

PROPRIETARY RESEARCH

Outlook 2022

Targeting Winning Locations

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Introduction

Where one invests in commercial real estate is as important as what property type those investments are in and at what moment in the cycle those investments occur. Indeed, “location, location, location” is one of the oldest mantras in the industry. This is particularly true over long-term investment horizons that may span multiple cycles.

Twenty to 30 years ago, data limitations narrowed the notion of “where” within the context of an investment strategy to geographically large and diverse metropolitan statistical areas (MSAs) in the United States, census metropolitan areas (CMAs) in Canada, Nuts 3 statistical regions in Europe, prefectures in Japan, etc. And in some regions and markets around the world, those limitations remain, although that is true in fewer and fewer places.

In a growing number of regions and markets, particularly in the United States, commercial real estate data have gotten much more granular over the last couple of decades and new advances in data allow for a much deeper dive into the question of location. No longer is it acceptable to simply say that this fund plans to invest in San Francisco, New York, Dallas, etc. Rather, we can more accurately pinpoint which locations in San Francisco, New York, or Dallas make the most sense for a given strategy. While submarkets within a given metropolitan area may have high correlation, small differences in growth rates can compound over time to generate vastly different investment performance between the best and worst submarkets within the same market.

Our annual outlook takes a deeper dive into how we evaluate location within the context of our investments.

1. With the United States as a test case, we illustrate how submarkets can generate vastly different investment performance over the course of time.
2. We examine the fundamental aspects of submarkets that have produced superior returns including an examination of the importance of supply constraints.
3. We highlight some of the attributes that historically superior submarkets across the four major sectors have relative to inferior submarkets.
4. We also examine the varying performance of markets and submarkets, during the financial crisis and ensuing recovery, to better emphasize the importance of location within the context of the current recovery.

Finally, we outline how we have exported some of the concepts developed in the data-rich U.S. markets to some of the more data-challenged markets outside of the United States.

Following our research on the importance of location, we share the broader outlooks from our regional CIOs along with the chance to go even deeper online into our perspectives from our local experts on the ground from around the world.

Location matters

In the United States, the widespread availability of submarket data allows for a deeper evaluation of geography within the context of commercial real estate investing. Led by CoStar's push into asset-level data collection more than 30 years ago, the ability to cut real estate data at a much finer granular level allows for the creation of deeper insight into what drives commercial real estate performance. Once we hone in on the individual metrics that intuitively appear to impact investment performance, we can cross-reference the results with the actual performance of real estate properties using the NCREIF database to see if the metrics do have a material impact on returns.¹

Across markets globally and submarkets where the data are available, Hines Research created what we now refer to as "core scores." In the United States, where the concept of core scores first arose, our research process evolved as follows.

First, we analyzed more than 4,000 submarkets across the four major food groups to determine the long-term growth in revenue per square foot or unit, with revenue simply equating to an occupancy-adjusted rent. Within each property sector, we then divided those results into five tranches such that the top 20% of submarkets with the strongest long-term revenue/SF or unit growth were in the first tranche, the next 20% in the second tranche, etc.

Secondly, we examined just under 1,000 economic, demographic, and commercial real estate variables to determine those that the top tranche submarkets had (or lacked) relative to the other tranches. The metrics included things such as educational attainment, percentage of tech jobs, long-term average vacancy rates, rent levels, and hundreds of others. Once we narrowed the list of metrics down to a few handfuls that really stood out, we scored each of the submarkets on a scale of 0-100 for each metric, divided those results into five tranches and then queried the NCREIF database using the ZIP codes that fell within the boundaries of the submarkets in each tranche.

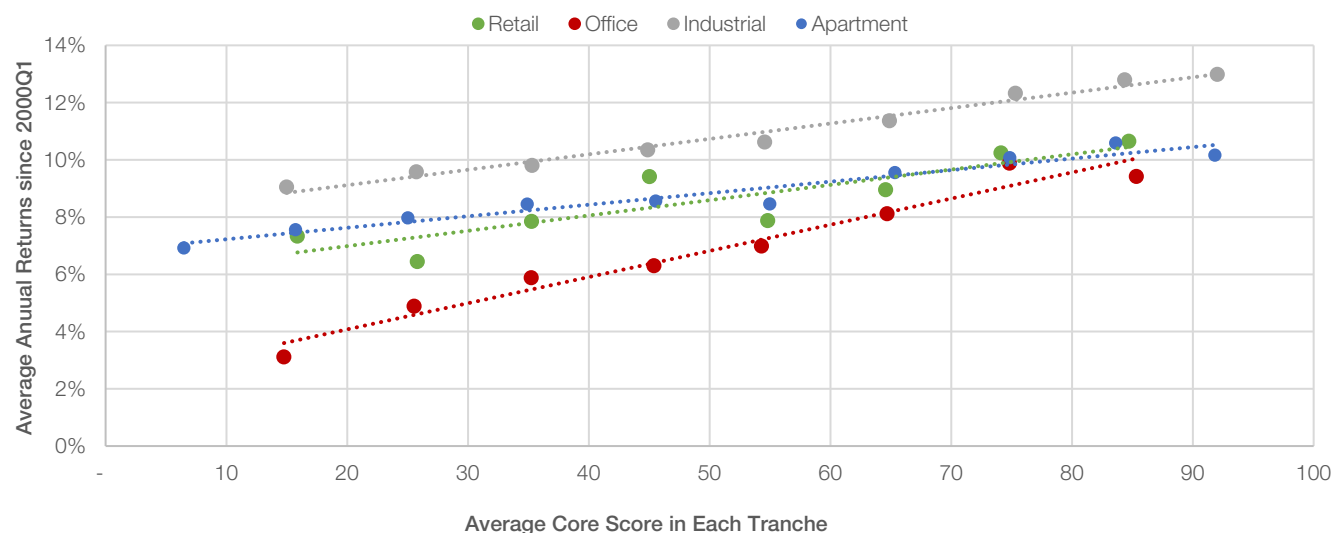
Once we narrowed the individual metrics down to those that actually had an impact on investment performance, we combined the scores of each metric to create a weighted average composite score for each submarket. The optimal weights for each of the metrics were determined largely through trial and error by querying NCREIF until the actual investment performance of each tranche had the strongest statistical relationship to the average composite score in each tranche. After the weights were determined, we fine-tuned the analysis further by breaking the submarkets into 10 tranches and re-querying NCREIF to see if the relationships across the tranches held at a more granular level. If not, we further tweaked the weights and/or metrics that informed the final composite scores which we now refer to as core scores. The months-long process of this exercise was somewhat tedious, but the end results really highlight the importance of submarket selection.

¹ The National Council of Real Estate Investment Fiduciaries (NCREIF) is a member-driven, not-for-profit association that improves private real estate investment industry knowledge by providing transparent and consistent data, performance measurement, analytics, standards, and education. Its data date back to 1978 and currently has 9,703 properties in the National Property Index (NPI) valued at over \$785 billion as of 2021Q3.

