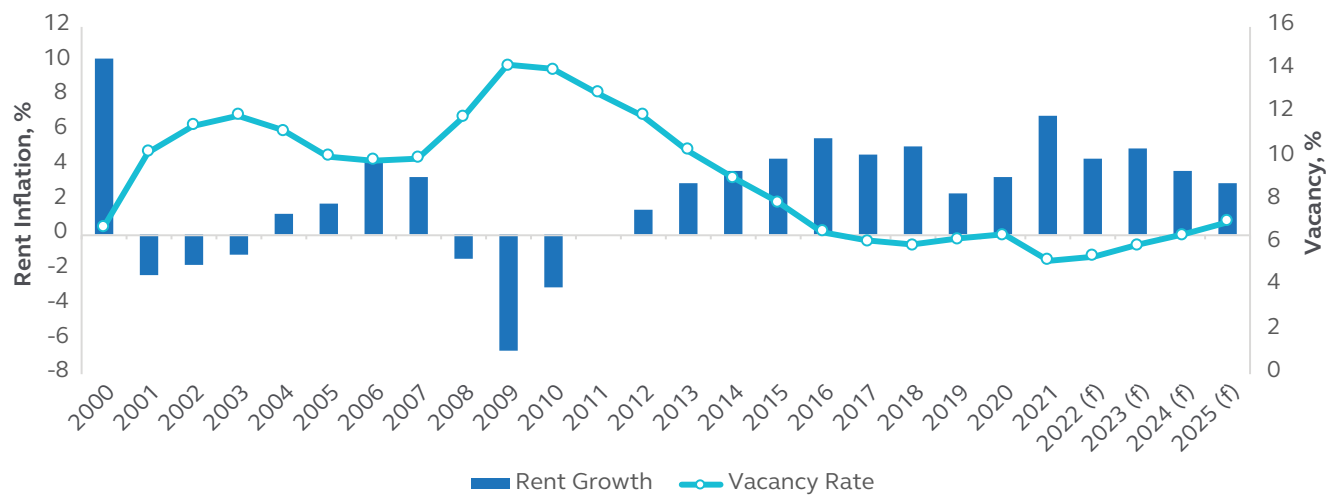
For those concerned about the prospect of a supply-side induced correction, we should keep in mind that industrial remains a high-beta property type and as such performance tends to be governed by demand side factors. As an example, the last correction in industrial rents and values occurred during (and following) the GFC—the last balance sheet recession experienced by the U.S. economy.

In adjusting to the demand shock of the GFC, national rent levels declined peak-to-trough by 11.3% from

2008 to 2011. This compared to a decline of 12.4% for the office sector, 6.3% decline for the retail sector, and 2.9% for the apartment sector (Exhibit 5). The large rent decline for industrial was likely a function of the consumer-based nature of the recession that crippled the housing market—an important source of demand for warehouse space. However since the GFC, industrial has been the only main property type to achieve continuously positive growth, including the period encompassing the COVID-19 pandemic.

