LaSalle

ISA 2022

Investment Strategy Annual

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The macro themes in this chapter provide a road map for navigating real estate markets around the world in the years ahead. COVID-19 continues to be the dominant global force, influencing social trends, economies, and capital markets essentially everywhere. The virus does not respect national borders, income, or wealth. In its wake, countries must rebuild their economic productivity, realign their social patterns, and recharge their spending power. The Delta and Omicron variants are reminders of how powerful the pandemic continues to be, both in matters of public health and in terms of the impact on real estate markets. In 2022–24, we foresee an “endemic economy” that continues to recover in fits and starts, and that generally acts as a tailwind for real estate recovery.

In the 2022 edition of the *Investment Strategy Annual*, we identify three other global themes in addition to the “endemic economy”:

- Real estate is held to a higher standard
- Rising liquidity and inflation
- Climate change impacts on real estate

We also review how secular drivers, including demographics, technology, urbanization, and environmental factors, will continue to shape real estate markets in the years ahead. The progression and shape of these forces change as societies get older and react to each of the global themes, as well as the long shadow of endemic COVID-19. These changes are explored in a series of *ISA 2022* “Insight Reports” with links embedded at appropriate places in the text.

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Investment Strategy Annual

Global Investment Outlook

Global Investment Outlook: The Endemic Economy

The global recovery from the COVID-19 recession peaked in the first half of 2021 (see Figure 1.1). Even though the strongest phase of the economic recovery in terms of jobs, GDP, consumer spending, and government stimulus has already occurred, this choppy, but swift replacement of lost productive power will likely propel the world's major economies forward in the next few years. This is especially true in the major Western economies, where the economic bite was more severe and the spatial redistribution of economic activity may be greater. Economies in motion act like Newtonian objects and tend to stay in motion unless acted upon or something significant gets in their path. This tendency will apply to the world's largest G-20 countries in 2022 and likely throughout 2023 (see Figure 1.2). The momentum of the recovery will slow, but it will still push real estate fundamentals forward and farther away from the sharp downturn that occurred during the height of the pandemic.

The current "past peak" momentum portends a recovery in real estate fundamentals that still has room to run. Real estate fundamentals generally lag economic growth by two to three quarters; thus, 2021's strong economic recovery could induce a real estate recovery in the first half of 2022 if COVID-19 variants can be contained. Yet, investing in real estate will not be without challenges. Many human behaviors changed during the pandemic, including substituting physical experiences with virtual ones. Real estate quickly separated into favored and less favored sectors. Pricing that reflects this "great divide" has not really manifested in the private equity market as it has in the listed market. This makes the process of finding relative value more difficult—as capital continues to rush into the favored sectors and the owners of out-of-favor sectors are reluctant to sell at discounted pricing.

Moreover, many important sources of real estate capital have revisited and expanded their objectives to include societal and environmental goals alongside financial benefits as part of their priorities. Therefore, investors should not expect that the plot will pick up right where it left off prior to the pandemic. In short, more will be asked of real estate in terms of financial performance, contributions to society, and tenant expectations in 2022.

In this chapter, we describe how these changing expectations are likely to play out (see More Will Be Asked of Real Estate on page 9). Ideally, all three are well-aligned and balanced. In actuality, there are often trade-offs to be made and tilting too hard toward any one priority could erode the performance of the other two. A successful balance should be self-reinforcing and can become a virtuous cycle. For example, investments to reduce a building's carbon footprint and to improve the health and safety of tenants could improve the desirability of the building for tenants and investors, which, in time, could benefit the financial performance of the asset.

In recent years, attitudes have shifted for many stakeholders in the real estate ecosystem. Rising expectations come from a wide variety of sources. These include capital market participants like pension funds, sovereign wealth funds, banks, insurance companies, and a growing pool of individual investors who access real estate through a growing number of channels. Priorities have also shifted for tenants, who are the ultimate source of real estate income. A highly diverse pool of real estate occupiers from many different industries, along with consumers and households have shifted in many different directions simultaneously. These shifts vary greatly and depend on culture, socioeconomic status, age, and country. Today, only a few of these private sector stakeholders still have the same "ask" of real estate they had five or ten years ago.

Finally, the public sector's "ask" of real estate has also increased. National governments and local municipalities are scrutinizing real estate as sources of tax revenue, carbon emissions, and as a generator of economic activity, as well as a physical manifestation of social problems like affordability, health, and safety. In short, climate change awareness, ESG, and DEI goals,[1] and a renewed focus on public health/wellness are all forces impelling

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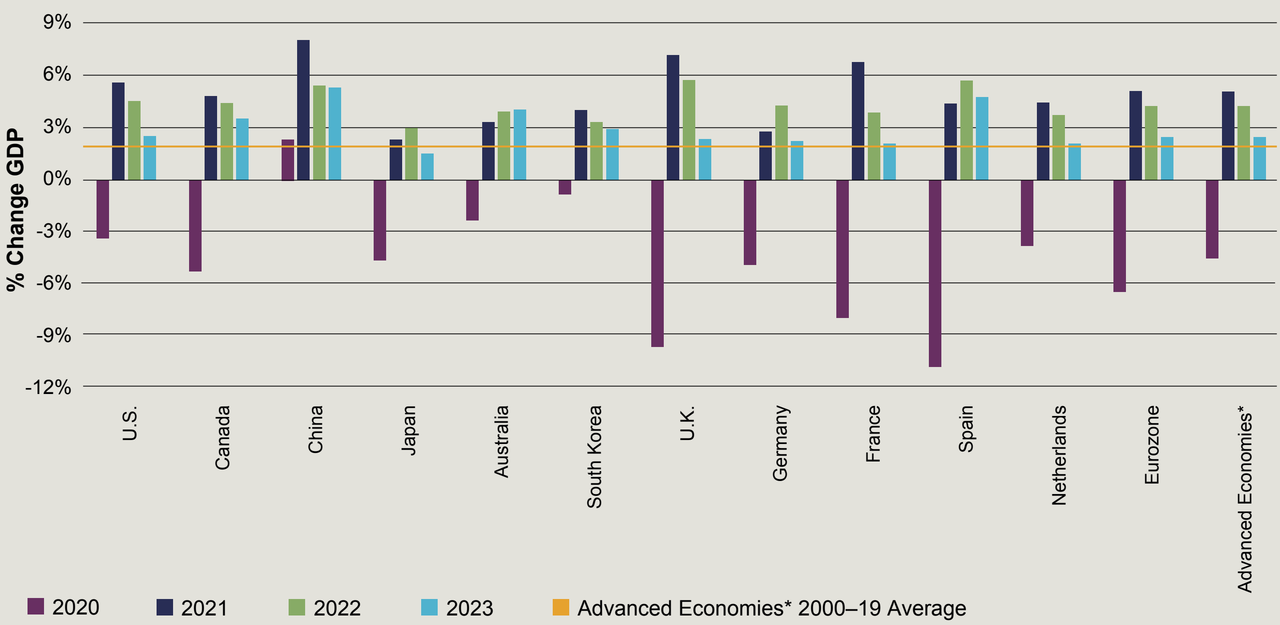
1 Environmental, social, and governance (ESG) and diversity, equity, and inclusion (DEI). References to both "diversity" and to "ESG" went from virtually nil in 2011 to thousands of references in earnings calls by 2020 and 2021 (see Figure 1.7).

Figure 1.1 Global Recovery Outlook

SLOWING RATES OF GROWTH IN 2022–23

Global Annual GDP Projections



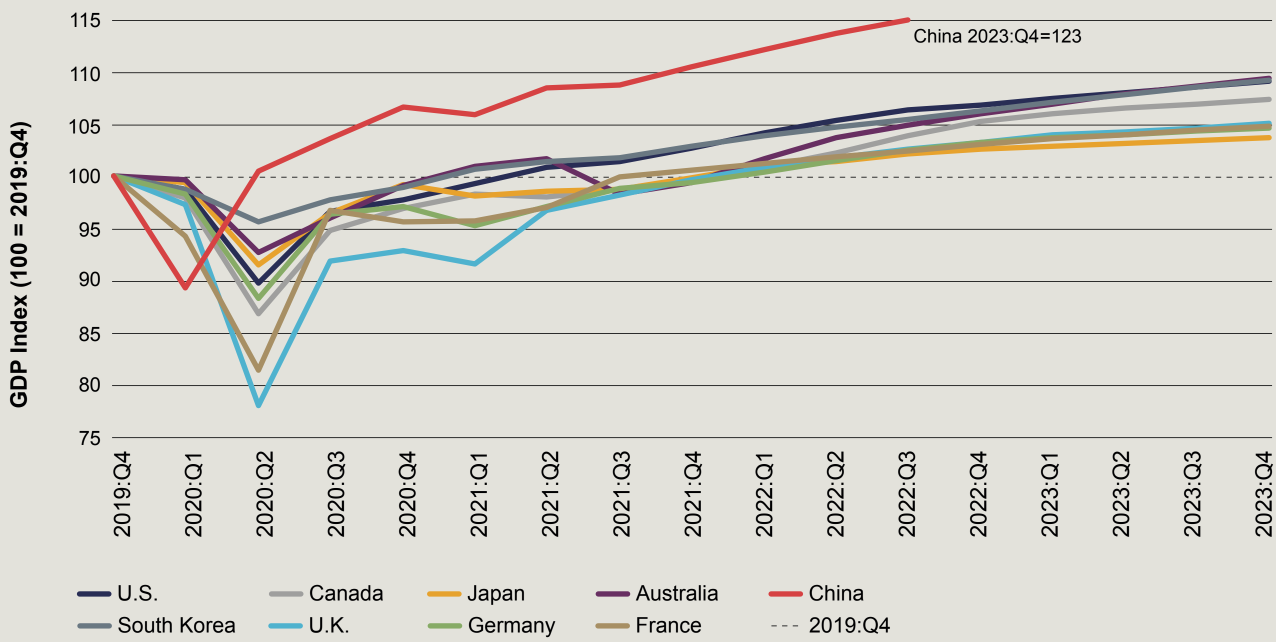
*Aggregation based on Oxford Economics' country classification: services.oxfordeconomics.com/api/definitions/WDMacro/GlobalMacroEconomicDatabank.pdf.

Source: Oxford Economics Forecast as of December 1, 2021.

Figure 1.2 GDP Lost and Replaced

CHINA REPLACED LOST GDP FIRST, FOLLOWED BY SOUTH KOREA AND THE U.S.

Global GDP Projections



Source: Oxford Economics Forecast, as of December 1, 2021.

modifications and transformations in both the public and private sectors in many countries. And these new forces of change need to be set alongside macroeconomic trends, like rising inflation, supply chain disruptions, and abundant liquidity, and the geopolitical forces that affect trade and international treaties of all kinds.

In this year's edition of the *Investment Strategy Annual*, we emphasize the ways that investment strategies must adapt to the endemic phase of COVID-19,[2] as well as some of the subtle and not-so-subtle shifts that will occur alongside this transition. Some of these shifts are temporary; others are likely permanent. All of these shifts will impact real estate supply and demand in the years ahead.

Investment Themes for 2022–24

The outlook for 2022–24 includes sustained growth for logistics, residential, and many alternative sectors. At the same time, the serious headwinds for offices, enclosed retail, and hotels should lessen, but with great variation around the world and from city to city. Sweeping macro trends will play out quite differently for each property sector in various countries and at specific locations. And the way that the capital markets respond to these macro trends is the key to finding relative value and avoiding overpriced sectors or specific assets.

One of the biggest challenges for investors in 2022–24 will be finding relative value in a sea of rising liquidity. With so much capital rotating back to real estate, the relative value of different sectors could shuffle. The sharp divergences of 2020–21 could be replaced by gradual convergence in 2022–24 due to the following:

- Out-of-favor sectors are likely to gradually recover,
- In-favor sectors could reach pricing levels that might lower point-forward returns, and
- Private equity may get less discriminating (picky) as it is under pressure to invest.

In our regional sections in Chapter 2, we discuss this search for relative value. In Chapter 3, we summarize our latest thinking on portfolio strategies and the continued evolution of the asset class. Real estate is an asset class that exhibits a high degree of "idiosyncratic risk,"[3] especially in portfolios with less than 20 (or so) properties. Through securitization and pooled private equity funds, it is possible to diversify

2 The endemic phase has replaced "post-pandemic" as the third stage in our shorthand references. We now characterize the three phases as: 1) outbreak and lockdown (pre-vaccine); 2) living with COVID-19 (vaccination rates of less than 50%); and 3) endemic (vaccination rate of more than 60%).

3 Idiosyncratic risk is the financial term for assets that exhibit a high degree of heterogeneity and where financial performance between assets has a relatively low correlation.

Figure 1.3 Four Major Global Themes

Themes	Implications for 2022–24
The Endemic Economy A recovery with major differences from past cycles, but not totally unfamiliar territory.	• Past peak recovery. • Momentum creates conditions for improving fundamentals. • A new mix of virtual/real drivers of sectors and locations. • Focus on cost management for development and renovation amid supply chain disruptions.
Real Estate Held to a Higher Standard More is asked of real estate. So, more skills will be required to successfully manage a real estate portfolio.	• Focus on asset management to keep tenants satisfied, healthy, and renewing. • Address the specialized nature of asset management for alternative sectors. • More focus on ESG factors to help investors and tenants achieve their sustainable development goals (SDGs). • More pressure to produce reliable long-term income even as demands for building-specific capital expenditures grow.
Rising Liquidity and Inflation High liquidity smooths over many problems in a real estate portfolio. It also creates challenges for capital deployment. Liquidity is cyclical; periods of high liquidity are never permanent.	• Sale of non-strategic assets worth considering. • Borrowing costs will be low by historic standards, even if base rates tick up. Spreads remain tight, so still a good time to borrow. • Conviction calls needed to overcome "the winner's curse." • Expansion of the asset class needed to absorb all the capital coming to real assets. • Downside volatility in other asset classes is a wild card, but real estate generally protected by a deep pipeline of capital looking to increase its real estate allocation. • High levels of liquidity plus supply chain interruptions and lower cross-border migration is a recipe for inflation in goods, services, and labor costs (see Is Inflation a Risk to Real Estate on page 7).
Climate Change Impacts As COVID-19 recedes, climate change will likely be the next big challenge for real estate.	Climate change is happening regardless of what real estate does to reduce its carbon footprint. Implications include: • Rising insurance costs. • Possibility of stranded assets. • Transition risks rising (regulatory). • Mitigation strategies likely to add costs. • Opportunity to get ahead of this trend and to attract capital and tenants as a result. • Outperform competitors who are not paying attention.

Source: LaSalle Investment Management.

Figure 1.4 *ISA* 2022 Insight Reports Are Based on Secular Trends

Demographics of Aging and Migration	Two reports to come in 2022 1) Aging shifts financial preferences from growth to income and from risk tolerant to risk averse. Longevity also leads to a rise in healthcare demand and puts pressure on real estate to meet demands of older users. 2) Declining birth rates and aging put pressure on countries to reform immigration policies. Longevity and shifting retirement pathways also affect intra-country migration patterns.
Technology: Life Sciences and Biotech	Ever-higher levels of technology integration permeate every sector of real estate—from both the demand-side and the supply-side. Technological innovations simultaneously disrupt and accelerate social and economic trends. These innovations raise productivity, enable economies to grow, societies to flourish, and almost always create unintended side effects. Technology also fundamentally changes the way that we use real estate. The life sciences sector is an excellent case study of the many ways that technology and real estate intersect.
Urbanization: Connected Places	Why and how physical connectivity matters in a virtually connected world. In a case study of London, we examine how urbanization and de-urbanization trends could play out in the endemic phase of COVID-19. The crosscurrents and intersections of multiple layers of connections are keys to identifying successful locations.
Urbanization and Demographics: Housing on a Budget	The rising problem of residential affordability is where demographics, public policy, and urbanization all intersect.
Environmental Factors: The Integration of Climate Risk Analysis with Investment Strategy	As more evidence of climate risk becomes recognized, it is imperative for real estate investors to raise their awareness of climate change and its future impacts. The twin strategies of mitigation and adaptation are described in this Insight Report, as well as a summary of "Climate 101."

Source: LaSalle Investment Management.

most idiosyncratic risk across hundreds or thousands of properties with a modest-sized investment. At this higher level of aggregation, thematic investing starts to shine. Our four major global themes span all three regions and impact different kinds of portfolios. The real estate market in each country will react to these global forces differently. Figure 1.4 provides guidance on the major themes and their implications for investors in 2022–24.

Thematic Investing Revisited

For the last decade, LaSalle has focused on four secular forces: demographics, technology, urbanization, and environmental forces (DTU+E). As time has passed, we believe these forces remain the most important factors for understanding the long-term, demand-side of real estate. Yet, each of these forces have been altered—whether by COVID-19, the progression of time, the aging of society, or the rise of climate change.

We continue to explore the various ways that these four factors interact to shape real estate markets in the future. To that end, we are producing a series of Insight Reports that are embedded in the text below. Each Insight Report takes an in-depth look into how the DTU+E drivers are likely to play out in the years ahead. (See Figure 1.4.)

Is Inflation a Risk to Real Estate?

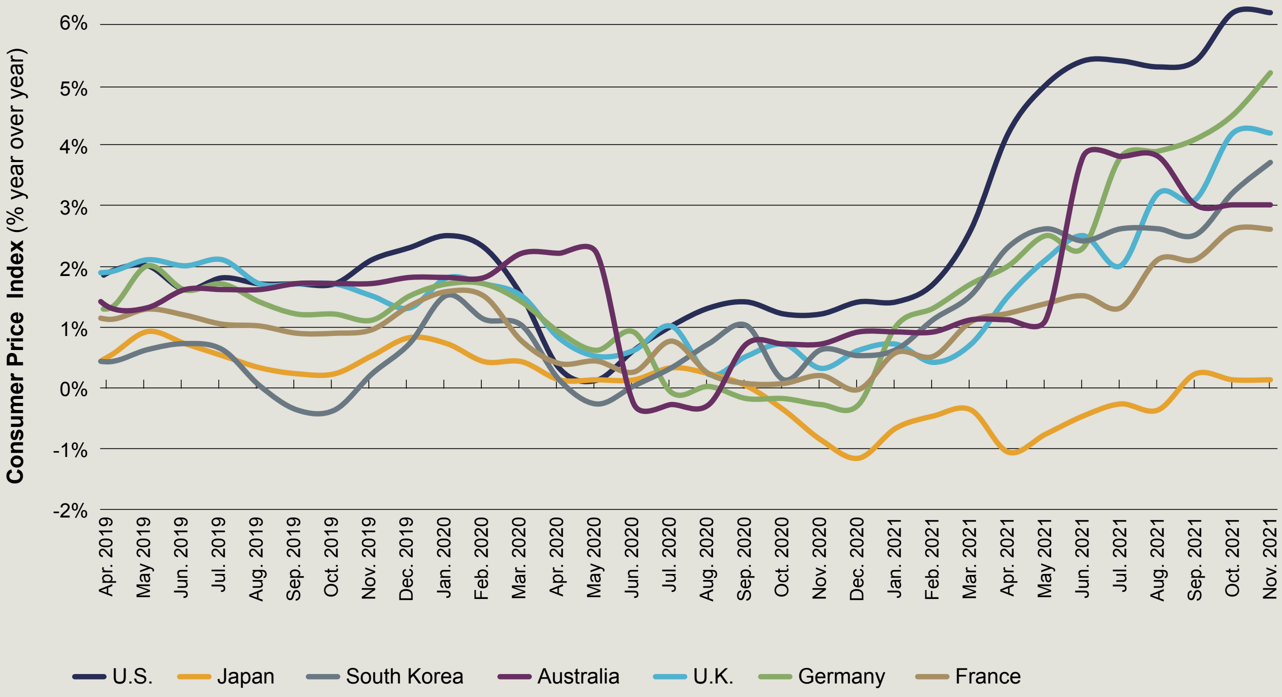
The question of whether inflation is a risk to real estate has been posed countless times. The last time inflation was a major factor to real estate in G-7 countries was over 40 years ago, and was a time that coincided with relatively strong performance. Our long-held view is that the effects of inflation need to be understood in the context of other macroeconomic forces and the property market. Is inflation occurring in a weak economy (stagflation) or is it healthier growth-induced inflation? What is the monetary policy at the time that inflation manifests? High inflation when credit is already constrained is much more troublesome than when there is still room for monetary tightening. Finally, what are the transmission mechanisms that determine whether real estate will be resilient or hurt by rising inflation? In other words, what are the lease structures (duration, indexation, fixed or market adjustments), and most importantly, what are the supply-demand dynamics in the property market?

In short, all inflation is not created equal. This is particularly true in view of the range of cost-push and demand-pull pressures that we see today. (See Figure 1.5.) The range of specific industry sectors with spiking or plummeting inflation is as wide as it has ever been. The overall "headline" level of inflation masks a wide range of different price pressures. Most countries are experiencing spikes in oil, housing, food, and labor while other sectors have actually fallen in price, such as clothing, travel, financial services, and computers/internet-based services. Swings in commodity prices (steel/lumber/copper/food) have also been high. They have shifted from spiking to plummeting in the last six months and this volatility will likely continue. These swings suggest that more temporary than permanent factors are contributing to CPI and PPI inflation above the long-term targets in many developed countries. Hyperinflation in a cluster of countries (Argentina, Brazil, Russia, and Turkey) is not a broad concern.

Central bankers are comparing notes more closely than at any other time in financial history (sometimes referred to as the "Jackson Hole effect"). This means that many will

Figure 1.5 Inflation Rates Rise as Economies Reopen

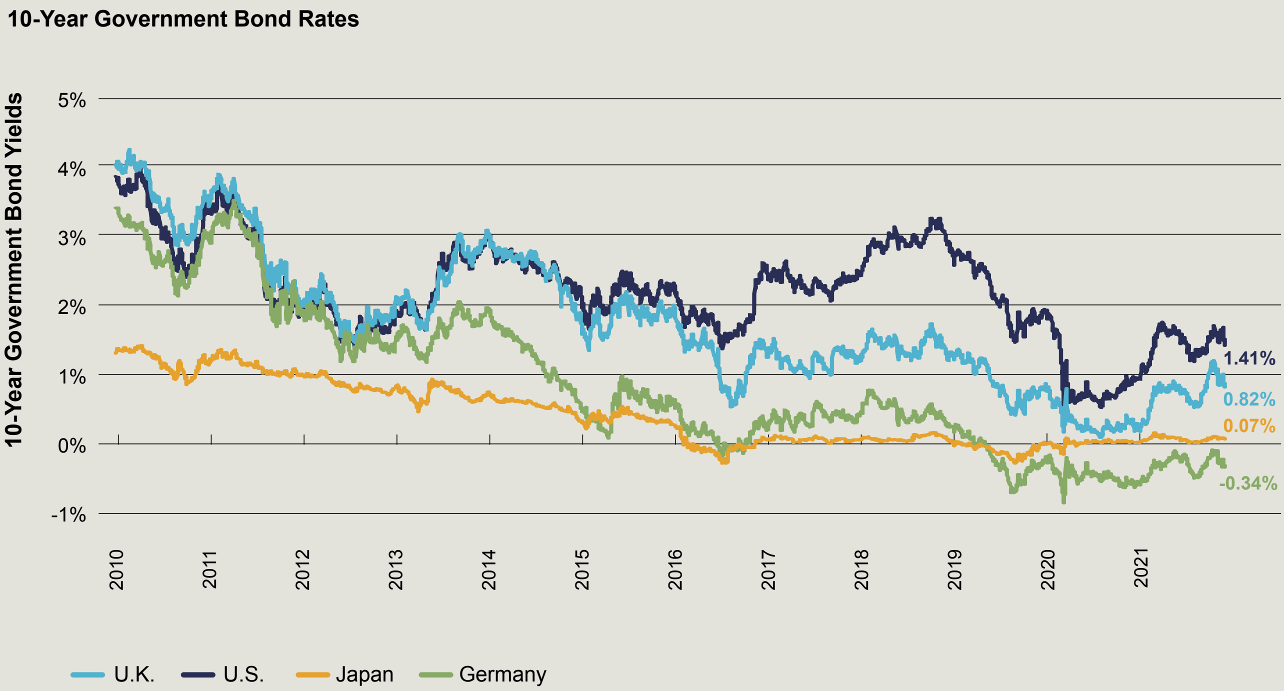
INFLATION IS ABOVE 3% IN THE U.S., GERMANY, THE U.K., AND SOUTH KOREA



Sources: Bloomberg and LaSalle Investment Management. Data through December 1, 2021.

