LaSalle™

Accessing the Real Estate Investment Universe in 2021

JANUARY 2021

Each year LaSalle's research and strategy team estimates the size of the income-producing real estate universe throughout the world, by country, and by segment. 2020 was a turbulent year as a result of the COVID-19 pandemic and this is reflected in our latest estimates. LaSalle's analysis of the institutional-owned and total income producing universe measures its size at the end of 2020, incorporating the pandemic's initial impact. At year-end 2020, global institutionally owned real estate totaled $10.2 trillion, 4% less than a year ago.

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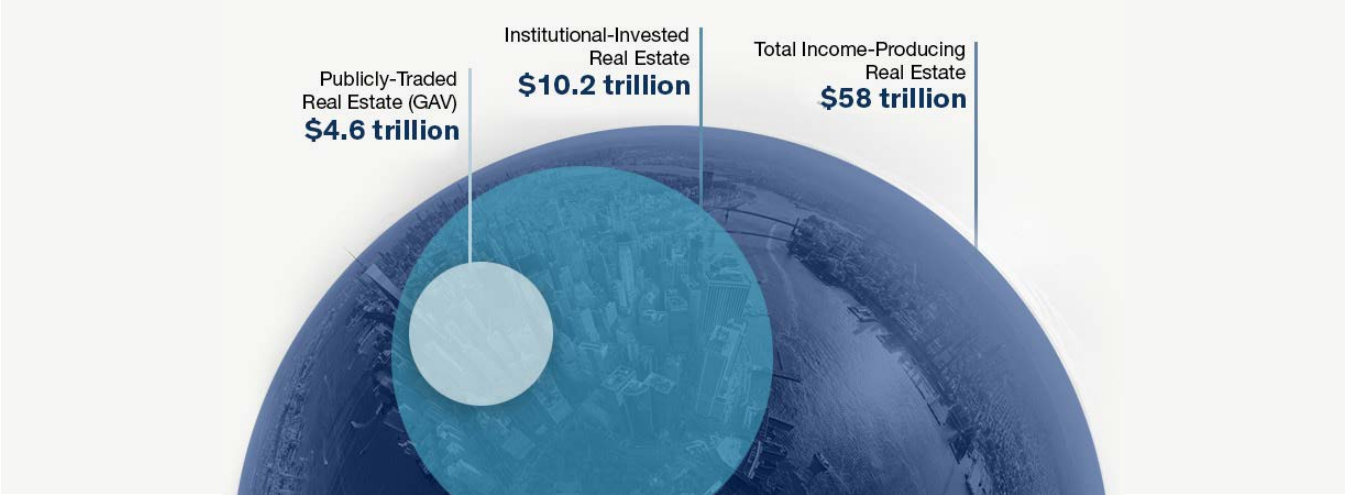
LaSalle 2021 Global Real Estate Universe



Defining the Universe

Public Real Estate	The gross asset value 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 existing stock of all commercial (office, retail, industrial, alternatives) 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 used in LaSalle analysis: 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. The public universe reflects estimates as of Q2 2020. The institutional owned and total income producting estimates are for year-end 2020.

Our update briefing this year goes beyond a review of the relative size of different countries. Rather than solely focus on the underlying universe, we also look at the many different ways that investors can ***access*** the real estate opportunity set.

Many Roads Leading To The Same Destination

In Chapter 3 of the **2021 Investment Strategy Annual** (ISA) report we set out the case for real estate in a mixed asset portfolio. We argue that in addition to the large opportunity set, low volatility, strong risk adjusted returns, and inflation hedging characteristics of real estate, one of the key characteristics of the asset class is its high and rising degree of accessibility. The number of real estate investment vehicles has risen to offer both institutional and individual investors a wider array of options than in the past.

Investors can access real estate equity and debt returns through a variety of paths, and Table 1 defines their main characteristics. While the multitude of structures and vehicles adds complexity for real estate investors, this diversity of channels is also a positive feature rather than an obstacle. Based on preferences, investors have the ability to select a structure that optimizes the balance between control, liquidity, diversification, and cost to best suit their needs.

Although investors' choice of channel may vary, the underlying characteristics of the real estate exposure they access is common across structures. For instance, the academic literature shows that, despite higher short-term volatility, real estate security performance approximates direct real estate over longer periods.

