



**GLOBAL Investing, Research and Education**

**Homer Hoyt Institute**

Jacques Gordon May 2017





# Fifty Years of the Homer Hoyt Institute

1895 Born in St. Joseph, MO

1914 MA and BA University of Kansas

1923 JD University of Chicago

1925-34 Real Estate Broker and Speculator  
Urban Growth: Sector Theory

1933 PhD University of Chicago  
100 Years of Land Values

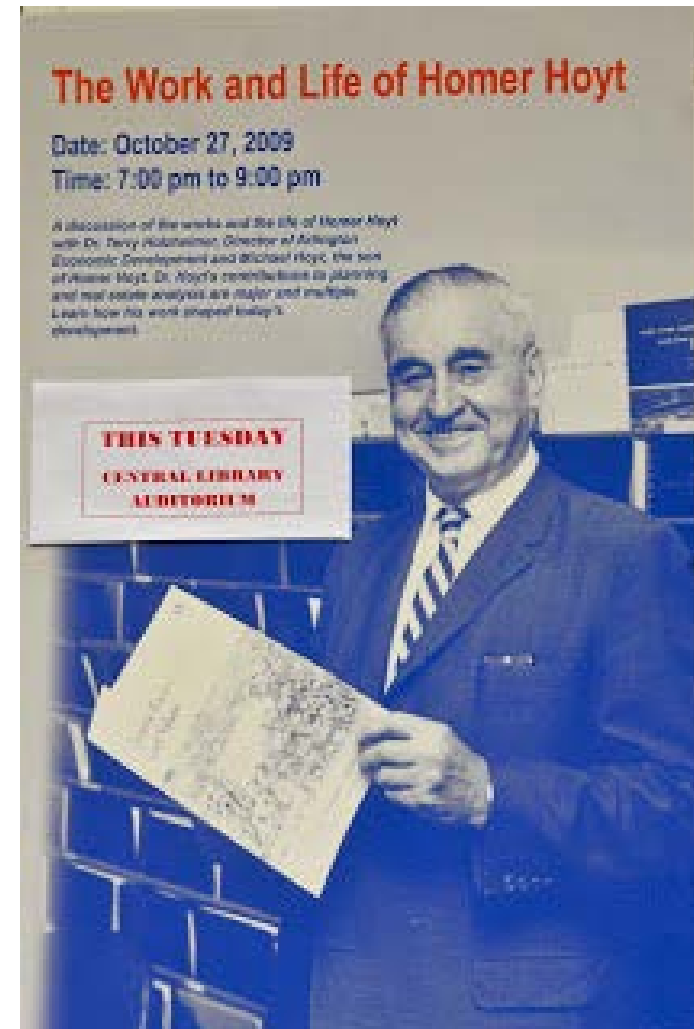
1934 – 1940 Federal Housing Administration

1941 – 1947 MIT and Columbia

1948 Shopping Center Studies  
Economic Base Theory

1951 Founded Homer Hoyt Associates

1967 Founded the Homer Hoyt Institute for Real  
Estate Research and Education







Tony Downs  
RERC Founder  
Library Cast-offs

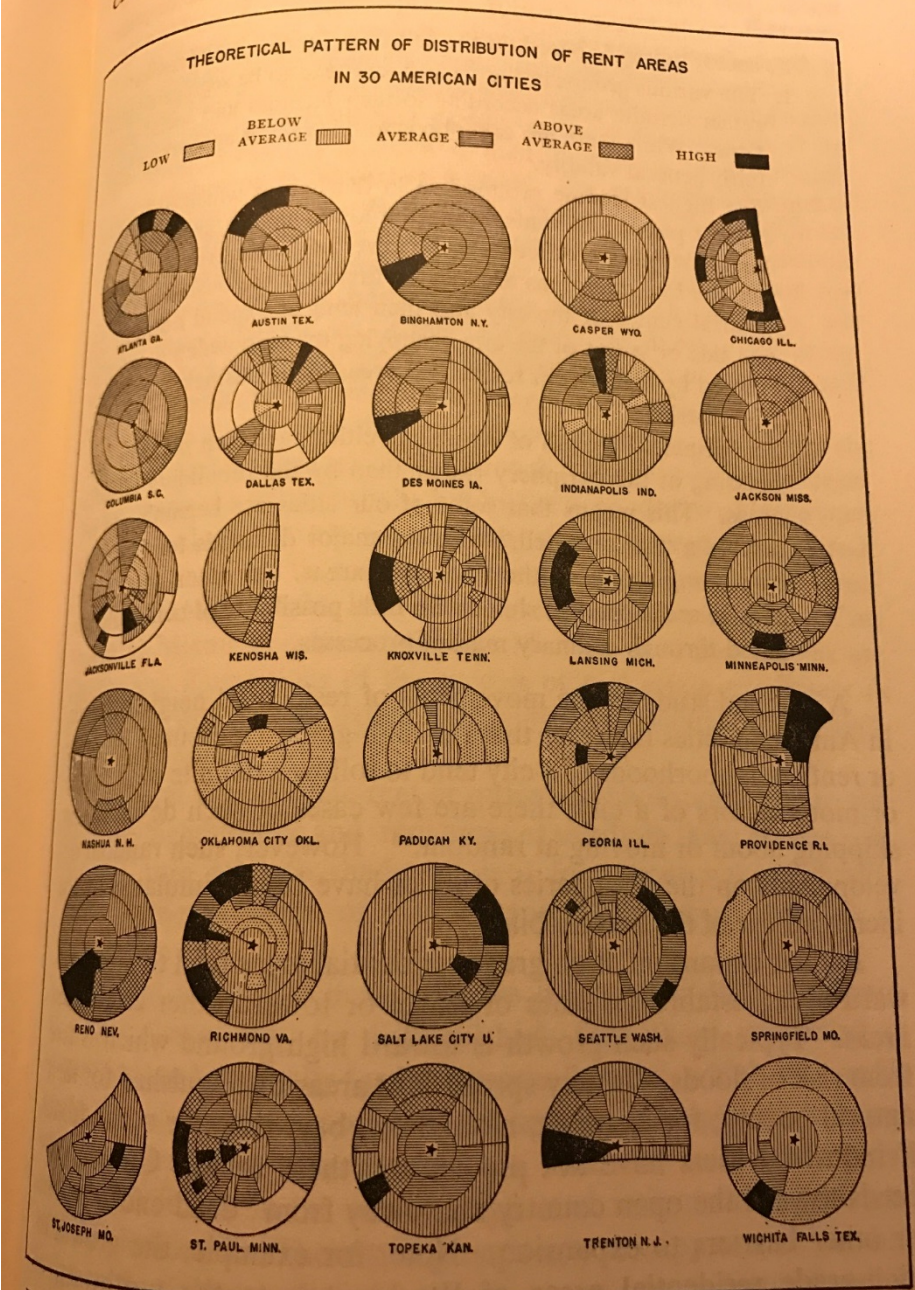
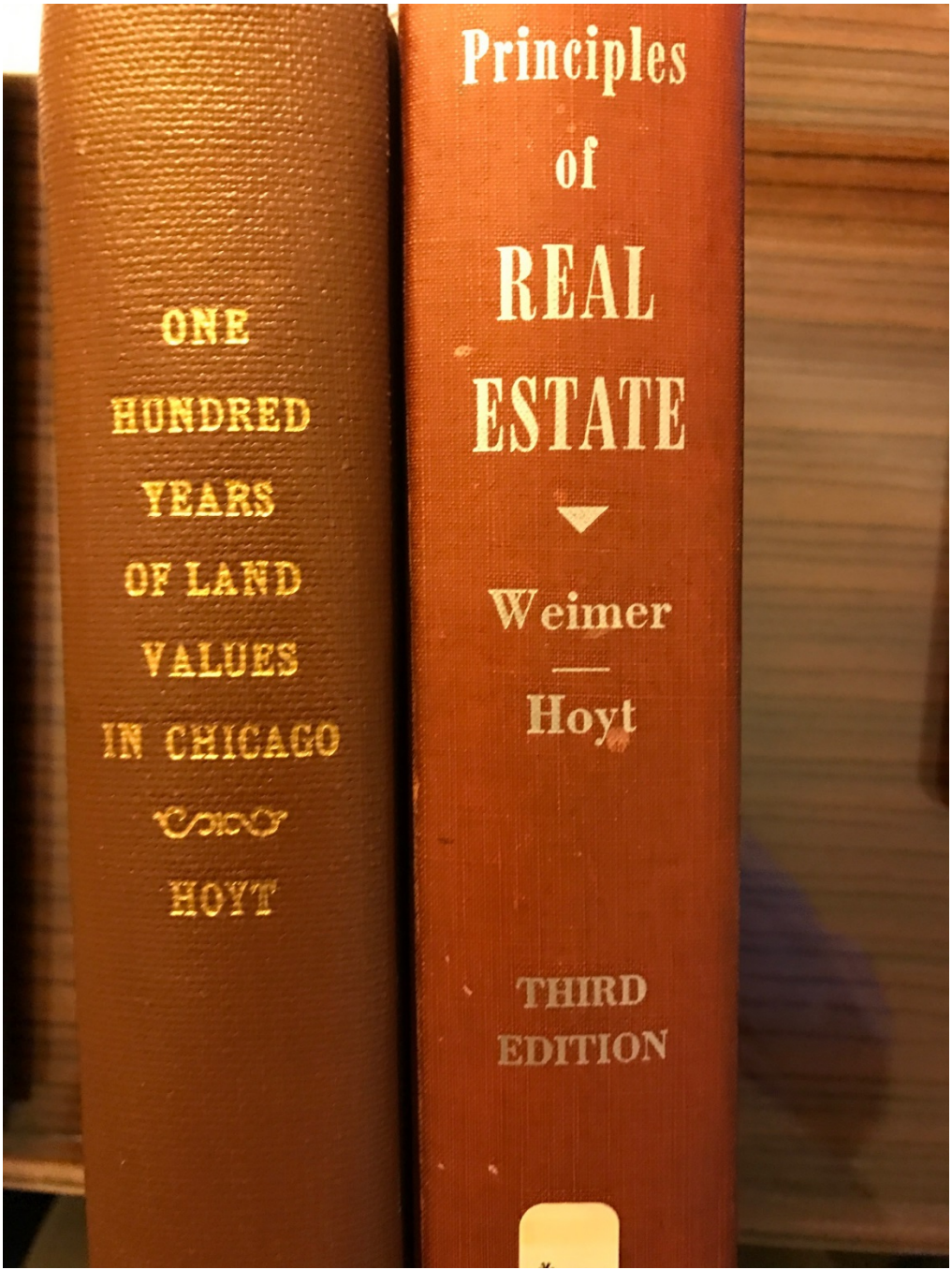
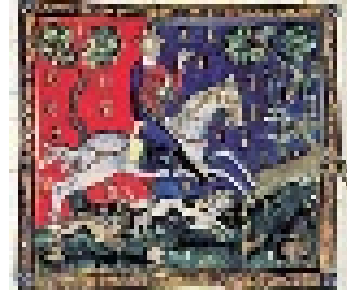


FIGURE 29. Theoretical Pattern of Distribution of Rent Areas in 30 American Cities



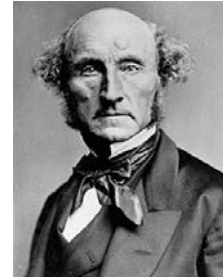
## Real Estate: Anglo Saxon Model

Neither we nor our officials will seize any land or rent in payment of a debt, so long as the debtor has movable goods sufficient to discharge the debt.