Exhibit 1 illustrates the relationship between the average core score of each of the tranches on the x axis and the average annual unlevered total returns to each tranche since 2000Q1 on the y axis. With the exception of retail which had a good, but less spectacular r-squared of 0.76 between these two metrics, apartments (0.94), offices (0.96), and industrial (0.98) have had exceptionally strong relationships between the two. Said more plainly, more than 90% of the investment performance of each of the tranches in the apartment, office, and industrial sectors can be explained by the average core score in those tranches.²

Exhibit 1

Average Core Scores Relative to Average Annual Total Returns since 2000Q1



Sources: NCREIF; Hines Research; as of 2021Q3

The slopes of each of the trendlines highlight the relative sensitivity of investment performance to core scores across the property types. For the lowest ranking office submarkets, average annual unlevered returns on NCREIF properties have been just 3.1% while the highest-ranking office submarkets have delivered average annual total returns of 9.4%. In the apartment sectors, the lowest ranking submarkets have delivered average returns of 6.9% while the highest core score submarkets have generated average returns of 10.2%.

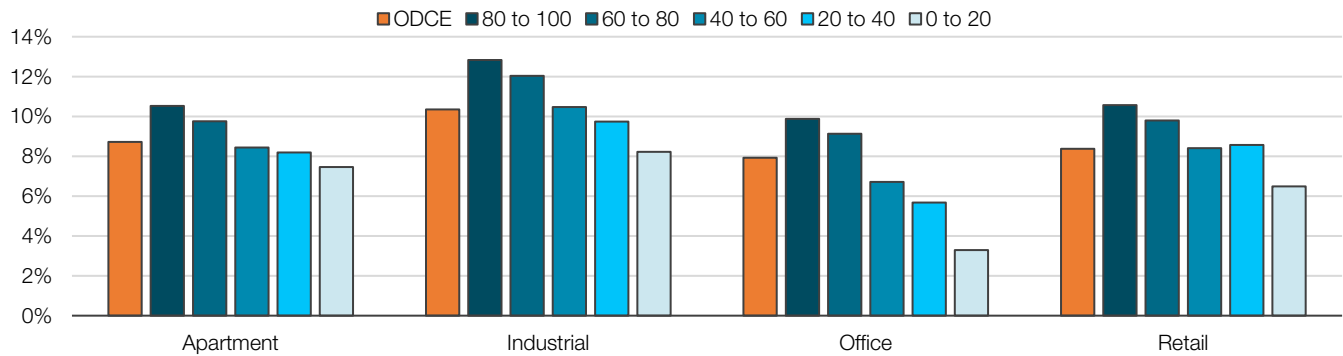
In each of the property types, scores more than 60 have outperformed properties in the ODCE (Open End Diversified Core Equity)³ fund index in their respective property sectors. Scores between 40 and 60 have delivered ODCE-like returns in all but the office sector, and scores under 40 have generally underperformed the properties in ODCE (under 60 in the office sector). **Exhibit 2** illustrates these results, with the blue bars representing ODCE and the orange bars representing the submarkets in each of the composite core score tranches with darker bars indicating higher core scores.

² While we would love to get even more granular than 10 tranches, the NCREIF data start to get thin relatively quickly beyond 10, particularly at the extreme ends of the core scores. In fact, for the office, retail, and industrial sectors, we needed to combine the ten-point tranches into larger 20-point tranches at one or both ends of the core score spectrums due to NCREIF data limitations in those tranches.

³ The definition of the Open-End Diversified Core Equity Index is on [page 24](#)

Exhibit 2

Average Annual Unlevered Total Returns for NCREIF NPI Properties since 2000Q1 by Core Score Range



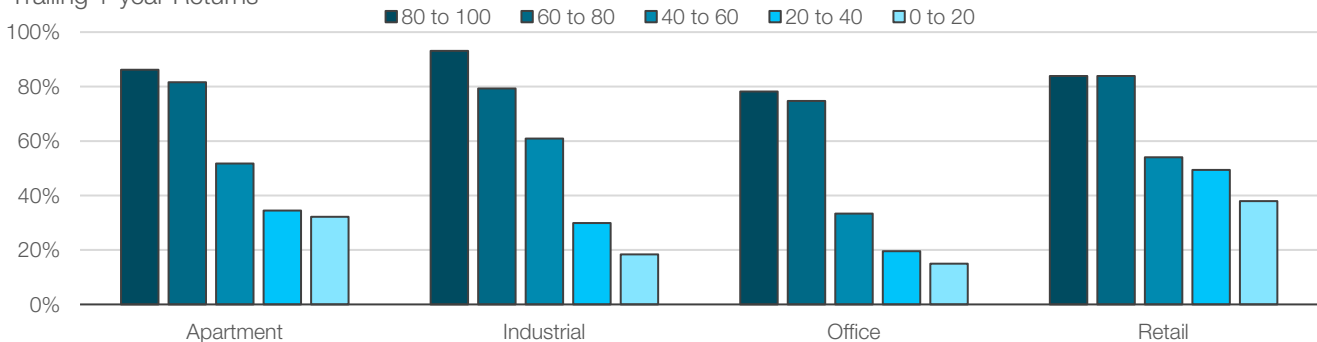
Sources: NCREIF; Hines Research; as of 2021Q3

Next, we tested for consistency in a couple of different ways. First, we examined the percentage of time that a core score tranche outperformed the ODCE index over trailing 1-year and 3-year periods since 2000. As shown in **Exhibit 3**, high core score submarkets outperformed properties in ODCE funds 80%, and in some tranches more than 90%, of the time which is an astounding rate to outperform a benchmark over the course of more than 20 years.

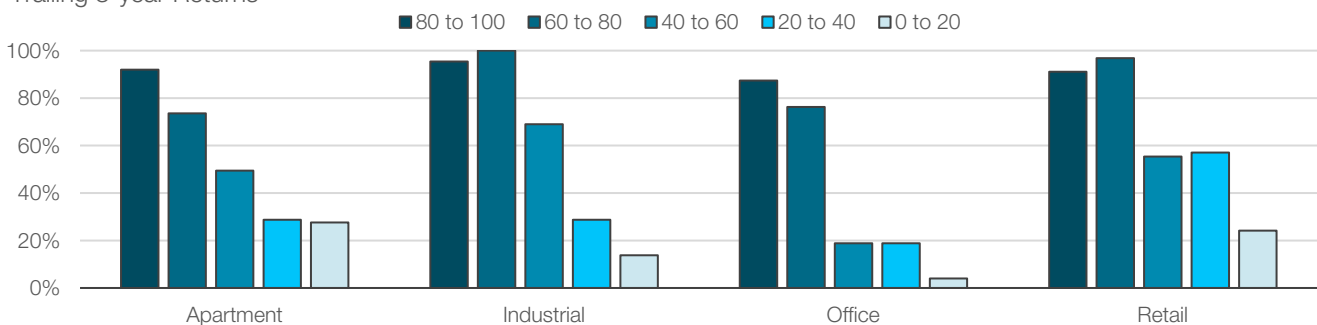
Exhibit 3

Percent of Time Trailing Returns Beat the Same-sector Properties in ODCE Funds by Core Score Range since 2000Q1