Exhibit 5: Industrial rent growth has proved resilient through the pandemic

Industrial vacancy and rent inflation, %



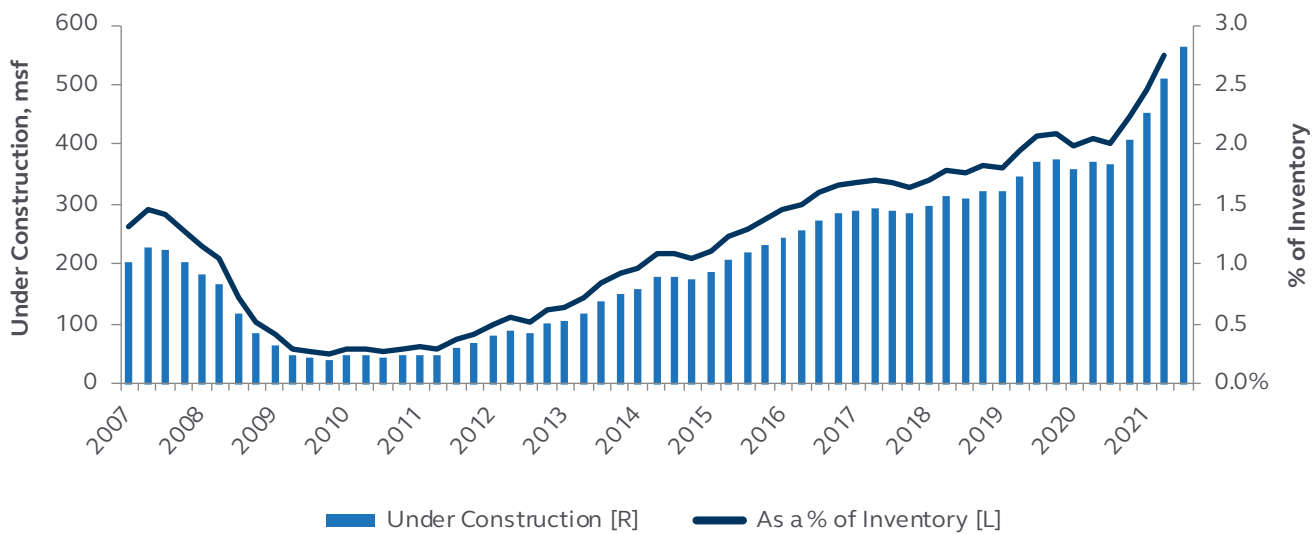
Source: CBRE EA, Principal Real Estate Investors, Q4 2021.

Demand for industrial space is also becoming more nuanced, as requirements for today’s e-commerce and logistics providers are far more specialized than they were 20 years ago. Rapid increases in land prices in locations linked to intermodal transportation as well as shortages of specialized labor in many top submarkets are prompting occupiers to expand their geographical horizons in order to meet these competing needs.

The extremely strong occupier and investor demand for industrial warehouse space has led to a strong supply response increasing the amount of space under construction to 2.8% of total inventory over the last twelve months (Exhibit 6).

Exhibit 6: Industrial supply pipeline remains active

Industrial stock under construction



Source: CoStar, Principal Real Estate Investors, Q4 2021.

An estimated 85.5 million square feet of new industrial supply was delivered to the market in the 4th quarter of 2021, according to CBRE-EA and there is currently 562 million square feet of industrial space under construction. Given the low availability rate for the market, new warehouse property is now scarce enough in many regions that tenants are getting more creative to meet space requirements. Buildings

that were once overlooked as obsolete are now being repurposed by e-commerce companies rehabilitating older facilities for urban in-fill locations and last-mile operations. San Francisco is one example where last-mile logistics has increased purchases of old, under-used properties, helping to drive industrial price per square foot 72% higher over the last five years.

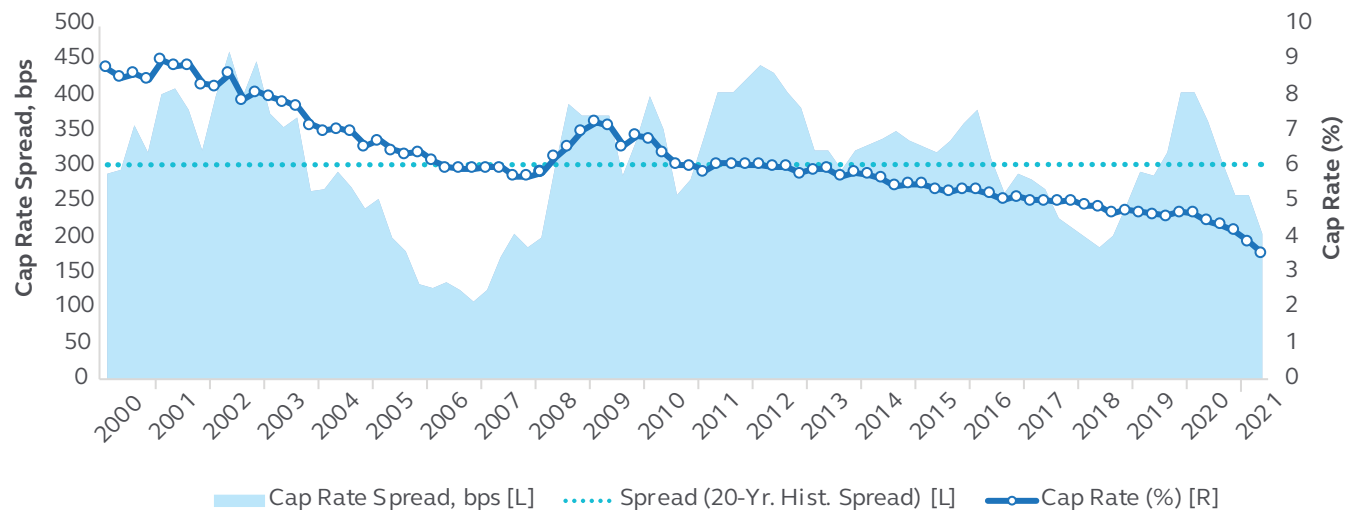
Industrial investment performance has been impressive