King John 1215  
Magna Carta

Landlords grow rich in their sleep without working, risking or economising



John Stuart Mill  
On Liberty 1859

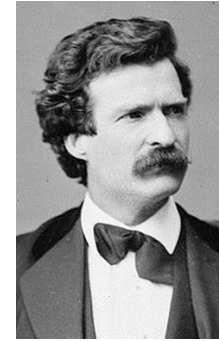
Land monopoly is not only monopoly, but it is by far the greatest of monopolies; it is a perpetual monopoly, and it is the mother of all other forms of monopoly



Winston Churchill

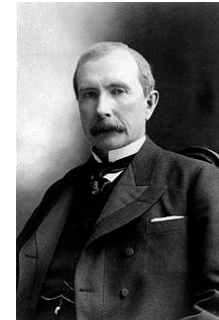
## Real Estate: US Frontier Thesis (Fredrick Jackson Turner 1893)

Buy land, they're not making it anymore



Mark Twain

The major fortunes in America have been made in land



John D. Rockefeller

It's tangible, it's solid, it's beautiful. It's artistic, from my standpoint, and I just love real estate



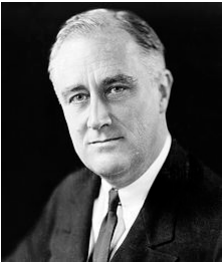
Donald Trump

# Real Estate: Social Upheaval or Stability



The rentier state is a state of parasitic, decaying capitalism.

Vladimir Lenin 1916 “Treatise on Imperialism”



Real Estate cannot be lost or stolen, nor can it be carried away. Purchased with common sense, paid for in full, and managed with reasonable care, it is about the safest investment in the world.

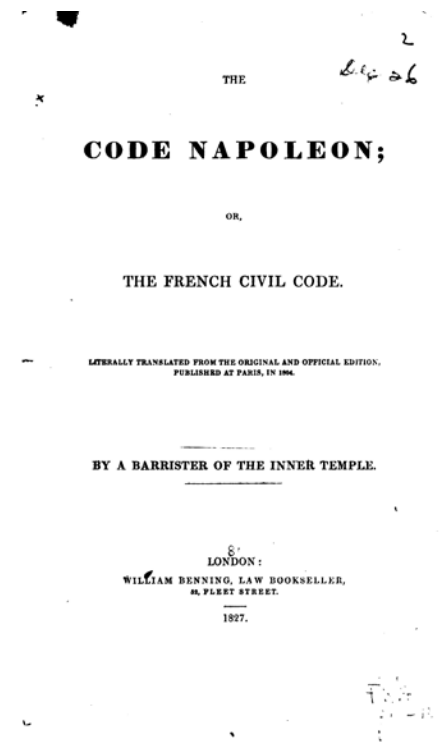
Franklin D. Roosevelt

# Civil Code Tradition Covers Most of the World's Population

Latin and Roman Law dominates South American, Southern Europe and parts of Africa and East Asia



Section III. 676 The proprietor of a wall which is not joining immediately the estate of another, may form in such wall lights or windows of wire-lattice, and fan-lights. These windows must be furnished with a lattice work of iron, the meshes of which shall extend to an opening of one decimeter, (about three inches) and with a dormant window. These windows or lights must not be less than twenty-six decimeters (eight feet) above the floor or base of the chamber which is desired to be lighted, if it be the ground-floor, and nineteen decimeters (six feet) above the floor for the upper stories.



Without an integrated formal property system, a modern market economy is inconceivable.

Hernando de Soto Polar  
The Mystery of Capital







# Rationale for Investing Across Borders

Larger Investment Universe

Greater Variety of Potential Risk-Return Strategies

Diversification (lower risk for similar return)

Availability of Tax-Efficient Structures\*

Limited Domestic Opportunities\*

Access to Emerging Market Growth

Access to Developed Market Stability

# Cross-Border Investing Challenges

Finding Reliable Local Partners

Low Market Transparency in Many Emerging Markets

Limited Regional and Cross-Border Benchmarks

Currency and Political Risk

Tax Drag and Capital Controls in Some Markets

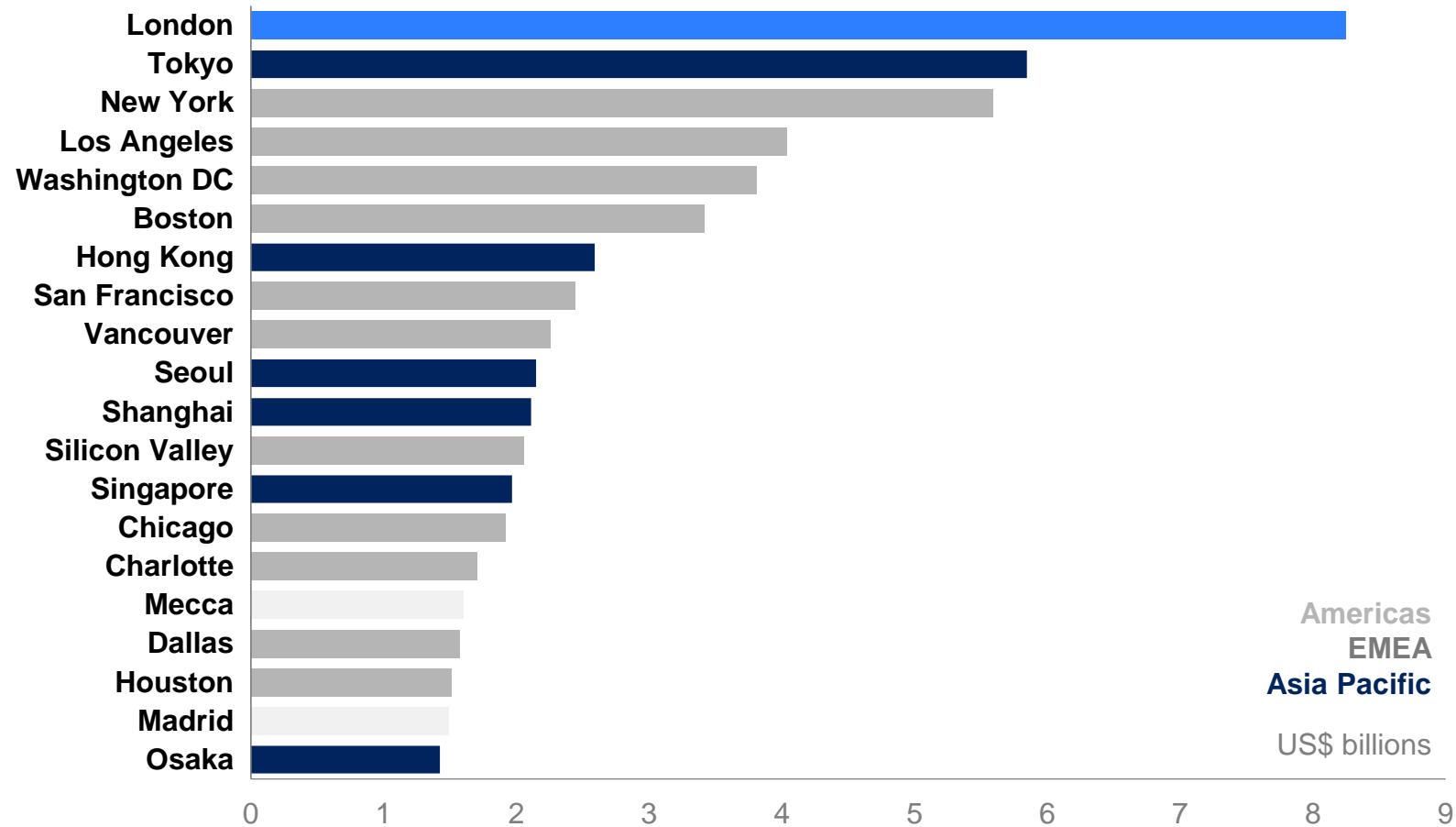
Global integration Erodes Diversification Benefits