Trailing 1-year Returns



Trailing 3-year Returns

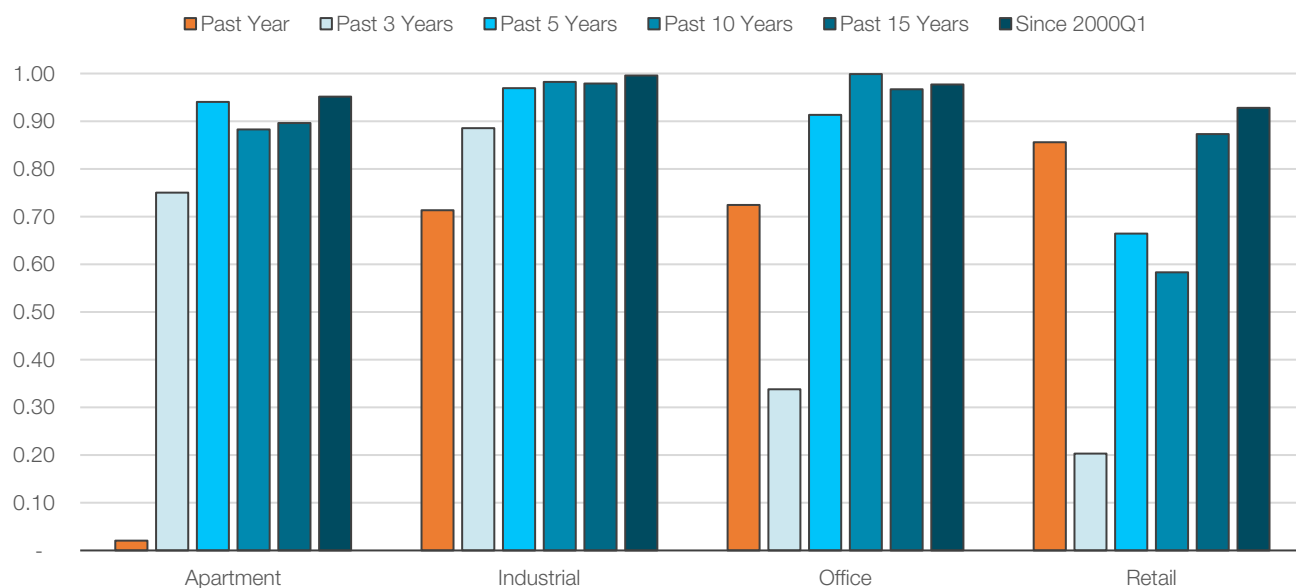


Sources: NCREIF; Hines Research; as of 2021Q3

The other way we tested for consistency is by examining other periods within the 20+ year data set. In **Exhibit 4**, we show the r-squares of the average core score in each 5-tier tranche with the average annual NCREIF returns of that tranche over the past 1, 3, 5, 10, and 15 years as well as the entire time series dating back to 2000Q1.⁴ As shown in **Exhibit 4**, the relationship can break down over shorter time periods, and over the past year properties in the top two apartment tranches still outperformed apartment properties in ODCE but so did the fifth tranche. As a result, the r-square between the returns in all five tranches and their average core scores is nearly zero. In the office sector, the r-square over the past year was a still-strong 0.72 but the only reason it was that high is that COVID-19 essentially flipped the office sector on its head with the lowest tranche of submarkets posting the best returns and higher tranche submarkets delivering the lowest returns. That phenomenon was true in the retail sector as well and in both it is likely the result of more significant write-downs in the harder hit gateway markets since the onset of the pandemic. Indeed, if you exclude the San Francisco, New York, and Los Angeles submarkets from the office analysis, the r-square over the past year of 0.05 looks more like the apartment analysis. Given the massive increase in apartment demand in those gateway markets in recent months, we wouldn't expect that to be long-lasting and given the greater pain in traditionally very strong office submarkets, there should be relatively more attractive valuations to invest in them over the near term.

Exhibit 4

R-squares of Average Submarket Tranche Core Scores and Returns Over Various Time Periods



Sources: NCREIF; Hines Research; as of 2021Q3

⁴ These r-squares are slightly different than the ones referenced earlier as they are using the 5 tranche data set rather than the expanded data set used for Exhibit 1.

Core scores and fundamentals

High core score submarkets and markets that have consistently produced superior returns over mid- and longer-term holds have some similar fundamental attributes, some of which are intuitive but others which are somewhat surprising. In all four property types, one metric that had a consistent correlation with investment performance was simply the current level of gross rental revenue per square foot or unit. In the apartment sector, it only had a moderate relationship to investment performance on its own but when coupled with the long-term growth in that same metric, the two combined well to delineate submarkets with strong long-term investment performance.

Across the four sectors, current rents⁵ in submarkets with core scores more than 80 are 55% higher than the national average; between 60 and 80, they are 34% higher; 40 to 60 core score submarkets have average rents 1% below the national average; 20 to 40 are 18% below, and submarkets with core scores of less than 20 have rents 33% below the national average across all four major property sectors. And while those are averages across all four sectors, each individual property type exhibited similar trends with decreasing levels of average rents as core scores declined.

Important metrics such as cap rates and operating expenses across submarkets can be quite different so it is somewhat surprising that this simple metric had such a strong relationship to total returns. But the absolute level of rents speaks to the scarcity of supply as well as tenants' desire to be in particular submarkets so while it is a very simple metric, it is one worth paying attention to. In addition, it highlights an investment mistake that is sometimes pitched for its potential, which is the notion of "value submarkets" that offer rental discounts to higher quality submarkets in the same market. The reason rents are lower in these value submarkets is that tenants would rather be in the higher quality submarkets. When fundamentals go through a bit of a downcycle, as they do from time to time, that is when those tenants trade up to the higher quality submarket, usually at the expense of these value submarkets and ultimately, investment performance suffers. That is one of the reasons why submarkets with core scores more than 80 have enjoyed average vacancy rates that have been 280 basis points lower than the national average since 2000, while those with core scores of less than 20 have suffered from vacancy rates that have been 240 basis points higher than average.

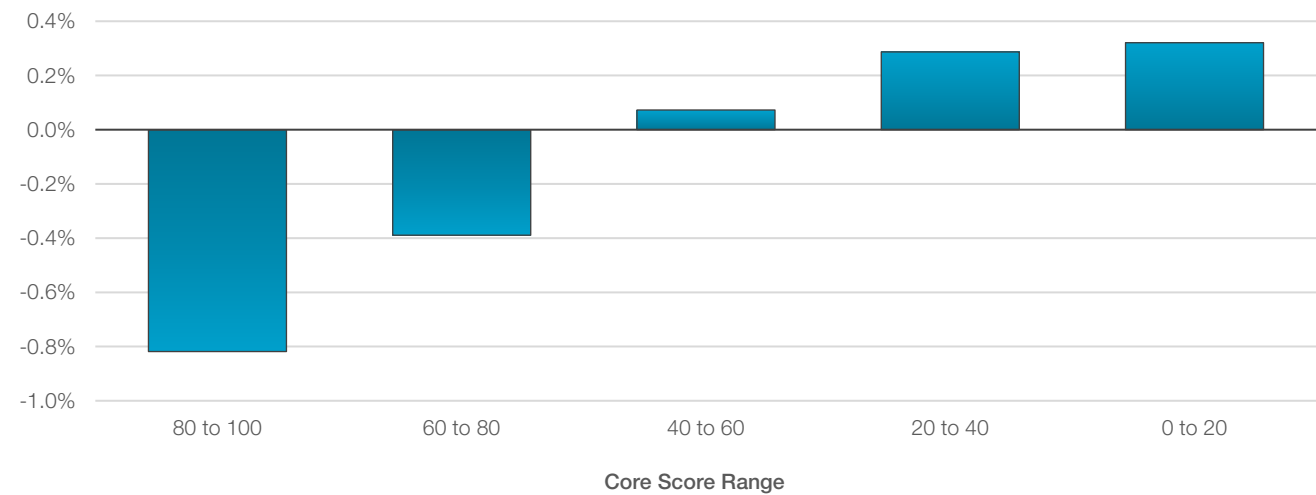
Another surprising discovery during our R&D is that high quality submarkets as measured by our core scores are not necessarily high growth places. In fact, if you delineate submarkets by their growth in occupied space, whether over long-, mid-, or short-term time periods, there's basically no relationship to investment performance.

