The Real Estate Investment Universe in 2021

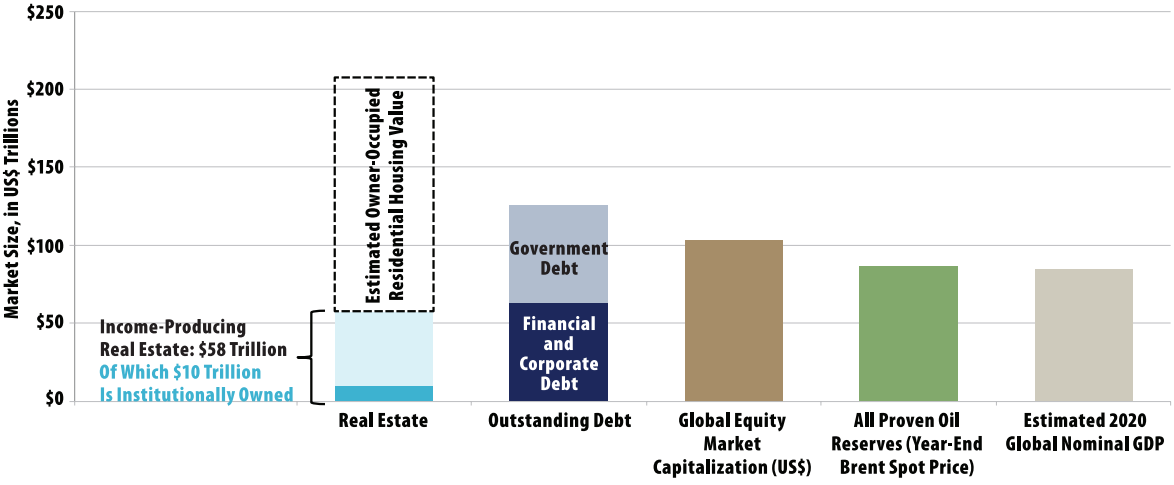
Jacques Gordon
LaSalle Investment Management

Dan Mahoney
LaSalle Investment Management

Real estate is simultaneously local, national, and global. It is subject to nearby competition at a specific address, affected by national economic dynamics such as monetary and fiscal policy, influenced by cross-border real estate capital flows, and shaped by global trends in climate change, taxation, technology, tourism, trade, and (as we all now know) pandemics. The nonstop interaction between local, national, and global forces—a theme introduced in last issue's *PREA Quarterly* article "The Outlook for Real Estate in 2021: Global Forces, National Politics, Local Circumstances"—is, to a large degree, unique to real estate among asset classes. Analyzing the size and distribution of the real estate investment universe provides important strategic perspectives for all three views of real estate. Like insights that come from zooming in and out of a digital map, these estimates help investors put individual deals in a wider context.

At each scale, real estate investors look for different reference points to gain context to market size and opportunity. A continental or regional map orients investors quite differently from a street map showing microfeatures such as local landmarks or an asset's closest competitors. At the global level, real estate's size as an asset class is a key consideration for assessing the depth of the investment opportunity in multi–asset class portfolios. At the national level, relative country allocations are a major strategic consideration for cross-border investors and one that market size estimates help investors better evaluate. At the local or metropolitan level, market size informs portfolio construction approaches and concentration risk in a given city. The insights that come from sizing up real estate at each scale give investors a frame of reference for real estate allocations and strategy.

Exhibit 1: Real Estate in Perspective
A Peer Among the World's Major Asset Classes



Source: LaSalle analysis based on data from the Bank of International Settlements (debt totals), EIA (oil reserves), Bloomberg (equity market size), Oxford Economics (GDP), and US Energy Information Administration (total proven oil reserves), Zillow and Savills (owner-occupied residential real estate). Real estate market size estimates, for total income-producing real estate, institutional real estate are LaSalle estimates, with more methodology detail available on request.
Notes: Rental residential is included in the $58 trillion total income-producing estimate. Debt estimates are as of 2Q2020. All other data are as of year-end 2020.

A Global Perspective

One of the pillars of the "case for real estate" is that the asset class is large and diverse. Yet definitive quantitative assessments of the size of the asset class are rare, which is why LaSalle began estimating the entire income-producing universe, and the professionally managed portion of it, more than a decade ago. To estimate the total value of income-producing real estate globally, we use a methodology that draws on high-quality estimates in a few data-rich markets,[1] and then we extend those to 201 nations using their relative GDP, per capita GDP, and urbanization rates. We estimate the aggregate global value of total income-producing real estate to be $58 trillion as of year-end 2020, of which an estimated $10.2 trillion is owned by institutional investors, both public and private.