The transformation of the industrial sector from one dominated by traditional warehouses into a market characterized by modern logistics hubs has attracted a great deal of capital pushing cap rates to 3.6% as of 4th quarter 2021. Since peaking at 7.3% in Q3 2009, industrial cap rates have decreased at an average of 7.5 bps every quarter since Q3 2009, further dropping

below its 20-year historical average of 5.2%. Despite lower yields, spreads have generally stayed within a standard deviation of the historical average, though higher interest rates and sustained capital flows have recently reversed that trend. Today, industrial spreads remain wide of apartment, which is the other most sought-after primary property type. Of note, over the past four years, the average annual total return for the industrial sector was 20.3%, more than double that of the next highest sector (Apartments) at 8.2%.

Exhibit 7: Industrial cap rate compression is reflective of investor demand

Industrial cap rate and spreads

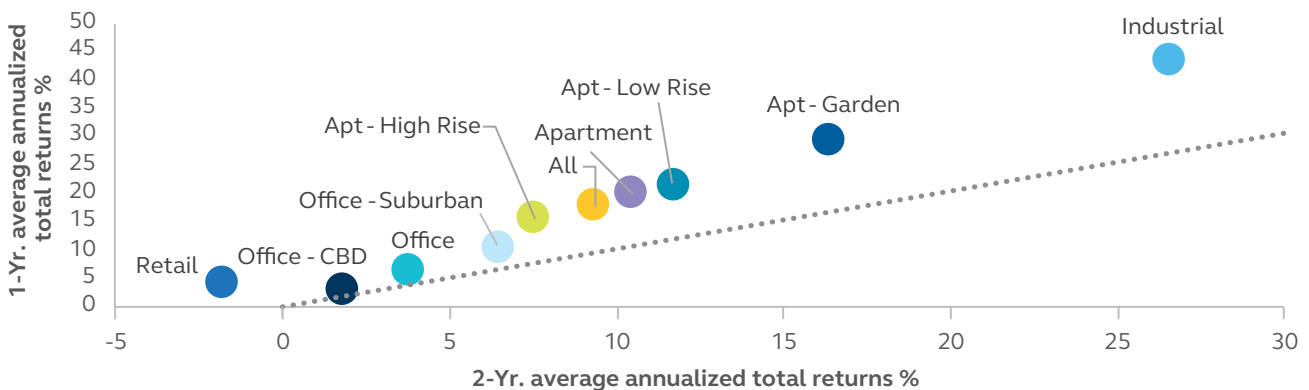


Source: NCREIF NPI; Principal Real Estate Investors, Q4 2021.