Figure 1.6 10-Year Risk-Free Rates Have Risen Since the Onset of the Pandemic

GLOBAL GOVERNMENT BOND YIELDS FELL IN NOVEMBER WITH OMICRON OUTBREAK



Sources: Bloomberg and LaSalle Investment Management. Data through December 1, 2021.

likely taper bond buying and other interest rate management techniques long before inflation gets out of control or embedded into expectations like cost of living adjustment (COLA) clauses in labor contracts (see Figure 1.6).

A bigger issue for the global economy and specifically for real estate is that supply chain disruption means key components are delayed, regardless of their cost. This creates temporary inflation spikes. More importantly, it disrupts a smooth recovery, because delays will be followed by surpluses as soon as log jams get broken up (as happens with lumber/steel).

Finally, the cost of borrowing may not be super-sensitive to CPI/RPI increases as monetary policies remain generally accommodative in most countries. Moreover, r*[4] is thought to be lower today than in previous decades as demographics and productivity factors have lowered the "natural rate" associated with price stability. Central banks know this and can keep their policy rates low. Yet, the past has taught us that there is always a degree of uncertainty when monetary policy, market economies, and inflation all collide.

In sum, inflation can be a good sign that economies are recovering—this is the bigger story. You cannot have a robust recovery without some inflation. Historically, inflation is not highly correlated with real estate performance. Periods of rising inflation coincide with both weak and strong real estate performance. Real estate performance has generally been influenced more by supply-demand cycles at the asset level, and by declining interest rates at the decadal macro level. A reversal of 40 years of declining real and nominal interest rates would create a drag on real estate performance through rising discount rates and capitalization rates.[5] However, few analysts see an upcoming reversion to the inflation/interest rate environment of the 1980s or the 1990s, much less the stagflation of the 1970s.

The Importance of Land Prices

Real estate investors should pay close attention to specific types of inflation. For example, all the complex patterns of urbanization and de-urbanization are reflected in metropolitan land prices. The monetization of complex location preferences and the spatial patterns of the endemic economy will be revealed in the land market. Bid-rent curves could flatten if suburban and fringe locations improve relative to dense urban centers. Under this scenario, a preference for lower density becomes simultaneously driven by demographics[6] and a response to COVID-19. Bid-rent curves could stay steep if investors and developers believe that tenants are still willing to pay for density and proximity. Land prices are not as easily tracked as commercial rents or building prices. We believe that tracking land price movements will give us the best insight into how metropolitan urban economies are likely to shift as a result of the pandemic, the trade-off between virtual and physical space, and the micro-location decisions of thousands of businesses and millions of households.

Distribution Center, Louisville, Kentucky, United States

Finally, the desire to manage the carbon footprint of a real estate portfolio will also likely get capitalized into asset values. Over time, this trend could also show up in the land market as investors and occupiers demonstrate a higher willingness to pay for locations that offer low-carbon options for transportation, renewable energy generation, and where recycling of waste and water is effectively and efficiently managed. In well-managed municipalities where building owners are incentivized to reduce greenhouse gas (GHG) emissions, land prices are likely to continue to rise in absolute terms and relative to the cost of construction, provided that tenants and building-occupiers express their desire for a low-carbon environment through their location decisions.

More Will Be Asked of Real Estate

Three strands contribute to rising expectations: (1) the ESG revolution; (2) tenants demand services alongside space; and (3) investors stretch for returns. Interwoven, these strands will raise standards for real estate investment managers, as well as the entire asset class in the years ahead.

4 r* or "R-Star" is defined by economists as the natural rate of interest associated with sustainable growth and price stability.

5 For an excellent summary, see: MacKinnon, G. "What Would Higher Inflation Mean for Real Estate?" *PREA Quarterly*, Fall 2021.

6 The millennial generation is moving into its peak household formation and child-rearing years.

Figure 1.7 Earnings Call References in 2020–21
ESG, CLIMATE CHANGE, AND DIVERSITY ALL RISING RAPIDLY

Average Annual Mentions	ESG	Diversity	Climate Change
2010–14	71	900	40
2015–19	444	1,690	179
2020	3,273	3,412	713
2021*	7,859	3,659	1,096
% Change 2010–2021	10,969%	307%	2,640%

*Annualized based on data through October 2021.

Source: LaSalle Investment Management analysis of CBInsights data as of October 30, 2021.

The ESG Revolution

The scorecard used to evaluate asset managers is broadening in dimensions beyond financial metrics to include societal goals as well. Derived from the Principles for Responsible Investment, a United Nations-supported international network of investors, the ESG principles have already been codified into rating systems for many different asset classes. Real estate is at the forefront of these efforts with international certifications for green buildings[7] and the GRESB[8] rating system, which measures sustainability progress for many different factors. The response of many real estate investment managers to these initiatives has frequently met or exceeded the expectations of asset owners. Real estate is often singled out in mixed-asset portfolios for helping meet an institution's ESG goals. Along with diversity and climate change, mentions of ESG are increasing rapidly in the earnings calls of all companies. (See Figure 1.7.)

The focus on real estate comes from the oft-cited statistic that real estate construction and operations have contributed approximately 40% of all carbon dioxide emissions. This puts the onus on real estate to lower its contributions to GHG emissions faster than other industries. The focus stems from the fact that real estate owners meter and monitor energy and water usage and waste recycling more accurately and transparently than is done in other industries. Despite early success in monitoring Scope 1 and 2 emissions, there is still much work to be done before real estate can meet the stricter Scope 3 emissions reporting guidelines.[9] Landlords are rarely in complete control of tenants' use of energy, but they can employ education, persuasion, and incentives to change tenant behavior.

Tenants Demand Services

The experience of COVID-19 reset the framework for what it will take to create a safe building environment. Enforcement of masking requirements, higher levels of cleaning, air filtration, and building security are just some of the features building owners are already being asked to provide. The pandemic is not the only source of rising demands. As the number of types of specialized real estate in institutional portfolios increases, investors must partner with operators skilled in the nuances of cold storage, data centers, laboratories, medical offices, self-storage, senior housing, and student housing, to name just a few. The trend in the traditional property types is to provide more services to tenants beyond just selling space. The hospitality model—a curated set of customized services offered by a proactive property manager—is showing up in higher-end buildings across all property types. Some of these services create new profit centers, but many others add costs to running a property that may or may not be fully recouped in rent or tenant loyalty. Buildings must fiercely compete for tenants in sectors like high-rise office buildings and enclosed shopping centers. This "hands-on" approach to property management may simply be a cost of doing business in the future.

Stretch for Returns

The primary reason for putting real estate into a mixed-asset portfolio is for low-correlated, competitive financial performance. However, different dynamics in the capital markets and in the systems that provide retirement benefits in many countries will motivate real estate professionals to do more. This happens in several different ways. First, real estate has earned strong returns over the past 10 to 20 years. Investors expect this strong performance to repeat, even though a big contributor to this performance was declining interest rates. Thus, the "ask" is for "more of the same" at a time when real estate yields have hit record lows and point-forward expected returns have fallen. Second, many pension plans are reaching a crossover point where they will have to pay out more in benefits to an aging population than they receive in contributions. Moreover, some of these pension schemes have not made sufficient annual contributions and must now stretch to earn higher returns to remain

7 There are many different systems used around the world including BEAM (Hong Kong), BREEAM, CASBEE (Japan), Green Globes, HQE (France), LEED, NABERS (Australia). Of these, LEED and BREEAM are the most widely used.

8 Global Real Estate Sustainability Benchmark or GRESB was launched in 2009 and provides a holistic approach to assess progress toward data monitoring, energy conservation targets, renewable power access, waste and water recycling, social infrastructure (tenants and community), stakeholder engagement, and transport.

9 The GHG protocol that defines these scopes was developed jointly by The World Resources Institute and the World Business Council for Sustainable Development. Scope 1 covers direct emissions from burning fossil fuels on-site. Scope 2 covers indirect emissions from the generation of electricity, steam, heating, or cooling purchased by the building, but generated off-site. Scope 3 includes all indirect emissions tied to a building's entire value chain, including GHGs tied to materials used to fit out tenant spaces, common areas, or to supply the building with food and other necessities.

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solvent, even if it means taking on more risk. Finally, real estate's unique blend of contractual income and an equity-like residual can be boosted by more active develop-lease-sell strategies. These strategies should, in theory, represent just 3% to 5% of the asset class in any given year (the amount of stock required to meet net new demand plus demolitions/scrappage). These high-leverage and higher-risk strategies change the underlying risk-return characteristics at the asset class level and raise the correlation with other growth-oriented asset categories. None of this is necessarily a problem in the hands of responsible, experienced, total return-oriented investment managers. (See Chapter 3 Portfolio Strategies.)

Problems arise when too many allocations to real estate stream into these total return strategies all at once. The result of a collective stretching from core to core-plus to value-add to development is that excessive risk-taking occurs and over-building or over-leveraging results in poor performance. The real estate capital markets function best when stabilized/core money is dominant and non-core or total return money represents a relatively minor slice of all the available capital.

Macro Outlook for the Major Regions

Chapter 2 gives a broad outlook for the strategies and sectors we favor over the next two to three years. The global trends described earlier play out differently at the country, metropolitan, or sub-market level. LaSalle's "macro indicators" keep colleagues and clients apprised of how these indicators shift each month. These indicators provide the backdrop for the on-the-ground forces in supply-demand fundamentals and capital markets that together produce real estate financial performance.

As of year-end 2021, GDP slowed nearly everywhere due to the drag from the Delta and Omicron variants. Inflation is rising in many, but not all, G20 economies as energy prices rise. In the years ahead, we expect that the global effects of COVID-19 will recede and regional economic factors will once again rise as dominant factors to consider. The recovery from the world's worst pandemic in over 100 years will eventually shift to focus more on the polices and economic structure of each country, rather than the G-20 as a whole. Nevertheless, our four global themes will remain important considerations when viewing the prospects in individual countries. Rising expectations for real estate, including the ESG revolution, tenant demand for services, and the stretch for yield, will affect how each country responds to the opportunities and challenges of the years ahead.

Our regional research and strategy teams work closely with our local and global investment teams to align the outlook for secular trends, real estate fundamentals, and capital markets with deal flow, local opportunities, and micro threats. We held six “house view” discussions in 2021 to understand and evaluate how to react to the “reopening” phase of the pandemic. In preparing for the “endemic” phase, we anticipate how the sharp divergence between favored and less favored sectors will progress in the years ahead. We also see the emergence of country-specific patterns that illustrate how macro trends play out differently in each region. Our investment recommendations express our conviction that interesting opportunities will arise out of the global themes described in Chapter 1. They also suggest how the rise of alternatives and the institutionalization of niche sectors can play an important role in many countries.

Asia Pacific (AP) continues to lead the world in the reopening process, even as restrictions against international travel are still in place as a result of a fourth, or even a fifth, wave of COVID-19. In most AP markets, employees show a strong willingness to return to offices. High vaccination rates and strict public health measures are helping to motivate consumers and businesses to cautiously return to “normal.” AP’s recovery momentum and unique characteristics offer a wide range of core, repositioning, renovation, and development opportunities.

In Europe, the sharp divide between favored and less favored sectors persists in the capital markets, even though the fundamentals may not always correspond to these perceptions. Our research teams conclude that momentum in the favored sectors justifies incremental risk-taking, including development and refurbishment. The timing of the retail recovery varies greatly across Europe. The capital market’s negative reaction to shopping centers has been especially severe in the U.K. Our strategy teams view this as a mispricing opportunity that should correct in the years ahead.

The rise of inflation, ample liquidity in the equity and debt markets, and new sources of capital seeking core properties all influence our recommendations for North America. We find relative value in our sector recommendations by rigorously combining entry pricing, net operating income forecasts, capital expenditure requirements, and next-buyer analysis. Market selection has also led to changes that favor metros with strong demographic growth and a reordering of our preferred metro markets. The U.S. and Canada have rapidly expanding investment options as the professionalization of niche sectors continues. Single-family rentals, life sciences, and medical offices are three sectors that will show strong relative value in the years ahead.

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Regional Recommendations

Asia Pacific

The pandemic continues to shape the economic outlook worldwide. Public health ministries in Asia Pacific have accelerated vaccine rollouts in response to concerns about the sustainability of their strong reopening momentum. Singapore, South Korea, China, and Japan are among the top countries in terms of vaccination rates (see Figure AP-1). Governments in China and the developed economies in the region have taken a more conservative and prescriptive approach than the West in managing COVID-19 outbreaks and resurgences and in restricting cross-state and cross-border travel. This approach, however, has not impaired economic recovery in the region, as evidenced by the strong rebound in the first half of 2021. The high vaccination rates and strong healthcare management are expected to support the region's economy, even with Omicron on the horizon

Asia Pacific is expected to continue to drive global growth in 2022 and should also promote real estate market recovery. For instance, as work and life intertwined further during the pandemic with the emergence of the hybrid work model in large metropolitan areas in Asia Pacific, there are numerous opportunities for investors to consider mixed-use properties with favorable "work-live-play" attributes. There are diverging trends among the region's real estate sectors, occupier markets, capital markets, tenant industries, building specifications, and operational efficiency, which offer a constructive context for core and higher-return strategies at this point in the cycle.

OFFICE

Performance Dispersion

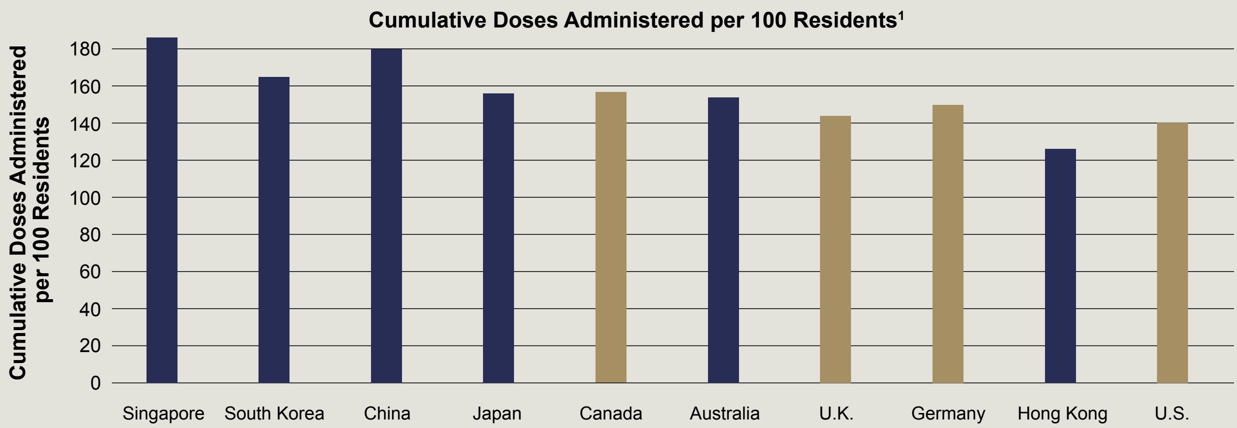
People continue to demonstrate their willingness to return to offices in most of the region (see Figure AP-2). This trend reinforces our view that the net impact of a hybrid work model[1] (with a tilt towards working in the office) on office demand in the region is likely to be muted overall. Although the office sector is expected to remain relevant as the largest sector in the region, we expect performance dispersions by market/location, tenant industry, firm size, and building specification. Singapore and Japan are expected to lead the office market recovery in 2022, supported by the relatively low space availability,[2] while Sydney and Shanghai may take some time to recover (see Figure AP-3). We also expect new office buildings with high specifications to outperform as occupiers focus

1 A hybrid work model included employees working from offices, working from home, and various forms of remote working arrangements.

2 Office availability includes vacant space and projected office supply.

Figure AP-1 Singapore, South Korea, and China are Amongst the Global Leaders of Vaccine Rollouts

JAPAN AND AUSTRALIA VACCINATION RATES AT HIGHER LEVELS THAN SEVERAL DEVELOPED MARKETS



Current Vaccination Rates and Expected Timeline to Reach 80% Vaccination Threshold

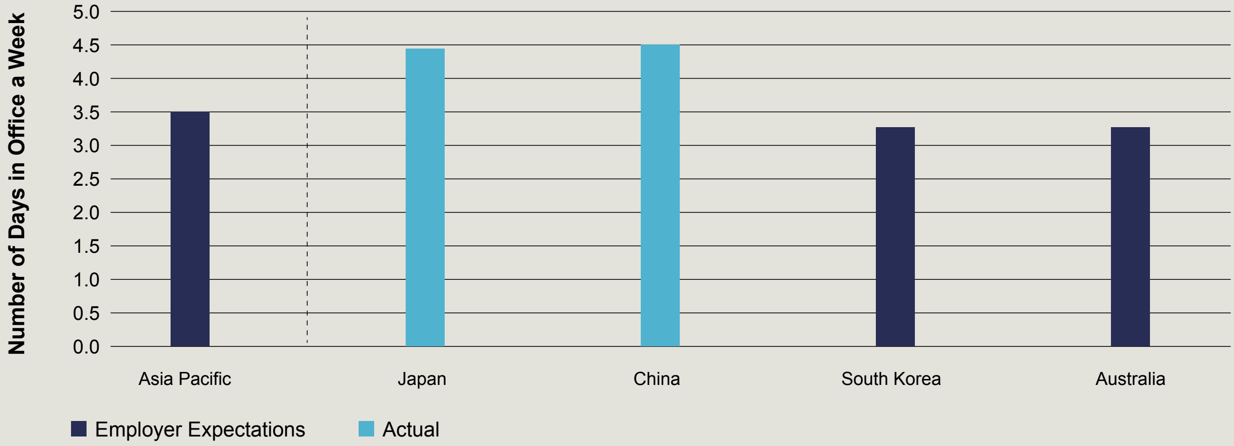
	Singapore	South Korea	China[3]	Japan	Canada	Australia[4]	U.K.	Germany	Hong Kong	U.S.[5]
Current (Fully Vaccinated)[1]	87%[2]	80%	79%	77%	75%	73%	68%	68%	60%	58%
80% Vaccination Threshold	Reached	Reached	Dec. 31, 2021	No Timeline Set	No Timeline Set	Dec. 31, 2021	No Timeline Set	No Timeline Set	No Timeline Set	July 3, 2022

Sources: 1) CEIC (population), as of 2019; the number of doses administered does not include booster shots administered as sourced from Our World in Data (number of doses administered and percentage of total population fully vaccinated), coronavirus.data.gov.uk (U.K. booster shots), covid19tracker.ca (Canada booster shots), as of December 1, 2021. 2) The Ministry of Health of Singapore, as of December 1, 2021. 3) National Health Commission of China (number of population fully vaccinated), as of December 1, 2021, China's timeline of 80% threshold is based on expert's estimation as sourced from the *Global Times*, as of August 20, 2021. 4) Australia's 80% vaccination threshold and the current vaccination rate are based on the population receiving both doses of vaccine as sourced from *The Guardian*, as of November 25, 2021. 5) The vaccination threshold date is based on achieving 85% of total U.S. population as sourced from *The New York Times*, as of October 28, 2021.

Figure AP-2 Emergence of the Hybrid Work Model in Asia Pacific with More Days in the Office

RETURN TO OFFICE RATIOS ARE RELATIVELY HIGH

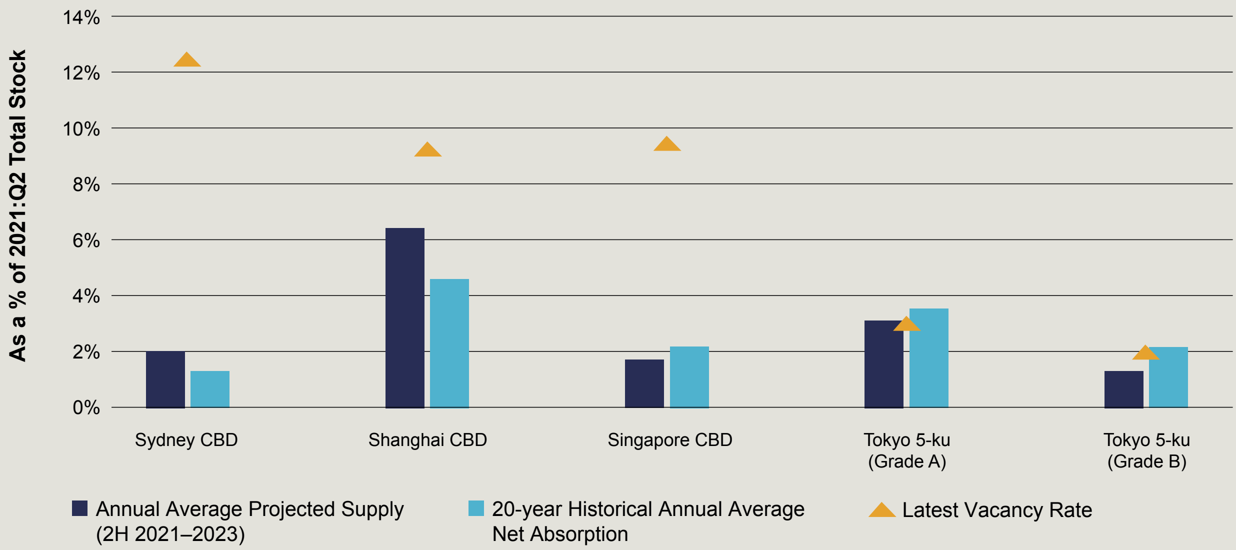
Survey on the Number of Days Per Week to Work in the Office Post-Pandemic



Note: **Asia Pacific** employer expectations are based on the Future of Office Survey, which surveyed 109 respondents, 28% of whom oversee their organization's portfolio in multiple Asia Pacific markets. The survey was conducted between May 3, 2021 and June 4, 2021. **Japan:** The survey was conducted by Japan Productivity Center on July 5–6, 2021 based on current actual teleworking implementation in Japan, with 1,100 respondents. Source: Japan Productivity Center, as of July 17, 2021. **China:** Actual data is based on LaSalle Investment Management estimate, as of October 28, 2021. **South Korea:** The survey results were based on a subset of 28 respondents from South Korea who participated in the Asia Pacific Future of Office Survey. **Australia** employer expectations: The survey results were based on a subset of 34 respondents from Australia and/or New Zealand who took part of the Asia Pacific Future of Office Survey. Source: CBRE, as of July 2021.

Figure AP-3 Low Vacancy Rates and Projected Supply by Historical Standards in Singapore and Tokyo

Projected Supply (as a % of total stock), Historical Annual Average Net Absorption, and Latest Vacancy Rate



Note: Shanghai includes Pudong and Puxi CBD submarkets. Sydney CBD data include both Premium and Grade A offices. Twenty-year historical annual average net absorption is based on historical data from 2001:Q1 to 2020:Q4 for all markets except Tokyo 5-ku Grade B office, which is based on data from 2004:Q1 to 2020:Q4.

Source: JLL REIS, as of 2021:Q3.

on health and wellness features, as well as high environmental, social, and corporate governance (ESG) standards.

CBDs with "Work-Live-Play" Attributes

Office locations where employees can integrate their professional and personal lives are expected to be attractive in 2022-2023. We continue to favor offices in central locations in large metropolitan areas. Since early 2020, the number of leases signed in centrally located office submarkets in Tokyo, Sydney, and Shanghai has exceeded those in decentralized submarkets, suggesting that the decentralization trend has not materialized (see Figure AP-4).