It is also important to note that investors can gain access to the four quadrants of real estate (public, private, debt and equity) through most of the channels defined in Table 1. Investors can access real estate debt in public markets through securities (mortgage REITs or the Commercial Mortgage-backed Securities (CMBS) market), and in private markets through commingled private debt funds, indirect and multi-manager channels, as well as through separate accounts. Similarly, equity-like returns from real estate are available to investors through public market vehicles (REITs and Property Companies) as well as private markets through any combination of separate accounts, commingled funds, and indirect approaches.

Portfolio Balance

These approaches each carry relative benefits and drawbacks and therefore investors will face inherent trade-offs when choosing a combination of vehicles that best meets their objectives. Investors can use multiple channels

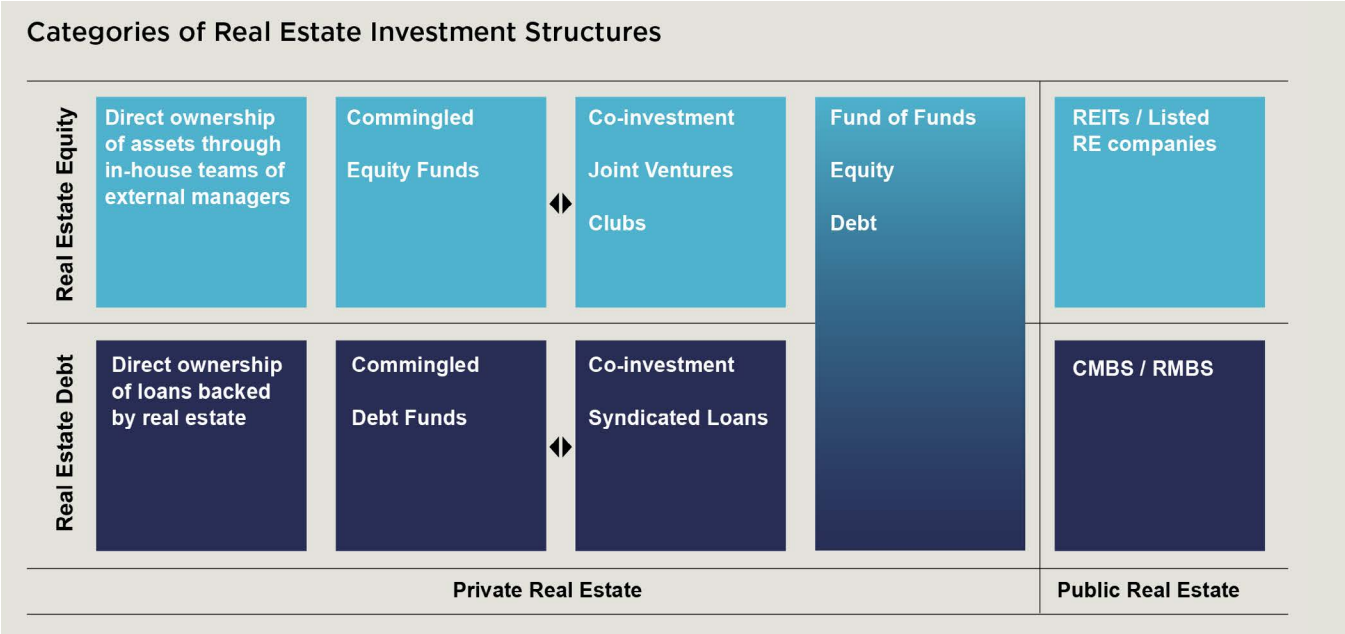
Table 1: Channels to Access Real Estate Assets (Debt and Equity)

Channel	Definition
Direct → Equity, Debt	Where an investor buys/originates and holds real estate equity or debt investments utilizing mostly in-house expertise and capabilities.
Real Estate Securities* → Equity REITs, Mortgage REITs, CMBS	Publicly-traded, with underlying assets backed by physical real estate assets.
Commingled Fund* → Equity, Debt	A vehicle that pools capital from various sources. Managed by a specialized real estate investment manager.
Fund of Funds*	A commingled fund established to acquire interests in a number of other commingled funds.
Joint Ventures (JV)*	A partnership between a real estate operator and a single capital partner, typically to acquire a property or properties.
Clubs*	A partnership between a real estate operator and multiple capital partners to acquire and manage a property.
Co-investment*	A partnership between a commingled fund and a capital partner(s) whereby the capital partner provides a portion of the equity capital to acquire a property(s), typically because the capital requirement is too large for the commingled fund.
Separate Accounts	An investment vehicle set up for a single investor by a dedicated third-party investment manager. This type of account can invest in any combination of direct, indirect, public, private, debt, and equity as agreed between the investor and the manager.