By themselves, these total estimates are not particularly insightful, but they are revealing when put in perspective by comparing them with other major asset classes. Exhibit 1 shows how real estate stacks up in size against fixed income, stock market capitalization, oil reserves, and world GDP. The size of income-producing real estate is at the same order of magnitude as these major asset classes and the world's annual production of goods and services.

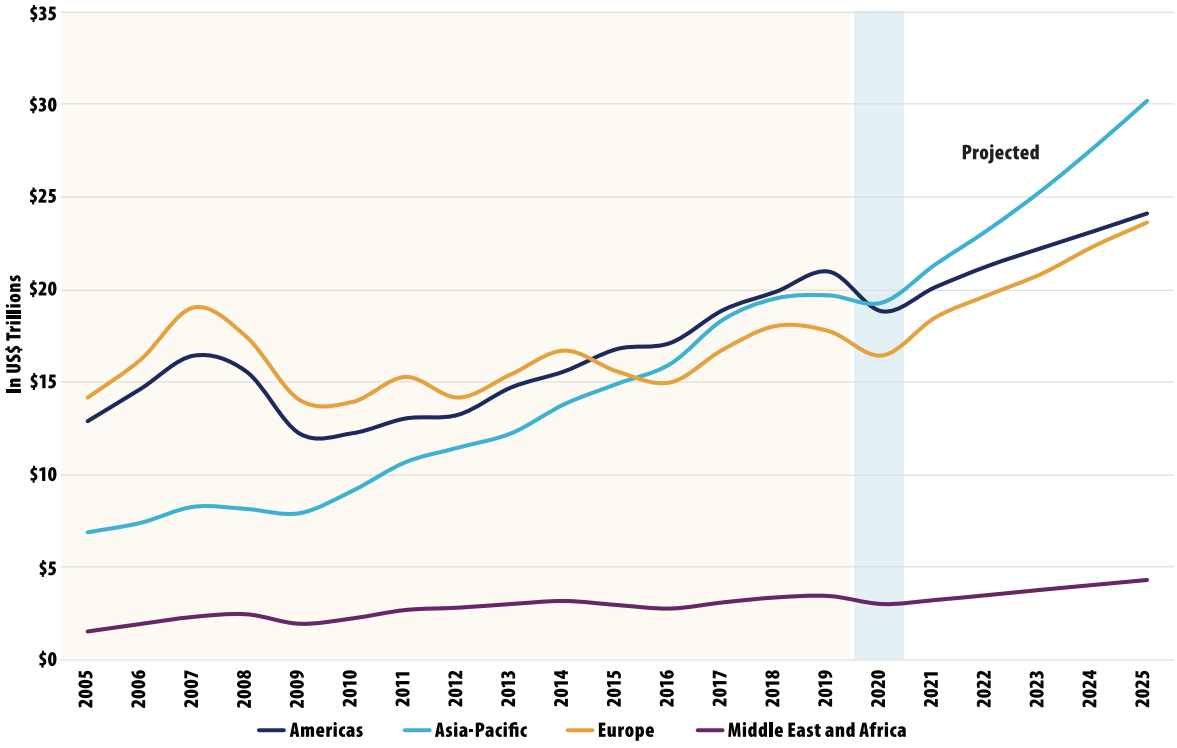
Yet real estate has some unique quirks of its own. Compared with fixed income and equities, the institutional ownership share of income-producing real estate—about a fifth of the total—is currently relatively modest. Moreover, income-producing real estate is dwarfed by owner-occupied residential real estate. While much of that owner-occupied stock is obviously not accessible to institutional investors, at the margin—like ants on the edge of a mountain—single-family-home rental strategies are moving some of that owner-occupied stock into the income-producing universe. Taking this global asset class perspective highlights how far real estate has come, and it also points to the significant potential for greater institutionalization of corporate and family-owned buildings in the future.

Peeling back the onion to our national estimates of real estate universe size provides another perspective. National markets are the base geography for our estimates because, quite simply, that's where the data is. The statistical agencies and industry associations that collect real estate data and the market conventions baked into those statistics are typically set at the national level.