Opportunities and Risks

We continue to favor Grade B offices in Japan in locations with strong work-live-play attributes for both core and higher-return strategies. Small-sized firms in Japan are expected to be less impacted by remote working than medium- and large-sized firms, which bodes well for Grade B offices due to their smaller footprint than Grade A offices. The low projected supply and vacancy rates in Japan are expected to cushion some downside risks should they arise. For investors with a higher risk tolerance, we favor refurbishment or redevelopment strategies in Singapore as the market is supported by recovery momentum and government policies (e.g., CBD incentive schemes). However, investors need to be flexible on the exit timing due to the cyclicality of the Singapore office market.

LOGISTICS

Temperature-Controlled Warehouses

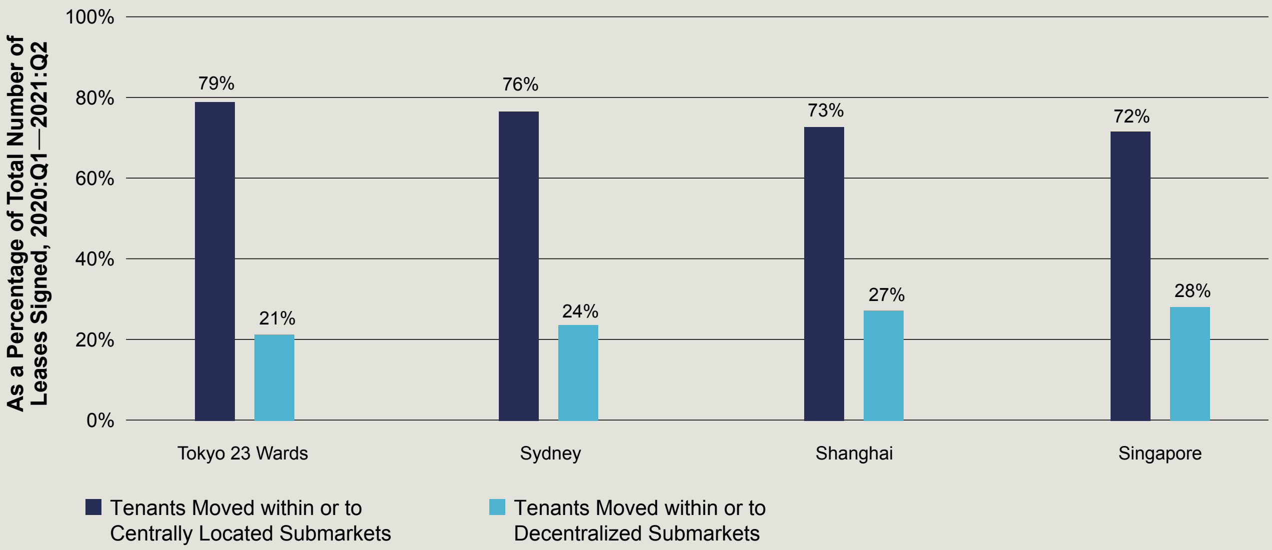
The outlook for the logistics sector in Asia Pacific remains positive. There is high demand in the region for temperature-controlled warehouses as online grocery penetration rates have accelerated during the pandemic. However, the stock of these warehouses in most markets is low by global standards (see Figure AP-5). The mismatch of demand and supply is expected to create opportunities in the region in 2022–23.

Automation

Automation can make product throughput faster and more accurate, often reducing labor costs[3] while meeting consumer expectations (e.g., product variety, same or next-day delivery). The primary focus of e-commerce and third-party logistics companies is reducing transportation costs (see Figure AP-6). We estimate that every 1% decrease in transportation costs is equivalent to a 3% decrease in labor costs or a 10% decrease in occupancy costs. Therefore, most logistics occupiers would be willing to pay higher rents if they could reduce these costs. Thus, locations with easy and fast access to customers or end

3 Wincanton, as of September 22, 2021.

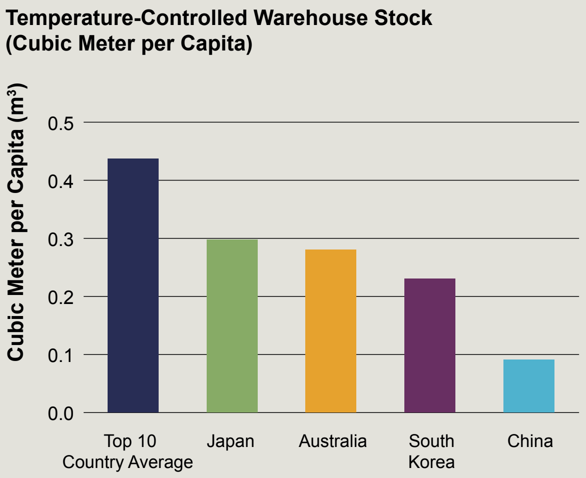
Figure AP-4 CBDs Remain the Tenant Focus in Major Asia Pacific Office Markets
LEASES SIGNED IN CENTRALLY LOCATED VS. DECENTRALIZED SUBMARKETS DURING THE PANDEMIC



Note: **Sydney:** The centrally located submarkets include Sydney CBD, Sydney Fringe, and North Sydney, while the decentralized submarkets include Macquarie Park, Parramatta, and Sydney South. **Tokyo 23 Wards:** The centrally located submarkets include Chiyoda, Chuo, Minato, Shibuya, and Shinjuku, while the decentralized submarkets include the rest of the 18 wards. **Shanghai:** The centrally located submarkets include submarkets within the Inner Ring Road of Puxi and the Lujiazui submarket in Pudong, while the decentralized submarkets include the area between the centrally located submarkets and outer ring road, and the core commercial area of Hongqiao.**Singapore:** The centrally located submarkets include Marina, Raffles Place, Tanjong Pagar/Shenton Way, Marina Bay, Nicoll Highway, Bugis, Beach Road/City Hall, Orchard and Dhoby Ghaut, while the decentralized submarkets is the rest of Singapore.

Sources: Savills (Tokyo 23-ku office), JLL REIS (Sydney and Shanghai), and Singapore Urban Redevelopment Authority (Singapore), as of 2021:Q2.

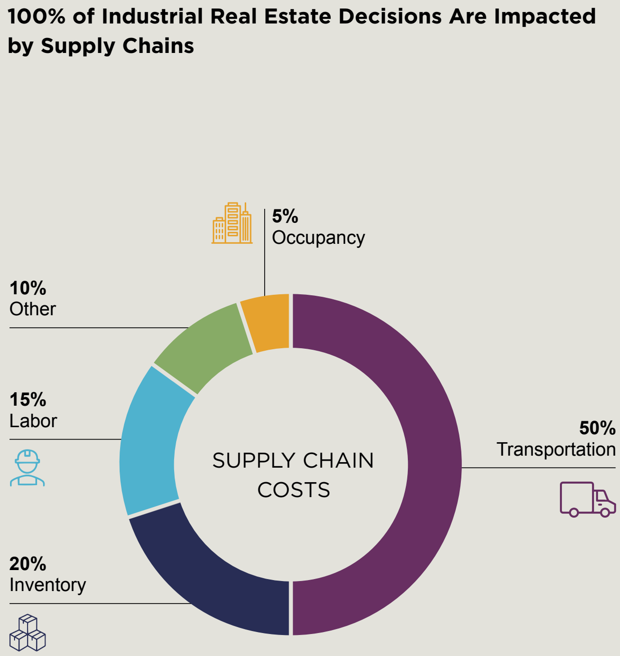
Figure AP-5 Limited Temperature-Controlled Warehouse Stock in Asia Pacific



Note: The top 10 country average is based on the following countries: United States, Japan, South Korea, United Kingdom, Canada, Turkey, Mexico, India, China, and Brazil.

Source: Global Cold Chain Alliance (all countries except Australia China, India, and United States, as of 2018, Australia, as of 2016, China, India, and United States, as of 2020)

Figure AP-6 Transportation is the Most Significant Cost for Supply Chain, Not Rent



Source: CBRE, as of 2020.

users are expected to remain resilient to the impact of automation. Additionally, the high costs of upfront investments, the long payback time, the lack of competent workers, and uncertainties over the quality and flexibility of automation technologies have resulted in a slower-than-anticipated adoption rate. Over the medium to long term, investors should monitor technological advancements as they could reduce transportation costs and lead to expansion of viable logistics areas. We, therefore, favor infill locations because of their ability to reduce travel times and to expand access to labor.

Low Supply Risk

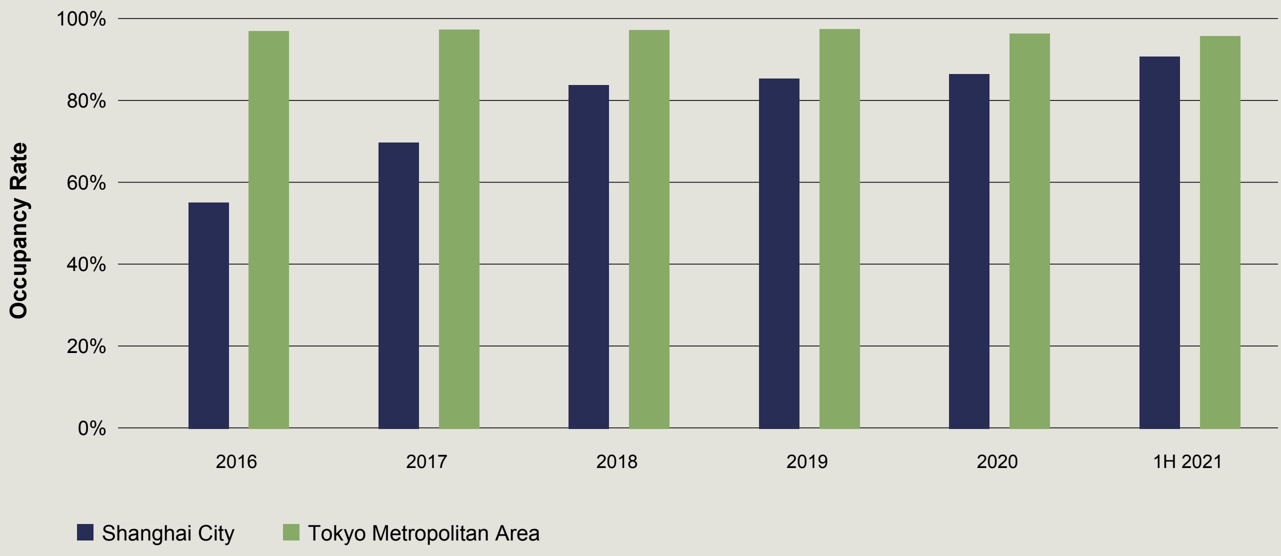
In the next two to three years, the amount of projected logistics supply is generally high in markets where vacancy rates are low, such as Greater Seoul and Greater Tokyo, suggesting that the risk of over-supply is likely low. In markets where the amount of projected supply is high, location selection and leasing expertise are expected to be key performance drivers.

Opportunities

For core and development strategies, we continue to favor modern warehouses (including temperature-controlled warehouses) at strong locations in the Eastern Seaboard of Australia (i.e., New South Wales, Queensland, and Victoria), Greater Tokyo, Greater Osaka, and Tier 1 cities and their satellites in China. For development strategies,

Kazo, Tokyo, Japan

Figure AP-7 High and Rising Multifamily Occupancy Rates in Japan and China
OCCUPANCY RATES IN SHANGHAI AND TOKYO



Sources: ARES (Tokyo) and JLL (Shanghai), as of June 2021.

we also favor Greater Seoul, highly selective Tier 2 cities in China, and regional cities in Japan (e.g., Nagoya).

MULTIFAMILY RENTAL

Resilient

Multifamily rental has been one of the most resilient sectors in the last two years in Japan and China (see Figure AP-7), as demonstrated by stable occupancy rates in Japan and rising occupancy rates in China. Demand is expected to remain robust, partly because it is expensive to own a home in the major metropolitan areas of major AP countries. Furthermore, people continue to favor major metropolitan areas due to their employment and educational opportunities. Most notably, in China, rural to urban migration provides support for rising occupancies.

The multifamily rental sectors in China and Australia are still in their infancy. Favorable policies offered by the Chinese and Australian governments are expected to accelerate the institutionalization of the sector in 2022–23 (see Figure AP-8).

Opportunities and Risks

We continue to favor Japan where multifamily occupancy rates are high throughout real estate cycles. Since the income yields of core assets are tightening due to strong investor demand, we prefer higher-return strategies in populous markets in Japan, such as repositioning or converting other usages to multifamily rental. For higher-return strategies, we also favor China and Australia, supported by the lack of professionally managed multifamily rental stock, expensive homes, and the policy tailwind.

Figure AP-8 Policy Tailwind in China and Australia Since 2020

China

- The value-added tax (VAT) for multifamily rental will be reduced to 1.5%.
- The real estate tax on multifamily owners will be reduced to 4%.
- Allow multifamily assets to be included in the pilot C-REIT program.
- The government plans to offer a full range of local public services to renters that were not available previously.
- Formally allow office and commercial buildings to be converted to multifamily rental projects.

Australia

- New South Wales and Victoria governments reduce the land tax by 50%.
- Additional exemptions such as foreign investor duty in New South Wales and absentee owner surcharge in Victoria are also offered.
- Other favorable tax treatments for foreign investors (e.g., reducing withholding taxes and GST claims) are being reviewed by authorities.

Sources: Government websites from China, NDRC, Victoria, and New South Wales. LaSalle Investment Management, as of December 6, 2021.

The near-term risk lies in the lingering impact of the pandemic. In Japan, migration to urban locations has slowed, but remains positive. In Australia, border closures have slowed both domestic and international immigration to major cities. We expect the net migration rates within Japan and Australia to recover once restrictions are eased. The medium-term risk to the multifamily rental sectors in China and Australia lies in the fact that the sector has limited transparency, data are scarce, and unlike the build-to-own sector, deal flow and liquidity are less well-established.

RETAIL

Resilient Non-Discretionary Retail

The non-discretionary retail sector (represented by the suburban and neighborhood malls) in Japan, Singapore, and Australia continues to outperform prime retail (see Figure AP-9), in part due to the relatively low e-commerce penetration rates in these markets by global standards. The prime retail shopping centers are expected to remain weak in most Asia Pacific markets in 2022 due to the pandemic and the structural disruption of e-commerce. Despite some mild recovery in the first eight months of 2021, border closures and COVID-19 outbreaks and resurgences continue to exert upward pressure on prime shopping center vacancy rates. These vacancy rates are expected to remain elevated by historical standards in most retail markets in the region over the next one to two years. Competition for tenants among retail operators is expected to intensify as economies revitalize.

Opportunities

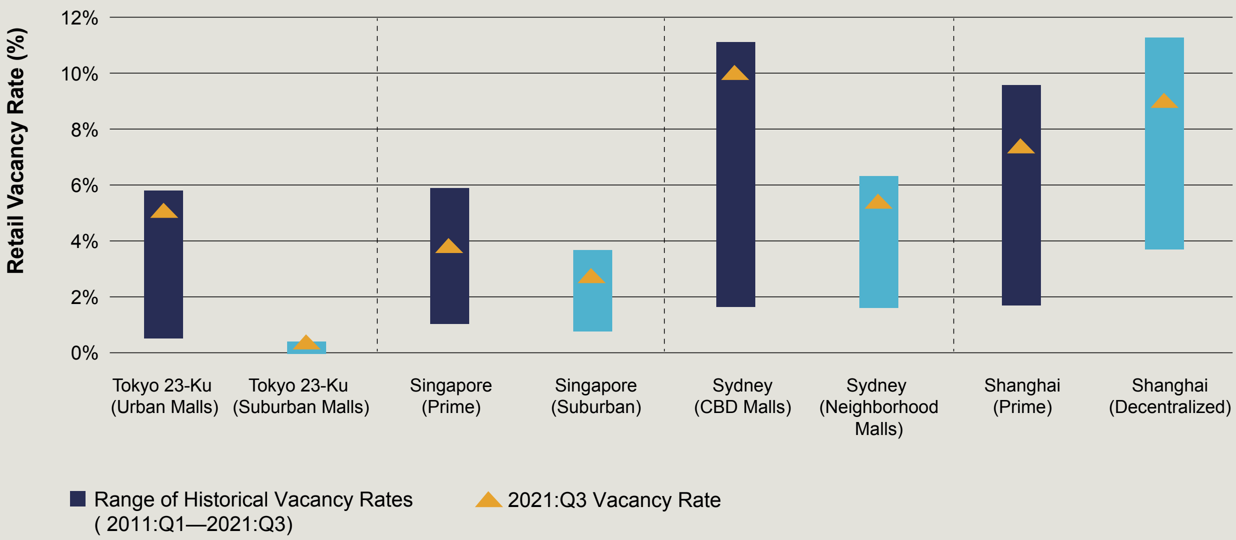
Retail owners who can leverage operators' expertise in raising operational efficiency and attracting and retaining tenants and foot traffic are expected to drive performance under the structural headwinds in 2022.

- **Leasing expertise**: Retail owners with strong leasing expertise and track records have many advantages. For instance, retail operators in Hong Kong usually leverage their best performing assets in Mainland China to bundle leasing opportunities with the same retail chains in their malls in Hong Kong.

Mioka, Tokyo, Japan

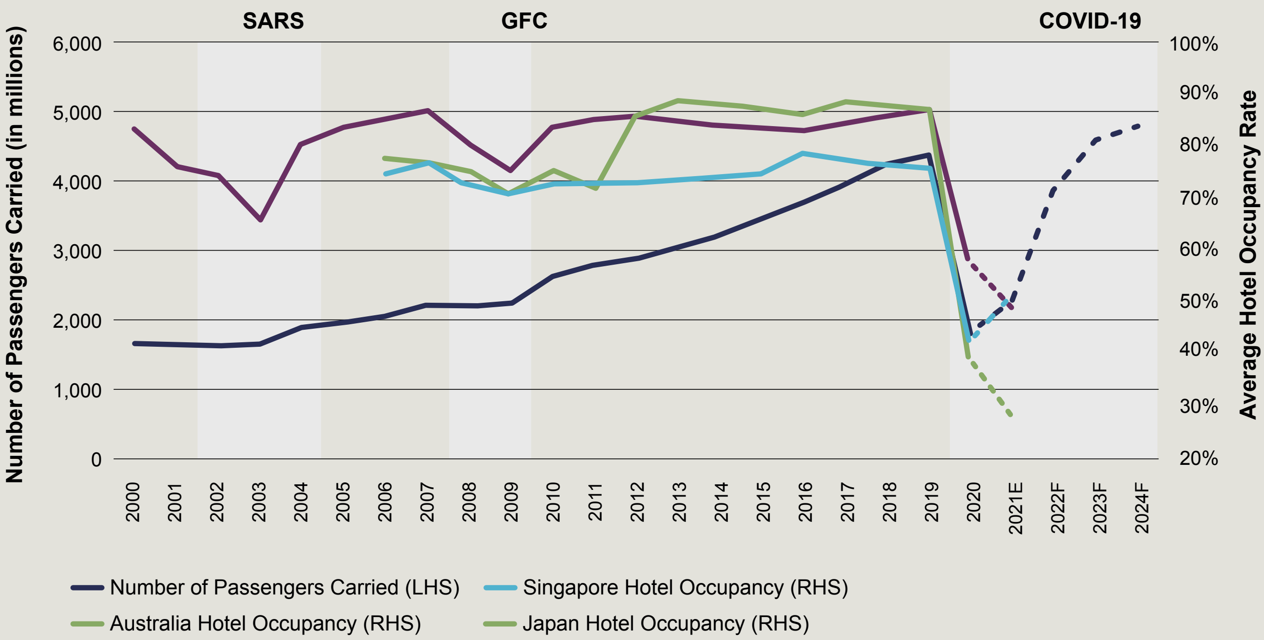
- **Cost efficiency**: Retail owners who can minimize operating expenses could increase cash flow stability and net operating income (NOI) growth prospects in a revenue-constrained environment. For instance, LaSalle has been implementing cost optimization as part of its retail investment strategies in Japan.
- **Adaption to change**: Retail owners and operators will need to use creative operation strategies (e.g., pop-up space or seasonal themes) to increase foot traffic, curate tenant mixes to reduce e-commerce disruptions

Figure AP-9 Resilience of Non-Discretionary Retail in Most Asia Pacific Markets
RETAIL VACANCY RATE BY MARKET



Sources: JLL REIS (Sydney), as of 2021:Q2, JLL REIS (Shanghai and Singapore), as of 2021:Q3, and ARES (Tokyo), as of August 2021.

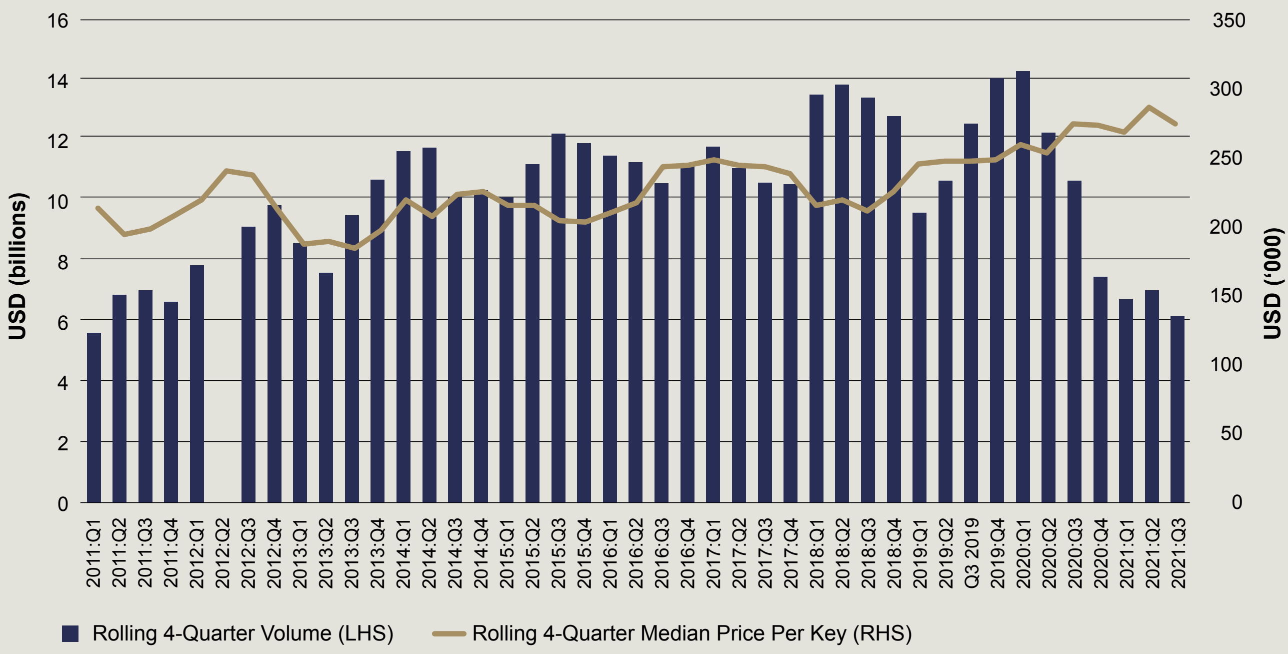
Figure AP-10 Number of Airline Passengers an Early Indicator for Hotel Recovery



Sources: Singapore Tourism Board, as of August 2021; STR (Japan, as of March 2021 and Australia, as of June 2021); IATA Airline Industry Economic Performance Report, as of October 2021.

Figure AP-11 Distressed Opportunities Are Still Limited Due to Wide Bid-Ask Spreads

HOTEL TRANSACTION VOLUME AND PRICE PER KEY IN ASIA PACIFIC



Note: The data cover hotel transactions with deal prices greater than USD 10 million in Asia Pacific excluding India from buyers who are institutional, Listed/REITs, or private entities.