More Complex Strategy Integration & Decision Making



# Direct Commercial Real Estate Investment

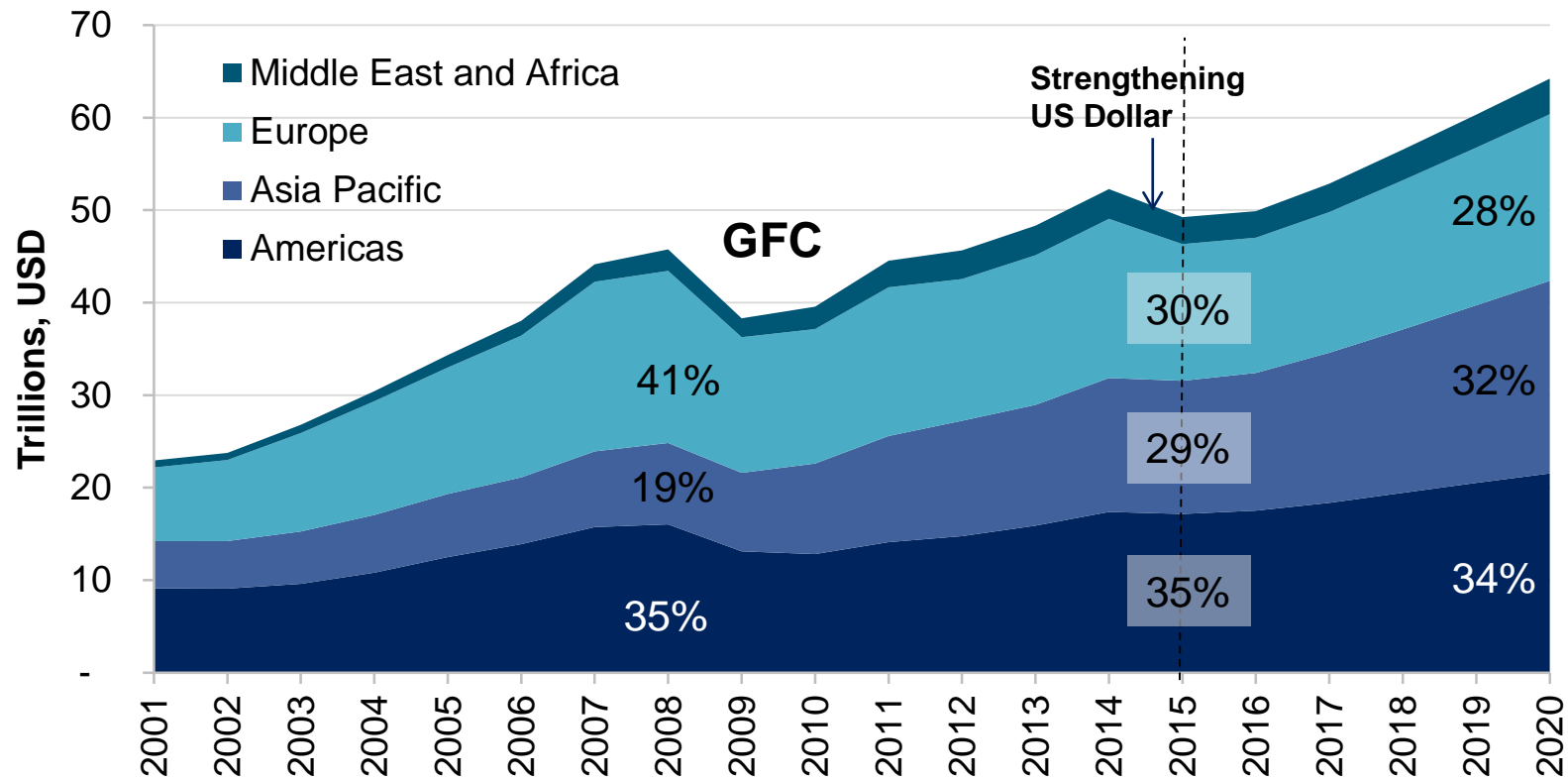
Top 20 Cities, Q1 2017



Source: JLL, April 2017

# Total Real Estate: Past, Present, and Forecast

## Regional Share of the Universe Over Time



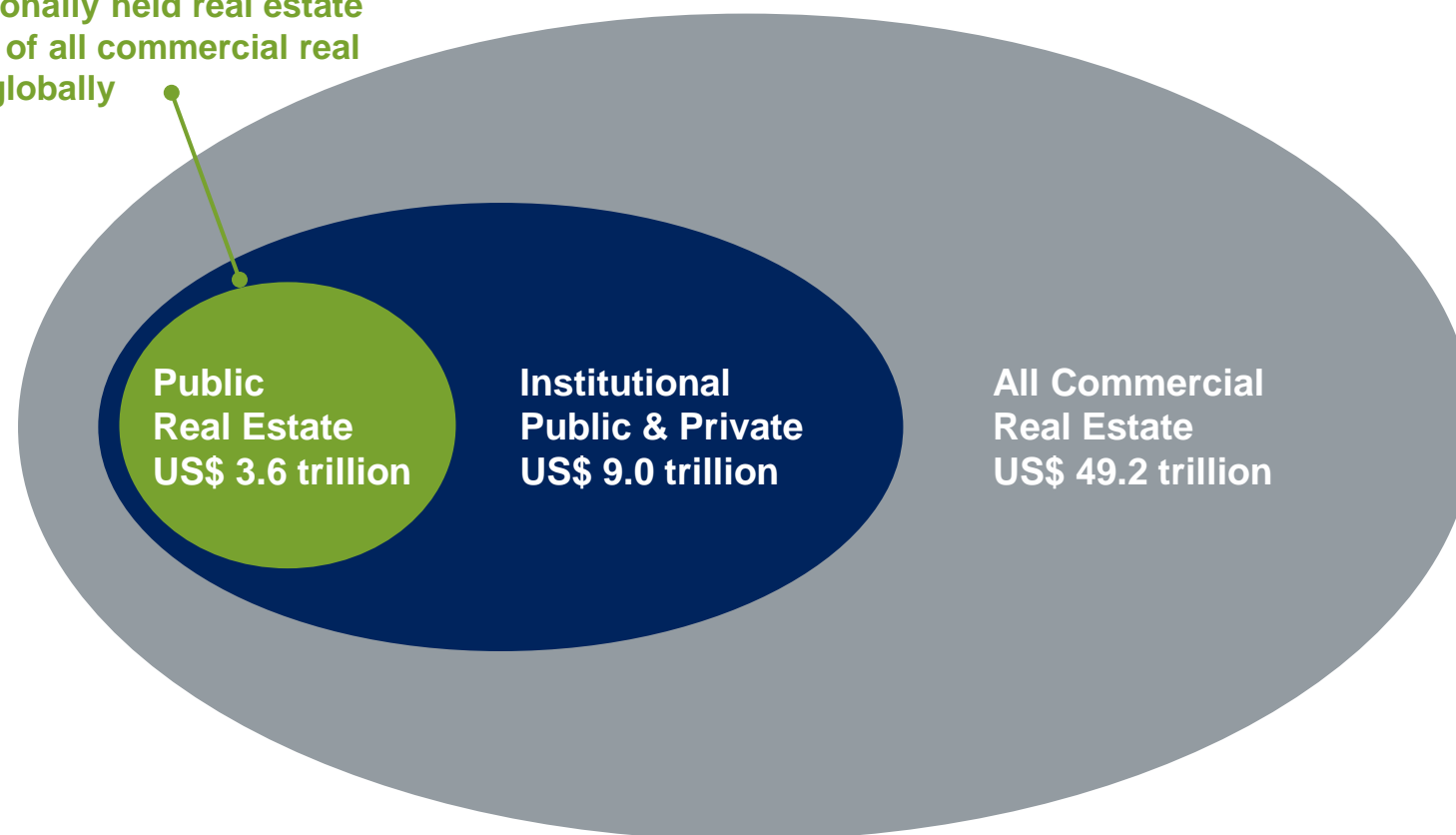
**Sources used in LaSalle analysis:** Oxford Economics, Citigroup, Bloomberg, NCREIF, MSCI, Investment Property Forum (UK), Sumitomo Mitsui Trust Research Institute, National Bureau of Statistics of China, Hong Kong Rating and Valuation Department, Singapore Urban Redevelopment Authority, US Bureau of Economic Analysis, US Federal Reserve, Self-Storage Association (UK), Company financial statements

Analysis as of Q3 2015



# Potential for Professional Management of Real Estate

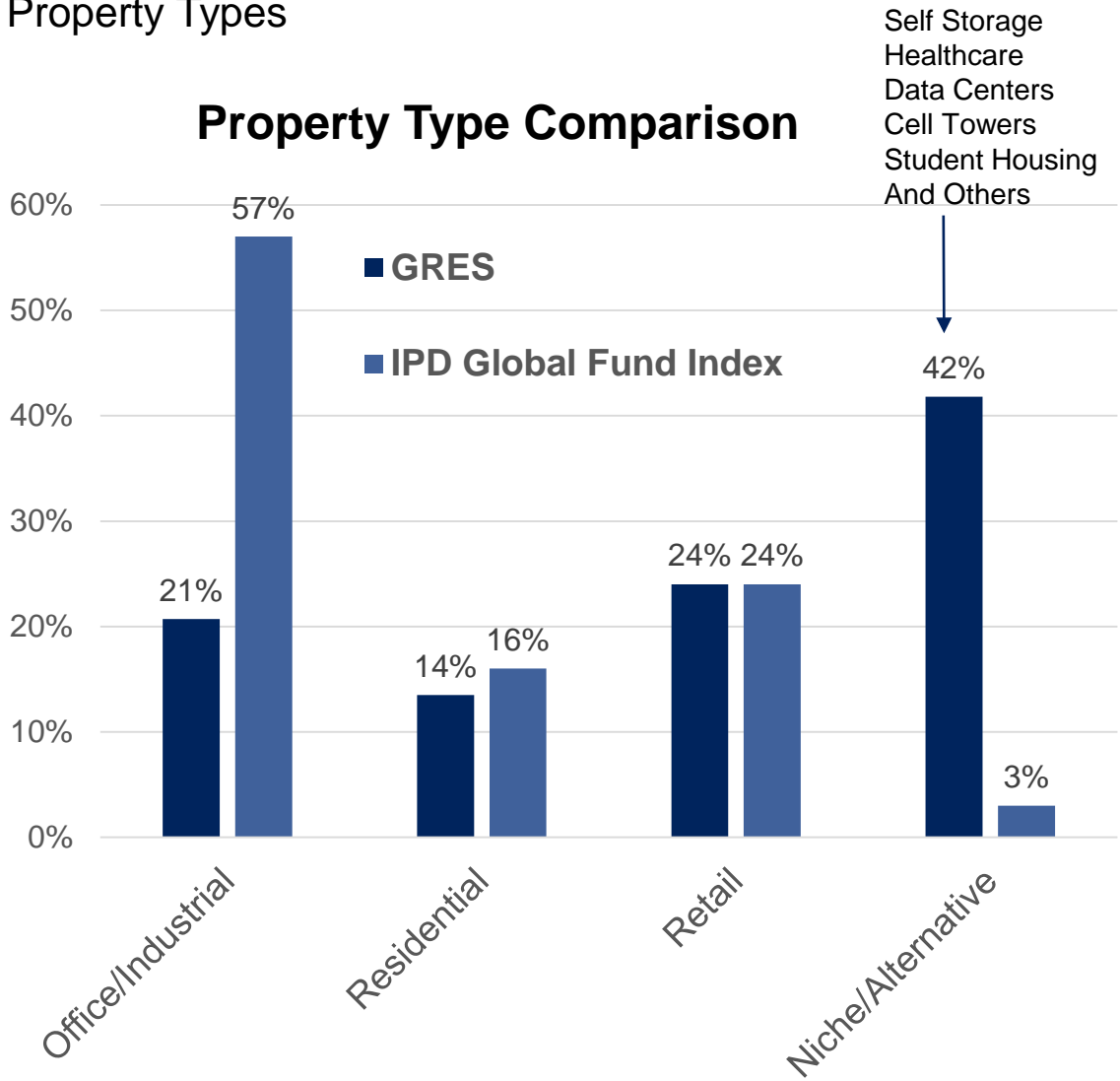
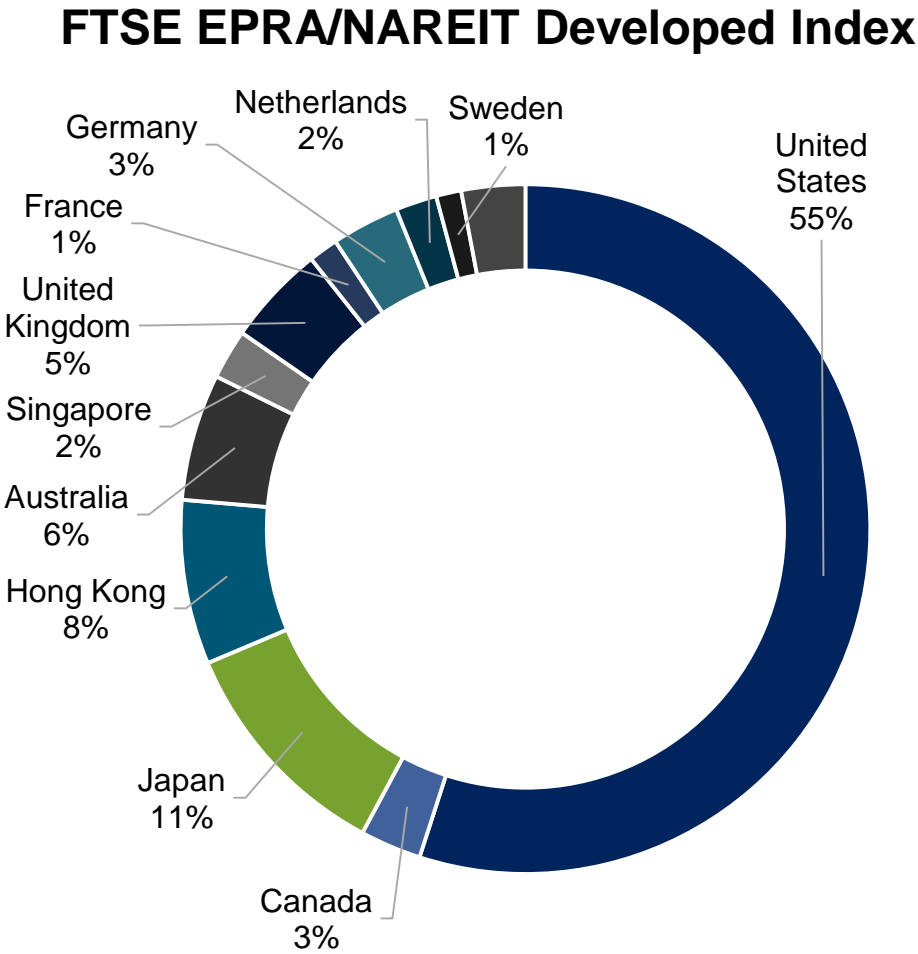
REITs own 40% of all  
institutionally held real estate  
and 7% of all commercial real  
estate globally