*Together Comingled Funds, Funds of Funds, Clubs, JVs, Co-investment, and Securities approaches can be termed "indirect."

Source: LaSalle Investment Management

Chart 2: Four Quadrants of Real Estate and Investment Structures



Source: LaSalle Investment Management

as complements, blending them to achieve a portfolio that best balances the benefits of each.

Table 2 on the following page traces the relative attributes of the various investment structures that we defined previously across eight dimensions. The table highlights that in contrast to commingled funds and direct ownership, real estate securities and various indirect approaches provide a comparatively simple solution for investors seeking access to international and niche-sector real estate. Let's examine four of these attributes more closely: control, liquidity, diversification, and costs.

Liquidity: The relatively illiquid nature of real estate is one of the key reasons that the asset class commands a premium over bonds. Direct real estate holdings can take months to transact. Commingled funds, as well as indirects, can offer a degree of liquidity in some cases. Open-ended fund structures allow investors to redeem periodically. Although closed-end funds lack that formal liquidity option, the existence of a secondary market for open- and closed-end commingled funds provides a window for investors to gain liquidity. That said, fund secondary markets can be particularly shallow when considering very niche products or periods of elevated market stress.

By virtue of trading on a deep exchange, real estate securities in the debt and equity space are significantly more liquid than other vehicles. Yet the relative liquidity between these options are not a free lunch, as higher liquidity is generally accompanied by higher volatility. For example, securities are subject to systematic volatility in broader stock and bond markets that is not always tied to real estate fundamentals and real estate capital markets. Also, REITs often trade well above or below the Net Asset Value of the underlying real estate, which adds another component of volatility. Investor preferences around liquidity and ability to accept this higher volatility will vary depending on their investment objectives, funding needs and time horizons.

Diversification: While all properties are relatively illiquid, no two properties are alike. Idiosyncratic property-level risks are an important source of risk for investors in real estate. Investors tend to build their exposure to real estate debt and equity through portfolios of assets. Concentration of risks is greatest where portfolios are small and declines as the number of assets increases. Since property lot sizes tend to be large, diversification is hardest (costliest) to achieve for direct investors. By virtue of investing in multiple pools of assets, a Fund of Funds approach can provide a cost-efficient solution to the diversification problem.

Table 2: Relative Advantages of Different Real Estate Investment Structures
(Scale: 1=Highest on This Dimension, 5= Lowest on This Dimension)

	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	3	5	3	2	1	1	2
Commingled Funds	4	3	3	3	3	2	4
Core	4	3	2	2	4	2	4
Non-core	4	5	4	3	1	2	4
Debt	4	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

Control: Cost-efficient diversification often comes at the expense of being a small shareholder of a large pool of assets. As a result, an investor's degree of control over the assets varies greatly across the access routes. Direct ownership means an investor can fully influence strategic buy/hold/sell decisions, as well as major asset management decisions. Separate account agreements will typically set out the parameters under which a portfolio will be managed, thus allowing investors control over key decisions. By contrast, for indirects and securities, investors will typically hold non-controlling stakes in the vehicles and thus be unable to influence the way the underlying property portfolios are set up or managed. Given real estate's heterogeneity and asset management intensity, control is not an unambiguously desirable trait for all investors, and delegating this responsibility can be positive. Investors may lack the resources or desire to manage a real estate portfolio and can often benefit from investment manager expertise.

Cost: Achieving diversification, as well as accessing specialist manager skills all come at a cost. As such, the various access points carry different financial costs to