Over the years, we have refined our methodology at LaSalle to uncover reliable, bottom-up, country-specific data sources. We then take what we have learned about the relationship between inventories of the built stock, construction costs, country GDP, and private equity or listed value estimates in markets with more detailed data, such as the

1. Examples of granular data sources for total real estate value include the Investment Property Forum (UK), the National Bureau of Statistics (China), and the US Bureau of Economic Analysis. Detailed data and estimates produced by MSCI are valuable for identifying the institutional-owned portion of the real estate universe.

Exhibit 2: Total Real Estate Market Size by Region—Past, Present, and Forecast
Trends in the Estimated Value of All Income-Producing Real Estate



Source: LaSalle Investment Management analysis based on Oxford Economics, Citigroup, Bloomberg, NCREIF, MSCI, Investment Property Forum (UK), National Bureau of Statistics of China, US Bureau of Economic Analysis, US Federal Reserve, company financial statements
Note: Estimates are updated as of year-end 2020.

US, the UK, Hong Kong, Singapore, and China, and estimate markets where less data is available.

Building on past market sizing research by Youguo Liang and Willard McIntosh[2] that used relative GDP and per capita income to calibrate market size estimates, we use two key additional input factors important to determining market size: urbanization and a country's Real Estate Transparency Index score.

Urbanization matters because denser places tend to be more productive by reaping the benefits of "agglomeration effects." Urban areas support larger commercial properties, often with higher values per square meter. These buildings are also more likely to be investable income-producing assets than are lower-density structures found in nonurban areas. Evidence from more urbanized countries where we do have bottom-up estimates of value supports this relationship. Hong Kong and the UK—with urbanization rates of 100% and 84%, respectively—have among the world's highest ratios of real estate to GDP, more than what per capita income differences alone would imply.

National real estate transparency also plays an especially important role in predicting the share of a country's income-producing real estate that is owned by institutional investors. Markets with more detailed fundamentals data, real estate performance indices, and clear real estate tax and building codes attract more cross-border institutional capital and can absorb more domestic institutional capital. Highly transparent markets,

2. Youguo Liang and Willard McIntosh, "Global Commercial Real Estate," Prudential Real Estate Research, April 1999.

such as Australia and Finland, for example—markets where MSCI estimates the professionally managed market size using granular data—have higher institutional real estate ownership than their GDP and income levels alone would predict.

If transparency and urbanization help triangulate our market size estimates, why should investors care? One reason is that having reliable market size estimates can help investors understand how a portfolio is positioned relative to the underlying opportunity set. Without these baseline estimates, it is harder to fully understand where the overweight and underweight positions are. Another reason is that rising urbanization and transparency could justify higher allocations to an improving market.

China's economic growth has powered an expansion in the Asia-Pacific region's income-producing real estate, as well as in institutional ownership, over the past two decades. This is the largest single trend that jumps out from our national and regional market size estimates. At its core, China's economy and a massive rural-to-urban migration underpin this shift, but it is also driven by greater institutional ownership in Japan and vibrant Asia-Pacific listed real estate securities markets.