Source: Real Capital Analytics, as of October 19, 2021.

(e.g., service-based tenants), and adopt technologies (e.g., big data analysis on foot traffic, retail automation) to develop multiple channels for online and offline sales.

- **Marketing and branding**: Retail operators who provide excellent loyalty programs could strengthen operator reputation and improve customer stickiness, leading to stability and improvement in NOI.

HOTEL

Demand

A sharp rebound in hotel occupancies during the Global Financial Crisis and the SARS outbreak was possible because airline capacity remained relatively stable (see Figure AP-10). This cycle is slightly different as airlines have reduced capacity due to the pandemic. Therefore, a rebound in the hotel sector is expected to take longer in this cycle than past cycles. The pent-up demand for hotels may only be fully unleashed when interstate/international borders reopen and airline capacity returns to the new "normal" of an endemic economy. Although the number of flights has increased, a more meaningful rebound is expected in 2022 and beyond based on the projection of the International Air Transport Association (IATA). We continue to favor domestic and leisure travels over international and business travels in the near term.

Leisure Travel

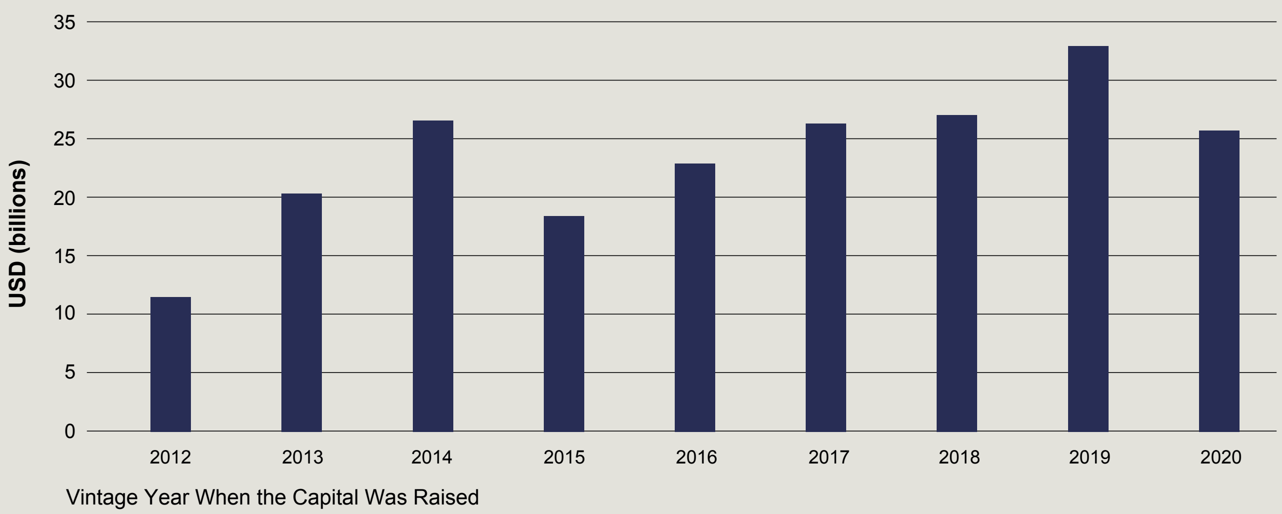
Hotels targeting leisure travelers are seeing signs of recovery earlier than business hotels, as demonstrated in the major tourist destinations of China. Since the pandemic has been relatively well-controlled in China, its hotel performance could be a leading indicator for other markets in the region. Going forward, most firms should be well-adapted to conducting their activities virtually, which could lead to reductions in business travel. Leisure travel, particularly from domestic tourists, is expected to continue to lead hotel demand in the near and medium term.

Opportunities and Risks

Investors should watch for attractive opportunities from financially stressed owners, especially in countries where demand is mainly driven by international travel. However, distressed or attractive pricing opportunities are still limited. As demonstrated in Figure AP-11, the rolling four-quarter transaction volume has declined significantly, while transaction prices remain near 10-year highs. Most likely, hotel owners are holding their assets and lenders are willing to renegotiate loans with the expectation that pent-up demand is forthcoming. The uncertainty around the pandemic remains the greater risk to the hotel sector's recovery.

Figure AP-12 Large Amount of Capital Chasing Asia Pacific Real Estate

CAPITAL RAISED FOR REAL ESTATE INVESTMENT STRATEGIES TARGETING ASIA PACIFIC



Note: The total capital raised includes capital raised by non-listed funds, separate accounts, joint ventures, funds of funds, and non-listed debt products.

Source: ANREV / INREV / NCREIF Capital Raising Survey, as of July 8, 2021.

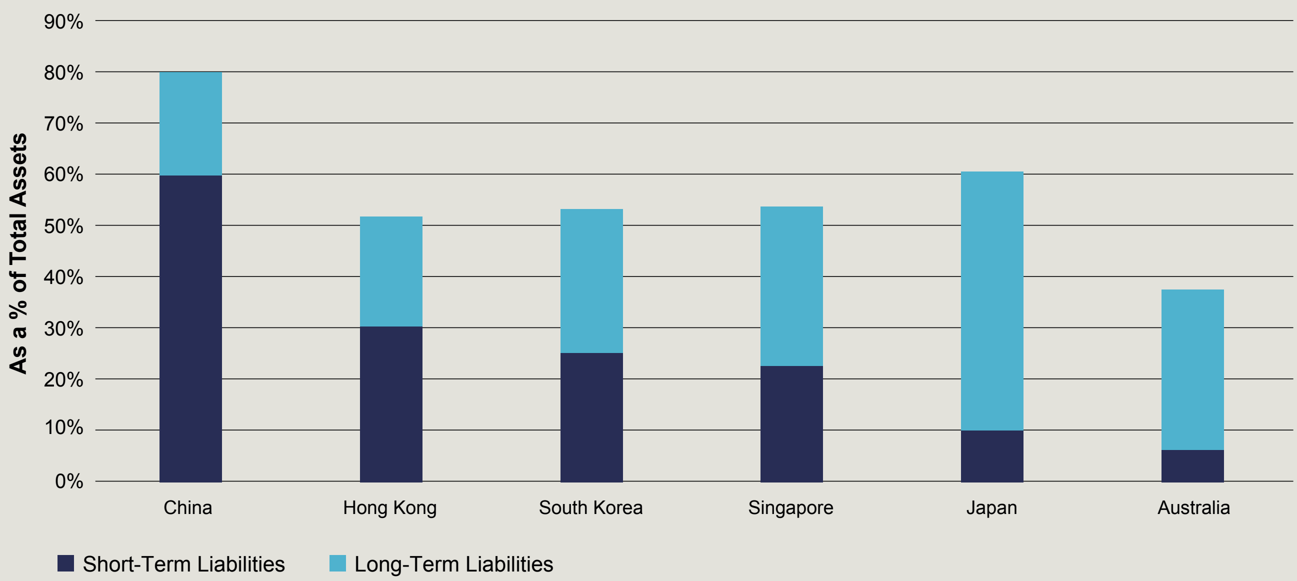
ASIA PACIFIC REAL ESTATE CAPITAL MARKETS

The best time to invest is when a real estate recovery is in the early stages, and some uncertainty remains. In the Asia Pacific region, this recovery is further along, and a large amount of capital is already seeking placement (see Figure AP-12), yet there are limited investment opportunities with attractive entry pricing. Strong investor demand combined with low borrowing costs is driving abundant capital market liquidity. While major central banks have taken a relatively synchronized approach to monetary policy easing in response to the pandemic, the pace and timing of tapering and monetary tightening are expected to vary by country, with South Korea being the first to tighten and Japan likely being the last among the major Asia Pacific economies. Central banks are likely to monitor inflation risk (driven by pandemic-related supply chain disruptions) much closer than in the past 18 months. The People's Bank of China is likely to be on a different path from other major central banks and could further ease monetary policy to counter slowing growth partly due to the COVID-zero policy and the slowing for-sale residential sector (dragged by some of the highly levered Chinese developers including China Evergrande Group).

The potential end of the easy money era could offer investment opportunities as diverging capital market trends play out. Market players who locked in low funding costs long before central banks signaled the pullback are less sensitive to the threat of rising interest rates. By contrast, market players who have a large amount of short-term liabilities and have been acutely affected by the pandemic or regulatory changes could face financial challenges. As shown in Figure AP-13, there could be buying opportunities from selective real estate companies in China and Hong Kong, partly due to the regulatory crackdown. Although the Evergrande event continues to develop, most financial analysts see a low probability of systematic risk in the global financial system. So far, the spillover effect has been limited in China and globally. Capital markets are reacting a lot calmer than in September 2021. The Chinese government is most likely to carefully manage Evergrande and other troubled developers' debt problems to avoid an out-right bailout; in the meantime, the government is likely to find ways to penalize highly leveraged real estate companies without creating systematic risk. From an opportunistic perspective, to the extent the highly leveraged developers need to liquidate assets and/or restructure their balance sheets, we believe there could be more opportunities to acquire assets at attractive terms and pricing. Nonetheless, even investors with a high-risk tolerance would still need to understand and assess the risks.

Figure AP-13 Real Estate Companies with High Short-Term Liabilities Could Present Opportunities

SHORT-TERM AND LONG-TERM LIABILITIES (AS A % OF TOTAL ASSETS) AMONG ASIA PACIFIC-LISTED REAL ESTATE COMPANIES



Note: Total county level debt ratios are based on a cumulative summation of total liabilities and assets for all the real estate investment trust and developers according to their country of domicile. Short-term liabilities refers to current liabilities, which are all the financial obligations in a firm's balance sheet that are required to be settled within the next 12 months or fiscal year. Long-term liabilities refers to non-current liabilities, which are the financial obligations in a firm's balance sheet that are not expected to be paid within the next 12 months or fiscal year.

Source: Bloomberg, as of October 8, 2021.

Europe

AHEAD AND BEHIND AT THE SAME TIME

A comparison of Europe to the other world regions is inherently complex and multi-faceted. The transition to a zero-carbon future—both in terms of regulation and popular expectations—is more advanced in Europe than anywhere else. At the same time, many of Europe's key cities are arguably at less direct risk from climate change than many others globally, because they are cooler, wetter, and farther away from the ocean; in the long run, this should drive in-migration, with positive demographic impacts but potentially worrying political ones. Europe is also uniquely situated in terms of today's elevated inflation risk. At the time of writing, the peculiarities of Europe's energy markets are driving spikes in energy prices, even if low underlying inflation pressures in the eurozone mean that interest rate rises should be smaller and later than in the U.S.

Divides within the European property markets—a key focus of real estate investors—are complicated by political divisions. As of late 2021, German political parties are forming a new coalition government led by the Social Democrats, hailing a shift to the left, though heavily tinged in "green," with potential implications for the regulation of carbon emissions and residential rent control. In other countries, a shift to the anti-immigrant right is apparent, such as in the election results in the Czech Republic and polling for the French election. While a range of technical details surrounding Brexit remain unresolved, it is at least a done deal, allowing one rift, which had been shaping occupier and capital market activity, to begin to heal.

Europe is behind North America in rebalancing real estate portfolios. In the 2021 *ISA*, we identified a widening chasm between "favoured" and "unfavoured" property types, which in Europe was exacerbated by an investable real estate universe tilted heavily toward the challenged office and retail sectors. This situation played out at a more accelerated pace than we expected. Specifically, there has been strong income performance and rapid appreciation in the favoured logistics and residential sectors. The rapid shift toward sheds and beds is now starting to be balanced out by tentative signs of normalization. In the unfavoured office and retail markets, early but clear evidence of improving fundamentals and bountiful capital looking for yield are driving renewed optimism.

With both favored and unfavoured property types now moving toward recovery, our attention has turned to mapping divides within sectors: for example, between office buildings positioned for the future and those that will become stranded. In our view, there is still momentum to be captured in the logistics and residential sectors, while there are opportunities to invest successfully in office and retail by carefully tracing the fractures between winning and losing market segments and locations.

Figure E-1 Favoured Versus Unfavoured Sector Divide Persists in the Capital Markets

European Investment 2021:H1 vs. 2019:H1
(six-month totals; % year-over-year change)

	Logistics	Residential	Retail	Office	Hotel	Total by Country
U.K.	189%	81%	0%	-17%	-62%	18%
Germany	41%	33%	-9%	2%	-20%	13%
Nordics	22%	69%	2%	-31%	120%	9%
France	57%	146%	-56%	-43%	-18%	-19%
CEE	94%	314%	-2%	-46%	-90%	-22%
Italy	293%	-	-76%	-30%	-69%	-22%
Spain	376%	-77%	-1%	-61%	37%	-34%
Netherlands	4%	-73%	-51%	-55%	-59%	-55%
Total by Sector	88%	16%	-17%	-27%	-46%	-4%

Note: Includes residential investment
CEE covers Czech Republic, Hungary, Poland, Romania, and Russia.

Source: LaSalle Investment Management and RCA, as of September 2021.

"Winning" Sector Momentum Supports Incremental Risk-Taking

The logistics and living[1] sectors have been the clear winners in 2021, seeing record levels of tenant demand and drawing unprecedented investor demand (see Figure E-1) due to their manifest growth prospects and income resilience. Logistics yields compressed rapidly in 2021, narrowing the gap with already low prime residential yields and crossing under office yields for the first time in Europe (see Figure E-2). Residential yields have also gradually compressed to even lower levels, and spreads for niche living subtypes have narrowed as these concepts have matured.

Investment activity in both sectors has been limited only by access to assets, which is an issue given these sectors' relative immaturity and smaller investable stock in Europe versus offices and retail. Competition for assets has thus reduced or eliminated return premia on offer for taking risks, such as participating in development, buying older stock, or entering secondary markets. This has caused some investors to reconsider whether logistics and residential continue to offer relative value.

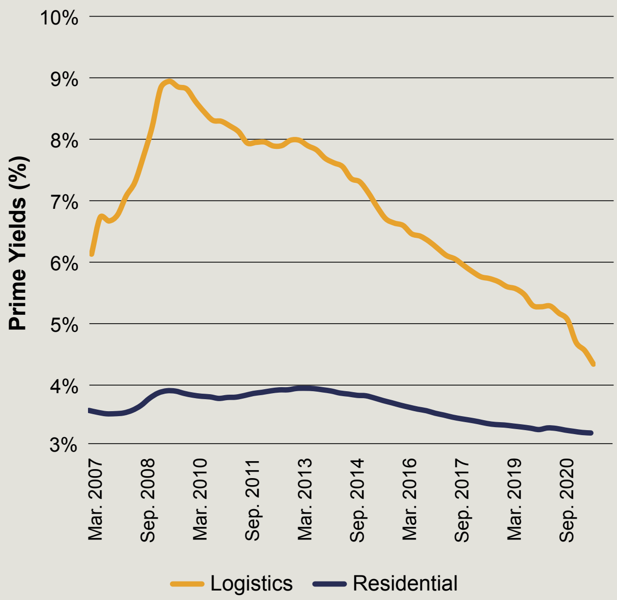
In our view, the key question is not whether sheds or beds will continue to perform. Indeed, the case for continued momentum in fundamentals in both sectors is strong, and the risks are manageable. On the sheds side, vacancy rates are extremely low, with several large owners announcing they are effectively "sold out" of space. Conditions are thus ripe for a long-awaited acceleration in rental growth, rendering record-low yields more palatable. European logistics rents, outside of London and a few other key U.K. centres, have hardly grown in nominal terms in living memory. This stands in sharp contrast to the U.S., which has experienced strong, sustained rental growth for the past six years (see Figure E-3). We think there is a high likelihood that European logistics rental growth will catch-up with the U.S. in 2022–24.[2] Although the pandemic's boost to logistics should theoretically moderate as physical retail regains some of the market share lost to e-commerce during lockdowns, other structural forces should continue to support the sector for at least a little while longer. For example, goods shortages and supply chain disruptions are leading to increases in just-in-case inventories and driving the nearshoring of

1 Logistics and living are colloquially known in Europe as "sheds and beds." "Beds" refers to conventional rented apartments and has expended to encompass other living sectors, such as student accommodation, senior care, co-living, and rented single family houses. "Sheds" encompasses the logistics sector, including bulk distribution, light industrial, and last-mile facilities.

2 The subdued level of historical logistics rental growth in Europe is a puzzle with several possible explanations. The most plausible relates to how the European market was historically led by build-to-suit development. Merchant developers solved for rents that hit their required development margins, while any upward pressure from demand was eased by falling exit yields and the lower per-square-meter costs of building ever larger buildings. These factors are fading. Supply in attractive locations is expected to face pressure in 2022 due to tighter planning regulations, sharply increasing construction costs, and stricter regulatory constraints on building operations. Increased scarcity and a more spec-driven market structure should make rents more dynamic.

Figure E-2 European Logistics and Residential Trading at Historically Low Yields

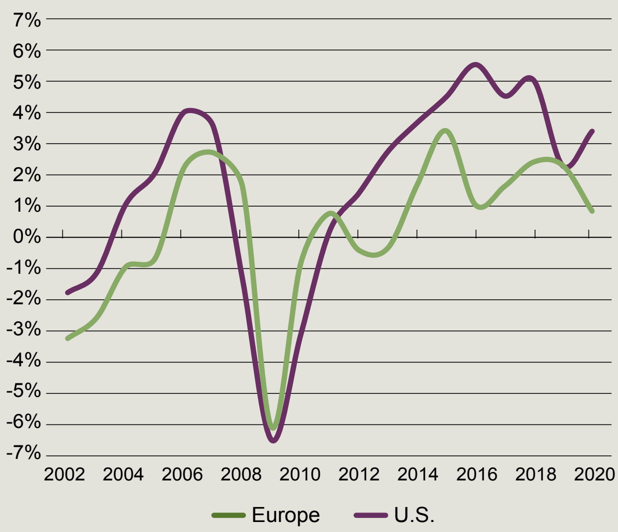
European Prime Yields



Sources: LaSalle Investment Management, as of November 2021, Green Street, as of October 2021, and JLL, as of September 2021.

Figure E-3 More Room to Run for European Logistics Rental Growth

Europe vs. U.S. Logistics Rental Growth [% pa]



Sources: LaSalle Investment Management, as of May 2021, CBRE EA, as of 2021:Q1, JLL, as of 2021:Q1, and Green Street, as of May 2021.

some manufacturing activity. Combined with limited supply, these factors should mean that any step back in e-commerce growth will be barely perceptible in logistics fundamentals.

In the living sectors, pandemic-specific disruptions are rapidly normalising; for example, demand has returned for urban apartments and students have come back to in-person learning in many cases. The long-standing mismatch between residential supply and demand in key European cities (e.g., London and Berlin) remains in place. As we have previously pointed out, Europe's lacklustre aggregate population growth conceals shifts toward its winning cities. These are underscored by affordability challenges in cities like London, Berlin, Copenhagen, and Amsterdam, which have effectively driven cyclical vacancy rates to zero and supported the emergence of innovative new micro-living models.

The impact of changing residential regulations should be carefully monitored, although regulation should not necessarily be feared. European markets have been regulated for many years under relatively transparent systems that are understood. In many cases, regulations can make rental income stickier, moderate volatility, and limit competitive supply. While regulatory systems vary widely, opportunities for generating returns on renovations can provide an additional boost to returns for investors with long time horizons.

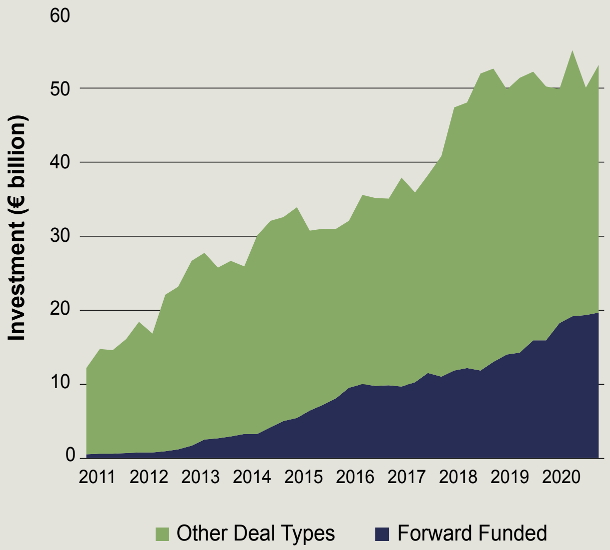
Rather than fundamentals, the challenge for investors in 2022 is how to calibrate their logistics and living strategies to take on manageable incremental risk consistent with their investment objectives and risk tolerance (see Figures E-4 and E-5). Current yield levels point to less potential for yield compression; investors must instead rely more on income growth. In this context, it might be necessary to take on more risk to achieve the same return, be it through planning, development, or location risk.

In the case of beds, forward funding build-to-rent schemes targeting young professionals in and near the centres of supply-constrained major cities, or young families in their suburbs, will offer an attractive source of low correlation, low volatility cash flow in 2022. A further allocation to higher-risk strategies that focus on the creation of build-to-rent stock in similarly supply-constrained regional cities, such as university towns in Spain and Germany, is also an attractive opportunity. Select smaller cities or emerging submarkets may offer higher yielding assets and growth potential, particularly in markets with high human capital, a strong demographic outlook, and demand anchors, such as proximity to educational institutions.

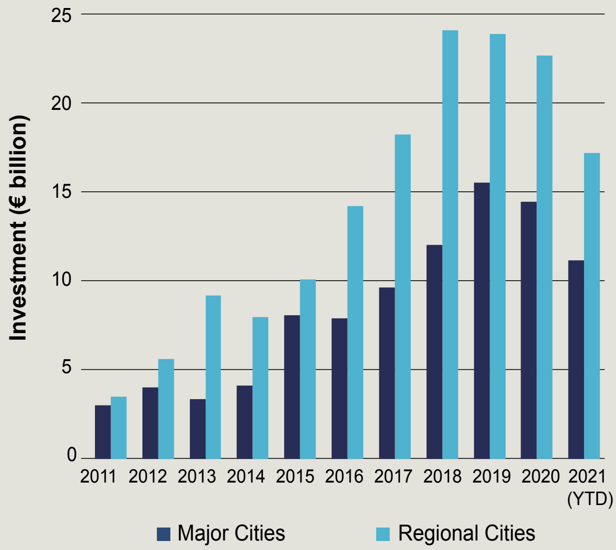
The supply and demand imbalance that supports residential investing also points to an investment opportunity in U.K. and European affordable housing. Affordable housing spans from heavily regulated social housing for the most vulnerable through to the less regulated sector where rents may be capped, linked to inflation, or set at an agreed discount to tenants who fulfill certain earnings criteria. One of the hurdles in understanding affordable housing is that it may mean something different in each country and city, or even to each tenant. For investors willing to go beyond the mainstream market to understand these systems and underwrite their idiosyncrasies, attractive risk-adjusted

Figures E-4 and E-5 European Residential investors Taking Incremental Risk

Residential Investment:
Forward-Fundings vs. Other (€ billions)



Residential Investment:
Major vs. Regional Cities (€ billions)



Sources: LaSalle Investment Management, as of November 2021, and RCA, as of October 2021.

returns may await. We see opportunities for both low-risk investors opting for inflation-linked cash flows, and for higher-return investors taking moderate development risk in schemes supported by local governments and non-profit organisations. (For more discussion of housing affordability at the global level, see the Insight Report to the ISA.)

On the sheds side, while there may be some additional scope for yield compression, 2022 will be more about growth. Moving away from top-tier cities and extending to select secondary logistics corridors is appropriate for core and core-plus strategies. Meanwhile, leased and stabilized logistics assets trade at a handsome premium to replacement cost in many markets, attracting more money into development strategies. For value-add opportunities, taking on leasing risk, speculative development, or even planning risk in growth locations can be an effective path to maintaining returns.

Finally, investors should not be afraid to employ reasonable levels of leverage when downside risks to cash flows are low, as they are in logistics and residential. Given how cheap, available, and accretive to returns debt currently is for these sectors in Europe, incrementally higher leverage levels should be contemplated for both core and value-add investors.