Sources: Oxford Economics, Citigroup, Bloomberg, NCREIF, MSCI, Investment Property Forum (U.K.), Sumitomo Mitsui Trust Research Institute, National Bureau of Statistics of China, Hong Kong Rating and Valuation Department, Singapore Urban Redevelopment Authority, U.S. Bureau of Economic Analysis, U.S. Federal Reserve, Self-Storage Association (U.K.), and company financial statements (3Q 2015)

# Global Real Estate Securities (GRES) as an Alternative

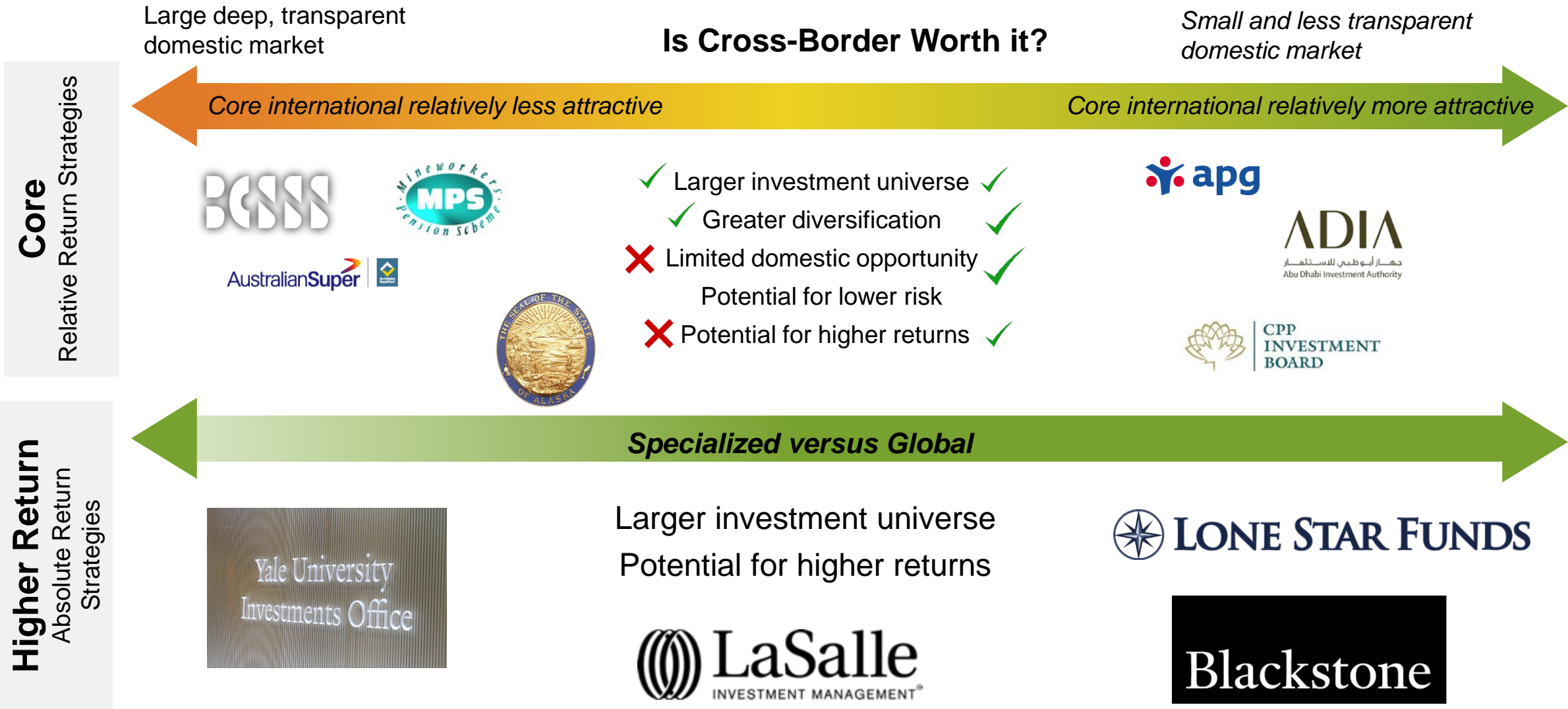
Relatively Efficient Way to Access International, as Well as Niche Property Types



Source: FTSE EPRA/NAREIT Developed Index. IPD Global Fund Index. Weights may not add up to 100% due to rounding.



# Private Equity: Cross-border Real Estate Spectrum



# Rationale for Cross Border: Correlations show some diversification benefits

**Private Indices Correlations to US**

<i>Local Currency Return Correlations</i>	<b>5 Year</b>	<b>10 Year</b>	<b>15 Year</b>	<b>20 Year</b>
<b>Australia</b>	0.19	0.88	0.87	0.85
<b>Japan</b>	0.23	0.81	N/A	N/A
<b>France*</b>	0.64	0.74	0.75	N/A
<b>Germany*</b>	0.08	0.49	0.15	N/A
<b>Netherlands**</b>	-0.28	0.51	0.48	N/A
<b>UK</b>	0.56	0.52	0.57	0.58
<b>Canada</b>	0.02	0.66	0.64	0.63

**Public Indices Correlations To US**

<i>Local Currency Returns</i>	<b>5 Year</b>	<b>10 Year</b>
<b>Australia</b>	0.31	N/A
<b>Japan</b>	0.18	0.47
<b>France</b>	0.45	0.75
<b>Germany</b>	0.66	0.70
<b>Netherlands</b>	0.49	0.70
<b>UK</b>	0.28	0.83
<b>Canada</b>	0.55	0.86

Comparing correlations between real estate returns across markets highlights the diversification benefits of an international portfolio. However, many of these correlations are also quite high over 10-20 year periods. This is driven largely by the GFC, when markets were highly correlated.

One shortcoming of the private index correlations is that they are a product of their market's appraisal methodologies. German appraisal methodology, for example, is slow to recognize capital value shifts, and this is the main reason that correlations with German appear consistently low.

\*Netherlands, France, and Germany data is annual to 2015, and compares to US MSCI Index. \*\*5 Year correlation for Netherlands is quarterly, annual for other periods. Annual data is used only where quarterly data is not available. In cases where annual data is used, the correlations are based on annual to annual correlations.

Source: MSCI / IPD, NCREIF, EPRA/NAREIT, LaSalle. Japan data to Q3 2016; IPD Netherlands, Germany, and France data to Q4 2015; All others Q4 2016. REIT data to Q4 2016. Longer time periods are not shown for public indices due to limited data availability.

# Global Real Estate – Final Returns in for UK, Canada, Australia

## Australia Leads Global Returns, UK Lags

Average Annual Total Return	To 31 December 2016 (Actual)								To October 2016
	Global Stocks <sup>1</sup>	Global RE Securities <sup>2</sup>	Global Corporate Bonds <sup>3</sup>	Global Govt Bonds <sup>4</sup>	US Direct Property (NCREIF) <sup>5</sup>	UK Direct Property (IPD) <sup>6</sup>	Canada Direct Property (IPD) <sup>7</sup>	Australia Direct Property (IPD) <sup>8</sup>	Japan Direct Property (IPD) <sup>9</sup>
1 Year	9.6%	5.0%	6.0%	3.0%	8.0%	3.5%	5.7%	11.7%	7.3%
3 Years	7.5%	6.8%	4.4%	4.2%	11.0%	11.4%	7.0%	12.0%	8.1%
5 Years	13.4%	10.3%	4.8%	3.4%	10.9%	9.5%	9.1%	11.0%	8.4%
10 Years	4.9%	2.2%	5.4%	4.0%	6.9%	4.2%	9.0%	8.9%	7.9%
20 Years	6.4%	7.4%	5.8%	4.5%	9.8%	8.8%	11.1%	10.5%	7.3%

Outperformance versus:

Stocks and Bonds

Bonds

### Notes on Sources

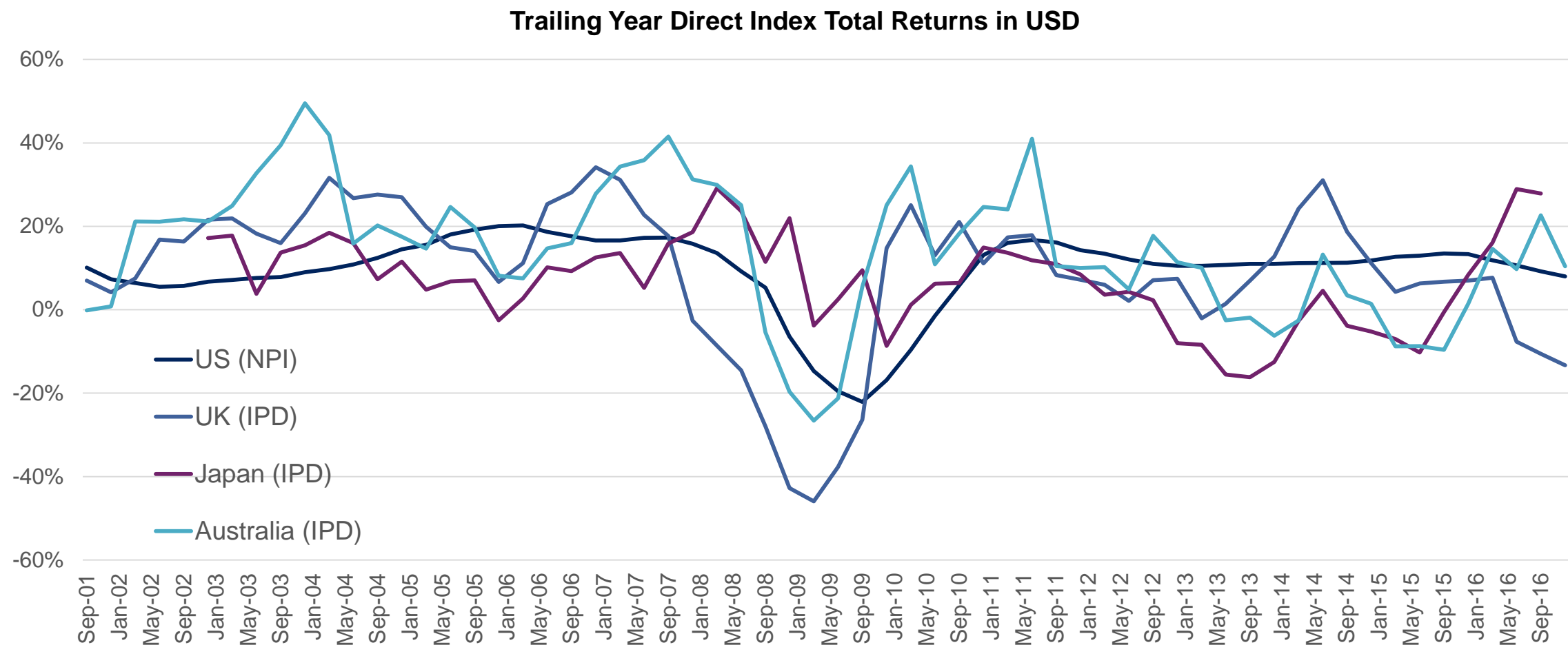
1. MSCI All Country Gross World Total Return Index in Local Currency
2. EPRA/NAREIT Global (Developed) Index Total Return in US Dollars
3. Citigroup World Corporate Bond Index Total Return in US Dollars (Local Currency History Not Available Prior to 1999)
4. Citigroup World Government Bond Index All Maturities Total Returns in Local Currency
5. US NCREIF Property Index Total Returns in US Dollars
6. UK Investment Property Databank (IPD) Quarterly Standing Property Total Returns in British Pounds, data prior to Dec 2001 is IPD Annual.
7. Canada Investment Property Databank (IPD) Quarterly Standing Property Total Returns in Canada Dollars
8. Australia Investment Property Databank (IPD) Quarterly Standing Property Total Returns in Australian Dollars
9. Japan Investment Property Databank (IPD) Quarterly Standing Property Total Returns in Japanese Yen. Data to October 2016

Updated 27 February 2017



# Cross Border Challenge: Direct index tracking error vs. NPI in USD terms

## NCREIF Property Index vs. IPD Indices in UK, Japan, & Australia



Source: NCREIF, IPD, LaSalle. Data to Q4 2016 wherever available.

# LaSalle's Lessons Learned

- 1** Need to have clear explicit understanding and agreement of investment objectives and risk parameters
- 2** Don't take risks in other countries that you would never take in your home country
- 3** Need to have strong local market implementation capabilities
- 4** Tax and currency considerations are very real
- 5** It is usually more expensive to invest outside your home country
- 6** Real Estate supply/demand fundamentals tend to be very local. Capital market fundamentals tend to be more globally driven and correlated

# International Real Estate: Course Outline

## First Principles

Rationale  
Challenges  
Transparency

## Macro and Micro Analysis

An Investment Thesis

## Investment Formats and Structures

## Financial Analysis

Currency, Tax

## Portfolio Construction



# International Real Estate Curricula

Rising Demand by Students (domestic and Intl)

Business-Schools Push to “offer more global”

Textbooks are US-Centric

International RE Cases are pre-GFC

Research and Literature Now More Multi-national

BoK\* for Cross-Border Theory and Practice is Growing

Cross-Border Skills are in High Demand by Employers

# International? National? Local? Or a Blend?

## A Terrific Classroom Exercise

**Capital Markets: debt & equity**

**Interest Rates and Real Estate debt costs**

**Currency Markets**

**Commodity Prices**

**Investment Vehicles**

**Many Tenants**

**Owners and Operators**

**Engineering and Architecture Firms**

**Service Providers**

- Leasing, Sales, Legal, Technology
- Investment managers
- Investment bankers

- **Assets and Surroundings**
- **Is Supply 100% Local?**
- **Demand not 100% Local**
- **Land Use Regs**
- **Property Taxes**
- **Transportation Networks**
- **Local Developers/owners**
- **Property Management**
- **Construction (local + Intl)**
- **Maintenance, Security**





# *Taking **Real Estate Transparency** to the Next Level*

Global Real Estate Transparency Index 2016

June 2016



# Global Real Estate Transparency Index: [www.jll/greti.com](http://www.jll/greti.com)

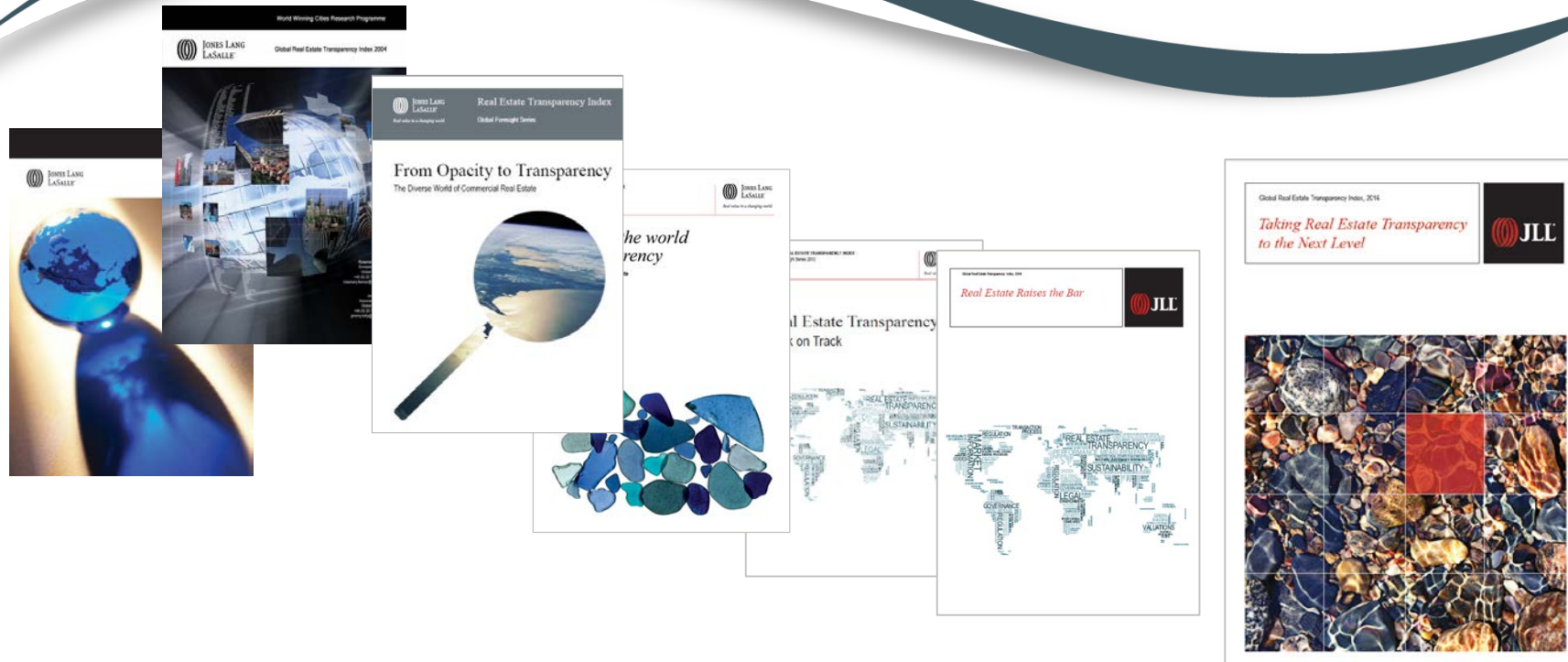
Tracking the evolution of real estate transparency

