

Global Real Estate Transparency Index 2014

The Transparency Index

The JLL Global Real Estate Transparency Index is based on a combination of quantitative market data and information gathered through a survey of the global business network of JLL and LaSalle Investment Management across 102 markets. For each market, we use 115 separate factors, both quantitative datapoints and survey questions, to calculate the composite score. The survey data and quantitative measures complement each other. For instance, knowing the market coverage and length of a country's direct real estate index is only one half of the story; for a complete picture, we also gather qualitative data on whether investors actually trust and use the index. Local research teams, in consultation with business leaders and real estate professionals active in each market, complete the survey. A table summarising the factors behind the Index is at the end of this note.

In the 2014 Index, we have continued to break general questions into more specific, granular components, moving from 83 constituent factors to 115. For example, in place of a single question on valuation quality in 2012, we have broken it into three questions in 2014: the independence of third-party appraisers; the extent market-based appraisal methods are used; and the competition in the market for third-party appraisals. These changes allow us to drill deeper into where markets differ and to reduce measurement error by making the overall scoring less reliant on any single factor.

Quantitative Factors

56 of the 115 scoring factors, accounting for 35.5% of the overall factor weighting, are quantitative. These quantitative factors, added to the Index in 2012, include the number of years fundamentals' data series (like vacancy) have been available, the market coverage of property return indices, and the free float of public listed real estate securities markets. We score most of these quantitative factors on a continuous scale from 1 to 5, with 1.00 indicating very high transparency. For datapoints on performance measurement indicators, such as the market coverage of property return indices, we have set the top score of 1 equal to the 90th percentile observation in 2012. The cut-off thresholds to qualify as a 'highly transparent' market have been fixed at their 2012 level, so that markets can improve to higher tiers over time. For datapoints on market fundamentals data, such as the length of a market's office vacancy series, we have set the top score of 1 equal to a time series of 30 years or more, which we view as the 'gold standard'.

Researchers at JLL and LaSalle Investment Management have collected detailed data on the available market fundamentals' time-series for each of five property types: office, retail, industrial, residential and hotels. We have included all available data series, not only those produced by JLL. The market fundamentals data is based on conditions in the principal city of each country, with the exceptions of Brazil, China, India and Russia, where the Index differentiates between primary, secondary and tertiary cities.

Data on property-level returns indices is from Investment Property Databank (IPD), NCREIF and other industry associations. Data on public listed real estate comes from the European Public Real Estate Association (EPRA), Bloomberg, NAREIT and the LaSalle Investment Management Securities group. Fund-level index data is primarily from INREV, NCREIF, IPD and ANREV.

Qualitative Survey Factors

The balance of the scoring factors, totalling 59 datapoints, are qualitative survey questions scored by local JLL and LaSalle Investment Management teams. For each, local research teams are provided with a detailed rubric of five answer choices, ranging from 1 – most transparent – to 5 – opaque. Based on where their market fits within that rubric of options, local experts assign a score. Respondents consult JLL's local accounting, finance, asset management and legal experts to inform their responses to questions in those topic areas.

Scores within each region are then reviewed by regional and then global co-ordinators to ensure objectivity and rigour. Global and regional reviewers interrogate country teams' responses and challenge teams to justify changes in question scores from prior updates. The review process, high level of detail provided in the answer choices, and improved question granularity reduce subjective bias in scoring, and all contributors strive for impartiality in their responses.

Compiling the Transparency Index

We group the 115 individual transparency measures into 13 topic areas, summarised in the table at the end of this note. These topic areas are grouped and weighted into five broad Sub-Indices:

- **Performance Measurement**25%
- **Market Fundamentals**20%
- **Governance of Listed Vehicles**10%
- **Regulatory and Legal**30%
- **Transaction Process**15%

The Transparency Index scores range on a scale from 1 to 5. A country or market with a perfect 1.00 score has total real estate transparency; a country with a 5.00 score has total real estate opacity. Markets are then assigned to one of five transparency tiers. The thresholds for these tiers are based on Jenks' Natural Breaks classification. 2012 scores are used to fix the thresholds, so that markets can move between tiers as transparency changes over time, even if their relative position does not change. This algorithm finds the cut-offs that minimise within-group variance and maximise between-group differences. We create 10 groups using this method and then aggregate them into five tiers with the following thresholds:

- **Tier 1: Highly Transparent**Total Composite Score:**1.00 – 1.70**
- **Tier 2: Transparent**Total Composite Score:**1.71 – 2.45**
- **Tier 3: Semi-Transparent**Total Composite Score:**2.46 – 3.46**
- **Tier 4: Low Transparency**Total Composite Score:**3.47 – 3.97**
- **Tier 5: Opaque** Total Composite Score:**3.98 – 5.00**

Transparency Index Time Series

2014 marks the eighth edition of the JLL Global Real Estate Transparency Index. Since its inception in 1999, the Transparency Index has evolved and been refined to reflect the changing demands of cross-border investors and corporate occupiers.