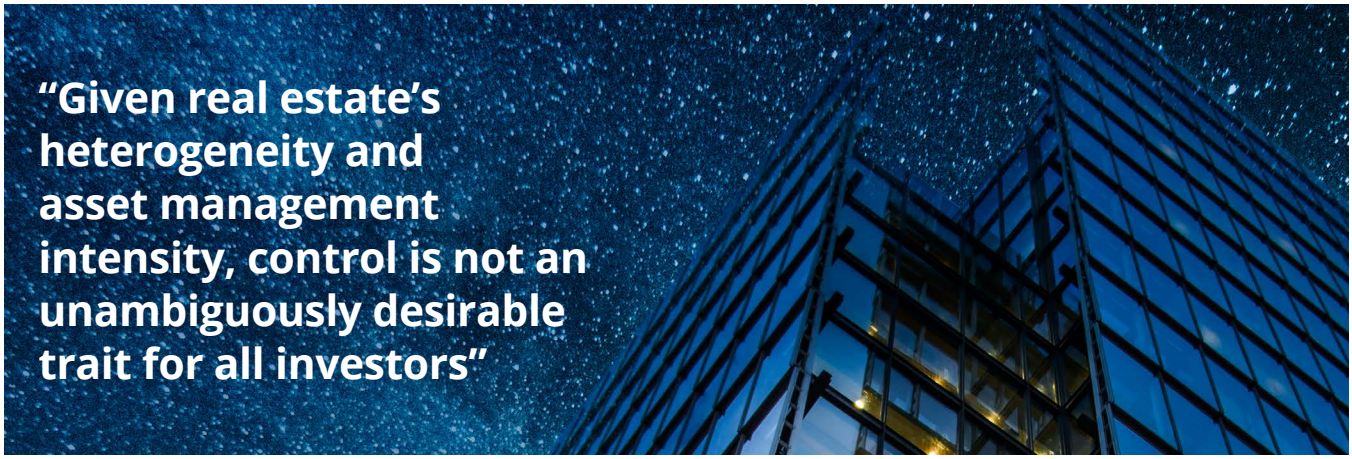
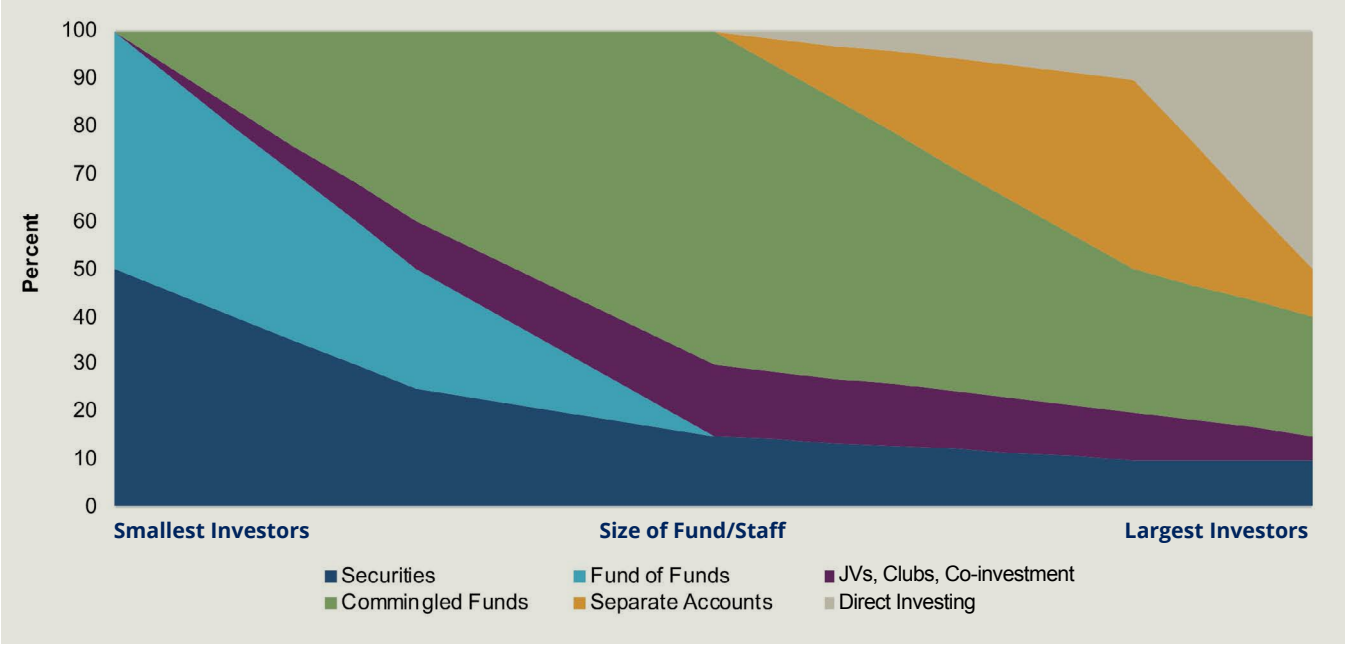