⁵ As of 2021Q3

Exhibit 5 illustrates the average growth in tenant demand relative to the national average across the core score spectrum since the turn of the century. Lower quality submarkets with lower total returns over time have enjoyed stronger demand growth but they also tend to be less supply constrained and indeed, supply constraints are another important metric that has a notable impact on investment performance.

Exhibit 5

Average Growth in Occupied Space Relative to Nation since 2000Q1 by Core Score Range



Sources: CoStar; Hines Research; as of 2021Q3

There are many ways to approximate supply constraints but the methodology that we found to have the strongest relationship to investment performance is to measure the amount of new supply in a given geography over the course of rolling 10-year periods relative to all other geographies and compare it to the relative amount of price growth that occurred over those same 10 years. Markets and/or submarkets that experienced little new supply relative to all other geographies but enjoyed relatively high amounts of price appreciation over the same decade are obviously places where it is more difficult for developers to respond to rising prices and vice versa. By comparing geographies to one another during the same rolling 10 years, this analysis picks up on the capital markets’ general appetite for new development (quite low in the 1990s) and by using 10-year periods, we are also picking up on places where it may take longer for supply to respond but it is ultimately able to (or not). Finally, we analyze the stability of this metric over all 10-year periods to create a risk-adjusted supply constraint that features in the core scores for all but the retail sector.

Among 4,374 U.S. submarkets where we can quantify risk-adjusted supply constraints, the top 37 are in the retail sector, mostly in urban, infill locations in global gateway markets. San Diego, Boulder, Seattle, and Orange County feature prominently in the apartment sector, while Los Angeles’ rock-tight industrial submarkets account for 21 of the top 22 submarkets in the warehouse sector with East Miami accounting for the other. Los Angeles also ranks highly in the office sector, accounting for seven of the top 10 submarkets with the highest risk-adjusted supply constraints. Independence Hall and Market Street East in Philadelphia along with the Portland CBD account for the other three. Many office submarkets widely considered to be supply constrained, particularly in New York, Boston, and San Francisco, score quite well on the unadjusted supply constraint metric but when we account for their volatility over differing 10-year periods, they fall back a bit in the pack. In other words, yes, they are generally supply constrained but there are periods where new deliveries come onto the market en masse.

The table in **Exhibit 6** details the average risk-adjusted supply constraint score by submarket type in the United States. Clearly, business districts and other urban submarkets have had the highest scores and highest percentage of submarkets with above average scores greater than 50 and very high scores in excess of 70. While the pandemic has been more detrimental to urban submarkets, it hasn't changed the differential between urban and suburban supply constraints. Should capital become too enamored with stronger near-term fundamentals in suburban submarkets, they could quickly become overbuilt, particularly as cities come back online.

Exhibit 6

Urban Submarket Performance has Benefited from Higher Supply Constraints

Submarket Type	Average Submarket Risk-adjusted Supply Constraint Score	Percentage of Submarkets by Risk-adjusted Supply Constraint Range			
		0 to 30	30 to 50	50 to 70	70 to 100
Secondary Business District	65	1.7%	15.5%	50.6%	32.2%
CBD	64	4.4%	21.8%	41.3%	32.5%
Urban	55	12.9%	27.4%	36.2%	23.5%
Prime Suburban	50	16.9%	31.7%	38.3%	13.2%
Suburban	44	22.5%	38.4%	29.4%	9.6%
Rural	44	25.5%	37.0%	25.5%	11.9%

Sources: NCREIF; CoStar; Hines Research; as of 2021Q3

Given this analysis, when presented with the choice between demand growth and supply constraints, the latter has proven to be a significant contributor to long-term investment performance while the former has little relationship to total returns. That's not to say high growth geographies don't have their place in a commercial real estate investment strategy, but they shouldn't be considered strategic anchors of an investment portfolio. Rather, they can be excellent places for merchant build strategies in the right part of the cycle and, barring bouts of oversupply and/or disruptions to their growth during recessions, the very allure of their growth often has provided a fair amount of liquidity support during the disposition process.

Spotlight: A tale of two core scores in suburban Boston

Boston is one of the office submarkets widely considered to be supply constrained, and it typically scores well on the unadjusted supply constraint metric. But without Hines' core score investment principle, that wasn't in place back then, two different outcomes occurred in the same office market.

We bought two suburban Boston office assets for one of our now liquidated retail REITs that had strong tailwinds on hold for both assets. We purchased The Campus at Marlborough for \$103 million in October of 2011. The second, Riverside Center, was acquired for \$197.25 million in early 2013.



The Campus at Marlborough

Acquired for \$103 million in October 2011,
previously sold in September 2006 for \$133.2M
Sold for \$66 million in June 2020 for 0.8x EM and
-3.4% Gross LIRR and -6.8% Net⁶

The Campus at Marlborough struggled through tenant losses that were hard to backfill despite the high quality of the property. Boston office prices rose 81 percent during our hold period and were 16 percent below trend when Hines bought and 16 percent above trend when Hines sold for \$66 million in June of 2020. Cap rates fell from 5.8 percent to 3.7 percent during the hold period, and the asset produced a negative leveraged IRR of 3.4 percent gross.

The core denominator that was missing: the core score. Marlborough had only an 11-core-score, which was in the lowest score bracket in Boston out of 46 markets.

"It didn't help that we had to sell The Campus at Marlborough in the middle of COVID with the liquidation of the REIT, which dropped bids 10 percent," said Michael Francis, project manager for Hines.

It does tell the low core score story. We typically see very low to any income growth in assets with low core scores. Assets that are in lower core scores markets, with the inability to grow rent ahead of expenses, could eventually become illiquid assets.

Our second Boston asset, Riverside Center, had a core score of 64 for its Newton/Brookline submarket. It delivered a near 10 percent leveraged IRR for investors. Boston office prices rose 70 percent during hold, were 14 percent below trend when Hines bought and 17 above trend when Hines sold.



Riverside Center

Acquired for \$197.25 million in early 2013
Sold for \$231 million in January 2020 for 1.6x EM and
9.8% Gross LIRR and 7.2% Net⁷

The two assets in the same market underscore Hines' investment principle to evaluate each asset against its core score as a strong correlator to future asset performance.

⁶ Past performance does not guarantee future results

⁷ Past performance does not guarantee future results

Core scores and capital markets

One thing that is abundantly clear (and not all that surprising) in both the NCREIF queries as well as other third-party sources of information such as CoStar is that high quality submarkets have lower yields but have more than made up for those lower yields through better long-term appreciation. Since the first quarter of 2000, submarkets with core scores above 80 have had cap rates⁸ that have averaged 100 basis points lower than the national average per CoStar's data, while those with scores under 20 have had average cap rates 110 basis points higher than the national average. Per NCREIF's database, which is concentrated in larger and more institutional assets, average cap rates in submarkets with core scores above 80 have been 110 basis points tighter than the average in sub-20 core score submarkets and 40 basis points lower than the average of properties in the ODCE index since 2000. Despite these lower annual yields, average annual total returns in the strongest tranche of submarkets have bested the lowest tranche by an average of 440 basis points since 2000.