First published in **1999**

**A unique Index**  
of real estate transparency

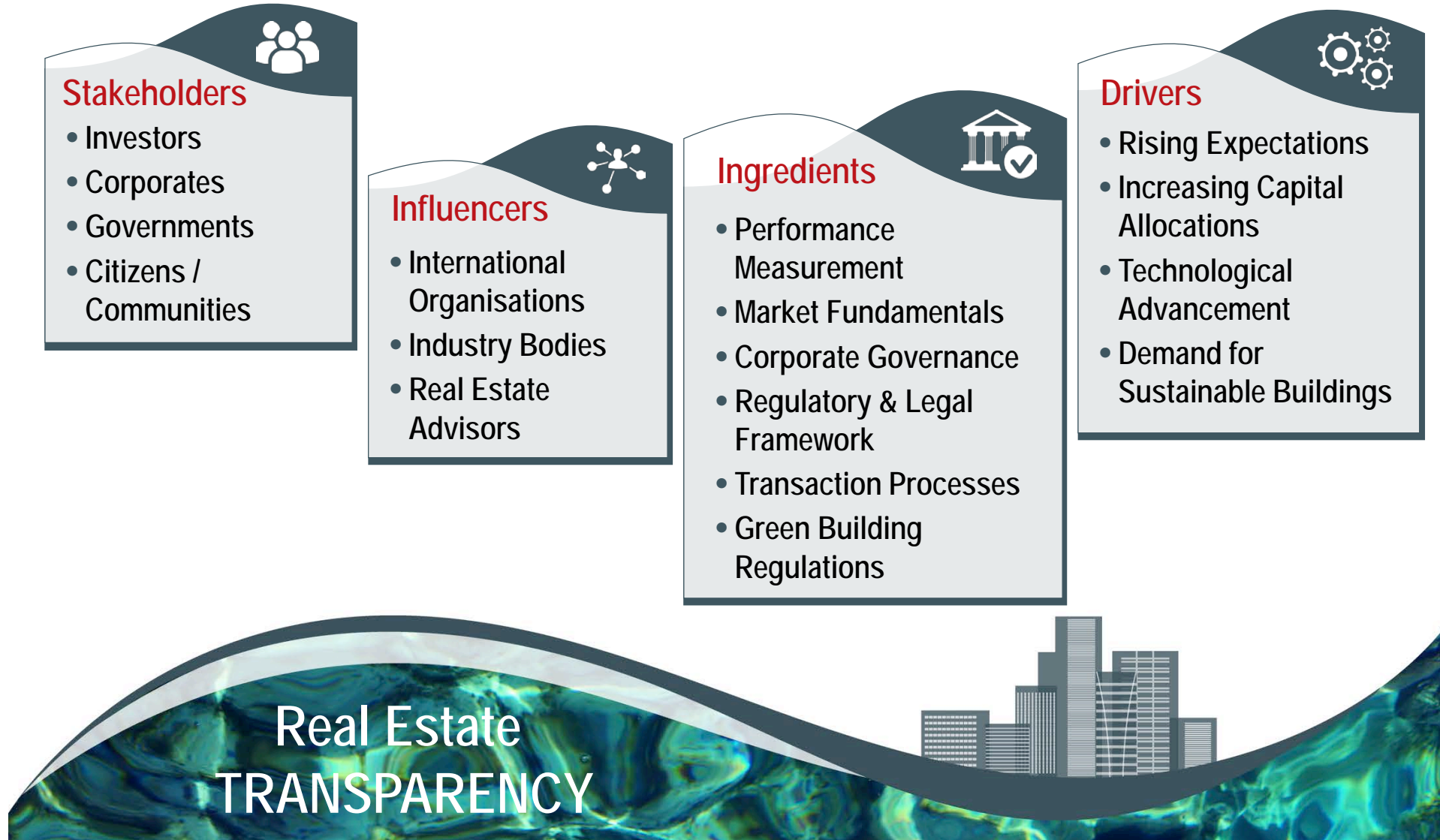
Updated **every two years**

Comprehensive comparisons of  
**109 markets world-wide**



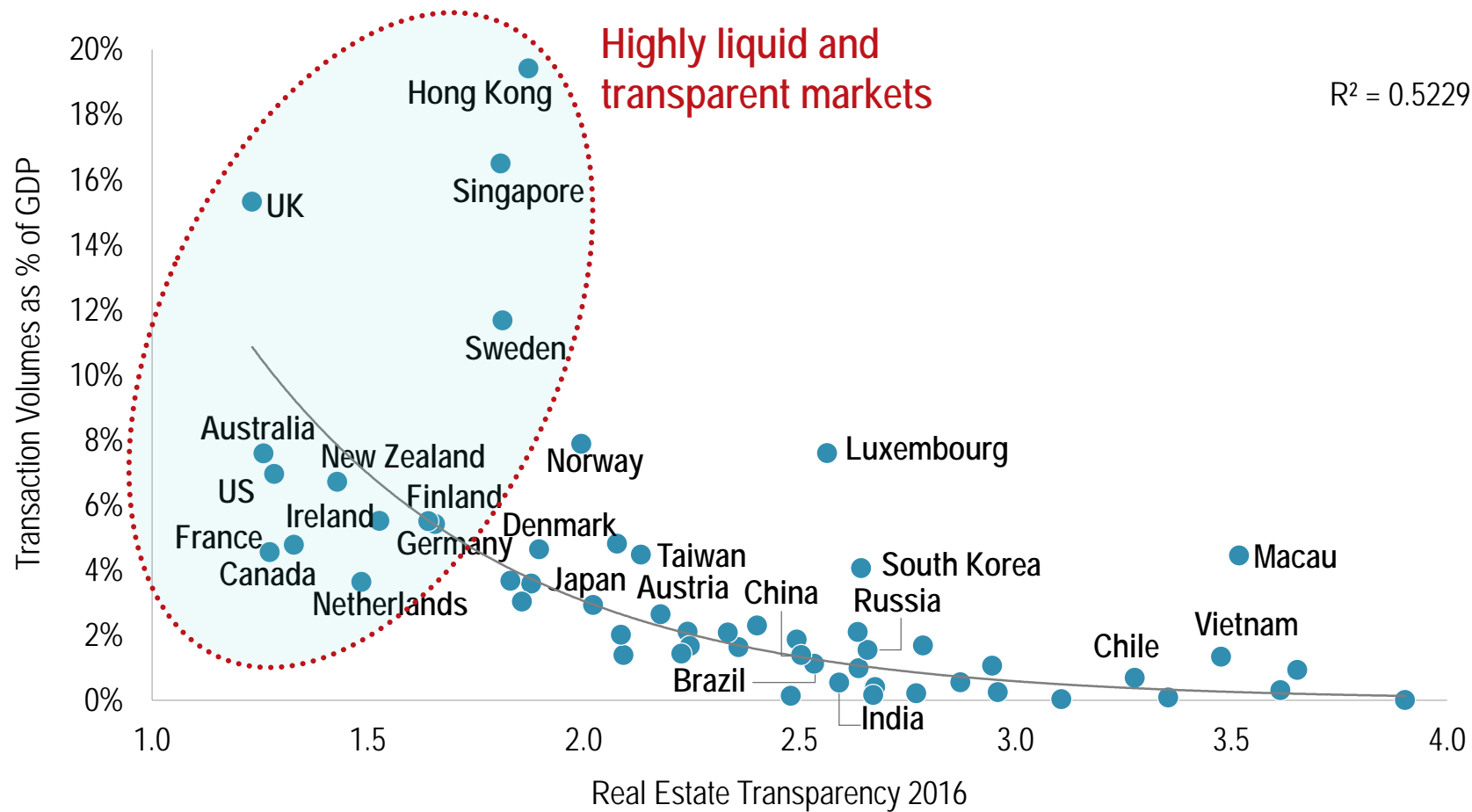


# The World of Real Estate Transparency



# Real Estate Transparency Index and Investment Volumes

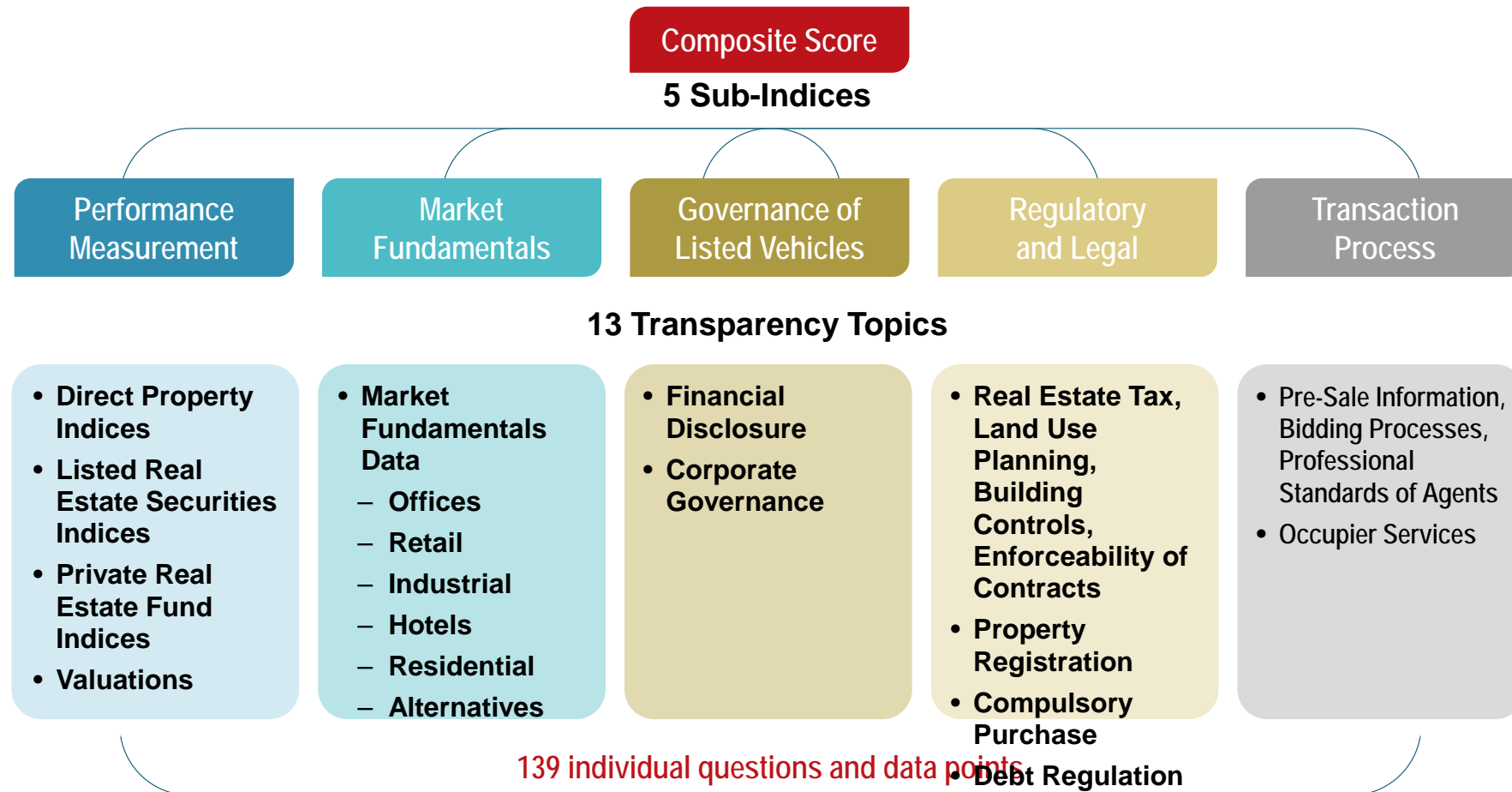
Transparency rises with investment activity



Based on direct commercial real estate volumes, 2011-2015  
Sources: JLL, LaSalle Investment Management, Oxford Economics