Exhibit 8: Industrial sector continues its record run

NCREIF NPI Total Return by Property Type

Annualized total returns as of Q4 2021



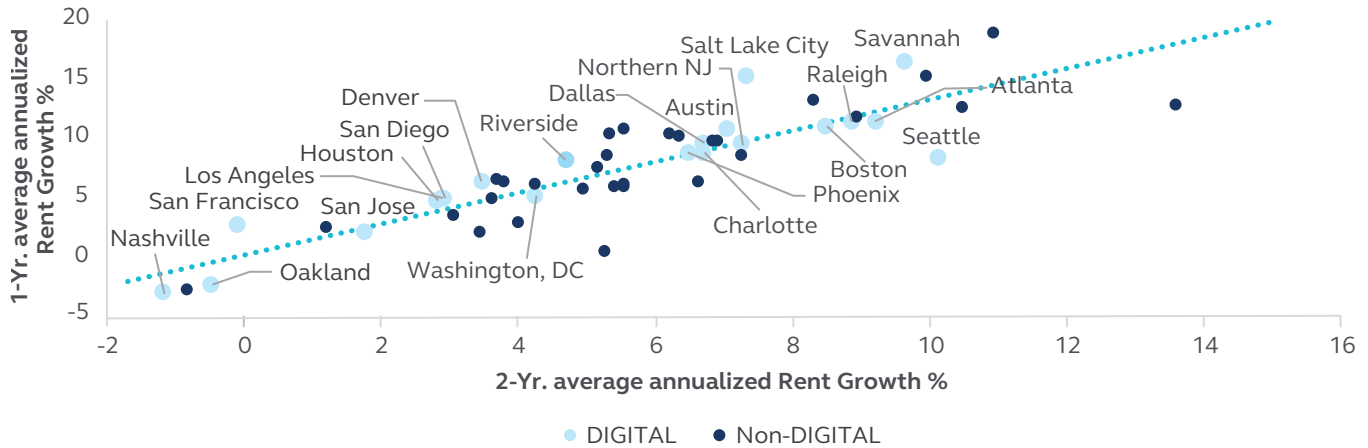
Source: NCREIF NPI, Principal Real Estate Investors, Q4 2021.

Exhibit 9 shows annualized industrial rent growth on a one and two-year basis respectively. It is important to note that very few markets have failed to generate positive rent growth over the past two years. Perhaps more impressive is that most metro areas have seen

rental growth accelerate. This is particularly true for our DIGITAL markets, which tend to display high levels of innovation related industries and strong underlying demographic growth.

Exhibit 9: Industrial rent growth accelerating in many markets

Industrial rent growth



Source: CBRE-EA, Principal Real Estate Investors, Q4 2021.



Industrial remains among the most sought after sectors by investors

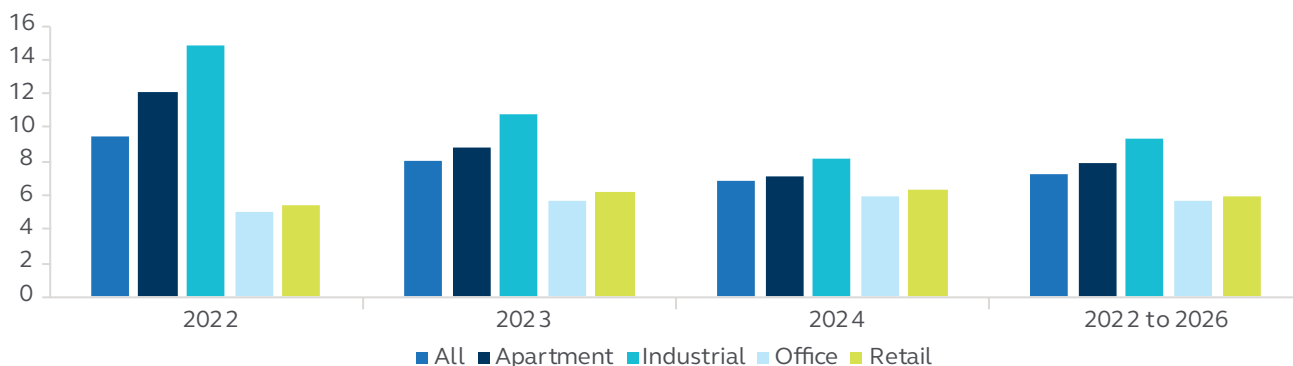
According to Real Capital Analytics (RCA), \$23.8 billion of industrial transactions closed through the first three months of 2022, up 109% from its historical average over the same time since 2003 (\$11.4 billion on average). Increased demand and elevated pricing levels have compressed yields and helped deliver strong total returns over the past several years.