Campus D, Munich, Germany

In Search of the European "Office of the Future"

Despite renewed waves of COVID-19 cases caused by the end of restrictions, waning vaccine immunity, uneven vaccination rates, and the Delta variant, Europe's return to the office quickly gathered pace in late 2021. In contrast with other parts of the world, European businesses largely stuck with the September timeframe for asking workers to come back. We expect physical occupancy levels to continue to gradually improve, but with national and local differences in restrictions, vaccination rates, the Omicron variant, and cultural factors shaping variation at the national and city levels.

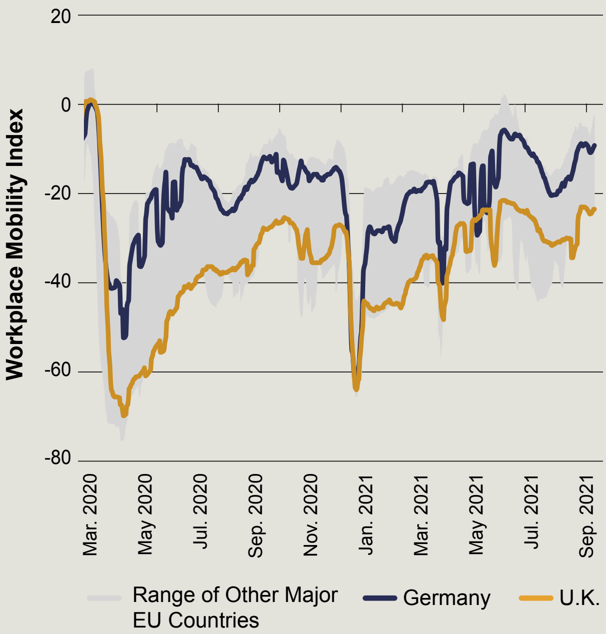
The inadequacy and infrequency of traditional data sources have concealed the strength of this return to office. To accurately capture on-the-ground realities, LaSalle uses a range of unique real time, alternative datasets. For example, Google's mobility tracker has widely been quoted in the media and shows the increase and variation in worker flows in key European countries (see Figures E-6 and E-7). The strength of the recovery in Continental Europe is unsurprising given typically shorter commutes than in megacities like London; building characteristics, such as openable windows; and more space per worker. There are variations between countries. Stricter policies in France have resulted in greater volatility in office usage compared to Germany, but both countries appear to be close to pre-pandemic commuter patterns as of autumn 2021. From the Google mobility data, the U.K. appears to be lagging Continental Europe, but other sources point towards a stronger recovery.

Presence sensors and key-card readers installed in a sample of U.K. office buildings track the daily flow of workers, acting as a proxy for physical occupancy. This index suggests a surge in office attendance in September 2021 to pre-pandemic levels on Tuesdays, Wednesdays, and Thursdays. A sharp reduction in office attendance compared to pre-pandemic levels on Mondays (from a high base) and Fridays (from a low base), suggests that work schedules are being aligned to maximise in-person interactions. If office attendance is concentrated on the same days, this intuitively points to a lesser impact on space needs compared to a more evenly distributed pattern of work-from-home, although corporates are still at the very earliest stages of evaluating how they may need to change their office layouts to facilitate new working patterns.

The impact on demand will also vary by the type of work and micro location. We believe that focused and administrative types of work, because they benefit less from the unique qualities of in-person interactions, have the greatest potential to be conducted remotely. However, collaborative and strategic work should continue to benefit from physical togetherness. This aligns with the themes of our Connected Spaces framework, which is discussed in an Insight Report to the 2022 *ISA*.

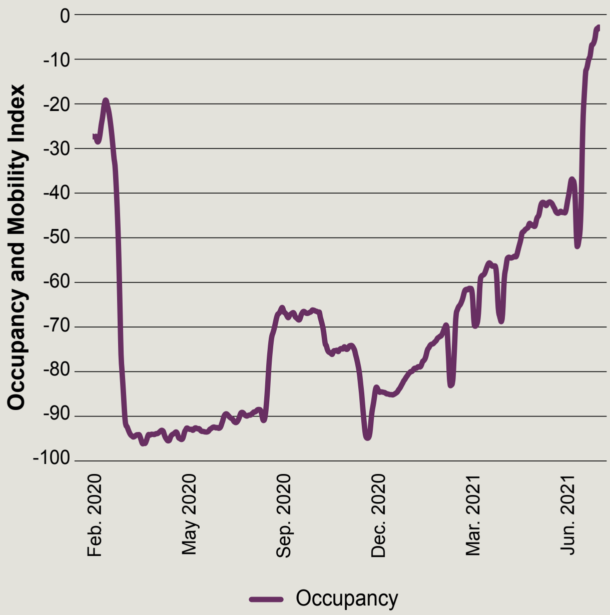
Figures E-6 and E-7 Office Attendance Surges Despite COVID-19 Case Volatility

Workplace Mobility
(Indexed to pre-COVID-19 levels)



Sources: LaSalle Investment Management, as of November 2021, and Google, as of October 2021.

U.K. Office Occupancy—Sensor Measurements
(Indexed to pre-COVID-19 levels)



Source: Metrikus, as of September 2021.

European occupier activity has already started to pick up; following an initial recovery in the first quarter of 2021, office leasing activity showed continued signs of improved traction in the second and third quarters, with demand focused on best-in-class office space, especially buildings that meet occupiers' ESG agendas and offer high-quality amenities and wellness credentials.

As occupational preferences change, the pool of investment calibre assets will shrink. Losing assets may become "stranded." The representative age and quality of the existing stock in European markets will naturally lead property owners toward strategies that create the offices of the future, whether risk is taken by engaging in development or refurbishment, or a more risk-off approach of investment into finished, fully-let products.

While the exact future of the European office sector is unknown, the direction of travel is becoming clearer. We remain of the view that the long-term impact of remote working on European office demand will be modest, with London and the rest of the U.K. now looking like it will be much less impacted than we had earlier feared. But a bifurcation by quality and microlocation is already beginning to play out. Some of the redundant stock will be refurbished or demolished, or converted to residential or other uses. In some ways this will help to reinvigorate peripheral locations to create a greater vibrancy and sense of place that will set the template for office locations of the future.

Timing the Retail Recovery

With the logistics and residential sectors steaming ahead, and offices gaining momentum, the still-troubled retail sector has started to attract attention for its rebased rents, high cash yields, and rebounding footfall. It is impossible to paint a one-size-fits-all picture of European retail assets. While other sectors demonstrate divergence between best and worst in terms of quality and location, retail is further characterised by wide discrepancies between its various subsectors.

The extent of subtype divergence has been largely determined by fundamentals, both the long-term impact of e-commerce and the indeterminate-term impact of the pandemic. The early stages of the pandemic saw sharp increases in online sales, but at the same time highlighted the resilience of convenience and grocery-anchored stores. As society partially re-opened in the second half of 2020, retail warehouses were relative winners given their decentralised locations, open-air format, and standardised array of retailers. Finally, as the vaccine rollout gained strength, more consumers and some tourists confidently began leaving their homes in the middle of 2021, and other formats such as shopping centres began to see footfall return.

El Tormes, Salamanca, Spain

This is not to say that a nascent recovery in demand will necessarily generate a return to positive rental growth. Indeed, much of the market is still structurally oversupplied with stock, and retailers across Europe are consolidating store locations, as well as continuing to invest heavily in online strategies. Outside of prime pitches, we therefore anticipate further declines in rents in much of Continental Europe. Having already experienced considerable falls in rents, the U.K. market may be closer to bottoming out. However, the shift from traditional to turnover leases has only just begun.

The relative strengths of the various retail subsectors have been mirrored by pricing in the capital markets. Yields on high-quality assets, and especially convenience and grocery-anchored stores, saw only modest increases in 2020. Higher quality retail warehouses initially underwent substantial revaluations, particularly in the U.K., but came into favour by investors in early 2021. We expect yields to continue to fall over 2022 and more gradually thereafter.

There is more hesitancy over the recovery in shopping centre capital values, as this format tends to have a high concentration of at-risk fast fashion tenants, high running costs, and frequently an unrealisable alternative use. There is additional stress in situations wherever shopping centres are anchored by department stores (rather than hypermarkets), given the structural decline of that particular store format. Nonetheless, we are of the view that destination shopping and leisure will remain an integral part of the retail experience. As such, we anticipate that prime shopping centre yields will also follow suit by hardening from 2022 (see Figure E-8).

We are less convinced that average or secondary retail of any format will recover as quickly or to the same extent as prime assets. Positive market sentiment and a lack of high-yielding alternatives may lift all retail valuations, but secondary assets remain more exposed to macro risks, which could challenge the sector in the near term. These include the post-pandemic withdrawal of government support, rapidly rising inflation, and global supply constraints.

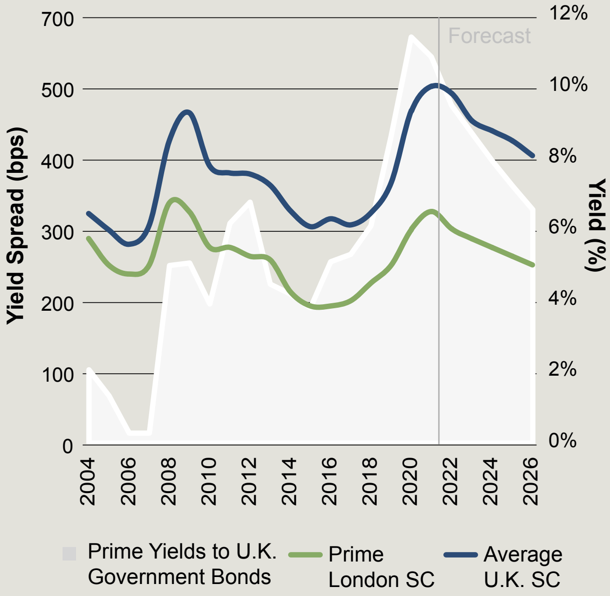
The extent to which higher return investors enter the retail sector will depend on the availability, cost, and terms of debt finance, which is still scarce and expensive outside of the most prime assets. And yet, we are starting to see highly select opportunities in shopping centres, either because of the high income yield they provide, or as part of a repositioning strategy where marginal site densification with residential or senior housing is achievable, alongside a downsizing of the mall itself. However, pricing and planning authorities' attitudes have not yet shifted enough in Europe to make the wholesale redevelopment for failed shopping centres economically feasible.

Trace the Micro-Factures, Take Incremental Risk

In the 2021 *ISA*, we advocated that investors be open to investing in both favoured and unfavoured property types, but suggested caution with the latter. The emergence of clear relative value in certain segments of the retail sector and a notable return to the office in key European cities (especially London) have increased our conviction that there are attractive risk-adjusted returns in these sectors for investors willing to identify the micro-factures between winning and losing assets (see our recommended strategies in Figure E-9). But this does not diminish our enthusiasm for taking incremental risk in the momentum-supported logistics and residential sectors, where we see income growth taking over from yield compression as the key driver of returns.

Figure E-8 Shopping Centre Yield Compression Around the Corner?

U.K. Shopping Centre Yields
(prime and average yields, %)



Sources: LaSalle Investment Management, as of October 2021, MSCI, as of December 2020, JLL, as of June 2021, CBRE, as of December 2019, and RCA, as of June 2021..

Place des Halles, Strasbourg, France

Figure E-9 Investment Recommendations

All Europe

	Core	Higher Return
Best Opportunities	**Urban logistics and modern motorway logistics** well-connected big box and dominant hubs	**Urban logistics development and multi-let industrial** with local partners, includes planning risk
	Residential urban build-to-rent, affordable and family housing in secondary markets	**Residential development** especially affordable housing
	Modern, green offices prime in confluence zones of key centres with low vacancies	**Office refurbishment and NZC* development** confluence zones of key centres with low vacancies
	Inflation-linked with high site value; ground leases and income strips primarily a U.K. opportunity	**Repriced retail** retail warehouses across Europe; shopping centres in U.K.
	Affordable housing, retirement housing, healthcare, educational facilities primarily a U.K. opportunity	**Niche sectors** emerging sectors, such as self-storage, healthcare, senior living, EU student housing
Other Opportunities	**Long-term income-producing retail parks/warehouses** especially food-anchored retail	**Long-term repositioning of retail to alternative use**
		Repriced hotels and aparthotels with strong covenant and/or operational manager

* Net Zero Carbon
Source: LaSalle Investment Management.

North America

RECOVERY EXPECTATIONS

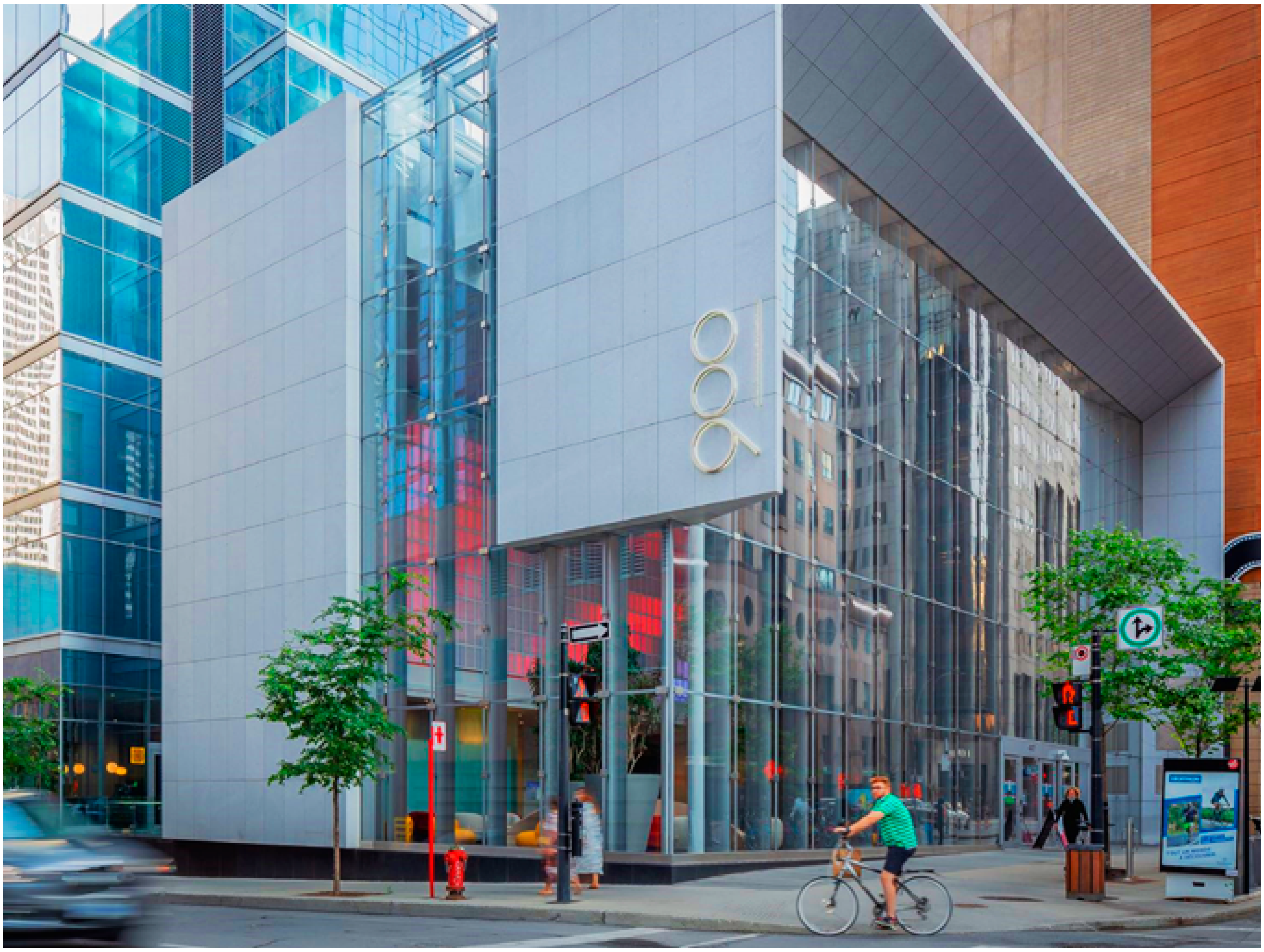
The market surprises of 2021 were mild compared to 2020, but still lead to important investor questions about the real estate outlook for the next several years. The vaccine-driven recovery was not a surprise and economic growth was close to expectations, the biggest real estate surprise of 2021 was the strength of the recovery in values and the very strong real estate returns that accompanied that value growth. Real estate investors in both the U.S. and Canada saw returns meaningfully strengthen in the second half of 2021, helped by strong fundamentals in the apartment and industrial sectors, and investors recognizing the value of real estate in a low-yield environment. Some big questions remain: Will this momentum continue in the capital markets? And will the lagging sectors catch-up?

The biggest economic surprise in 2021 was the return of inflation. It has been stronger and more persistent than expected, and more focused on some key real estate inputs than predicted. Commodity price increases for lumber and steel raised construction costs. For development strategies, this was a minor nuisance more than offset by lower cap rates and higher rents. It is unknown how long inflation will remain elevated, or whether tighter monetary policy will be required to tame inflation.

However, 2021 was not all surprises, as the divide between favored and challenged sectors continued with limited shifts. This highlights two of our key investment themes: an expanding investment universe capturing more sectors with solid demand outlooks, and how pricing changes are driving the investment outlook between sectors. Beyond the themes coming out of the surprises of 2021, the performance of North American real estate will continue to be closely tied to the long-term secular DTU+E trends and how these trends are priced in the capital markets. (See investment recommendations in Figure NA-6.)

Capital Flows

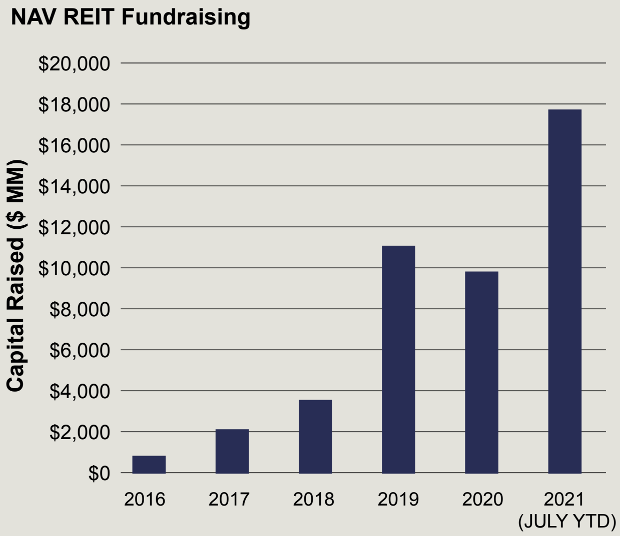
The relative value of real estate in the U.S. and Canada compared to both stocks and bonds was particularly strong for most of 2021. This drove strong capital flows to real estate, which led to aggressive bidding and price increases, consequently driving high returns. Predicting how real estate capital flows will play out in the coming years is a call on both interest rates and the stock markets—two areas notoriously hard to forecast—but assuming we do not see a spike in interest rates or a plunge in stock markets, we expect the positive value



Maison Manuvie, Montreal, Canada

Figure NA-1 NAV REIT Fundraising Major New Capital Flow to Real Estate

NON-TRADED REITS BECOMING THE TARGET "CORE" BUYERS



Source: LaSalle Investment Management, based on most recent data as of September 13, 2021.

signals for real estate will persist in 2022–23, and strong capital flows into real estate will continue.

The capital flowing into real estate in 2021 was not evenly distributed among sources, asset classes, or sectors. The most notable flow of capital in the U.S. has been through the rapidly growing NAV REIT channel (see Figure NA-1). This capital is coming from both U.S. and cross-border high-net worth individuals targeting core and core-plus returns. These investors often use more leverage on core real estate than institutional investors. Equity flow to real estate from this channel was upwards of $25 billion in 2021, and with leverage this is over $50 billion of new buying power. These funds have primarily targeted industrial, apartment, and select specialty property types (see Figure NA-7). Institutional investors have been investing more in core-plus and sector-specialist funds, targeting the same favored sectors as NAV REITs. In Canada, many of the large pension funds continue to sell full or part interests in some of their domestic real estate to further diversify globally, creating attractive buying opportunities.

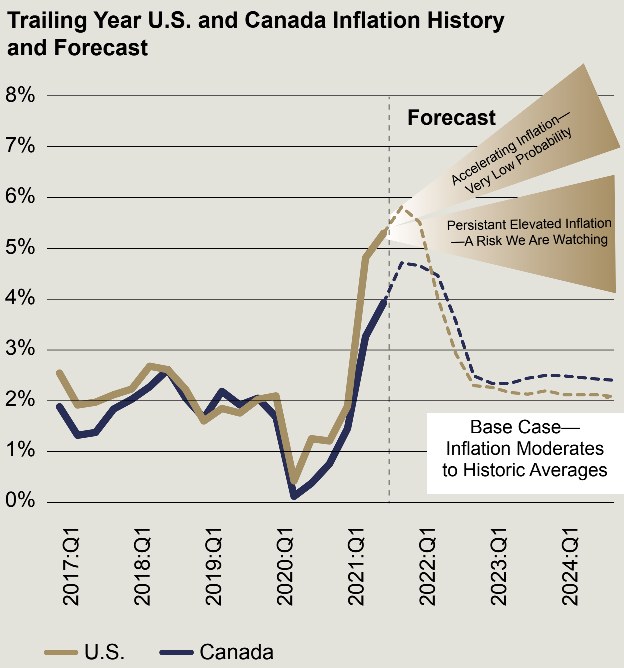
Strong capital flows are also contributing to the recovery of the U.S. and Canadian REIT markets. At the onset of the pandemic, the REIT markets were reflecting an expectation of sharp real estate pricing declines, which started to unwind at the end of 2020 amid announcements of vaccine rollouts. Through the ebbs and flows of COVID-19 news in 2021, REITs generally rose and pricing is currently close to private real estate. Some of the larger divergences in pricing between public and private real estate markets are in offices, where the REIT market is notably more bearish.

For 2022 and beyond, the dynamics point to capital inflows still going toward the same sectors. The institutional capital raised for sector-specific funds is not going to be nimble as pricing shifts. And NAV REITs might be reluctant to change their messaging to potential customers; however, they can shift new capital towards any situation with attractive value. The REIT market could be a way for contrarian investors to place capital in unfavored sectors at attractive pricing relative to the private market, but that option is most attractive to the largest funds that can execute go-private transactions.

In the U.S. and Canada, debt remains readily available and cheap, boosted by accommodative monetary policy. In Canada, this brought all-in commercial mortgage rates to near-historic lows during 2021. However, inflation and bond yields have risen heading into 2022, with signals from central banks suggesting rates will rise. Higher rates will in part be offset by lower spreads as lenders express more confidence in the economy and real estate market recovery.

Figure NA-2 Base Case: Inflation Moderates

ALTERNATIVE SCENARIO: ELEVATED INFLATION?



Real Estate and Inflation

- Properties with regular lease roll (e.g., apartments) deliver best cash flow hedge to inflation.
- Net leases provide protection from expense inflation.
- Heavy CapEx investments (especially development) need to have inflationary scenarios underwritten.

Sources: Bureau of Labor Statistics, Oxford Economics. Historical data to 2021:Q3, and forecast as of November 2021.