# Global Real Estate Transparency Index, 2016

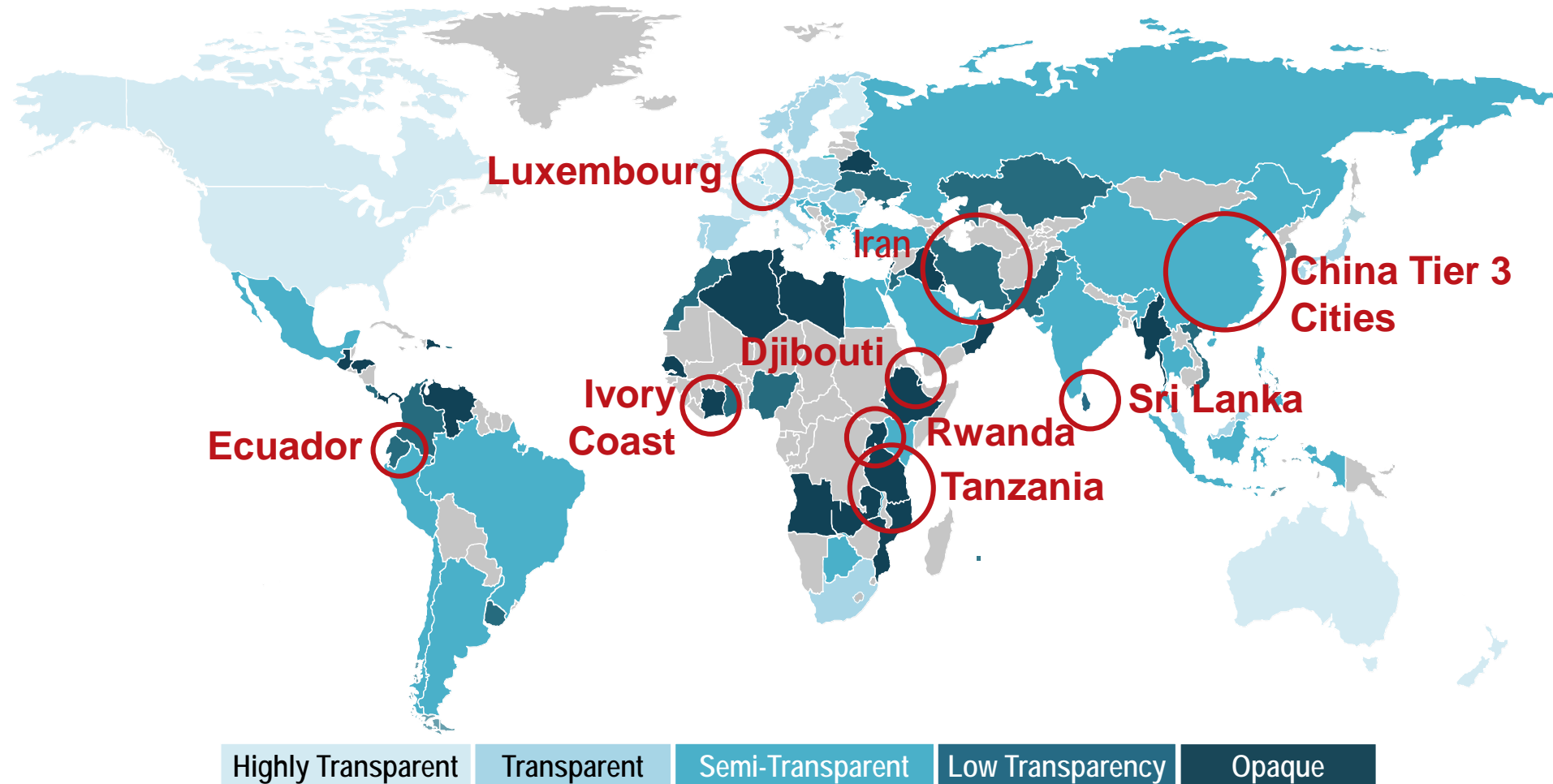
The Model incorporates 139 different elements, a 21% increase since 2014



Source: JLL, LaSalle Investment Management

# Global Real Estate Transparency Index, 2016

Covers 109 markets worldwide ... 9 additional markets in 2016



Source: JLL, LaSalle Investment Management



# New technologies taking real estate information online

Access and availability of information improving thanks to online platforms

## Flexible Booking Platforms



## Smoother Transactions



## Online Databases & Marketplaces



## Portfolio Management





Finding real estate using Google Earth

# What is Driving Greater Real Estate Transparency?



## Drivers

### Increasing Capital Allocations

- Real estate competing with other asset classes
- \$1 trillion targeting real estate by 2020s

### Rising Expectations

- Citizens demand greater accountability
- Panama Papers put transparency in spotlight

### Technology

- A driver and an enabler
- More accurate, granular and timely data

### Sustainable Buildings

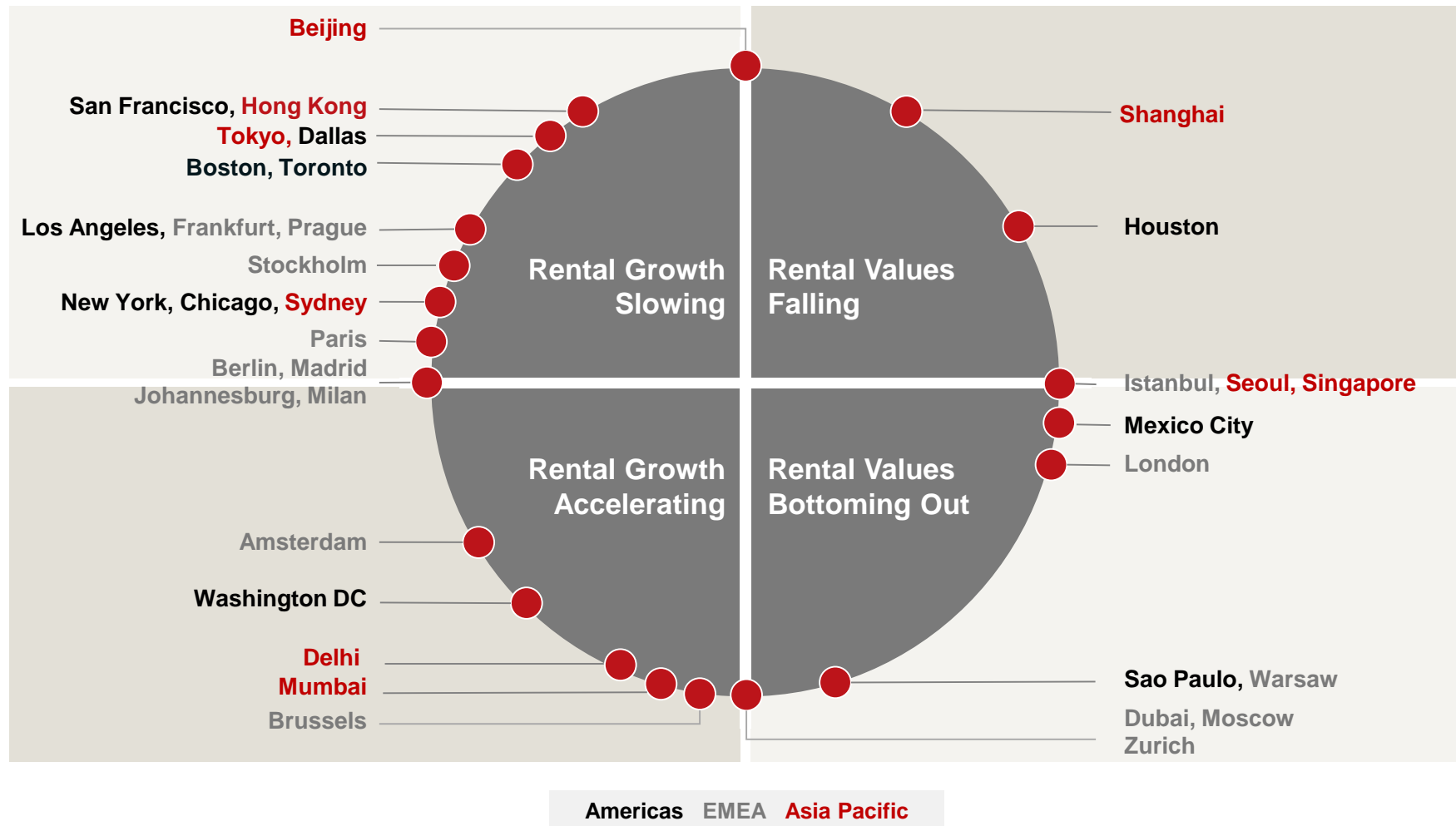
- Demand for tools to monitor green buildings