In 2008, new questions were added to embrace the perspective of corporate occupiers relating to occupier service charges and facilities management. Questions concerning debt financing and the frequency and credibility of property valuations were also added.

In 2010, the existing questions regarding debt financing were substantially revised to more appropriately reflect the key issues of debt transparency, relating to the availability of information on commercial real estate debt and the role of bank regulators in monitoring commercial real estate lending. There were also revisions to questions on the transaction process covering pre-sale information and the bidding and negotiating process.

In 2012, major additions were made to incorporate a greater number of quantitative measures of investment performance and market fundamentals. In each of these two areas, general questions were divided into many different granular questions to better capture nuanced differences between markets. In all, 50 new factors were added by decomposing general questions into more detailed questions.

In 2014, we continued to decompose general questions into more specific ones, resulting in the addition of 32 new factors. These additions were spread across categories, as shown in the table to the right. For example, rather than asking a single general question on tax fairness as we did in 2012, we include four questions on tax in 2014, covering the consistency of enforcement and predictability of tax rates for both domestic investors and foreign investors.

In previous Transparency Indices, we calculated a ‘Composite’ score for the current update and an additional ‘Classic’ score to make comparisons over time. Rather than continuing to calculate two parallel indices, in this update we have cleaned the historical data to make a single time series, from 2004 to 2014. For factors added over time, we have included them historically where available. Where no historic data is available, we have extended back 2012 data so that changes in the added factors do not drive movement in the historic scores.

Factor Comparison	Number of Factors in 2012	Number of Factors in 2014
Direct Property Indices	5	6
Listed Real Estate Securities Indices	5	7
Unlisted Fund Indices	2	3
Valuations	2	4
Market Fundamentals Data	47	47
Financial Disclosure	2	4
Corporate Governance	2	3
Regulation	6	13
Land and Property Registration	3	7
Eminent Domain	2	3
Debt Regulation	2	7
Sales Transactions	3	5
Occupier Services	2	6

Real Estate Environmental Sustainability Transparency Index

A separate Real Estate Environmental Sustainability Transparency Index has been developed for a subset of 33 countries. The Index is based on a survey completed by JLL Energy and Sustainability Services experts in each country. The survey comprises seven questions relating to different components of environmental sustainability, covering:

- Financial Performance Indices for Green Buildings
- Green Building Rating Systems
- Carbon Reporting Frameworks
- Energy Benchmarking Systems
- Energy Efficiency Requirements for New Buildings
- Energy Efficiency Requirements for Existing Buildings
- Green Lease Clauses

For each question, our expert teams were provided with a detailed rubric of three answer choices, ranging from 1 – most transparent – to 5 – opaque. Based on where their market fits within that rubric of options, respondents assigned a score. The questions were answered with respect to commercial office real estate. An overall Real Estate Environmental Sustainability Transparency Index was calculated by equally weighting the scores for the seven questions.

Global Real Estate Transparency Index, Transparency Components (13 Topics and 115 Factors)

	Performance Measurement
Direct Property Indices	<ul style="list-style-type: none"> Existence of Direct Property Index Reliability of the Index and Extent to which it is Used as a Benchmark of Performance Type of Index (Valuation Based vs. Notional) Length of Direct Property Level Returns Index Time Series Size of Institutional Invested Real Estate Market Market Coverage of Direct Property Index Dominant Type of Listed RE Securities (i.e. Long Term Holders of Real Estate vs. Homebuilders and Conglomerates) Use of Listed Real Estate Securities Data on the real estate market
Listed Real Estate Securities Indices	<ul style="list-style-type: none"> Years Since the First Commercial Real Estate Company was Listed Value of Public Real Estate Companies as % of GDP Existence of a Domestic Listed Real Estate Index and Its Use as a Benchmark Existence of an International Listed Real Estate Index and Its Use as a Benchmark Length of Public Real Estate Index Time Series
Private Real Estate Fund Indices	<ul style="list-style-type: none"> Existence of a Domestic Fund Index and Its Use as a Benchmark Existence of International Fund Index and Its Use as a Benchmark Length of Unlisted Fund Index Time Series
Valuations	<ul style="list-style-type: none"> Independence and Quality of Third-Party Appraisals Use of Market-based Appraisal Approaches Competition in the Market for Valuation Services Frequency of Third Party Real Estate Proposals