Transaction prices in major markets suggest that core, gateway assets are pricing well above the previous peak and replacement costs. On a repeat-sales basis, per the RCA Commercial Property Price Index (CPPI), industrial pricing through February 2022 is 28.5%

higher than a year ago. Investors that are willing to move up the risk curve may find value-add assets can provide 100-200 bps premium over core deals in today’s market. However, we believe development opportunities offer the most compelling risk-adjusted returns. Spreads between yield on cost and stabilized cap rates approximates 150 to 225 bps depending on the market and location, providing opportunity to achieve a return premium of 600-750 bps, unlevered, over core assets. These strategies compare favorably to the PREA Q1 2022 consensus forecast for unlevered industrial total returns of 9.4% through 2026.

Exhibit 10: Industrial poised to outperform the NPI index

PREA consensus, total return %



Source: PREA, NCREIF, Principal Real Estate Investors, Q2 2022.

Exhibit 11: Development expected to provide the best relative value

Forecast internal rates of return (IRRs)**



Source: Principal Real Estate Investors, Q1 2022. With the exception of certain unleveraged commercial properties in highly desirable locations with high occupancy rates, the rest of the private real estate equity investments shown above involve high investment risk, with substantial potential for investment losses.

**Estimated gross unlevered total returns (IRR) as of March 31, 2022 and are before fees, transaction costs and other expenses. These are projections given current business plans, expectations and market conditions that Principal Real Estate Investors has observed on the market generally. There is no guarantee that an investor will achieve these projected internal rates of return on any similar properties or real estate asset classes in the future. Projected performance is not a reliable indicator of future performance and should not be relied upon as a significant basis for an investment decision. You should consider whether an investment fits your investment objectives, particular needs and financial situation before making any investment decision.

The constant change and shifting patterns of consumption and retail sales along with the re-orientation of supply chains has made the industrial sector a darling of tenants and investors. While acknowledging a degree of uncertainty that may lie ahead, with its deep embedded links to DIGITAL drivers of demand, we believe the industrial sector is well-positioned to see sustained tenant demand. Our perspective is rooted in the view that the industrial sector has become a key cog in the global supply chain for businesses and consumers. While the economy and real estate invariably go through cycles, we are confident that the industrial sector’s DIGITAL footprints should ensure attractive long-term performance.

Risk Considerations

Past performance does not guarantee future results. Investing involves risk, including possible loss of principal. Potential investors should be aware of the risks inherent to owning and investing in real estate, including: value fluctuations, capital market pricing volatility, liquidity risks, leverage, credit risk, occupancy risk and legal risk. All these risks can lead to a decline in the value of the real estate, a decline in the income produced by the real estate and declines in the value or total loss in value of securities derived from investments in real estate.

Important information

This material covers general information only and does not take account of any investor's investment objectives or financial situation and should not be construed as specific investment advice, a recommendation, or be relied on in any way as a guarantee, promise, forecast or prediction of future events regarding an investment or the markets in general. The opinions and predictions expressed are subject to change without prior notice. The information presented has been derived from sources believed to be accurate; however, we do not independently verify or guarantee its accuracy or validity. Any reference to a specific investment or security does not constitute a recommendation to buy, sell, or hold such investment or security, nor an indication that the investment manager or its affiliates has recommended a specific security for any client account. Subject to any contrary provisions of applicable law, the investment manager and its affiliates, and their officers, directors, employees, agents, disclaim any express or implied warranty of reliability or accuracy and any responsibility arising in any way (including by reason of negligence) for errors or omissions in the information or data provided. All figures shown in this document are in U.S. dollars unless otherwise noted. Investing involves risk, including possible loss of principal.