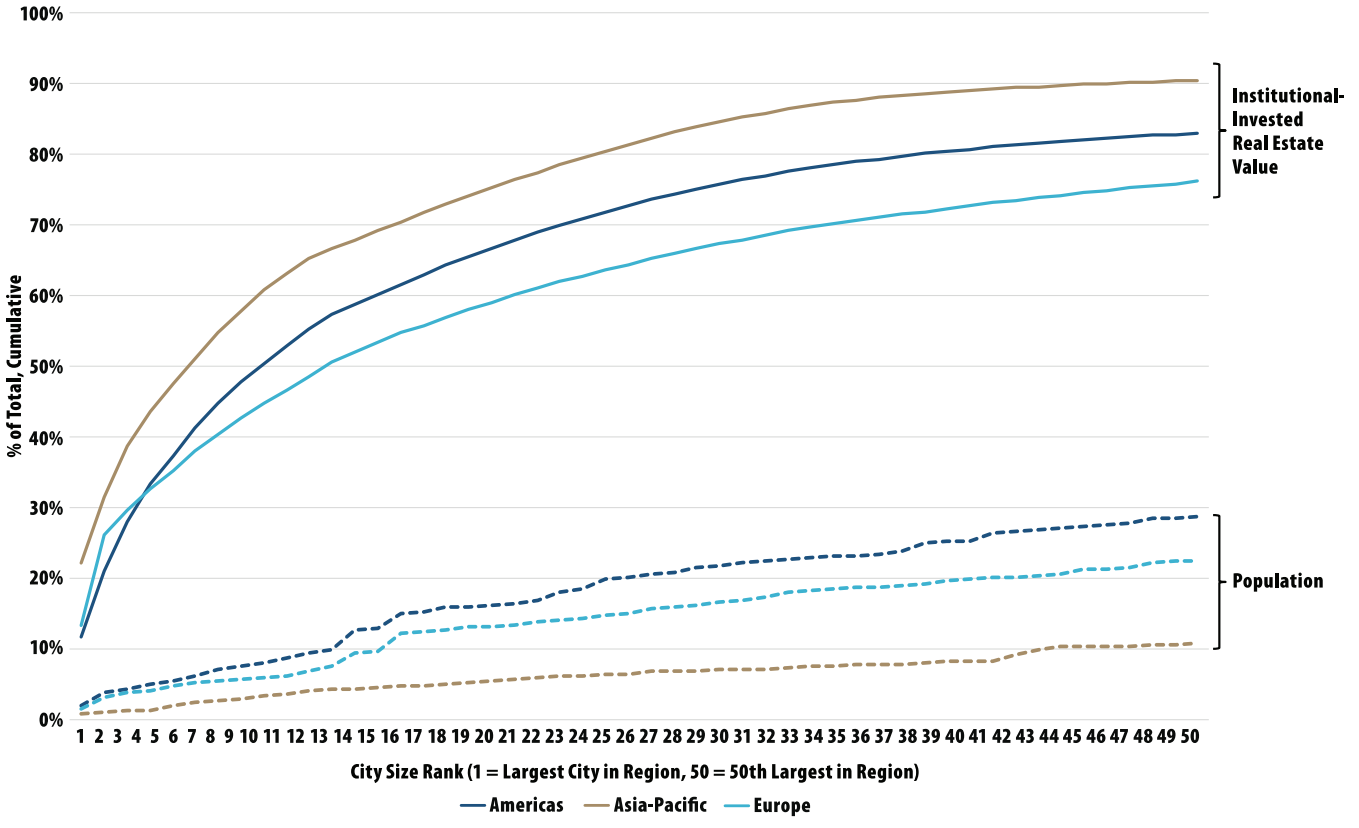
The Asia-Pacific region, which topped Europe

Exhibit 3: Institutional-Owned Real Estate Value Estimates by Metro Area
Office, Industrial, and Retail Property Only, Year-End 2020 Estimates

Rank	Metro Area	Institutional-Owned Real Estate Estimate, in US$ Billions
1	Greater Tokyo	$550
2	New York Combined Statistical Area	$319
3	Greater London	$291
4	Paris/Île de France	$274
5	Los Angeles Combined Statistical Area	$250
6	Hong Kong	$226
7	San Francisco Bay Area	$187
8	Singapore	$177
9	Washington, DC, Metro	$140
10	Sydney Greater Capital City Area	$117
11	Boston-Cambridge Metro	$109
12	Greater Toronto Area	$107
13	Seoul Capital Area OECD Metro Definition	$98
14	Chicago Metro	$93
15	Shanghai Urban Agglomeration	$91
16	Osaka Prefecture	$90
17	South Florida/Miami Combined Statistical Area (Dade, Broward, Palm Beach)	$78
18	Munich Metropolitan Region	$76
19	Greater Melbourne Capital City Area	$74
20	Beijing Urban Agglomeration	$73

Sources: LaSalle Investment Management, JLL

Exhibit 4: Universe Distribution by Metro Size Shows Significant Regional Differences



Sources: LaSalle Investment Management (institutional invested real estate value), Oxford Economics and JLL (population); estimates are for year-end 2020

in 2016, also surpassed the Americas in 2020 in total income-producing real estate, as shown in Exhibit 2. The US remains the largest national market, accounting for 26% of the global total, followed by China at 16% and Japan at 8%.

Private institutional fund allocations to Asia-Pacific are not as high as our global estimates seem to imply, with global fund index allocations to Asia-Pacific closer to 15% to 20%.[3] This difference points toward rising Asia-Pacific allocations in the future, especially if supported by the aforementioned real estate transparency improvements over time. Some differences between private index allocations and the underlying universe size are likely also attributable to national-level factors of policy and market structure. Publicly listed companies in Asia-Pacific own a larger share of all institutional properties than in either the Americas or Europe. This public ownership, along with a high share of owner-occupied and state-owned enterprise ownership, contributes to lower relative exposure for private funds.

A Local Perspective

Zooming in one level further, cities and their surrounding metropolitan areas form the underlying building blocks of the real estate universe. City market size estimates provide perspective on the opportunity set and relative portfolio allocations at a more granular scale. They highlight valuation differences across cities and countries that are otherwise difficult to compare.