Chart 3: Indicative Mix of Real Estate Investment Vehicles by Investor Size



investors. At one end of the spectrum, real estate securities face the least prohibitive cost barriers, as any investor can trade in public markets by paying a very low transaction fee or a low asset management fee. Direct investment fees are also comparatively low, as investors transacting directly only face the purchase and sale costs of the assets they trade. Due to additional (and possibly overlapping layers of) management fees, the separate accounts and indirect routes tend to be more costly, with substantial variation across risk style, and promote structures that share upside with the sponsor, especially for non-core strategies.

One Size Does Not Fit All

Institutional investor characteristics and preferences ultimately shape which channel fits best for them. Indeed, pension funds, insurance companies and sovereign wealth funds are managed differently around the world, and institutions vary significantly in their level of resources and experience with real estate markets. These two factors are important determinants of how investors access real estate assets.

Yet, in addition to those drivers, behavioral biases sometimes also drive the way investors access real estate. These can nudge investors towards themes and investment structures they are already familiar with, not necessarily those that are the best fit based on all the dimensions highlighted above.

Strong home market bias in investors' portfolios is an example of "status quo" thinking. Data from INREV/ANREV/ NCREIF highlights that an investor's domicile region tends to correlate closely with the composition of their portfolio. A portfolio of real estate securities or a fund of funds approach could be efficient ways to counter this bias. As we have argued elsewhere, enlisting specialists, can also help. Survey evidence shows that 63% of institutional investors in the real estate space outsource all portfolio management duties to third-party managers, whilst only 9% carry out all portfolio management in-house.[3]

As we discuss in Chapter 3 of the **2021 Investment Strategy Annual**, investor size can be a key driver of which channels are optimal for accessing real estate. Chart 3 above shows a simple model outlining how allocations across different vehicles may vary as an investors' size and resources increases.

This simple model highlights that investors are well-served by building a real estate portfolio through more than one channel simultaneously. Indeed, this mix of multiple channels is what we see in practice. The smallest investors, despite resource constraints, can still achieve

2 "Why Global Real Estate?" LaSalle (2019)
3 Hodes Weill Allocations Monitor (2020)

a diversified, and professionally managed exposure to real estate through a combination of real estate securities and multi-manager routes. Meanwhile, even the largest institutions often retain exposure to external expertise, via separate accounts, commingled funds, multi-manager or securities alongside internally-managed assets. Indeed, Hodes-Weill survey data shows both large and small investors report positive demand for the access channels we have identified. Larger investors with an allocation to real estate well over $1 billion display a greater preference for direct investments and separate accounts than smaller investors, whereas commingled funds are more commonly sought out by investors whose real estate allocations are under $1 billon.[4]

Matching Channels of Access to LaSalle’s Underlying Real Estate Investment Universe

When we compare the myriad channels of accessing real estate against our underlying estimates of market size, as we have for more than ten years, it has provoked some recurring questions because it can differ markedly from survey responses, capital flows analysis, and index allocations. In fact, when we compare data measuring investment flows through different channels against our universe estimates, there can be large differences. Unraveling the “why?” and “what does it mean?” of these differences provides insights about where the opportunities for global real estate growth and increased institutionalization lie. This discussion also highlights some of constraints shaping allocation decisions and the different ways the data is assembled in markets where institutional ownership is secondary to family-owned or corporate-controlled real estate. The discussion below highlights many of these differences around the world.

Only a Fifth of the Universe is Owned by Institutions: Many institutional investors consistently report that they are under-invested in real estate relative to their target allocation.[4] Lack of suitable product that achieves targeted returns is often cited as the reason. Yet LaSalle’s real estate universe estimates show that institutionally-owned real estate only comprises about 20% of all income-producing property. In that case, why don’t institutionally-invested owners own more of the universe? This seems to reflect a mismatch in the real estate that institutional investors are comfortable investing in and the broader universe of all leased real estate.