	Market Fundamentals
Market Fundamentals Data	<ul style="list-style-type: none"> Existence and Length of Time Series on Property Rents (Office, Retail, Industrial, and Residential) Existence and Length of Time Series on Take-up/Absorption (Office, Retail, Industrial, and Residential) Existence and Length of Time Series on Vacancy (Office, Retail, Industrial, and Residential) Existence and Length of Time Series on Yields/Cap Rates (Office, Retail, Industrial, Residential, and Hotels) Existence and Length of Time Series on Capital Values (Office, Retail, Industrial, Residential, and Hotels) Existence and Length of Time Series on Investment Volumes (Office, Retail, Industrial, Residential, and Hotels) Existence and Length of Time Series on Revenue per Available Room for Hotels Existence of a Comprehensive Database of Individual Buildings

(Office, Retail, Industrial, Residential, and Hotels)
Existence of a Comprehensive Database of Leases (Office, Retail, Industrial, Residential, and Hotels)
Existence of a Comprehensive Database of Property Transactions (Office, Retail, Industrial, Residential, and Hotels)

Governance of Listed Vehicles

Financial Disclosure

Stringency of Accounting Standards
Level of Detail in Financial Statements
Frequency of Financial Statements
Availability of Financial Reports in English

Corporate Governance

Manager Compensation and Incentives
Use of Outside Directors and International Corporate Governance Best Practice
Free Float Share of the Public Real Estate Market

Legal and Regulatory

Regulation

Extent to which the Tax Code is Consistently Applied for Domestic Investors
Extent to which Real Estate Tax Rates are Predictable for Domestic Investors
Extent to which the Tax Code is Consistently Applied for Foreign Investors
Extent to which Real Estate Tax Rates are Predictable for Foreign Investors
Existence of Land Use Rules and Zoning
Predictability of Changes in Land Use and Zoning
Enforcement of Land Use Rules and Zoning
Existence of Building Codes and Safety Standards for Buildings
Enforcement of Building Codes and Safety Standards for Buildings
Simplicity of Key Regulations in Contract Law
Efficiency of the Legal Process
Level of Contract Enforceability for Domestic Investors
Level of Contract Enforceability for Foreign Investors
Existence of Land Registry
Accessibility of Land Registry Records to Public
Availability of Title Insurance

Land and Property Registration

Accuracy of Land Registry Records
Completeness of Land Registry Records on Ownership
Completeness of Public Records on Transaction Prices
Completeness of Public Records on Liens and Easements

Eminent Domain / Compulsory Purchase

Notice Period Given for Compulsory Purchase
Fairness of Compensation to Owners in Compulsory Purchase
Ability to Challenge Compulsory Purchase in Court of Law
Availability of Data on Real Estate Debt Outstanding
Availability of Data on Maturities and Originations of Real Estate Loans

Debt Regulation

Depth and Length of Real Estate Debt Data
Data on Delinquency and Default Rates of Commercial Real Estate Loans
Regulatory Requirements for Lenders to Monitor Property Collateral Values and Cash Flow
Regulatory Requirements for Lenders Carry Out Appraisals
Strength of Regulatory Enforcement

Transaction Process

	Quality and Availability of Pre-Sale Information
	Fairness of the Bidding Process
Sales Transactions	Confidentiality of the Bidding Process
	Professional and Ethical Standards of Property Agents
	Enforcement of Professional and Ethical Standards of Property Agents
	Providers of Property Management Services Known to Occupiers
	Service Expectations for Property Management Clear to Occupiers
	Alignment of Occupier and Property Manager Interests
Occupier Services	Frequency of Service Charge Reconciliation
	Accuracy and Level of Detail in Service Charge Reports
	Ability for Tenants to Audit Landlord's Accounts and Challenge Discrepancies