Figure NA-3 Despite Higher Costs, Development Remains Attractive

Development Profit Up as Decline in Yield on Cost Offset by Falling Cap Rates

$$\frac{\text{Yield on Cost}}{\text{Exit Cap Rate}} = \text{Development Profit}$$

Pre-2020 Pro Forma	$\frac{6\%}{5\%} = 20\%$
Pre-2020 Investment Outcome (Lower Exit Cap Rate, No Change in Yield on Cost)	$\frac{6\%}{4\%} = 50\%$
2021 Pro Forma (Lower Exit Cap Rate, Lower Yield on Cost)	$\frac{5\%}{4\%} = 25\%$

Actual Example: Changing Assumptions on Industrial Development

	Phase 1	Phase 2	Change
Pro-Forma Date	Jan. 2019	Aug. 2021	
Market Rent ($/sf)	$5.28	$6.60	+25%
Total Construction Cost ($/sf)	$87	$121	+39%
Hard and Soft Costs ($/sf)	$79	$99	+25%
Land Costs ($/sf)	$8	$23	+187%
Yield on Cost	~6.1%	~5.4%	-11%
Exit Cap Rate	5.5%	4.25%	-23%
Development Profit	~10%	~28%	+180%
Leveraged Pro Forma IRR	~12%	~16%	+33%

Source: LaSalle Investment Management.

Inflation and its Outlook for Real Estate

Both macro forecasts and the bond markets appear to be signaling that the inflation threat will diminish in 2022, consistent with the messaging from policymakers. And yet inflation has remained high for longer than these forecasters and policymakers have predicted (see Figure NA-2). In Chapter 1, we provide our views on inflation and real estate.

One area inflation directly impacts is the cost of construction. Inflation has been most acute in commodities, especially inputs to construction, such as lumber and steel. Rising construction costs impact development, one of our favored investment strategies. We continue to recommend development though because rising rents and lower capitalization rates are increasing real estate values at a rapid pace, especially in the favored sectors of industrial and apartments. This growth in value far exceeds the increases we are seeing in construction costs and is creating attractive returns from development (see Figure NA-3). Elevated returns will eventually be bid away from higher land prices, but that is still to come in many markets, especially those where land costs have historically been low.

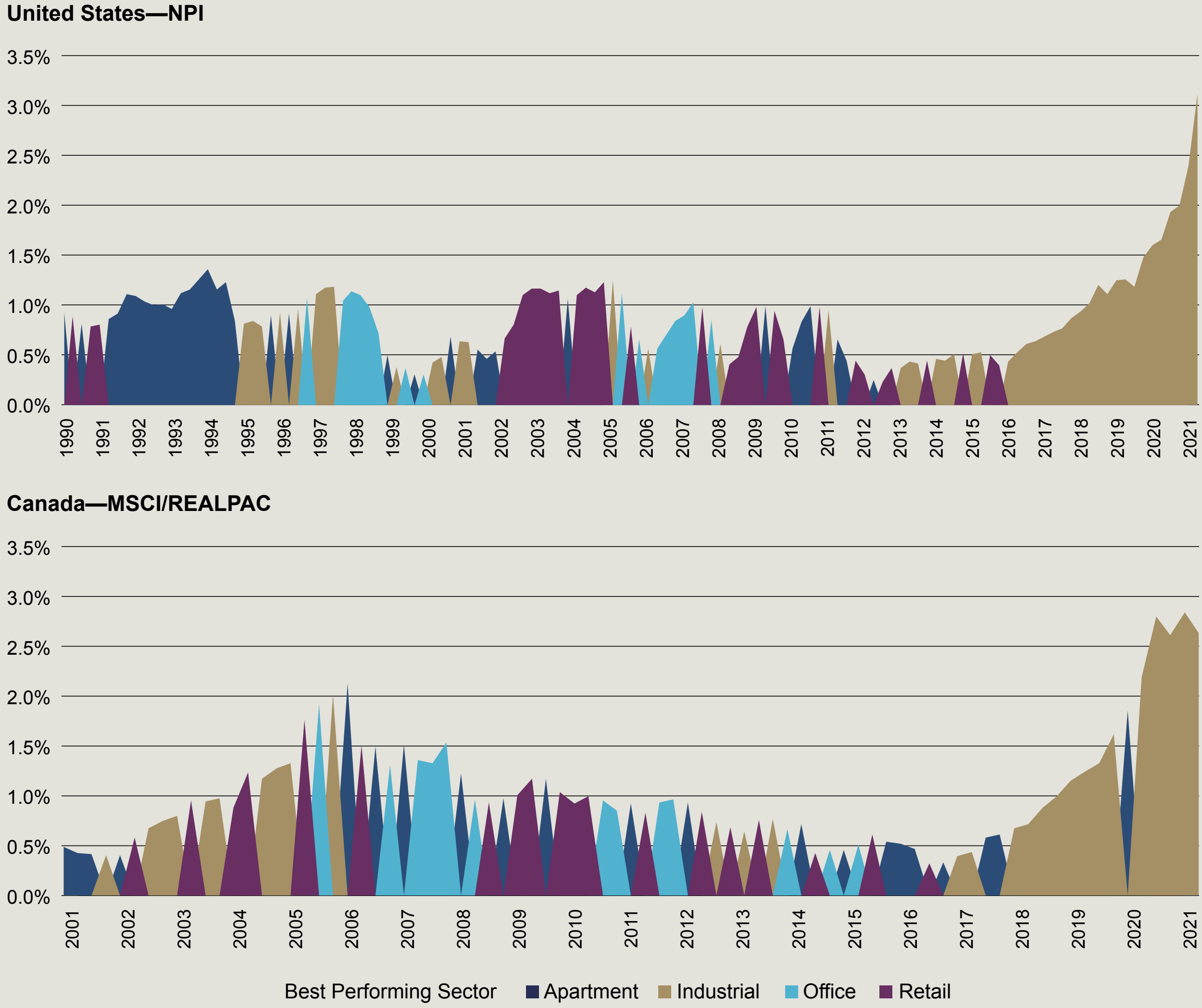
Through our core investment activity, we see how and why real estate values increased so much in 2021, but developers are sometimes still pricing land as if those increases are not real or will not hold. Until the favorable spread between the yield on cost and stabilized yields narrows through higher land prices, favorable development returns should persist, despite the higher costs. Development is not without risk, and a skilled investment manager needs to pick the right markets, property attributes that meet tenant demand, and assets investors want to acquire. Development partners are critical in managing costs and processes to deliver real estate on time and on budget (or at least close in a time when commodity costs have put upward pressure on budgets).

For core investment, inflation can erode the real value of fixed, steady cash flow streams. This increases the value investors place on real estate income (which can grow with inflation) relative to bonds. This would support overall capital interest in real estate. Within real estate, there is a spectrum of ability and pace of growing income streams. For real estate income to grow, landlords need to have pricing power, which is the case today in many property types, office and weaker retail properties being the exceptions. Then there is the pace of net operating income increases, which correlates with lease term. Here apartments and other residential strategies have an edge, with leases generally requiring annual renewals.

Princeton North Andover, Boston, United States

Figure NA-4 Sector Weights Driving Relative Portfolio Performance

EXTRA TRAILING YEAR RETURN FROM 10% SHIFT IN ALLOCATION FROM WORST PERFORMING TO BEST PERFORMING SECTOR



Sources: NCREIF Property Index, MSCI/REALPAC Canada Annual Property Index, and LaSalle Investment Management. Data as of 2021:Q3.

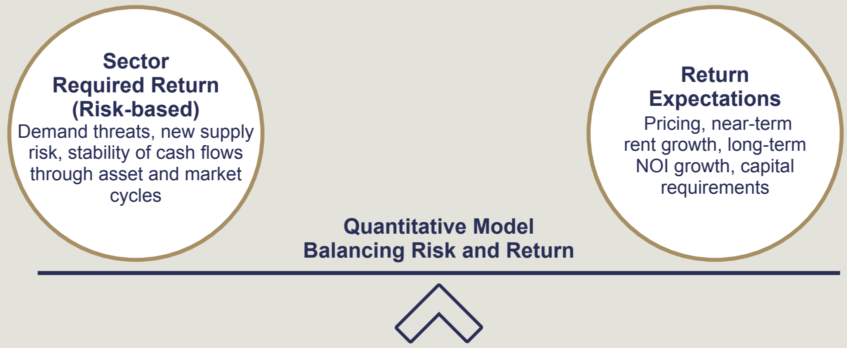
Sector Outlooks and Finding Relative Value

In 2021, picking the right sector was the key to outperformance. The return gap between apartments and industrial on one side and office and retail on the other means that a +10% allocation shift to the leading sector from the lagging sector would deliver over 300 bps of out-performance in the U.S. and 275 bps in Canada (see Figure NA-4). Both the highest in over 30 years. Given this dynamic, we have refined our sector selection tools, developing an analytical process in which we combine relative risk, pricing, capital needs, and near- and long-term growth to provide a holistic view of sector value. This informs our relative sector tilts (see Figure NA-.5).

In the U.S., we clearly find that offices need to re-price to become attractive. The near-term demand uncertainty is a factor, but capital expenditure requirements and volatility dynamics are also drivers of this conclusion. In Canada, by contrast, more of the capital costs can be passed through to tenants, which makes the sector more attractive overall. Our view is that remote working will be a medium-term headwind on office demand. Offices are also most likely to be impacted by changing tenant demands. Part of that is how tenants will be using and organizing their space, which makes it difficult to justify committing capital to build spaces that might quickly become obsolete. Another element of changing office demand is tenants' appetite for sustainable spaces, including low- or zero-carbon emission offices. Large corporations are at the

Figure NA-5 Rigorous Framework Informs Sector Tilts

WIDE PRICING AND OUTLOOK DIVIDE REQUIRES QUANTITATIVE ANALYSIS TO INFORM TILTS



Property Type	North American Core Portfolio Tilt Recommendation*	Positives	Cautions
Apartment	↑	Demand strong and asset-level cash flow stable	Urban recovery is often fully priced
Industrial	↑	Opportunities remain in secondary markets	Aggressive bidding on trophy assets can limit relative value
Office	↓	Lack of investor interest and pricing declining	Capital requirements for leasing and maintaining asset positioning
Retail	← →	Grocery-anchored demand durable	Asset-level risk on tenancy and continued decline in investor interest
Niche	↑	Good risk-return balance and value-creation opportunities	Depth of opportunity and attention needed on execution

*Note: Tilts are recommendations on acquisitions at current market pricing for delivering outperformance over the next three to five years. They are relative to index weights.

Source: LaSalle Investment Management, as of November 2021.

forefront of making net-zero carbon pledges. In North America, these pledges are not yet being operationalized into office leasing decisions, but are likely on the horizon for future lease decisions.

In the U.S. and Canada, we expect the strong tenant demand for industrial and apartments to continue in 2022, despite rapidly rising rents for industrial and U.S. apartments. We believe rental rates have further room to grow over the next two-to-three years. New supply has been unable to keep pace with demand due to a range of factors, including overwhelming demand from e-commerce and distribution users, but also local planning regulations, lack of available zoned land, and geographic constraints in some markets. While new supply levels are growing, they remain insufficient to meet demand in the near term.

Apartments, particularly those in urban areas, were impacted early in the pandemic as residents moved to less dense environments in suburban and secondary markets. Vacancy rose sharply in the CBDs of markets like New York City, San Francisco, Montreal, and Toronto but this is starting to reverse as COVID-19 vaccination rates rise, restrictions are lifted, and life returns to normal. Investors have been anticipating this, which has limited the distressed buying opportunities. In Canada, the outlook for urban apartments is boosted by the federal government's plans to increase permanent resident immigration targets to above 400,000 per year starting in 2022, an unprecedented level. In the U.S., we continue to see value in apartments, and with the urban recovery largely priced in, that value signal is a bit stronger long-term for suburban apartments than urban.

For the retail sector in the U.S. and Canada, the economic recovery, pent-up demand, and elevated household savings rates are positive signs for retail spending growth. However, the pandemic is having an outsized impact on retail returns in both countries, especially for malls. Some retail properties are recovering quickly, especially necessity-oriented grocery-anchored retail. Investor interest in this space is also returning, so as attractive value emerges, the space is quickly becoming competitive. For other types of retail, some assets provide opportunities to add value by repositioning like applying for zoning changes to incorporate residential and mixed uses, such as condominiums and apartments in areas with excess/unneeded parking. Others are seeking to repurpose vacant or excess retail space to include fulfillment and last-mile delivery facilities.

Market Selection

Choosing the right markets remains a major avenue for investment outperformance, even if sector picks have overwhelmed market return differences in recent years. As apartment and industrial transaction volume rebounds we are able to use information on relative market pricing to inform our market calls. For office, however, the limited transaction volume remains a challenge to determine relative value between markets.

In Canada, population growth accelerated in secondary markets in 2020–21 due to COVID-19, affordability concerns, and increased demand for working from home and/or shorter commute times. While we expect activity to return to urban areas in 2022–23 as the pandemic recedes (and due to rising immigration levels), we expect many who chose to leave the cities will remain in their new homes in the suburbs and secondary markets. This will change the supply demand dynamic in those locations, especially for apartments and retail. We also expect new demand in suburban and secondary markets in the coming years as migration flows to cities beyond Canada's "big six" major markets, given the increased immigration targets.

Similarly, in the U.S., more affordable markets are attracting in-migration and producing stronger real estate performance than the largest, primary/gateway markets of New York City, San Francisco, Los Angeles, and Chicago. The stronger growth in markets like Phoenix, Atlanta, and Dallas is expected to continue for years. And some "lifestyle" secondary markets, such as Austin, Denver, Nashville, Charlotte, and Raleigh-Durham, are likely to also continue to see strong growth but investors will need to watch for periods of over-supply as supply is often very high to match the robust demand. These growth dynamics have the greatest impact on picking apartment markets, with industrial and office seeing sector level trends dominate while retail remains more about asset selection regardless of the market.

Expanding Investment Universe

Strong capital flows to real estate and the relative attractiveness of the cash flows from some specialty sectors is driving an expansion of the investment universe with NAV and publicly traded REITs leading the way (see figure NA-7). There are a broad range of options, so investors need to be clear about where they see attractive value amongst a wide range of specific sectors with diverse dynamics. We are focusing expansion of our U.S. portfolios on single-family homes for rent, life sciences, and medical offices. In Canada, data centers are a growing and attractive segment given the country's colder average temperatures for much of the year, which lowers cooling costs, and the relatively lower average power costs in some Canadian markets. Self-storage and medical offices are also appealing, despite their relatively smaller scale than in the U.S.

Figure NA-6 Core and Higher Return Opportunities in the U.S. and Canada

LaSalle's Strategy Recommendations

Property Type	Core	Higher Return
Multifamily	U.S. and Canada: Suburban markets U.S.: Single-family rental portfolios, stabilized alternative residential	U.S.: Apartment and alternative residential development, single-family value-add Canada: Urban and suburban repositioning, build-to-core
Office	U.S. and Canada: Long-term leased assets and assets with superior ESG and NZC positioning	U.S.: Deep value on strong assets Canada: Suburban renovation/lease-up
Retail	U.S.: Top STARS* centers with leading supermarkets Canada: Urban grocery-anchored, best-in-class super regionals	U.S.: Deep discount power and community centers Canada: Mispriced urban, repositioning (conversion, densifying, adding mixed use)
Industrial	U.S.: Secondary markets with credit tenants Canada: Large bay warehouse/logistics	U.S. and Canada: Warehouse development Canada: Major market lease-up
Specialty Sectors	U.S.: Medical office, life sciences Canada: Data centers, self-storage	

Best Opportunities   Secondary Opportunities

*Supermarket Trade Area Ranking System. Proprietary LaSalle Investment Management ranking of more than 40,000 U.S. supermarket-anchored shopping centers.

Source: LaSalle Investment Management.

We have long favored U.S. medical offices due to their stability and demographic demand tailwinds from an aging population of baby boomers. In Canada, the universe of pure-play medical office buildings is small, but investors can get creative by increasing exposure to this sector by bringing healthcare uses into retail centers, for example.

The life sciences real estate sector has been expanding in the U.S. for over 20 years, and the pandemic is accelerating private and public funding in the life sciences, thus boosting real estate demand. Aging populations, rising healthcare spending, and technology advancements also lead to growing demand from life sciences tenants. This increases the breadth of investment opportunities in a variety of U.S. markets. In Canada, the government was caught off guard by a lack of domestic vaccine manufacturing facilities and as a result, they are now partnering with the pharmaceutical sector to grow that industry. This suggests life sciences will become a growth sector in Canada in the coming years.

Single-family rentals first emerged as an institutional investment opportunity in the U.S. following the housing bust when investors acquired large portfolios of foreclosed homes at sharp discounts. This allowed testing and proving out of the operations and economics in the sector. The pandemic is the first large stress on this sector, and the performance has been outstanding. With the operations and cash flow durability of this sector tested, investors have been flocking to it. We still see good value in this sector for core investment in 2022. It also offers

The Preserve at the Meadows, Fort Collins, Colorado, United States

170 Park Avenue, Florham Park, New Jersey, United States

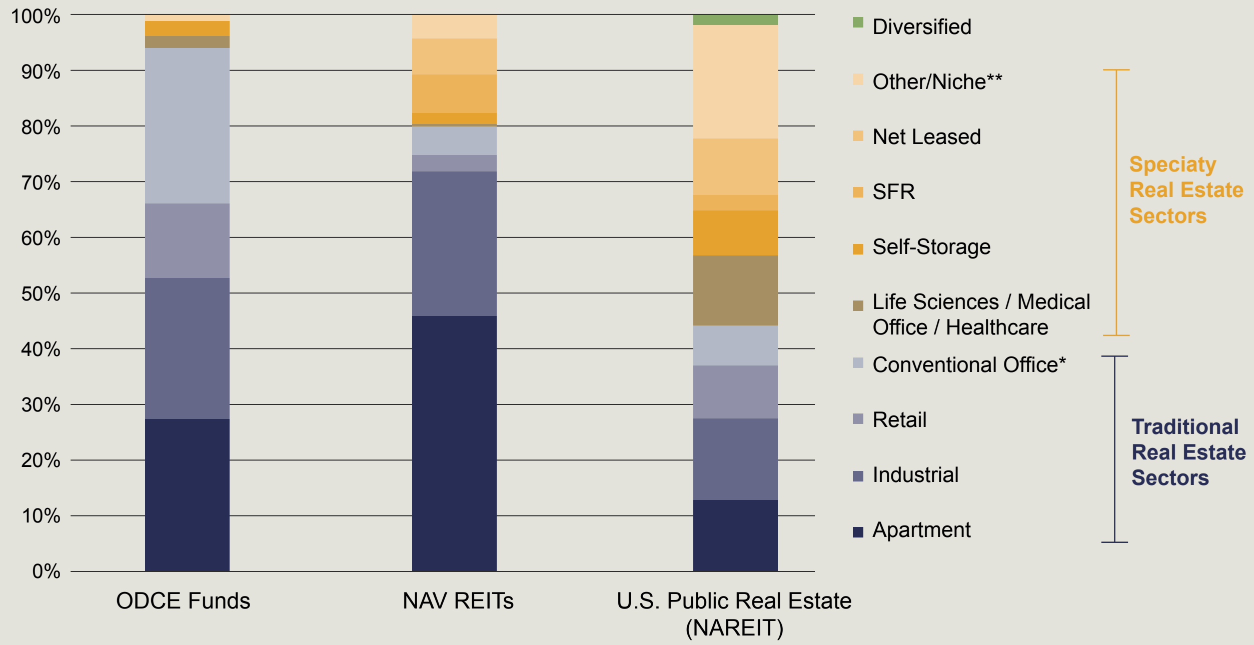
value-add opportunities from building portfolios and home improvement strategies. This sector is also supported by demographic tailwinds, with millennials reaching the "married with kids" stage of life. This cohort is similar to past generations in wanting a home, yet they have higher debt burdens and relatively less commitment to jobs and places than prior generations. These factors contribute to the increasing demand for renting single-family houses rather than buying.

Environment and Climate Change Impact on Investment Strategy

Climate change is poised to have an impact on the real estate investment landscape in the decades to come (see Climate Risk in Figure 1.4). For North American real estate investors, this presents a set of new investment strategy questions stemming from market and regulatory diversity. For the U.S. and Canada, there is the question of how climate change will affect different regions and markets and how much that will impact relative market investment performance. Historically, market selection has focused on economic growth, real estate supply, and pricing. We are now considering how different climate change impacts and local responses to climate change will impact investment performance. It is relatively easy to say Miami requires more adjustment to deal with rising sea levels and more

Figure NA-7 Capital Flows to Real Estate through NAV and Public REITs Targeting Apartments, Industrial, and Specialty Sectors

Property Type Allocation by Investor Type



* The breakout of office into convention, life sciences, and medical office is a LaSalle Investment Management estimate using information believed to be accurate from MSCI and reported exposures.
** Other in the NCREIF database includes hotel, land, parking, and other. Other in the U.S. REIT universe includes data centers, specialty, lodging & resorts, and manufactured homes. Cell towers and timber are excluded from REIT data.

Sources: NCREIF, NAREIT All REITs Index, and LaSalle Investment Management. NCREIF data as of 2021:Q3, NAREIT data as November 10, 2021. NTR data are from company reports based on most recent available information as of September 13, 2021.

frequent hurricanes than many other markets. Physical climate change-related risks also include wildfires in California, heat waves in the Pacific Northwest and Western Canada, drought stress in the Mountain region, and flooding in the Mid-Atlantic and New England. The market impact also extends to the transition risk associated with climate change. These risks include dealing with the implementation of carbon emission regulations, which as of now are being set at a local level in the U.S. This adds another layer of complexity to market selection, with it not being clear which type of regulatory or climate environment will help deliver positive relative returns in the years to come. Savvy investors will need to be vigilant across multiple dimensions and watch for opportunities as the complexities of climate change and the real estate markets unfold.

Environment, social, and governance (ESG) performance is also a focus for Canadian, cross-border, and some U.S. investors as a long-term value creator for real estate investments. Investors have moved from merely paying lip service to ESG, to where these properties are now considered essential in a well-balanced real estate portfolio. Investors no longer want to know what you plan to do, but what ESG measures you have implemented and the measurable results you have achieved. Academic research shows that strong ESG credentials are often associated with higher rents and values. A strong ESG track record also opens the door to lower-cost financing, increased energy efficiency, and reduced risk. Extreme weather events in the summer of 2021 in parts of North America reminded investors that making buildings and infrastructure more resilient to extreme weather events will need to be a crucial capital budgeting consideration for both owners and municipalities.