In some markets, institutions do own a much larger share, like the UK. But in Hong Kong and Korea, corporate-owned and family-controlled positions are much more common. Large conglomerates and shipping companies have had historic positions in port facilities, and maintained this ownership, even as the land converted to other commercial uses. The variation in institutional ownership around the world reflects the extremely fragmented nature of real estate ownership and very high share of private ownership in many markets. While each property owner has a monopoly on space at an exact address, institutional owners compete directly with non-institutional (mainly family-owned) properties, leading to less market concentration in real estate relative to other parts of the global economy.

4 Hodes Weill Allocations Monitor (2020)

Overlapping Layers of Ownership and Fluid Investment Styles Makes Segmenting the Universe Difficult: When we total the capital flowing through different access channels to real estate (e.g. debt funds, funds of funds, separate accounts, etc.), or investment by risk profile (e.g. core, core-plus, value-add, and opportunistic) and try to match them up to the underlying stock of real estate, it is nearly impossible to reconcile the amounts. This challenge is the result of overlapping ownership layers and the fluidity of the capital stack that finances various property types and risk categories.

Take as an example a development asset owned through a JV between a public REIT and a private commingled fund, with moderate leverage. The capital in this asset is held through multiple channels, and the asset itself moves between an opportunistic style and core style after it is fully leased. Rather than untangling and parsing these layers across tens of thousands of properties, we have focused our real estate universe estimates on the gross value of the underlying real estate rather than the channel of ownership. In effect, rather than trying to untie this Gordian knot in the estimates we present, we are cutting the rope by showing estimates for the underlying gross asset value.

Our Universe Estimates Show Significant Differences vs. Index Allocations: The final source of questions relate to our real estate universe estimates versus fund benchmark allocations. INREV, ANREV, MSCI, and NCREIF AUM allocations often significantly differ from the underlying universe. These differences tend to be self-perpetuating because to replicate/track the benchmark you must have a similar region and sector composition to that index. Yet they also reveal the path of likely evolution for those benchmarks, perhaps best reflected in the gradual growth of allocations to Asia-Pacific, **the institutionalization of the residential sector**, and growth of niche/alternative property types.

Below you will find our updated estimates for the size of the real estate universe as of year-end 2020. As in prior years, we have updated our estimates for three distinct asset types – public, institutional-invested, and total income-producing real estate. We have also updated our estimates of market size for the world's largest metro areas.

While there are several high-quality market size estimates available, from EPRA and MSCI for example, our approach is differentiated by its combination of bottom-up and top-down data covering nearly every country, our incorporation

Summary Table

	Public Real Estate Universe	Institutional Invested Real Estate Universe	Total Income Producing Real Estate Universe
Total (US$ Billions)	$4,589	$10,209	$57,559
Regional Share			
Americas	39%	36%	33%
Asia Pacific	42%	32%	33%
Europe	16%	28%	29%
Middle East and Africa	3%	4%	5%
Size By Country/Region (BN $)			
Americas			
United States	$1,630	$2,937	$14,986
Canada	$114	$303	$1,287
Mexico	$27	$103	$623
Brazil	$19	$137	$789
Other Americas	$11	$145	$1,137
Europe			
UK	$133	$547	$2,494
France	$182	$400	$1,941
Germany	$176	$520	$3,019
Italy	$6	$101	$1,319
Spain	$40	$91	$948
Netherlands	$19	$160	$794
Switzerland	$30	$237	$594
Sweden	$60	$204	$460
Other Western Europe + Russia	$67	$439	$3,285
Central & Eastern Europe	$6	$135	$1,198
Turkey	$5	$66	$432
Asia			
Japan	$527	$1,266	$4,426
Australia	$143	$285	$1,089
Hong Kong	$194	$273	$383
Singapore	$121	$199	$324
China	$813	$964	$9,232
South Korea	$0.0	$134	$737
Other Asia	$147	$191	$3,085
Middle East & Africa	$120	$371	$2,977

of transparency index and urbanization data to improve the top-down estimates, and its detail on the market capitalization of metro areas. A detailed explanation of our methodology is also included below.

There is no single standard way of defining a metropolitan area globally, and the way these definitions are drawn has a large impact on the rankings to the right. To standardize this comparison and make it as meaningful as possible, we have selected our boundaries carefully and used the broadest official definitions available that include each city and all its surrounding suburbs, drawing upon existing definitions from Eurostat, the United Nations, Oxford Economics, and many individual country statistics agencies.