This material may contain 'forward looking' information that is not purely historical in nature. Such information may include, among other things, projections and forecasts. There is no guarantee that any forecasts made will come to pass. Reliance upon information in this material is at the sole discretion of the reader.

This material is not intended for distribution to or use by any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation.

This document is issued in:

- The United States by Principal Global Investors, LLC, which is regulated by the U.S. Securities and Exchange Commission.
- Europe by Principal Global Investors (EU) Limited, Sobo Works, Windmill Lane, Dublin D02 K156, Ireland. Principal Global Investors (EU) Limited is regulated by the Central Bank of Ireland. In Europe, this document is directed exclusively at Professional Clients and Eligible Counterparties and should not be relied upon by Retail Clients (all as defined by the MiFID). The contents of the document have been approved by the relevant entity. Clients that do not directly contract with Principal Global Investors (Europe) Limited ("PGIE") or Principal Global Investors (EU) Limited ("PGI EU") will not benefit from the protections offered by the rules and regulations of the Financial Conduct Authority or the Central Bank of Ireland, including those enacted under MiFID II. Further, where clients do contract with PGIE or PGI EU, PGIE or PGI EU may delegate management authority to affiliates that are not authorized and regulated within Europe and in any such case, the client may not benefit from all protections offered by the rules and regulations of the Financial Conduct Authority, or the Central Bank of Ireland.
- United Kingdom by Principal Global Investors (Europe) Limited, Level 1, 1 Wood Street, London, EC2V 7 JB, registered in England, No. 03819986, which is authorised and regulated by the Financial Conduct Authority ("FCA").
- United Arab Emirates by Principal Global Investors LLC, a branch registered in the Dubai International Financial Centre and authorized by the Dubai Financial Services Authority as a representative office and is delivered on an individual basis to the recipient and should not be passed on or otherwise distributed by the recipient to any other person or organisation.
- Singapore by Principal Global Investors (Singapore) Limited (ACRA Reg. No. 199603735H), which is regulated by the Monetary Authority of Singapore and is directed exclusively at institutional investors as defined by the Securities and Futures Act 2001. This advertisement or publication has not been reviewed by the Monetary Authority of Singapore.
- Australia by Principal Global Investors (Australia) Limited (ABN 45 102 488 068, AFS Licence No. 225385), which is regulated by the Australian Securities and Investments Commission. This document is intended for sophisticated institutional investors only.
- This document is marketing material and is issued in Switzerland by Principal Global Investors (Switzerland) GmbH.
- Hong Kong SAR (China) by Principal Global Investors (Hong Kong) Limited, which is regulated by the Securities and Futures Commission and is directed exclusively at professional investors as defined by the Securities and Futures Ordinance.
- Other APAC Countries, this material is issued for institutional investors only (or professional/sophisticated/qualified investors, as such term may apply in local jurisdictions) and is delivered on an individual basis to the recipient and should not be passed on, used by any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation.

With the exception of certain unleveraged commercial properties in highly desirable locations with high occupancy rates, the rest of the private real estate equity investments shown above involve high investment risk, with substantial potential for investment losses. **Estimated gross unlevered total returns (IRR) available as of 31 March 2022 and are before fees, transaction costs and other expenses. These are projections given current business plans, expectations and market conditions that Principal Real Estate Investors has observed in the market generally. There is no guarantee that an investor will achieve these projected internal rates of return on any similar properties or real estate asset classes in the future. Projected performance is not a reliable indicator of future performance and should not be relied upon as a significant basis for an investment decision. You should consider whether an investment fits your investment objectives, particular needs and financial situation before making any investment decision.

© 2022 Principal Financial Services, Inc. Principal®, Principal Financial Group®, and Principal and the logomark design are registered trademarks of Principal Financial Services, Inc., a Principal Financial Group company, in the United States and are trademarks and services marks of Principal Financial Services, Inc., in various countries around the world. Principal Global Investors leads global asset management at Principal®. Principal Real Estate Investors is a dedicated real estate investment management group within Principal Global Investors.