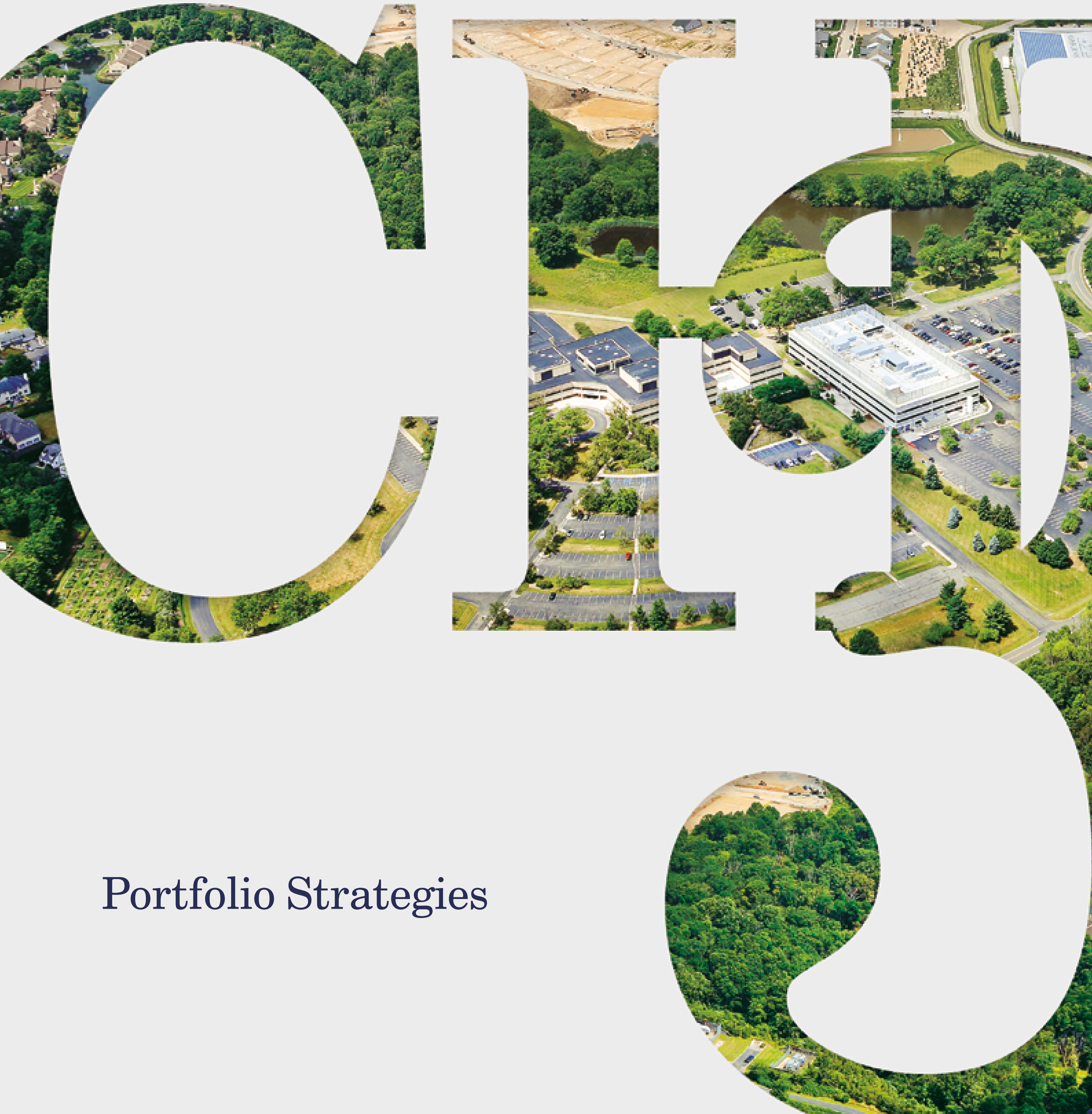
The extraordinarily strong financial performance of real estate in 2021 re-established capital market confidence in the asset class. As a result, allocations to real estate are rising and a wider range of risk-on and niche strategies make sense in order to find productive places to put money to work. The reasons for allocating part of an investment portfolio to real estate have strengthened in the past year. Bond yields have started to rise but remain low by historic standards, and stock market volatility increases. Savvy real estate investors will need to consider shorter leases, more operational intensity for demanding tenants, and the rise of ESG factors.

Real estate portfolio construction should take into account strategies like high-yield debt, the rise of alternatives, opportunistic development that focuses on strong micro-markets, and core assets capable of delivering steady income while taking advantage of plentiful, low-cost debt. Our updated estimates of the Global Real Estate Universe demonstrate that the listed and private equity markets are working in tandem to get investors access to different types of operational real estate. This trend means that underwriting local operators and developers becomes as important as underwriting locations and local supply-demand fundamentals. We reprise our 2020 work on “the accessible asset class” in order to update all the new specialized property types that emerged over the last three years.

LaSalle

ISA2022

Investment Strategy Annual



Portfolio Strategies

Portfolio Strategies for 2022

COVID-19 has severely tested real estate, but the asset class has, on the whole, proved resilient. The pandemic temporarily shuttered commercial buildings—a degree of disruption exceeding that faced by many other industries, like the financial services and technology sectors. Manufacturing and transportation industries increased operations ahead of some real estate sectors. Even at the height of disruption, though, real estate continued to generate income and tenants generally met their lease obligations.

Although the relative financial performance of real estate dipped in 2020, it strongly rebounded in 2021. The twenty-year track record of the asset class remains competitive and strong (see Figure 3.1). Low correlations with other global asset classes (e.g., global stocks and bonds) continue to be a defining characteristic of real estate (see Figure 3.2). The expansion of the "choice set" within real estate has also improved the case for non-correlated drivers of many niche sectors. For example, healthcare, student housing, data centers, single-family rentals (SFRs), and self-storage facilities are being driven by forces that are more closely tied to demographics and technology trends than to the broader economy. Each sector is also reacting differently to the COVID-19 pandemic. Some have been highly resilient (e.g., data centers, cell towers, and self-storage) while others were disrupted (e.g., student housing and senior housing).

Traditional sectors have also sharply diverged into distinct groups of favored (industrial and multi-family) and less favored (offices and retail) sectors. The resultant dispersion in sector returns was the widest it has ever been in 2021, which has ramifications for future portfolio construction strategies (see Rising Importance of Sector Selection and Alternatives, p. 42).

Asset allocators and portfolio strategists are likely to continue to recommend that 10% to 15% of an investment portfolio be allocated to real estate.[1] In 2020, questions were raised about the enforceability of leases and the "future of…" traditional types of real estate. However, commercial tenants generally did not default on their leases. Many foresaw that they would eventually reopen for business and wanted to keep their options open until they could accurately gauge how much physical space would be needed to replace or complement "virtual" or shop/work-from-home (WFH) space.

1 Hodes Weill & Associates/Cornell Baker Program in Real Estate, Institutional Real Estate Allocation Monitor reports a 10.7% average allocation to real estate in 2021 and 11% projected in 2022. Survey includes 224 participants in 37 countries.

Figure 3.1 Real Estate's Relative Performance

TRAILING PERIOD RETURNS BY ASSET CLASS AND COUNTRY*

Average Annual Total Return	Global Stocks[1]	Global RE Securities[2]	Global Corporate Bonds[3]	Global Government Bonds[4]	U.S. Direct Property (NCREIF)[5]	U.K. Direct Property (MSCI/IPD)[6]	Canada Direct Property (MSCI/IPD)[7]	Australia Direct Property (MSCI/IPD)[8]	Japan Direct Property (IPD)[9]
1 Year	29.6%	32.9%	1.8%	-2.4%	12.1%	10.6%	3.1%	8.9%	4.7%
3 Years	13.5%	8.7%	6.0%	3.6%	6.7%	3.0%	3.1%	5.7%	5.6%
5 Years	14.4%	6.0%	3.6%	1.6%	6.8%	5.3%	4.5%	8.0%	6.0%
10 Years	14.2%	10.1%	4.7%	2.9%	9.0%	7.3%	7.3%	9.3%	6.2%
20 Years	8.2%	9.6%	5.2%	3.5%	8.4%	7.1%	9.0%	9.8%	—
20-Year Standard Deviation**	**16.0%**	**20.5%**	**4.7%**	**3.5%**	**4.7%**	**6.3%**	**3.7%**	**2.8%**	**2.3%**

*Stocks, REITs, bonds, and private real estate data through 2021:Q3, expect Japan MSCI quarterly returns, which are through 2021:Q2.

**This standard deviation is based on quarterly returns over the past 20 years, then annualized (except in the case of Japan, where it is based on returns since inception). Note that appraisal smoothing contributes to the lower volatility of direct real estate indices.

Notes on Sources
1. MSCI All Country Gross World Total Return Index in local currency.
2. S&P Global Developed Index in U.S. dollars.
3. Citigroup World Corporate Bond Index Total Return in U.S. dollars (local currency history not available prior to 1999).
4. Citigroup World Government Bond Index All Maturities Total Returns in local currency.
5. U.S. NCREIF Property Index Total Returns in U.S. dollars.
6. U.K. MSCI Quarterly Standing Property Total Returns in British pounds; data prior to December, 2001 is MSCI Annual. U.K. MSCI Quarterly Index used in all time periods available.
7. Canada MSCI Quarterly Standing Property Total Returns in Canadian dollars.
8. Australia MSCI Quarterly Standing Property Total Returns in Australian dollars.
9. Japan MSCI Quarterly (based on monthly index) Standing Property Total Returns in Japanese yen.

Figure 3.2 20-Year Quarterly Total Return Correlations
BY ASSET CLASS

Correlations-20-Year Quarterly	Global Stocks[1]	Global RE Securities[2]	Global Corporate Bonds[3]	Global Gov't Bonds[4]	U.K. Direct Property (MSCI)[5]	U.S. Direct Property (NCREIF)[6]	Canada Direct Property (MSCI)[7]	Australia Direct Property (MSCI)[8]
Global Stocks[1]	1.0	0.7	0.3	(0.5)	0.3	0.2	0.1	0.1
Global REITs[2]		1.0	0.5	(0.1)	0.5	0.2	0.1	0.2
Global Corporate Bonds[3]			1.0	0.5	0.0	(0.2)	(0.2)	(0.2)
Global Government Bonds[4]				1.0	(0.2)	(0.1)	(0.1)	(0.2)
UK Direct Property (MSCI)[5]					1.0	0.6	0.3	0.6
US Direct Property (NCREIF)[6]						1.0	0.6	0.8
Canada Direct Property (MSCI)[7]							1.0	0.6
Australia Direct Property (MSCI)[8]								1.0

Correlations between asset classes highlight the diversification benefits of property within a mixed-asset class portfolio.

20-Year Quarterly Annualized Correlations to 2021:Q2.

Notes on Sources
1. MSCI All Country Gross World Total Return Index in local currency.
2. S&P Global Developed Index in U.S. dollars.
3. Citigroup World Corporate Bond Index Total Return in U.S. dollars (local currency history not available prior to 1999).
4. Citigroup World Government Bond Index All Maturities Total Returns in local currency.
5. U.K. MSCI Quarterly Standing Property Total Returns in British pounds. Data prior to December 2001 is MSCI Annual. U.K. MSCI Quarterly Index used in all time periods available. Unleveraged, pre-fee.
6. U.S. NCREIF Property Index Total Returns in U.S. dollars. Data are unleveraged and pre-fee.
7. Canada MSCI Quarterly Standing Property Total Returns in Canadian dollars. Data are unleveraged and pre-fee.
8. Australia MSCI Quarterly Standing Property Total Returns in Australian dollars. Data are unleveraged and pre-fee.

The Present and Future Case for Real Estate

The financial characteristics of real estate will continue to change with market conditions and innovations. The growth of alternatives, tenant demand for lease flexibility, the rise of ESG considerations, and a growing willingness of tenants to pay for higher levels of curated services could all change the level, duration, and predictability of future real estate income streams. The traditional fixed-term lease is not as common in alternative property types. At the same time, the opportunity to earn ancillary income on top of space rentals is also enhanced in these specialized real estate sectors.

Short duration leases do not necessarily result in equally short duration income streams. Self-storage is a good example—the typical 30-day lease obligation for a user actually tracks to an average rental duration of 14 months in the U.S. and 25% of all users rent storage units for more than three years.[2] Underwriting the specialized skills required to maintain these income streams becomes a critical component of these more operational-intensive types of real estate. There is more complexity to underwriting these income streams and there can be tax consequences from "unrelated business income" in some jurisdictions, especially for tax-exempt pension funds. Despite an additional degree of complexity, more diverse income streams (space plus ancillary services) can create financial and other benefits that accrue to investors and tenants. These include faster adjustment of operating costs that may rise or fall with inflation, brand/product differentiation through service/amenity delivery, and an increased ability to meet investor and tenant needs for ESG compliance and climate change protection.

2 U.S. Storage and Warehouse Leasing Industry Report, IBISWorld 2020.

The Rising Importance of Sector Selection and Alternatives

Property type sector allocation was by far the single largest market driver of real estate investment performance in 2020 and 2021. This was true in both the listed and private equity real estate markets. We have long highlighted the importance of strategic overweights and underweights based on property type, alongside market, location, and asset selection. These property type tilts have shifted to take on even greater importance during the pandemic, a shift likely to have a long tail as fundamentals continue to adjust.

The spread between the top performing property type and the weakest property type in the U.K. and U.S.[3] has averaged about 10 percentage points over the last 20 years, similar to the range of performance between the top and bottom major metro markets in the U.S. In 2021, the inter-property type range widened to record levels—three times its 20-year average in both the U.S. and U.K. (see Figure 3.4). The spread between the top and bottom performing large metros also widened in 2021, although not to the same degree.

These performance differences are the result of secular changes in tenant preferences and behavior that have accelerated during the pandemic, such as WFH and shopping habits, affecting every market, neighborhood, and asset to some degree. Industrial, residential, and alternative property type returns have benefited most from these shifts, while office, retail, and hotels returns have fallen short.

Many alternative, or niche, property types have been "going mainstream" for a decade or more, and we have highlighted their progression in past ISAs, alongside rising residential allocations. We believe there are three main reasons why alternative property type allocations are important investment considerations for real estate investors today.

Bleiswijk, Rotterdam, Netherlands

First, many alternative property types encountered a number of challenges to their ability to provide defensive cash flows during the economic downturn. Several property types, including the life sciences (see Insight Report here), medical office, self-storage, and single-family rentals (SFRs), proved resilient and exceeded their pre-pandemic growth expectations by a wide margin. These examples show that the diversification benefits provided by alternative property types are

3 Using private equity benchmarks. A wide spread is also observable in the listed real estate markets.

Figure 3.4 LaSalle's 2022 Global Real Estate Universe

U.S. $5.1 trillion
Public Real Estate (GAV)

U.S. $11.8 trillion
Institutional-Owned

U.S. $65 trillion
Total Income-Producing Real Estate

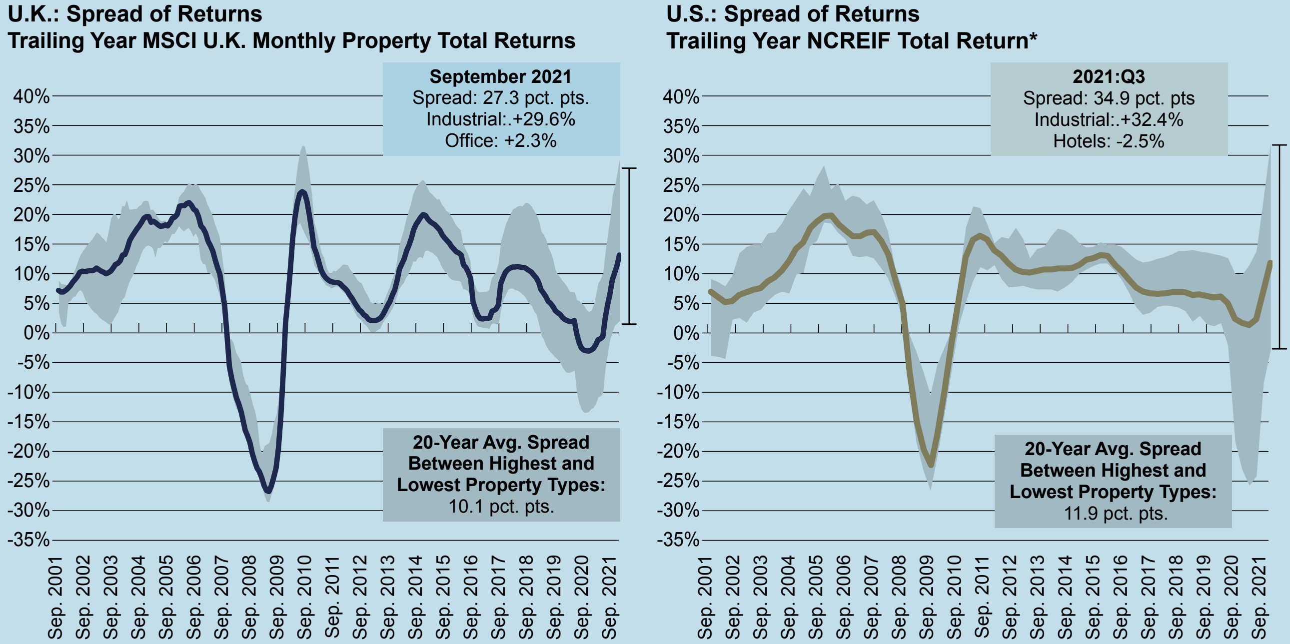
Defining the Universe

Public Real Estate	The gross asset value (GAV) of real estate owned by REITs and REOCs listed on public exchanges. Includes vertically-integrated development companies in emerging markets, but not exclusive homebuilders or infrastructure REITs.
Institutional Invested Real Estate	The unleveraged total value of all professionally managed real estate portfolios, both public and private.
Total Income-Producing Real Estate	Value of the existing stock of all commercial (office, retail, industrial, alternatives) real estate with the potential to be income-generating and all currently rented residential buildings. Owner-occupied residential homes, infrastructure, and agricultural land are not included.

Sources: Oxford Economics, Citigroup, Bloomberg, NCREIF, MSCI, Investment Property Forum (U.K.), National Bureau of Statistics of China, U.S. Bureau of Economic Analysis, U.S. Federal Reserve, and company financial statements. The public universe reflects estimates as of November 2021. The institutional-owned and total-income producing estimates are for year-end 2021.

Figure 3.5 2021 Differences in Property Type Returns at a Record High

TOTAL RETURN BETWEEN BEST AND WORST PROPERTY TYPES IN THE U.S. AND U.K.



*For equivalent comparison to the U.K., we also include NPI Plus Index Other/Niche Property Types as a property type category. This is equivalent to the MSCI "Other" Property Type category in the U.K. Source: MSCI, NCREF. Standing investments based on gros, pre-fee, unleveraged property level returns. Data through September 2021, most recent data available as of November 11, 2021.

becoming undeniable. Investors are shifting away from automatically viewing many of these property types as higher risk investments, instead considering them crucial for core portfolios to achieve optimal portfolio diversification.

Second, lower relative transaction volumes for office and retail, which are historically the largest two property types in many countries, have pushed fresh capital to consider alternative property types like single-family rentals (SFRs). In many countries, limited inventory has been a major barrier to investment in alternative property types. As some investors have shifted their optimal portfolio weights, more are taking the leap to overcome these historic obstacles, in many cases by accessing operating and development platforms, or by participating in "aggregation" strategies that group together smaller properties into a more efficient private company format.

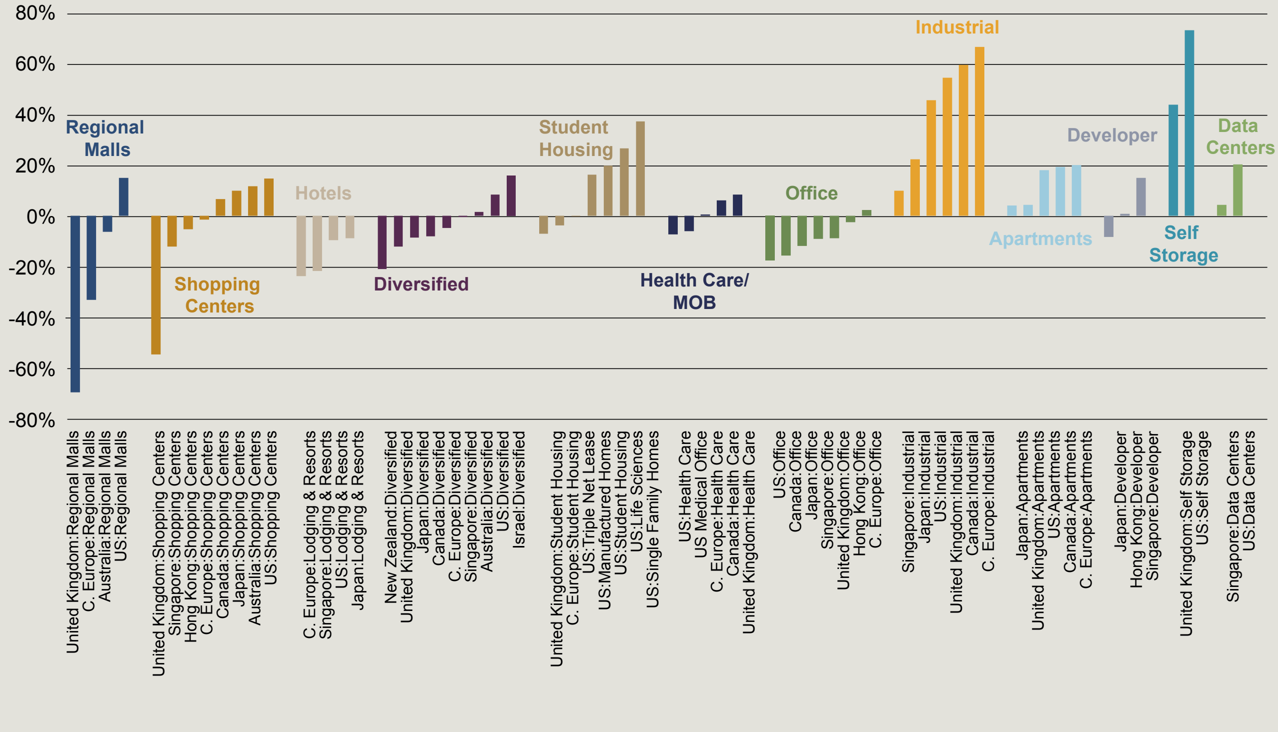
Lastly, we are likely on the cusp of significant transparency improvements for alternatives, fueled in part by rising investor interest. Alternatives have historically been harder to track when it comes to key performance indicators, such as inventory growth, vacancy, and rent levels. Helped by larger sample sets within existing indices, INREV, MSCI, and NCREIF are beginning to break out more niche sectors, like medical office and self-storage. NCREIF plans to release a new subtype classification system that will significantly improve visibility into the performance of alternative property types, with subtypes for student housing, life sciences, and data centers, while INREV is adding self-storage. In 2022, LaSalle Investment Management and JLL's 2022 Global Real Estate Transparency Index will measure how much the transparency of alternative property types has improved in nearly 100 countries and territories.

Global listed allocations to alternative property types rose from 11% in 2012 to 22% in 2021, while private institutional allocations rose from 5% to 8% (see Figure 3.6). Every listed REIT that owns and operates in the niche sector started out as a private company relying on private equity. The three drivers described here—proven defensiveness, capital displacement, and rising transparency—are likely to propel private alternative investment closer to listed weightings in the years ahead. Thus, the private and listed alternatives sectors will likely complement each other as sources of capital for alternatives, as they have done for years in traditional sectors.

Figure 3.3 REITs Highlight Diverging Property Type Expectations

SOME CHALLENGED PROPERTY TYPES HAVE REGAINED GROUND WHILE OTHERS LAG

Global REITs by Market/Property Type:
Share Price Change (%) from February 21, 2020 to October 29, 2021



Source: LaSalle Global Real Estate Securities PortWatch. Data as of October 29, 2021.

Both traditional and alternative real estate have shown a high degree of resilience in 2021. Real estate's income spread to investment-grade bonds continues to be wide, as bond yields remain well below their ten-year average levels (even as they edge slightly upward). In a negative real interest rate world, real estate stands out as good value compared to fixed-income alternatives. The resilience of the asset class is based on the core principles underpinning any real estate allocation. The fundamental reasons for including real estate in a mixed-asset portfolio have been proven out in real estate's performance over decades, building a stronger body of supporting statistical evidence that is not being undone by the pandemic.

As more operational-intensive forms of real estate enter investment portfolios, the fundamental reasons for owning real estate will shift. The income orientation of core real estate and the value creation associated with non-core strategies will continue to secure real estate's place in portfolios for many years. Each year, we review and update this "case for real estate."

- **Strong Risk-Adjusted Returns with Diversification:** Real estate raises the risk-adjusted return of a multi-asset class portfolio in two ways. First, by helping to maintain competitive performance over many different cycles (see Figure 3.1). Second, by not moving in lock-step with other major asset classes, it acts as a

Greengate, Manchester, United Kingdom

shock absorber when stocks, bonds, or other forms of private equity are volatile (see Figure 3.2). The rise of alternative property types has undoubtedly increased this contracyclical aspect of many types of real estate.

- **Unique Financial Characteristics with Inflation Hedging:** Leased property has a different mix of contractual income and capital value than all other asset classes. Buildings generate rental income with varying degrees of built-in inflation/deflation protection, along with an equity-like residual payment that is anchored by replacement cost and market dynamics at the time of sale. As leases get shorter and tenants demand more flexibility, real estate income streams will gradually look less “bond-like” and more like a variable annuity that adjusts more frequently to market conditions. Real estate’s annuitized income remains much more predictable than earnings in other industry sectors. Leases may shorten, but well-operated real estate will still achieve strong tenant retention, even if market adjustments become more frequent (as already occurs with multi-family apartments).