There are two primary ways that asset appreciation can occur, after adjusting for capital expenditures. One source of appreciation has been the general decline in cap rates during most, though not all, periods since 1990. Cap rates are generally a reflection of prevailing interest rates and growth expectations, both of which are largely out of the control of an individual investor. The other main driver of appreciation, of course, is income growth which is largely driven by changes in income and expenses. Within the NCREIF data, we can observe trailing annual income returns in any given quarter as well as the change in asset values within the database over the course of time. If \$100 of NOI produced an 8% income return in one period and a 5% income return 10 years later, the appreciation attributable to cap rate compression can be estimated as 60%. If, during the same period, total appreciation equaled 80%, then the appreciation attributable to things other than cap rate compression totaled 20%, with most of that 20% likely coming from income growth – i.e., revenue growing about 2% per year faster than operating expenses over the 10 years.

⁸ In this analysis, we are using NCREIF's trailing annual income returns as a proxy for market cap rates. The Income Return measures that portion of total return attributable to each NPI property's net operating income, or NOI. Net operating income (NOI) is gross rental income plus any other income less operating expenses-utilities, maintenance, taxes, property management, insurance, etc. The income return is computed by dividing NOI by the average daily investment for each quarter. The formula takes into consideration any capital improvements and/or any partial sales that occurred during the quarter.

Exhibit 7 really emphasizes the importance of submarket quality as it pertains to the preceding analysis. On average across the four property types, there has been significantly more appreciation due to things other than cap rate compression in high-quality submarkets. One could argue that market dynamics would have been much different over the last 20 years in a flat or rising cap rate environment as there would have likely been much less development, thereby leading to greater rent growth. All else equal, the performance disparity between high-and low-quality submarkets would have been even greater than it has been, given the inability of landlords to grow revenues as fast as expenses. In the lower-quality submarkets, this would have led to the depreciation of asset values over time. Should we ever get into a flat or rising cap rate environment, liquidity in lower-quality submarkets could be significantly impaired given this dynamic.

Exhibit 7
Average Capital Appreciation Due to Factors Other than Cap Rate Compression



Sources: NCREIF; Hines Research; as of 2021Q3

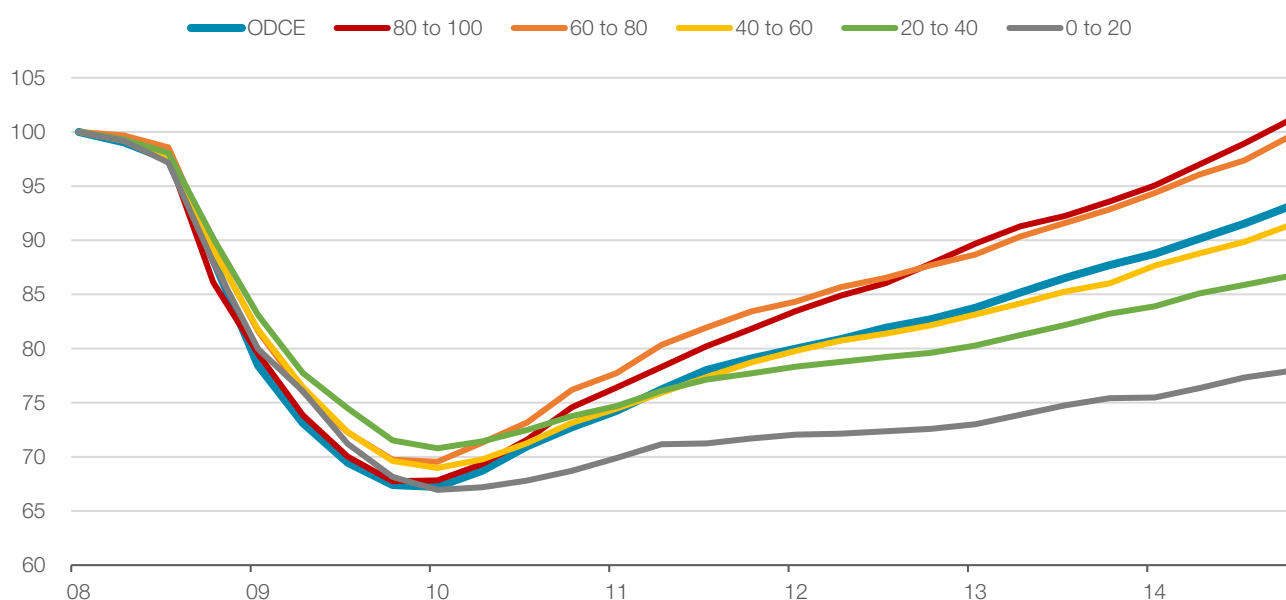
The ultimate backtest: Surviving the GFC

The global financial crisis (GFC) presented significant challenges for investors across all asset classes but real estate was particularly troubled given that is where some of the greatest excesses occurred within the lending markets leading into the crisis. In the following exercise, we will examine the performance of a portfolio using ODCE's own property-level performance for the major sectors as well as the performance of each of our five core-score tranches. For the purposes of this exercise, we will assume that each of the portfolios was weighted to the property sectors according to ODCE's own weights at the start of the analysis in 2008Q1.

Exhibit 8

Capital Value Index of ODCE-weighted Portfolio across the Four Major Property Sectors from 2008Q1 through 2014Q4

Capital Value Index (2008Q1 = 100)



Sources: NCREIF; Hines Research; as of 2021Q3

The first thing that **Exhibit 8** illustrates is that high core score submarkets are not immune to downturns. Very little was immune during the GFC but in looking at other periods in history including the dot-com bust as well as the recent turbulence in 2020, the same conclusion can be found. In fact, the capital markets' enthusiasm for many of the highest-quality submarkets during expansions can get them a bit further over their skis than sleepier, lower-quality submarkets. That said, they tend to bounce back quicker and with more vibrancy during recoveries. Each of these portfolios saw a roughly 30% decline in value during the heart of the crisis from 2008-10 but over the next four years, high-quality submarkets with core scores above 60 recovered all of those losses as values rose more than 40% during that time. Meanwhile, the ODCE portfolio was still about 7% below 2008Q1 levels at the end of 2014 while the lowest-quality tranche of submarkets was still more than 20% lower six years after the crisis had begun.

Core scores and international markets

To this point, the bulk of our analysis has focused on the data-rich U.S. market with its thousands of submarkets and ability to query actual investment performance at a much more granular level than what is available in other countries around the world. However, we have been able to export many of these concepts to Europe and Asia, understanding that while each region and market has its nuances, many of the same metrics that have driven U.S. investment performance do have high correlations to important metrics such as real rent growth in non-U.S. markets. Some of the lessons learned in the United States are directly applicable to non-U.S. markets, such as high rent levels as an indication of the “coreness” of a broader market even if we lack specific submarket data. In the following, we highlight a number of the tools that we have developed in order to hone in on the most attractive areas for investment across the globe.