Estimate Methodology

LaSalle's $4.6 trillion USD public, listed real estate universe estimate is the gross value of commercial real estate assets (GAV) owned by companies traded on stock markets around the world, using the most recent available estimates as of August 2020. GAV combines net asset value and debt, making it a better measure of the underlying real estate owned by public firms than net asset value (NAV) or market capitalization alone. This measure is also independent of public market pricing. In other words, listed companies can trade at very large discounts or premiums to the value of their underlying real estate holdings. Our estimates are based on the gross (NAV + debt) asset values of the property, not the market capitalization of the listed securities. LaSalle Investment Management Securities is the primary source for this data. LaSalle Securities actively tracks public real estate NAVs and debt in the largest developed and emerging markets. The markets covered by LaSalle Securities represent the majority of public universe GAV.

For several emerging markets, such as the Philippines and the United Arab Emirates, we use listed property company enterprise values. This data is collected from Citigroup and Bloomberg. We include listed companies that are long-term holders of real estate and exclude companies whose primary business is residential homebuilding.

Beginning in 2020, we have also excluded infrastructure REITs, such as cell tower companies, from our estimate. Our estimates include vertically-integrated development firms that are also holders of commercial property, which increases the breadth of companies included, particularly in markets like China. Our inclusion criteria are broader than those used by global indices such as FTSE EPRA/NAREIT (e.g. we include firms that do not meet the FTSE EPRA/NAREIT ground rules on English-language reporting, free float, and size).

Estimated Institutional Owned Office, Industrial, and Retail Real Estate, by Metro

	City (Metro Area)	Institutional-Owned RE, $BN	Metro Pop. (000s)
1	Greater Tokyo	$550	37,025
2	New York Combined Statistical Area	$319	20,897
3	Greater London	$291	13,260
4	Paris / Ile de France	$274	12,287
5	Los Angeles Combined Statistical Area	$250	17,862
6	Hong Kong	$226	7,504
7	San Francisco Bay Area	$187	6,720
8	Singapore	$177	5,835
9	Washington DC Metro	$140	6,235
10	Sydney Greater Capital City Area	$117	5,379
11	Boston-Cambridge Metro	$109	4,860
12	Greater Toronto Area	$107	6,713
13	Seoul Capital Area OECD Metro Definition	$98	23,810
14	Chicago Metro	$93	9,484
15	Shanghai Urban Agglomeration	$91	24,386
16	Osaka Prefecture	$90	8,841
17	South Florida (Dade, Broward, Palm Beach)	$78	6,144
18	Metropolregion Munchen	$76	6,120
19	Greater Melbourne Capital City Area	$74	5,169
20	Beijing Urban Agglomeration	$73	21,634
21	Seattle-Tacoma Metro	$71	3,935
22	Greater Moscow	$69	7,525
23	Stockholm Eurostat Metro	$65	2,398
24	Houston Metro	$63	6,976
25	Guangzhou Urban Agglomeration	$58	15,647
26	Berlin & Brandenburg	$55	6,190
27	Frankfurt Eurostat Metro	$55	2,734
28	Atlanta Metro	$54	5,945
29	Hamburg Eurostat Metro	$53	3,189
30	Shenzhen Urban Agglomeration	$53	13,805
31	Zurich Canton	$52	1,545
32	Helsinki-Uusimaa Region	$42	1,687
33	Stuttgart Eurostat Metro	$42	2,810
34	Milan Eurostat Metro	$41	4,363
35	Madrid Eurostat Metro	$41	6,694
36	Greater Mexico City	$41	26,901
37	San Diego Metro	$40	3,334
38	Região Metropolitana de São Paulo	$38	21,884
39	Greater Vancouver	$36	2,677
40	Philadelphia Metro	$35	6,091

Source: LaSalle. Estimates as of year-end 2020. Analysis based on office, industrial, and retail properties only. Population estimates are as of 2020 and are from the UN, Eurostat, the US Census and local statistical agencies.

Institutional Public and Private Real Estate Universe

The $10.2 trillion USD institutional real estate universe encompasses commercial real estate assets owned by institutions, including REITs, pension funds, pooled private funds, and endowments. This universe is smaller than the total amount of institutional-grade stock because it is restricted to only those properties currently within institutional portfolios. It is based on a combination of primary data gathered by MSCI in 26 developed markets with data to year-end 2019, custom LaSalle estimates for six major markets in the Asia-Pacific region, and top-down LaSalle estimates for 169 markets.