**Real Estate  
TRANSPARENCY**



# Global Office Property Clock Q1 2017

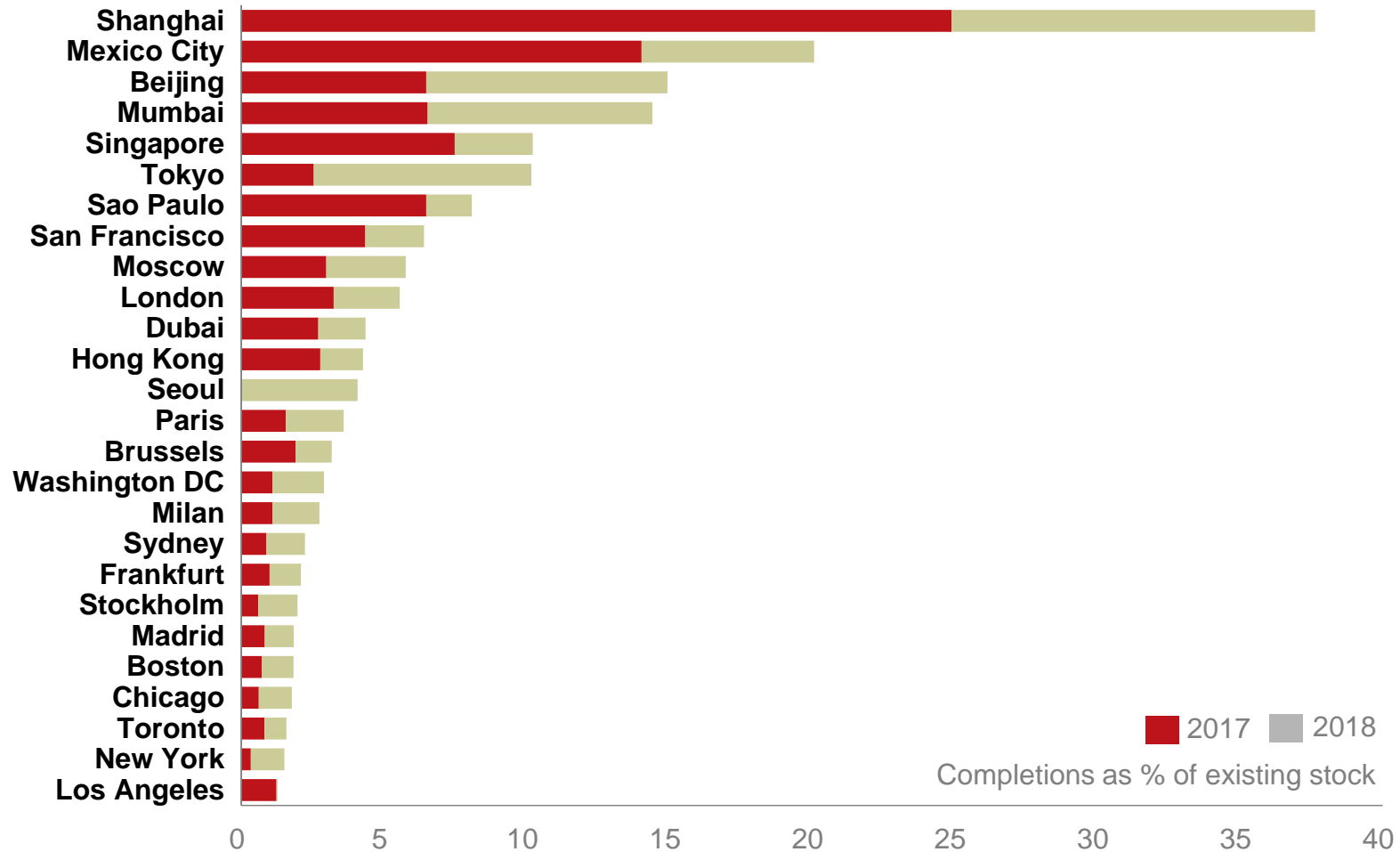


Based on rents for Grade A space in CBD or equivalent.  
 This data is based on material/sources that we believe to be reliable. While every effort has been made to ensure its accuracy, we cannot offer any warranty that it contains no factual errors. Neither Jones Lang LaSalle nor any of its affiliates accept any liability or responsibility for the accuracy or completeness of the information contained herein.



# Office Supply Pipeline - Major Markets

2017 - 2018



# Shanghai 1900



# Pudong, Shanghai 1990



# Pudong 2003





Pudong 2005





## Pudong-Puxi 2011



# China's 12th Five-Year Plan: One Belt, One Road

## Infrastructure Spending Continues to Head West

### Infrastructure Development Plan in China

	Unit	2005	2010	2005 vs 2010	2015	2010 vs 2015
<b>Railway</b>	Km	75,438	91,000	<b>+21%</b>	120,000	<b>+32%</b>
<b>High-speed rail*</b>	Km	405	8,358	<b>+1964%</b>	45,000	<b>+438%</b>
<b>Highway</b>	km	41,005	74,100	<b>+81%</b>	105,000	<b>+42%</b>
<b>Airports</b>	#	142	175	<b>+23%</b>	220	<b>+26%</b>
<b>Coastal port throughput</b>	bn ton	3	6	<b>+93%</b>	8	<b>+39%</b>
<b>Coastal port docks</b>	#	1,113	1,774	<b>+59%</b>	2,214	<b>+25%</b>
<b>Intra-city rail (subway)</b>	km	486	1,400	<b>+188%</b>	3,000	<b>+114%</b>

Source: CICC \* Estimated high-speed rail in operation



Big Data: Homer Hoyt tracked miles of pavement!  
 Also tracked volatility of net cash flows over 30 years through the depression.

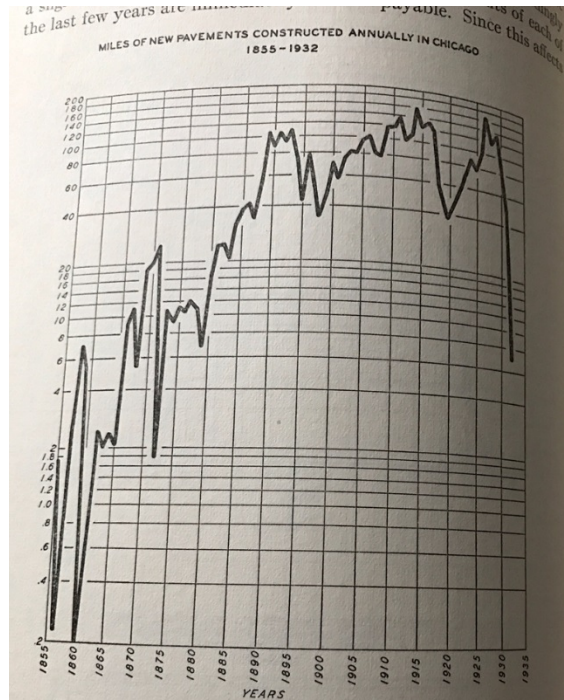
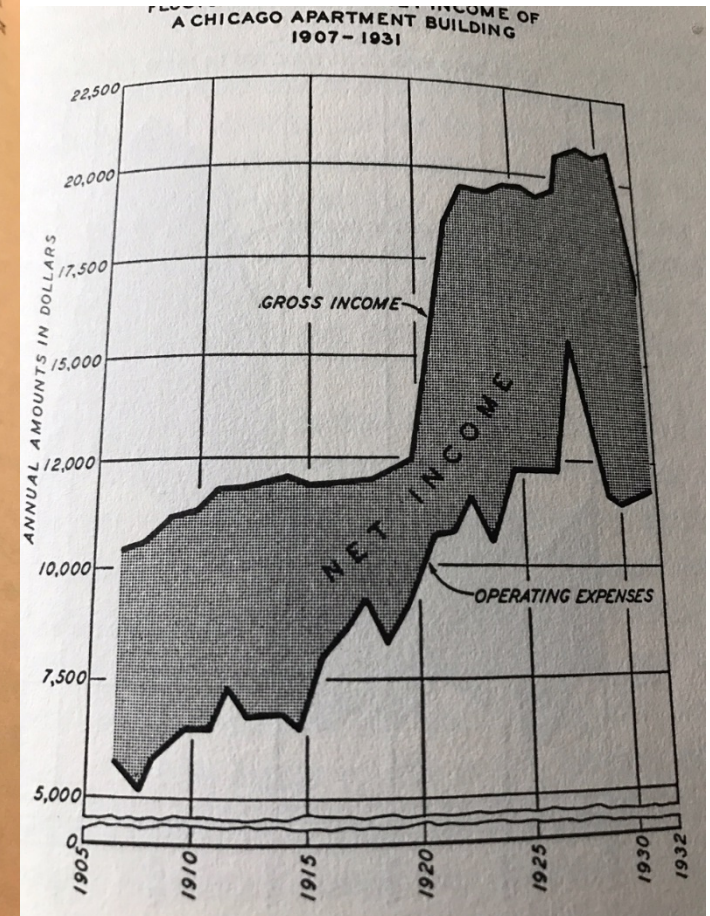
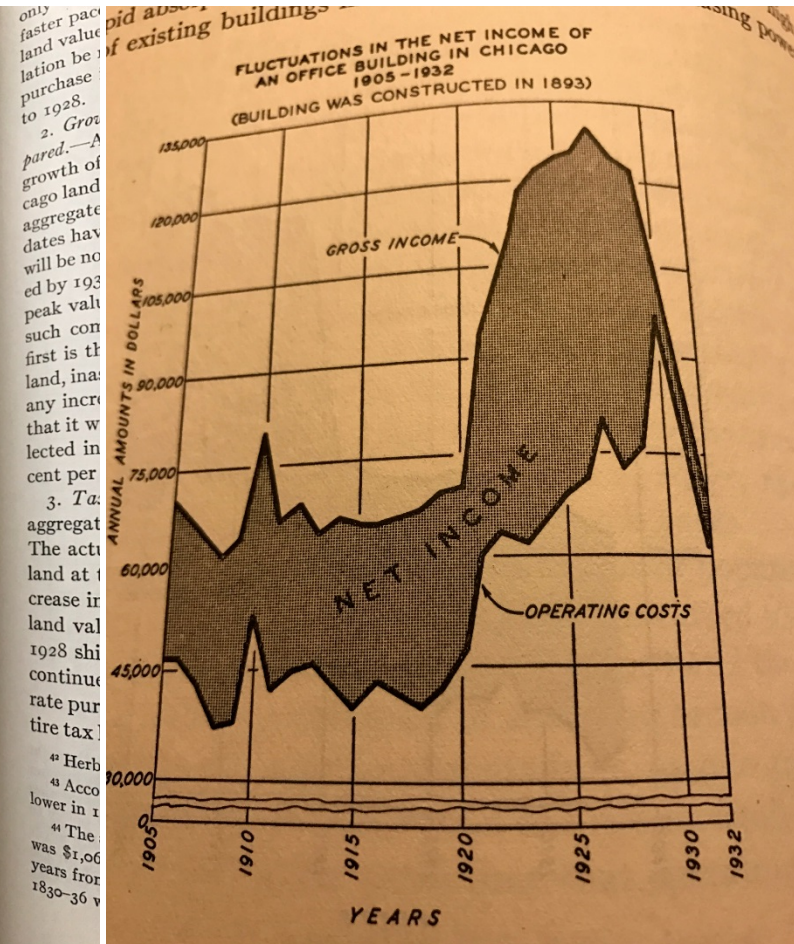


FIG. 79

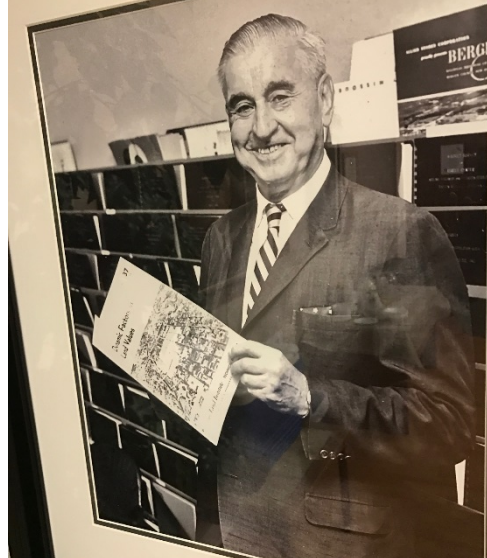
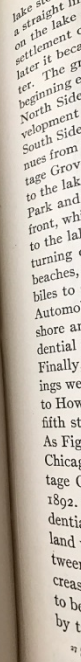
part of the instalments for three or four years, and not for the period, the error is not great. Chicago land values are corrected for these various factors, it will be found that land values so deflated have failed to keep pace with the growth of population. It would appear, therefore, that if inflationary factors are eliminated from land values, population growth must not





## Asset Price Cycles from Chicago to China:

The Log scale for 1900-1920 Chicago also works for China 1990-2010



lasalle.com

Amsterdam	Luxembourg	Paris	Singapore
Atlanta	Madrid	Prague	Sydney
Baltimore	Munich	San Diego	Tokyo
Chicago	Mexico City	San Francisco	Toronto
Hong Kong	Milan	Seoul	Vancouver
London	New York	Shanghai	