Supply constraints are one of the more straightforward tools we can export globally in most markets. On a global scale, Hong Kong’s warehouse and office markets have been the most supply constrained markets on the planet, with supply unable to respond to rapidly rising prices over most of its history. Other highly supply constrained markets in Asia include the Zhongguancun and Finance Street office submarkets in Beijing and the Gangnam office submarket in Seoul. In Europe, the difficult-to-replicate high street retail markets in many of Europe’s older city centers dominate the top of the list of European supply constrained places with London’s West End and Midtown office submarket ranked first among European office markets per our analysis using PMA’s data from 1993Q4 to 2021Q3.⁹ More recent and more granular submarket data from CoStar allows us to get more specific within the United Kingdom. Per CoStar’s data, which start in 2000Q1 and as of 2021Q3, London features highly in the U.K. office sector, accounting for 16 of the top 17 out of 486 submarkets in terms of supply constraints. Kent, Essex, and several other regional cities also show well. Across regions more broadly, **Exhibit 9** shows that Europe has been the most supply constrained while North America has been the least; but there are, of course, differences across markets and submarkets within each region.

Exhibit 9

Average Regional Supply Constraint Scores

Region	Average Submarket Risk-adjusted Supply Constraint Score	Percentage of Markets by Risk-adjusted Supply Constraint Range			
		0 to 30	30 to 50	50 to 70	70 to 100
Europe	59	7%	19%	41%	32%
Asia/Pacific	53	21%	17%	32%	31%
North America	51	13%	31%	41%	15%

Sources: NCREIF; CoStar; PMA; JLL; CBRE; IPD; Hines Research; as of 2021Q3

Given more granular data in the United Kingdom as well as Canada, we have been able to approximate very similar core scores in the U.K. office, retail, and industrial sectors as well as all four major sectors in Canada. In a recent analysis of a high-profile development in the U.K., we were able to assign a core score of 84 to the submarket where the site was located. Given the long-term hold profile of this

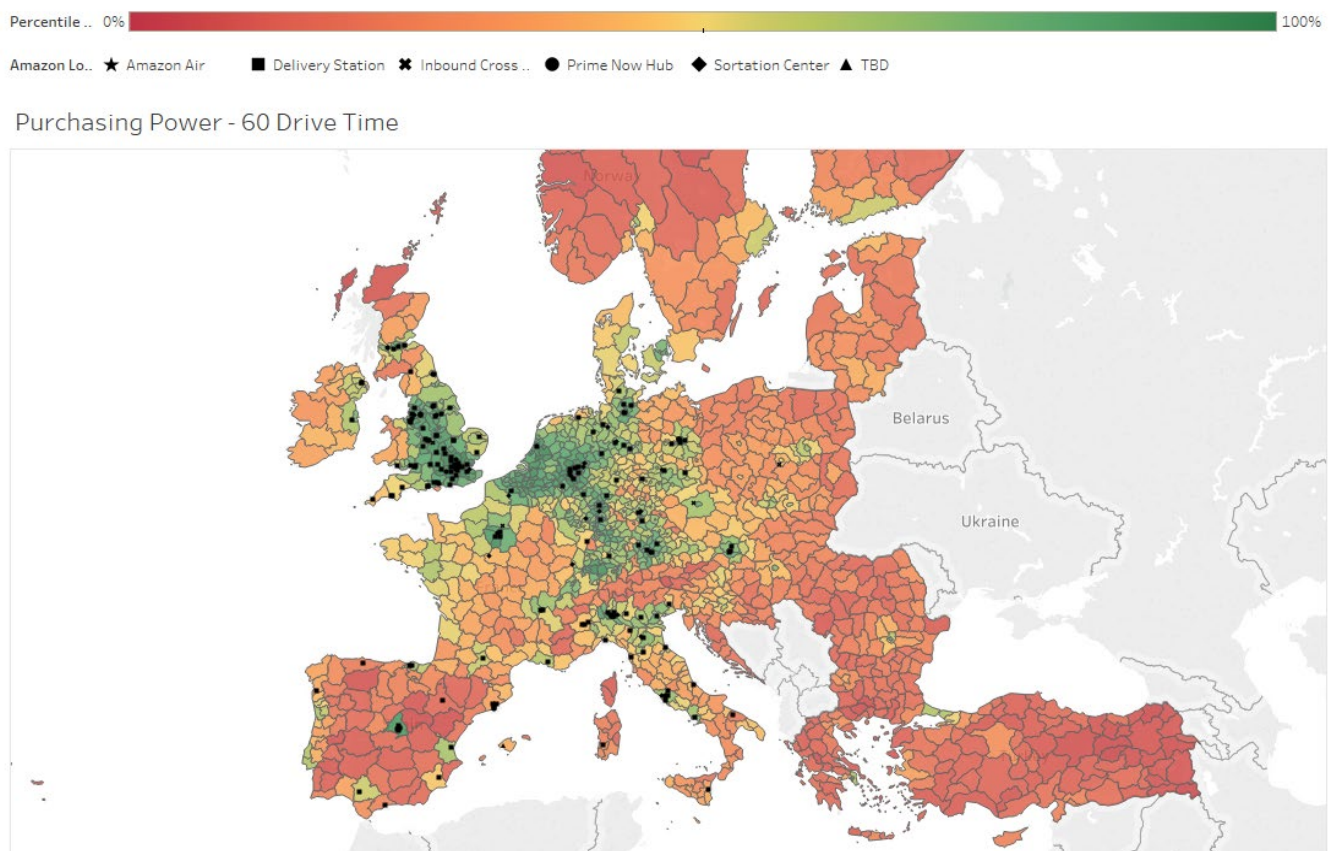
⁹ Hines proprietary research analysis

strategic investment, knowing that core scores above 80 have delivered strong long-term returns added support for that investment.

In the industrial sector, we noticed a high correlation between our industrial core scores in the United States and the ability of truck drivers to reach a large swath of the U.S. population and its corresponding purchasing power within a relatively short amount of time. As such, while we don't have all of the data we would like in order to quantify core scores in European and Asian industrial markets, we have been able to export the drive-time analysis to those regions. In **Exhibit 10**, we show a map of Europe color-coded at the Nuts 3 region by household purchasing power within 60 minutes as these are the places where we are seeing the strongest industrial rent growth in the U.S. In addition, we have overlaid Amazon's locations and note a strong overlap between the two. Given our current increase in industrial activity in Asia, we have exported that analysis to Australia and are in the process of developing it for other Asian countries as well.

Exhibit 10

Household Purchasing Power within 60-minute Drive Times across Europe



In addition to the above, we have developed residential attractiveness scores in the opaque European and Asian living sectors, market-level core scores in continental European office markets, and submarket core scores across 62 Asian office submarkets using very similar concepts that we use in the United States. In the latter, Australia's primary submarkets in Sydney and Melbourne lead the way and across the Asian office submarkets, we have proven a strong relationship to long-term real rent growth with an r-square of 0.75.

Research conclusions

New and increasingly high-quality data allow today's real estate researchers and investors the opportunity to dig deeper into the all-important question of location when making investment decisions. Forgoing that opportunity and relying on tools and techniques from 20 or 30 years ago would be a significant oversight. Hopefully, we have shared with you some of the tools we have developed to help guide our locational targets and how important those decisions have been to generating top-tier investment performance. While the future may be different than the past, it would be a mistake to ignore the lessons that history can teach us.