Beginning in 2018, the top-down estimate is based on a regression analysis. It uses PPP per capita GDP relative to the US and UK, the urbanization rate, and the market's Global Real Estate Transparency score to predict the ratio of institutional owned real estate to GDP in each market. The regression coefficients are estimated based on 32 countries where bottom-up data is available and then it is applied to the other 169 markets. This approach replaces Youguo Liang and Willard McIntosh's a GDP-driven investable universe methodology, from their 1999 paper Global Commercial Real Estate , which assumed a ratio of high quality "institutional-grade" real estate to GDP of 45%.

For 26 developed markets covered by MSCI, we adjust MSCI's year-end 2019 estimate of the total size of the institutional invested universe. This is a bottom-up estimate that includes all properties owned through professional managers. MSCI's estimates are among the best available and are larger than the value of assets tracked by the MSCI and NCREIF market indices because not every investment mandate is included in these indices. We adjust MSCI's year-end estimates through year-end 2020 by calculating the impact of year to date changes in exchange rate and apply LaSalle's forecast for capital value changes.

Similar to a year ago, our estimates for Hong Kong, Singapore, China, Japan, Australia, and South Korea are custom estimates based on a combination of bottom-up data and top-down analysis by LaSalle's Asia Pacific Research & Strategy team.

Metropolitan Market Estimates, Institutional Invested (Office, Industrial, Retail)

Our metro estimates combine a bottom-up and top-down approach, using local data sources and estimates where they are available, such as in London (IPF), US cities (NCREIF), Hong Kong (Rating and Valuation Department), and MSCI city-level data. Our approach starts with national-level institutional invested estimates, adjusted to represent only office, industrial, and retail market value (excluding residential and niche/alternative property types). We exclude residential and niche because institutional ownership of these property types differs very widely between markets.

Next, we determine how much each metropolitan market is as a share of the national market – this ranges from 100% in city-states like Hong Kong to well below 5% for some major US markets. This share is based on a city's share of its national index wherever index data is available (e.g. in the US, Atlanta's share is based on its share of national retail, office, and industrial in the NCREIF index). Where index data is not available, the share is estimated using a regression with two inputs: the city's share of national GDP and the city's average office market value per square foot (data from JLL). We then multiply the city's share of the national estimate with the national total of office, industrial, and retail.

These estimates are for the entire metropolitan market – including the principal city and its suburbs that are economically connected to it. The geographic definitions for each metropolitan market are based on local definitions wherever available (e.g. Eurostat for most markets in the European Union and, in Australia, we use Greater Capital City Statistical Areas defined by the Australian Bureau of Statistics). In cases where a true metro area definition was not available or is unclear, we use definitions from JLL cities research, the UN's definitions of urban agglomerations, and Oxford Economics. Precise geographic definitions are available on request.

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

Total Commercial Income Producing Real Estate Universe

The $58 trillion estimate of the total commercial universe is the aggregate value of all commercial real estate worldwide, including corporate, government, and private investor owned assets. The total commercial estimate includes property of all quality types and is intended to represent the value of all assets that have been or could be bought by investors, even if the current owners are not institutional investors (for example, government-owned commercial property or smaller assets held by individuals or families).

We use bottom-up estimates of total commercial income producing real estate in five markets: the US, UK, China, Hong Kong, and Singapore. For the US estimate, we use the U.S. Bureau of Economic Analysis' estimates of fixed real estate assets and adjust them with Federal Reserve data to incorporate the value of the land. For the UK, we draw on the Year-end 2018 IPF Research Programme report that estimated the size of the UK property market. For China, we used National Bureau of Statistics (NBS) estimates of the cumulative total value of completed properties. The ownership of land in China is retained by the government and investors purchase long-term use rights to the land. The value of these usage rights is contained in our estimates of property value wherever possible.

The ratio of total income producing real estate to GDP in the US and UK is then the starting point for our top-down estimates in other markets lacking bottom-up data. We take this ratio, adjust it based on the PPP GDP per capita in each market as well by the urbanization rate, and then multiply by nominal GDP. Our $58 trillion estimate is useful for putting the asset class as a whole into perspective and comparing the relative size of different regions, but with notable caveats. There is a large margin of error for emerging markets.

This piece draws on work from a broad group across LaSalle Investment Management and JLL, with specific thanks due to LaSalle Global Real Estate Securities, JLL Global Research, and Joe Oslawski.

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