3. Based on the NCREIF-ANREV-INREV Global Real Estate Fund Index and MSCI Global Property Fund Index.

Cities are often defined quite differently by local authorities, lacking the clear-cut boundaries of nation-states. To enable better comparison, our estimates in Exhibit 3 are for the entire metropolitan (metro) market, including the principal city and its suburbs that are economically connected to it, adopting official metropolitan area definitions from national statistical agencies where available[4] as well as United Nations–defined urban agglomerations.

Real estate held in institutional investor portfolios is highly concentrated in the largest metros, and these local market size estimates highlight the degree of that concentration: 58% of all institutional property is in the 40 largest metropolitan real estate markets. Some of the world's largest metro areas dwarf many individual countries when it comes to institutional real estate ownership. Our latest estimates show that there is likely more institutional-owned real estate in Greater Tokyo than in 197 of the 201 countries covered in our estimates. Toronto, the 12th largest metro for institutional ownership, by itself ranks as the 17th country for institutional investment.

Economists also know that the top 40 institutional metros have extremely high productivity, generating just over a fifth of global GDP, with only 5% of the world's population. Yet even these agglomeration economies and high human capital levels do not fully explain the high degree of concentration. In addition to those factors, the density of their built environment, their role as financial gateways or as national capitals, their transparency of real estate information, and their deep pools of buyers and sellers to provide liquidity are also likely drivers of this concentration. Continued improvements in transparency for next-tier and secondary markets, combined with greater e-commerce, work-from-home adoption, and a potential migration from high- to lower-housing affordability locations may lessen the dominance of these megamarkets in future estimates.

Metro market size distribution also varies across regions, with important implications for portfolio strategy. The Asia-Pacific region has a relatively smaller share of its total population concentrated in its large metros, as big as they are, because of, in part, the region's large size (about four times both Europe and the Americas in terms of population). Yet, as shown in Exhibit 4, institutional real estate ownership in Asia-Pacific is more concentrated in its largest metros than in any other region. In Asia-Pacific, 19 metros account for 75% of institutional property, whereas the equivalent metro total is 28 in the Americas and 47 in Europe.

These differences impact investment strategy and approaches to diversification. Asia-Pacific's concentration of large institutional markets implies that investors may be able to achieve diversification by investing in fewer metros but that it is also a region where each "bet" on geo-market allocation matters more. In Europe and North America, smaller metros benefit from more institutional capital today, but investing in more dispersed and smaller cities raises new challenges in terms of access and efficiency.

Across the Universe

Distilling an entire planet's worth of income-producing real estate to a single number is a colossal simplification, and even that number is of limited use as a stand-alone figure. But if we break down that figure across scales—global, national, and local—market size estimates can be a powerful framework for understanding real estate. They can also be a useful tool for top-down portfolio construction when setting investment targets that are above or below the universe baseline.

At the global scale, income-producing real estate is similar in size to stocks and bonds, yet notably smaller than owner-occupied housing stock and with a lower relative share of

4. For example, in Australia we use Greater Capital City Statistical Areas defined by the Australian Bureau of Statistics (ABS), and we use US Census MSA definitions in the US.

institutional ownership. At the national scale, the relative distribution of real estate reflects more rapid growth in the urbanizing Asia-Pacific region, though with a lag in index allocations. And at the local level, the value of metros varies greatly, with important implications for how investors construct a cross-border portfolio.

In the iconic Beatles song "Across the Universe," John Lennon wrote that "nothing's gonna change my world." The real estate universe also has some perpetual aspects—buildings don't come and go as frequently as the underlying constituents of other asset classes. Yet this analysis shows that the universe of real estate investment is constantly changing, and these changes look different from global, national, and local perspectives. The Sanskrit mantra in Lennon's song, "*Jai guru deva om*," is a subtle reminder that change and stability coexist. The cities summarized in Exhibit 3 have been in existence for hundreds of years—some for thousands of years. Yet the skylines of these great cities and the economic activity in their hinterlands are constantly shifting—a fitting metaphor for understanding the universe of real estate. ■

Jacques Gordon is Global Strategist and Dan Mahoney is Managing Director, Investment Strategist, at LaSalle Investment Management. *The authors thank Brian Klinksiek, Dennis Wong, Frances OseiBonsu, Eduardo Gorab, Elysia Tse, and Chris Psaras for their contributions to this analysis and article.*