- **Large Asset Class:** After stocks and bonds, real estate represents the third largest repository of the world’s wealth. When residential real estate is included, real estate’s size is comparable to the size of the entire corporate bond market. In fact, residential markets in many countries are opening up to private finance more than ever before. Our most recent investable universe (see Figure 3.3) indicates that income-earning real estate represents approximately one-sixth of the world’s assets.

125 West End Avenue, New York City, New York, United States

Logiport West Anseong-II, Anseong-si, South Korea

- **Stability and Low Volatility:** Approximately two-thirds of the long-term returns from stabilized real estate come from the income component of returns. This ratio is even higher for real estate debt investments, where the investor is typically well-insulated from modest changes in the value of the collateral. Although the capital value component of income-earning properties delivers a higher degree of volatility to private equity investors, both transaction-based and appraisal-based real estate returns have Sharpe ratios comparable to, or higher than, securitized asset classes like stocks, convertible debt, and investment-grade bonds.

- **An Accessible Asset Class:** Real estate investment vehicles have multiplied and offer both institutional and individual investors many more options than in the past. Whether held in a securitized vehicle, like a listed REIT, or in a private equity fund, real estate retains its positive diversification, inflation-hedging, and lower volatility characteristics over a medium- to long-term horizon (see Figures 3.3, 3.4, and 3.5). One of the fastest-growing structures for investors to consider is higher-yield real estate debt.

Debt Strategies

A diverse range of debt vehicles can also be used to build a real estate portfolio. Higher-yielding debt strategies can fund development, redevelopment, transitional, and alternative assets during lease-up, repositioning, and renovation. Value-add and opportunistic debt investments are structured with accruals, fees, and payments in kind (PIKs)[4] to deliver different performance relative to senior debt instruments or to equity. Disciplined bridge lending on asset turnaround and renovation strategies represents a lower-risk, core-plus debt strategy. These debt strategies can provide a degree of downside protection that is harder to find in a pure equity investment.

The range of these fixed-income investment options in real estate has widened in the last 20 years and become more sophisticated. Debt strategies were previously available only to lending institutions and insurance companies. Now, in many countries, private capital pools represent a large and growing source of debt capital. For properties going through lease-up or renovation, non-traditional lenders are often a larger provider of debt capital than traditional bank finance.

When pension plans and other forms of retirement savings mature, they become more reliant on income to provide benefits to their participants. As investment-grade yields on fixed income and dividends on large-cap stocks remain close to record low levels, the search for income often finds its way to real estate. In 2022, as in previous years, real estate will be able to generate the same or higher levels of dividend income than investment-grade credit instruments. Real estate debt instruments are a particularly good place to find this income. One of the growing “asks” of real estate is to provide needed income at wider spreads to the very low base rates found in the fixed-income markets.

The mezzanine debt markets, like the equity markets, are becoming more efficient as they grow. In 2022, debt funds will emerge to take advantage of the gaps in the capital markets created by the pandemic and the failures of the most aggressive lenders. LaSalle’s debt teams have identified capital gaps in Europe, the U.S., and most recently in China. Filling these gaps as the recovery gains traction will likely generate higher levels of current income than many equity strategies.

2300 North Park Drive, Brampton, Ontario, Canada

Access to Operating and Development Platforms

Economists define “rent” as income derived from ownership or control over a limited resource, such as land or a building. In traditional economic terms, this income is received with relatively little effort on behalf of the owner once the property has been built or bought. The owner makes an upfront investment and then collects “rent” paid by those who use space as input into some other consumption (household) or production (business) function.

This construct -- that collecting rent is a passive economic activity—has been challenged repeatedly by economic and social forces. These influences include tenants’ desire for greater flexibility in a fast-moving economy or competitive real estate supply/demand dynamics that give tenants more options. Owners often hire intermediaries like real estate leasing agents and property managers to handle such situations and to ensure that a property is leased and maintained. The owner is responsible for decision-making around major capital expenditures, as well as monitoring the work done by these service providers. For large portions of the real estate market, this is a suitable model; in a competitive market, an investment manager can find many service providers who will compete for this business.

4 In mezzanine debt finance, payment in kind (PIK) notes typically mature later than other debt obligations and give time to the issuer to stabilize a property before these notes come due.

However, a closer relationship with a building manager may be required as the operational intensity rises. This is true in niche sectors where the number and complexity of decisions is much greater than in traditional sectors. Even so-called “traditional” real estate sectors are becoming operationally intensive as leases are shorter, turnover rents more common, tenant bargaining power is greater, and asset management and tenant mix optimization becomes more complex. These shifts raise questions about the best way to align the skills of the operator or developer with the goals of the investor.

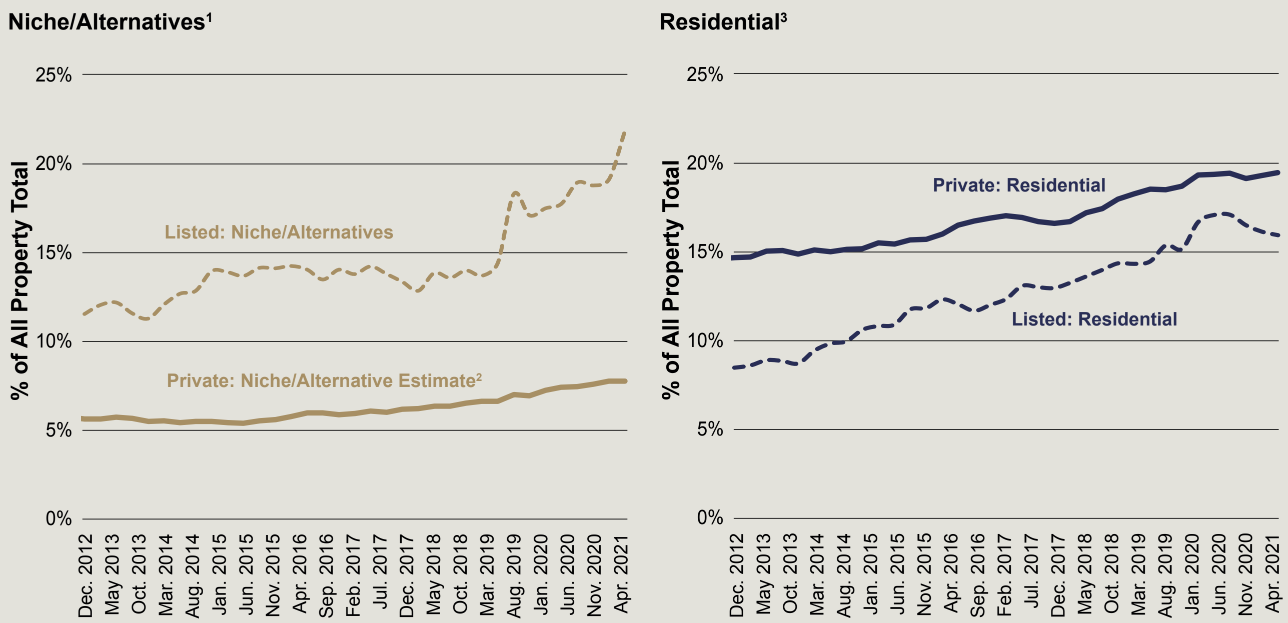
Benefits of Specialization

Greater operational intensity means that investing in and managing real estate requires more specialist knowledge than in the past, such as:

- Understanding the end-user’s needs,
- Sourcing and selecting appropriate sites and assets,
- Assembling specialist teams with technical skills to provide services alongside space rental, and
- Managing day-to-day expenses and technical know-how, including specialized software used to screen tenants and optimize rent.

By tying the value of the real estate to that of the enterprise running a business serving tenants in the space, real estate investors and operators can create value together. Operational real estate businesses can pull several levers to create value, but they generally revolve around choosing projects to pursue to boost revenue, minimize costs, and build scale and trust in a brand (see Figure 3.6).

Figure 3.6 A Decade of Rising Global Alternative Property Type Investment
IN PRIVATE AND PUBLIC MARKETS



Private Institutional Ownership: Global Niche/Alternatives/Other
Listed RE Ownership: Global Niche/Alternatives/Other
Private Institutional Ownership: Global Residential
Listed RE Ownership: Global Residential

1. Niche/alternatives includes hotels and excludes infrastructure and land.
2. This estimate of private institutional exposure to alternatives is based on aggregating data from MSCI and NCREIF in countries/datasets with quarterly or higher frequency data. This includes data from the U.K., Ireland, Netherlands, Australia, New Zealand, Japan, Canada, the U.S., other markets in Continental Europe where MSCI Pan-European PFI Funds own assets. The estimate aggregates property classified in the “other” category as an estimate of alternatives, though it is important to note that differences in index coverage and submissions in each market can reduce the comparability between countries. Due to available private property type classifications, there may be some undercounting of niche property types that may fall under major property type classifications. We believe this is the best data available and constitutes a reasonable, but not exact, estimate of the weightings of alternatives.
3. This residential estimate is based aggregating data from MSCI and NCREIF in countries/datasets with quarterly or higher frequency data. This includes data from the U.K., Ireland, Netherlands, Australia, New Zealand, Japan, Canada, the U.S., other markets in Continental Europe where MSCI Pan-European PFI Funds own assets. It is important to note that differences in index coverage and submissions in each market can reduce the comparability between countries.

Source: LaSalle analysis of EPRA NAREIT, NCREIF, and MSCI data. Latest available data as of November 2021.

Plugging the Skills Gap

The broader implication of the shift towards greater operational complexity is that there are instances where the number and complexity of decisions to make, as well as the difficulty in monitoring the work of service providers means that the service-for-fee model is insufficient. The taxonomy below deals with the different approaches that investors can consider in these instances.

The principal-agent lens can be useful when considering investors' options. In fact, the interactions linking capital owners all the way to end-users can be thought of as a long series of principal-agent interactions.[5] We focus on the relationship between the owners of real estate and the operators whose ability to run their business is directly tied to the physical space. Figure 3.7 shows three models that owner-operator arrangements can take in sectors where the service-for-fee model described above becomes too complex or problematic. Importantly, rather than three discrete models, these arrangements are best thought of as a spectrum.

At one end of the spectrum in the net lease model, the owner and operator are fully independent of each other and separated by an informational barrier. Information asymmetries and independent self-interest may lead to conflicts of interest between the owner and operator.[6]

A good example of this arrangement would be a long-term, triple net lease between a real estate investor and a skilled nursing operator. With fixed net leases in place, the traditional lease model will provide a stable cash flow, implying that investors exchange some alignment of interests for operational simplicity and cash flow stability.[7]

At the opposite end of the spectrum is the fully integrated model, where the owner and operator become a single entity. As a result, net cash flows move directly from the operation of the business to the owner and there is no information barrier between them. Specialist REIT owner-operators are good examples of this model and are particularly common and active in the niche space. In this model, cash flows are highly variable and dependent on the trade of the operational business. In contrast to the traditional lease model, owner-operators sacrifice cash flow stability for alignment of interests (see Figure 3.8).

Lying between the prior two models is a wide spectrum of hybrid models. These include revenue sharing, promoted interest models, joint ventures, as well as upside participation management contracts. As a result of the sharing of risk and return between owners and operators, financial alignment of interest is more straightforward, and some of the information asymmetries between the two entities can diminish. In terms of cash flows, these are also a hybrid between the bond-like net lease and fully variable revenue (see Figure 3.9).

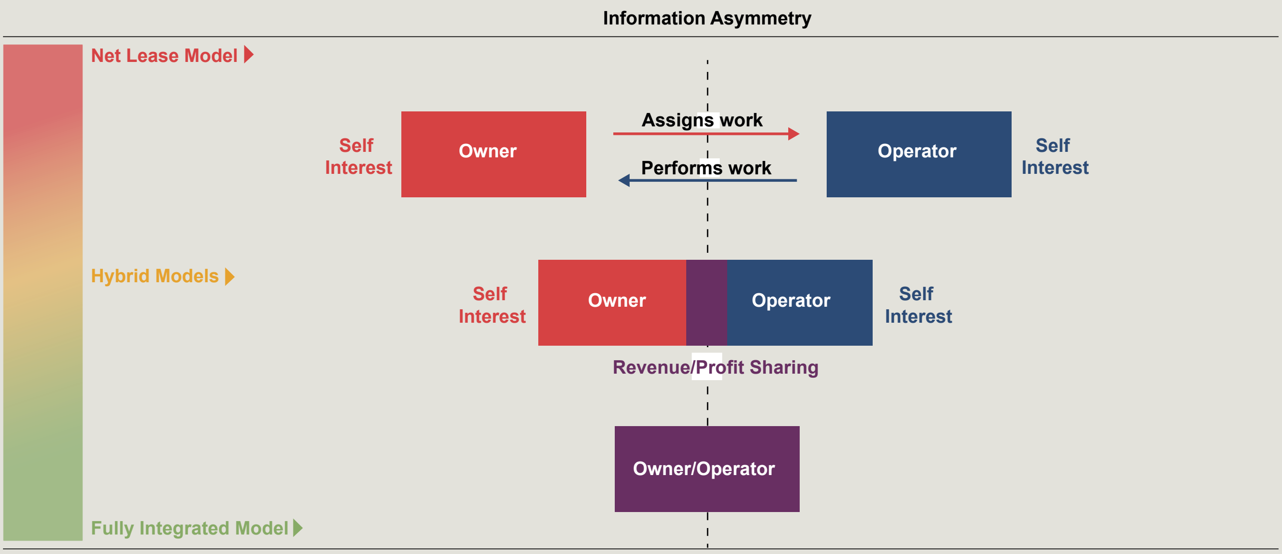
5 To consider this problem, we borrowed from the principal-agent literature in economics and political science pioneered by Ross, Mitnick, Mirrlees, and Arrow in the 1970s and 1980s. For further details, see *The Economic Theory of Agency: The Principal's Problem* by Stephen Ross (1973); *The Theory of Agency* by Barry Mitnick (1975); *The Economics of Agency* by Kenneth Arrow (1984); and *Private Risk and Public Action* by James Mirrlees (1995).

6 For example, the real estate investor may choose to sell the property if this transaction is financially accretive without referring to the impact that this may have on the employees hired by the nursing operator. On the other hand, the complexity of operations may allow the operator to cut corners in terms of the care of end-users.

7 It is noteworthy that this cash flow stability in traditional leases only applies while there is a tenant in place. Operators going out of business, returning space that has become unaffordable, and end-users can move on to different providers. Thus it is best to think about this stability as a short-to-medium-term guarantee that as lease lengths become shorter, they lose some of their allure.

Figure 3.7 Applying Principal-Agent Models to Real Estate Platforms

INVESTMENT STRUCTURES LIE ON A SPECTRUM, TRADING OFF SPECIALISATION AND ALIGNMENT OF INTERESTS



Source: LaSalle Investment Management.

Mizuhomachi, Tokyo, Japan

While the choice between integration and separation will depend on investors' sophistication, risk appetite, understanding and underwriting operating business abilities, track record, as well as the alignment of interests will all be critical to investors looking to invest using any of the three models.

Channels to Access Real Estate Assets

Real estate remains a large and accessible asset class. The degree of accessibility for both institutional and individual investors has expanded as a wide range of structures catering to their needs has evolved. We have identified nine categories of real estate investment structures that investors can use to access real estate[8] (see Figure 3.10).

Due to the wide array of structures and vehicle types, investors face choices as to how to deploy capital into the sector. Figure 3.11 provides details of the strengths and drawbacks of the structures.

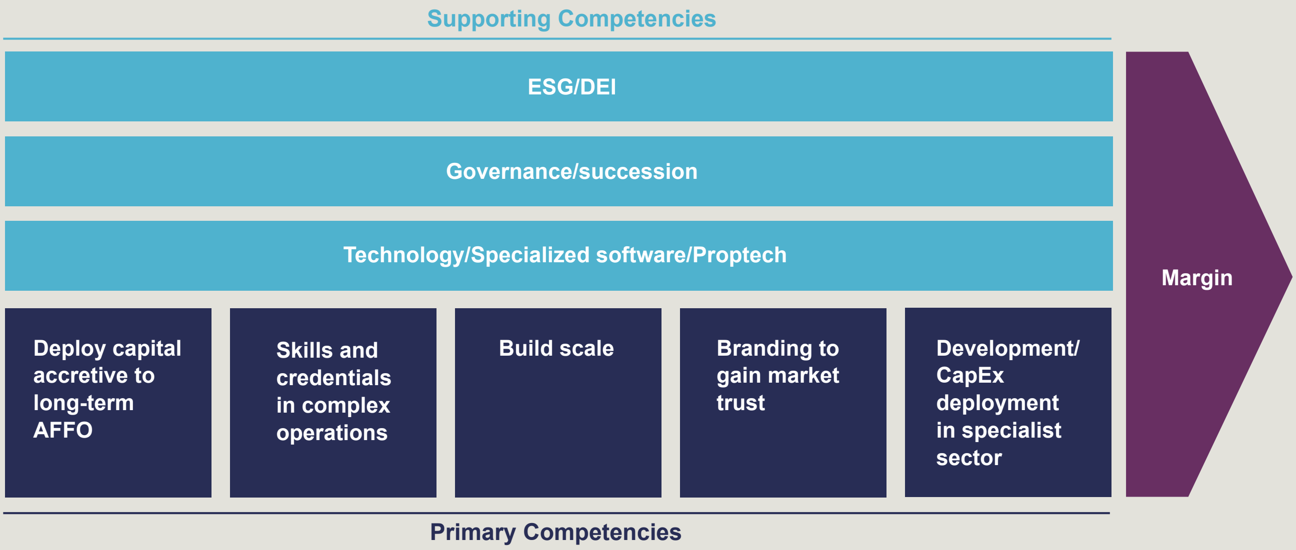
At a high level of total capital, investors will try to balance the mix of attributes to best achieve their goals. For instance, investors in listed real estate securities will gain ease of execution, along with a high degree of diversification and liquidity for limited control. At the opposite end of the spectrum, investors pursuing direct ownership will have comparatively high levels of control over buy/hold/sell and asset management decisions, but these decisions imply that execution will likely be more complex.

For 2022 and beyond, the importance of accessing niche and operationally intensive products will increase. Figure 3.10 highlights that in contrast to commingled funds and direct ownership, real estate securities and a range of indirect structures give investors a comparatively simple way to access this stock. However, investors will have limited control in indirect approaches and listed securities.

To take advantage of the different positive and negative attributes of each real estate structure, investors can benefit from using overlapping approaches. Smaller investors can diversity their portfolios despite their size and resource constraints, as well as access alternate product types using a combination of real estate securities and indirect channels. While the largest investors may have a higher preference for direct investment, they are likely to maintain third-party expertise either through investments in separately managed accounts, commingled funds, and/or multi-manager routes. This point has become more salient with the rise in prominence of operationally complex niche sectors, where the synergies of merging owner and operator may not outweigh the frictions of merging.

8 For a wider discussion, see "Accessing the Real Estate Investment Universe in 2021," LaSalle (2021).

Figure 3.8 Operating Platform Value Chain



Source: LaSalle Investment Management.

Figure 3.9 Ownership and Cashflow Structure of Operating Real Estate Models

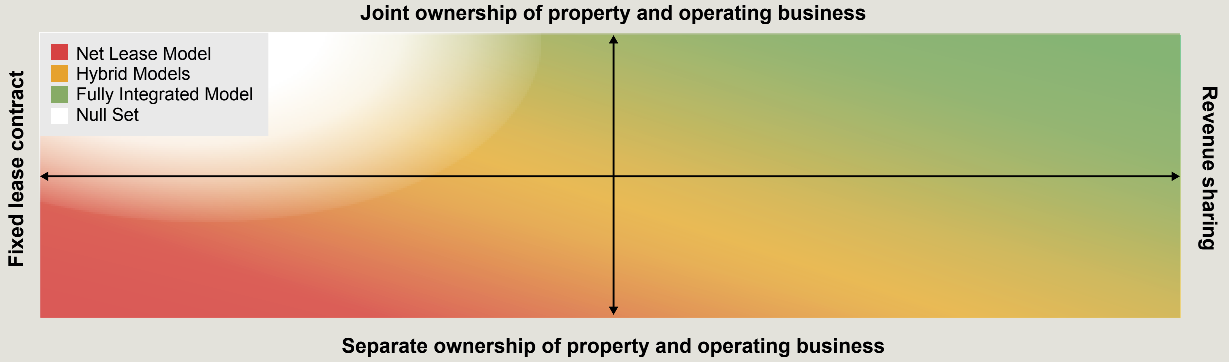
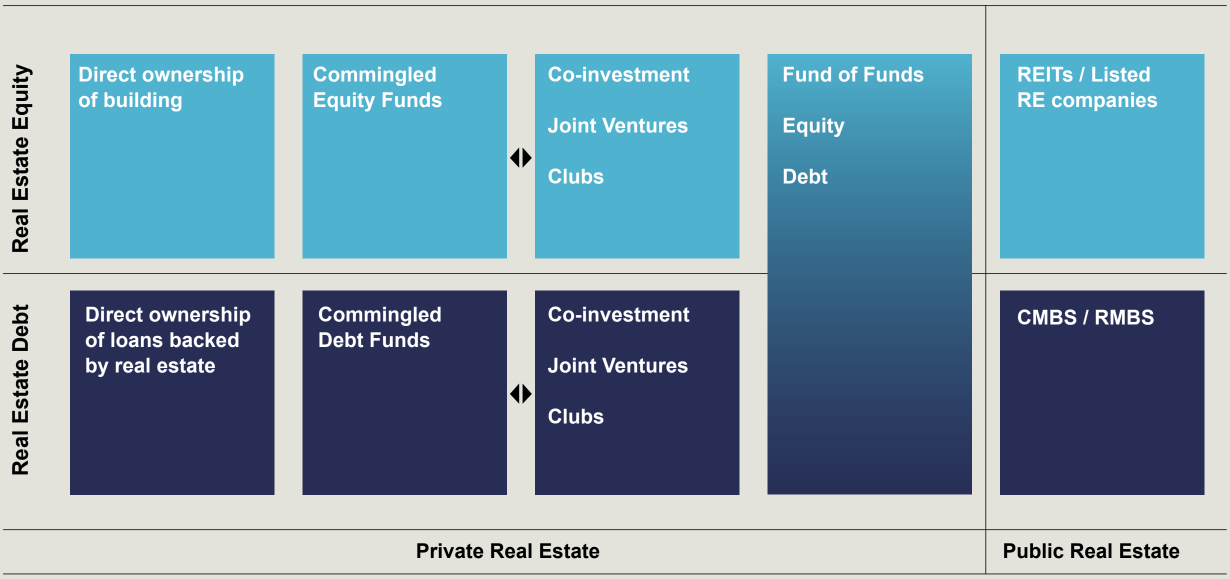


Figure 3.10 Many Roads to Reach the Same (Underlying) Real Estate

CATEGORIES OF REAL ESTATE INVESTMENT STRUCTURES



Source: LaSalle Investment Management.

Figure 3.11 Relative Advantages of Different Real Estate Investment Structures

	Control	Liquidity	Ease of Execution	Diversification	Access to Higher Returns	Access to International	Access to Niche
Securities	5	1	1	1	4	1	1
Fund of Funds	5	4	2	1	2	1	2
JV / Club / Co-investment	5	5	3	2	1	1	2
Commingled Funds	5	4	3	3	3	2	4
– Core	5	3	2	2	4	2	4
– Non-core	5	5	4	3	1	2	4
– Debt	5	5	4	3	3	3	3
Separate Accounts	2	2	5	3	1	3	3
Direct Investing	1	2	5	4	1	3	3

Highest 1 2 3 4 5 Lowest

Source: LaSalle Investment Management, December 2021.

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