Read on for more regional investment perspectives.

2022 Investment Outlook

Regional Perspectives

Americas



Alfonso Munk

Chief Investment Officer, Americas | Hines



Our expectations for a modest economic recovery in 2021 quickly shifted to a strong year for real estate in the Americas. The market recovered more quickly than anticipated, especially for the favored industrial and residential asset classes seeing voracious investor demand.

Demographics favor the Americas. The United States holds the top spot in aggregate population growth over the next 10 years among developed economies.¹⁰ Oxford Economics is also forecasting urban growth in Canada to outgain the United States, and Mexico already has a stronger 10-year growth forecast than the United States.

Growth prospects can introduce more investment competition. Cap rates fell to the lowest levels ever seen in the United States—to 4.2 percent for industrial and above 3 percent for multifamily assets.¹¹ Meanwhile, less-favored asset classes, such as retail and office, offered higher yields, albeit with higher risk.

The competitive rates are likely due to the rise in commercial real estate as a preferred asset class. Pension funds, for example, historically allocated 5 to 10 percent of their portfolios to commercial real estate; allocations now are rising as high as 15 to 20 percent.¹²

Sectors in our sights

As policymakers signal future interest rate increases amidst global inflation concerns, we expect to see continued interest in real estate as an inflation hedge. Hospitality and multifamily assets, for example, can adjust rents relatively quickly to maintain yields.

Given that traditional housing costs have risen more rapidly than wages, the trend continues that more people are renting for longer periods of time. As a result, multifamily and single-family rentals continue to attract investors driving demand for seniors housing, student housing, single-family rentals, all forms of multifamily and other types of communities.

We are also anticipating continued demand for industrial distribution and cold storage. Demand is high for last-mile facilities close to consumers, where distributors can assemble and store product, and fulfill orders for delivery. We believe in investing in supply constrained markets with accessibility as long-term holds that span beyond the e-commerce supply chain reconfiguration. ■ ■ ■

¹⁰ Hines Research: Sources: Oxford Economics; Hines Research; as of Oct. 2021

¹¹ NCREIF data Industrial 4.2% cap rate; Multifamily 3.6 cap rate as of 2021Q3

¹² Hines Research 2021Q3

Throughout the Americas, we are seeing a major structural change in the merging of asset classes to serve multiple uses. Work-life boundaries have become blurred, creating a need for apartments with workspaces or offices with a community feel. Consumers are willing to pay higher rents for apartments surrounded by shopping and entertainment amenities, driving appetite from investors for multiple-use assets.

Similarly, offices that cater to employee needs are also more likely to command higher rents, even in the pandemic environment. Our view is that demand for office will remain—but the winners will be well-located, modern, sustainable buildings designed for work and life. Current pricing is favorable while the sector is out of favor, and there are attractive buys available in strategic locations.

Retail, too, is shifting toward experiential placemaking, for socializing, dining and entertainment activities best done in person. Where others see traditional shopping malls in decline, however, we see opportunities to transform these properties for other productive uses.

As capital flows into real estate, some investors are seeking yield in niche asset classes beyond the traditional product types. For example, we have acquired a television studio facility in Chicago, as well as an asset with creative content facilities, including a video-game coding and creation studio.

Moving forward, investors will need to be highly targeted in placing capital. Given the amount of capital entering commercial real estate, it will require boots on the ground and the ability to add value through operations to find the best asset-level opportunities.

Responsible Real Estate

Across all asset classes, ESG—particularly environmental sustainability—is becoming more important. However, sustainable design and operations are not as prevalent in the U.S. as they are in Europe, although it's changing. What is important for U.S. investors is to marry ESG principles with attractive financial returns. The incorporation of environmental and social aspects to their investment goals will not be concessionary, meaning they are not willing to trade returns for ESG benefits. One financial aspect of ESG rising in importance is the reality that a less-sustainable asset may be less liquid than more energy efficient properties in the future, impacting its future value and investor interest.

Beyond this rising focus on environmental sustainability, U.S. investors—and policymakers—are increasingly interested in the social impact aspect of ESG. Affordable housing has become a critical issue in many U.S. communities, inspiring investor interest in properties that serve the broader community rather than catering solely to affluent consumers.

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Europe



Alexander Knapp
Chief Investment Officer, Europe | Hines



2021 was a year of recovery for the global economy and for European real estate, with a strong rebound in pricing, driven in large part by the boom in logistics. 2022 will be a year of consolidation as returns stabilise across the market. COVID will still influence the course of the economy but its influence will decrease over time.

Sectors in our sights

In 2022, we expect strongly escalating logistics pricing to begin to plateau, as ever more future rent growth is priced in today. One way to find relative value is to venture beyond the major market standouts of London, Paris, and Berlin. Our proprietary logistics mapping tool enables us to unearth emerging urban locations for logistics investment and development which are characterised by high levels of access to consumers and their spending within 60 minutes away.¹³

We anticipate that we will also see continued interest in alternative and specialist sectors, such as data centres and life sciences, although investor appetite may dwarf the actual opportunity set.

As we gain a more accurate picture of how people will live in a 'post-COVID' or more accurately 'COVID-normal' world, areas of uncertainty should clarify, with retail being a particular beneficiary. With occupiers feeling more confident in making long-term decisions, and where they need to be physically present. With greater clarity on demand for space comes greater clarity on rents, which should provide a floor on pricing.

This means that we're heading towards a period of much greater equilibrium between product types, likely from the second-half of 2022 onward. The 'beds and sheds' focus of the last few years will ease. Investors have had an almost obsessive 'pie chart' approach to evaluating their portfolios based on weighting in the four main food groups. This should evolve toward a more sector-agnostic approach, where the quality of the individual assets and their locations become more important. A consideration of the pie chart will remain, but with less importance.

COVID and supply chain constraints have tended to focus investors on their own domestic markets. European markets still look attractive on a pricing basis. Research from our in-house team shows attractive pricing in Europe with 63 percent of markets, including residential, at fair value to inexpensive, which is up from 52 percent of the regions pre-COVID.¹⁴ There are more pricing opportunities to add value in this region than there were 18 months ago.

Despite the current focus on Omicron, travel is likely to shift next year with U.S. and Asian investors more likely to travel and invest in Europe. We anticipate European markets should look more attractive to U.S. investors, because the speed of the U.S. rebound has made pricing in Europe comparably more appealing.

Responsible Real Estate

ESG is now a central thread that runs through every decision for investors, with the decarbonisation of portfolios fundamental to risk management. Investors' increasingly sophisticated understanding of sustainability metrics, technology and materials will continue to drive change, while a growing appetite for impact investments will see greater interest in affordable housing.



¹³ Hines Proprietary Research

¹⁴ Hines Proprietary Research

Asia Pacific



Chiang Ling Ng
Chief Investment Officer, Asia Pacific | Hines

“Asia’s economic recovery remained relatively steady last year, with multiple countries already exceeding pre-pandemic levels of real GDP and low unemployment including Singapore, Thailand, Malaysia, Japan and India.¹⁵ Asia has historically served as the manufacturer for the world, and investment volumes in logistics real estate kept pace with increased manufacturing demand as the only asset class with 2021 transactions that outpaced 2019 volumes.¹⁶

The low interest rate environment that prevailed across the world has made it relatively accretive for more investor groups and private equity funds to invest in real estate. While total volumes improved in 2021 throughout the region and investor demand continued to be strong, transactions have not reached 2019 heights.

In 2022, demand for regional real estate should continue to be strong, particularly given the relative economic strengths of the region. Inflation is on the mind of all investors, but real estate tends to be used as a hedge against inflation. If inflation comes with stronger economic growth— growth-induced inflation – property fundamentals should improve with tenants able to pay higher rents. In this case, inflation is working in favor of real estate investment.

Sectors in our sights

Industrial should continue to be a favored asset class regionally, though competition on high-quality assets has them trading at record low capitalization rates. The average cap rate across the markets we cover in Asia was about 4.5 percent, but we have seen prime assets trading at sub-four levels. The positive trade-off for those increasingly lower cap rates has been rent forecasts that averaged almost six percent across the markets we cover in Asia. Additionally, per our research, the acceleration of e-commerce sales may very well translate into accelerated rent growth moving forward, so actual rent growth, particularly for properties close-in to city centers, may exceed our already favorable assumptions.¹⁷

Office space demand has been more resilient in Asia than in other regions. Asian metros have, on average, added jobs over the pandemic. An impressively broad group of major metro markets cities in Asia including Tokyo, Seoul, Sydney, Melbourne and all the markets we look at in China and India have experienced rising office demand in 2021. While Hong Kong and Singapore continued to see falling demand in 2021, we believe the tide is turning as vaccination programs have hit full speed.¹⁸ ■ ■ ■

¹⁵ Oxford Economics, Hines Research as of 2021Q2. As Asian metro data is annual, this analysis covers the period from December 2019 to December 2021

¹⁶ Real Capital Analytics as of 2021Q3.

¹⁷ JLL, Hines Research as of 2021Q2. This source covers all figures quoted in the full paragraph.

¹⁸ JLL, Hines Research as of 2021Q3

Office obsolescence is on the mind of investors who are working on placemaking strategies to create environments, and adding technological amenities, that will make workers want to come back to the office on a consistent basis. Historically, Asia's office tenants did not favor services offered by office buildings, but now people want optionality, and the ability to host meetings, desk hoteling, and to do more at work to live and play like a mixed-use asset. Investment demand should maintain in Asia for trophy office purchases of well-built quality assets in core locations, with the opportunity to add value.

In Asia, retail continues to be affected by lingering concerns about long-term consumer demand impacts. Even as e-commerce continued to trend deeper across the world, there was still strong investor demand for certain well positioned assets. At some point, the yield gap on retail assets may get wide enough so that it would be economically feasible to invest in conversion, or to curate unique amenity features more in demand with today's consumers.

The residential living categories in Asia aren't as easy to create stock as they are in the Americas and Europe. Residents largely prefer to own, and government policies incentivize ownership as a lever to promote social cohesion. Even with public encouragement to own, affordability is a pervasive issue across the world. There is a sizeable opportunity for institutional investors in Asia to fund more build-to-rent property given the lack of investible for-rent product in Asia. While we estimate that the for-rent residential sector makes up over 30 percent of the value of investible property in the United States, it makes up just five percent across the metro markets of Asia.¹⁹ Japan is really the only established for-rent residential market, with niche opportunities in Hong Kong and Singapore. Hines is actively driving build-to-rent solutions in China and Australia, which we believe will be the source of both social improvements and investment gains.

Responsible Real Estate

Setting standards on the environmental, social, governance agenda is gaining pace in Asia. While regulators are making progress in establishing ESG guidelines, the main requirements are coming from American and European limited partners that are putting fund managers to the task on operational efficiency. In Asia, investors expect operators to fit in the environmental standards that can save operational costs but are not ready to give up investment returns to do global good, yet.

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PAIRING GLOBAL PERSPECTIVES WITH LOCAL INSIGHTS

Looking for more local perspectives?

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¹⁹ Oxford Economics, Real Capital, Hines Research. As of 2020Q4 as using annual data.

About the author and Hines' Proprietary Research team



Joshua Scoville, Senior Managing Director – Research, reports to Hines' Chief Investment Officer and works closely with the firm's Chief Risk Officer and Strategy Group. Josh Scoville and his team are responsible for constructing the Hines macroeconomic view and outlook for commercial real estate market fundamentals and pricing; assisting with the development of investment strategies for the firm's investment programs; working closely with the local and fund management teams, clients and partners; and supporting U.S. regional and international country heads in identifying market/submarket opportunities and risks. The views of the local and fund management teams on the latest market developments are exchanged regularly via biweekly conference calls and quarterly market updates and are essential for reviewing investment strategies and fund portfolio allocations.

The Hines Proprietary Research team includes Michael Hudgins, Ryan McCullough, Farhaz Miah, Erik Thomas, Michael Spellane, and Anthony Witkowski.

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Index Disclosure

The NFI-ODCE, short for NCREIF Fund Index – Open End Diversified Core Equity, is a capitalization-weighted, gross of fee, time weighted return index with an inception date of December 31, 1977. Other supplemental data such as equal-weight and net of fee returns are also provided by NCREIF for information purposes and additional analysis. To be eligible for NFI-ODCE membership, each member fund must be marketed as an open-end fund with a diversified core investment strategy primarily investing in private equity real estate. All members funds must adhere to the following index inclusion criteria:

- At least 80% of the market value of net assets must be invested in real estate with no more than 20% invested in cash or equivalents;
- At least 80% of the market value of real estate net assets must be invested in private equity real estate properties [no more than 20% of such assets may be invested in, but not limited to, property debt, public company, equity/debt or private company (operating business) equity/debt];
- At least 95% of market value of real estate net assets must be invested in US markets;
- At least 80% of market value of real estate net assets must be invested in office, industrial, apartment and retail property types;
- No more than 65% (\pm for market forces) of market value of real estate net assets may be invested in one property type or one region as defined by the NPI;
- No more than 35% leverage. Leverage is defined as the ratio of total debt, grossed-up for ownership share of off-balance sheet debt, to the fund's total assets, also which are grossed-up for such off-balance sheet debt.

Each member fund must also comply with the NCREIF PREA Reporting standards. A benchmark index is not professionally managed. Investors cannot invest directly in an index.

The NCREIF NPI, short for the NCREIF Property Index—is a quarterly index tracking the performance of core institutional property markets in the U.S. The objective of the NPI is to provide a historical measurement of property-level returns to increase the understanding of, and lend credibility to, real estate as an institutional investment asset class. The universe of investments: (1) is comprised exclusively of operating properties acquired, at least in part, on behalf of tax-exempt institutions and held in a fiduciary environment; (2) includes properties with leverage, but all returns are reported on an unleveraged basis; and (3) includes Apartment, Hotel, Industrial, Office and Retail properties, and sub-types within each type. The database fluctuates quarterly as participants acquire properties, as new members join NCREIF, and as properties are sold. Sold properties are removed from the Index in the quarter the sales take place (historical data remains). Each property's market value is determined by real estate appraisal methodology, consistently applied. Please note that when returns are computed for the NPI, the returns for the levered properties are computed on a de-levered basis, i.e., the impact of financing is excluded. A benchmark Index is not professionally managed. Investors cannot invest directly in an index.

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