REAL ESTATE MARKET SIZE 2014

Insights into the size of the professionally managed global real estate market

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EXECUTIVE SUMMARY

The professionally managed global real estate market size grew marginally to $7.0 trillion by year-end 2014 from $6.8 trillion at year-end 2013, according to MSCI. Currency movements reduced the global real estate market by approximately 7%. In contrast, capital value growth and new developments in the market, such as sale and leaseback transactions and new construction, were the main contributors to growth in market size. Newly identified portfolios resulted in considerable increases in some markets, particularly in the smaller and less transparent emerging markets. 2014 marked the fifth consecutive year that the relative weight of the US increased within the IPD Global Annual Property Index. Although this increase is partly due to the relative high capital growth compared with the global average, the predominant reason was the depreciation of many currencies against the US dollar.

By the end of 2014, the UK enjoyed the second largest country estimate, overtaking Japan for the first time in seven years. As with the US, the UK experienced strong capital growth during 2014, but the other significant impact was the declining yen. Global capital value growth in 2014 in local currencies was 4.4% compared to a capital value growth of 12.0% in the UK and 2.6% in Japan.

MSCI has been systematically estimating the size of the professionally managed real estate market since 2004. These estimates are fundamental to the creation of the IPD Global Annual Property Index and a range of other multinational indexes and benchmarks, and they provide insights into the coverage of the IPD direct property indexes. This paper provides the 2014 market size estimates and explains the main changes between 2013 and 2014.

The report covers the 25 countries in the IPD Global Annual Property Index as well as an additional seven Asian countries for which there are IPD Indicators, including China, Hong Kong and Singapore. The national market sizes are based on bottom-up, portfolio-specific estimates, and these are converted into US dollars using the year-end currency conversion rate.

APPROACH TO MARKET SIZE ESTIMATES: THE METHODOLOGY

MSCI captures a large amount of information on individual real estate investment portfolios around the world in the process of conducting its Portfolio Analysis Service. By the end of 2014, the value of these directly measured real estate portfolios was close to $2tn. However, despite its high level of coverage, MSCI does not directly measure all portfolios in the market. While MSCI's data is useful for understanding how the the market is changing, additional data sources are needed to build up definitive estimates of market size. This is done by combining bottom-up, portfolio-specific MSCI data with data obtained from the public domain, including pre-existing databases and annual and quarterly reports from companies. This approach aims to identify all direct real estate holdings in each market on a portfolio-by-portfolio basis, following the MSCI methodology that seeks only to capture the value of professionally managed real estate owned for investment purposes[1]. The definition has however been modified in the latest analysis, so it is now clear that investment property under development is included.

Invested real estate stock is defined as real estate that is owned for the primary purpose of benefitting from investment returns, as distinct from owner-occupied and non-investment leased real estate. The owner-occupied part of the market comprises real estate that is both owned and occupied by private and public companies, real estate owned by governments and used for governmental purposes, and residential buildings owned by private homeowners. In addition, there are organisations who own and lease real estate to tenants but whose primary objective is not generating an investment return. These include social housing organisations and municipalities, which in some countries have substantial real estate portfolios.

The total estimated size of the professionally managed real estate stock owned for investment purposes in each market is used by MSCI to reweight national IPD indexes in generating its multinational indexes. For this purpose, all country level market size estimates are converted to US dollars at the year-end currency conversion rate. Due to differences in IPD index coverage levels nationally, the indexes are reweighted to provide a more representative balance between markets in the multitnational indexes to which they contribute. The market size estimates are used for reweighting in the IPD Global Annual Property Index, the IPD Nordic Annual Property Index and the IPD Pan-Europe Annual Property Index, as well as other regional indexes and bespoke custom benchmarks.

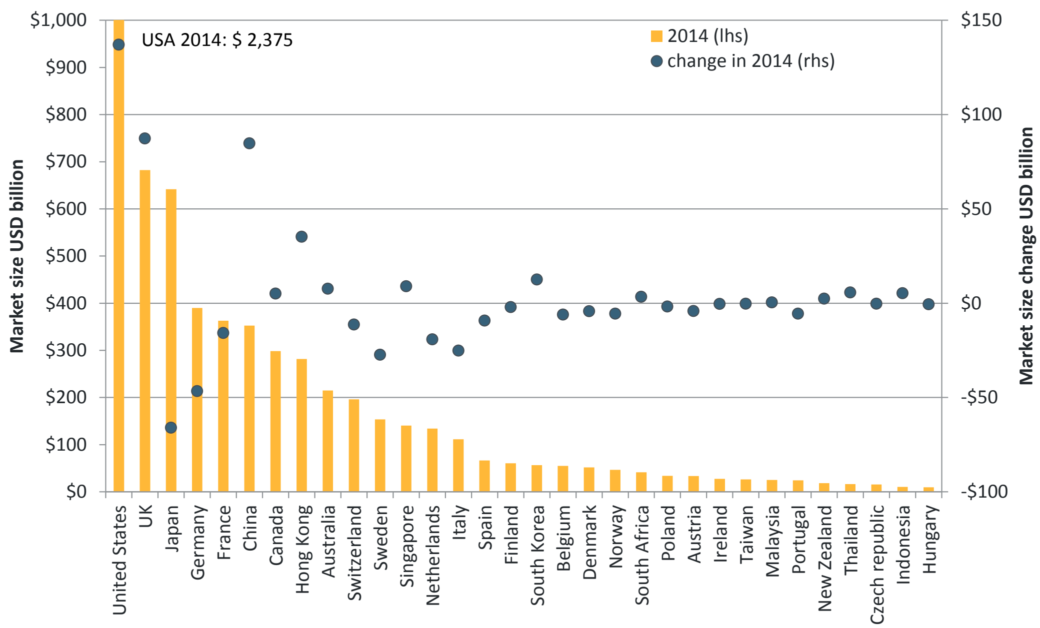
[1] Details of the methodology can be found in Appendix 1 and are based on the MSCI research paper: Clacy-Jones, M., Teuben, A.J.J., Real Estate Investment Market Size, A better understanding of the professionally managed real estate investment universe, September 2014

COUNTRY MARKET SIZES

2014 MARKET SIZE ESTIMATES

Although individual market size estimates can potentially have a large impact on IPD Global Annual Property Index returns, they have proved relatively consistent from year to year. This consistency was again evident in 2014, although there were some important changes for individual countries, as shown in Exhibit 1. The most significant change was for the U.S., with a market size increase of 6%. Only two other countries, the UK and China, saw their absolute market size increase by more than $50 billion. The one country to see a significant decrease was Japan, its market size declining by $66 billion.

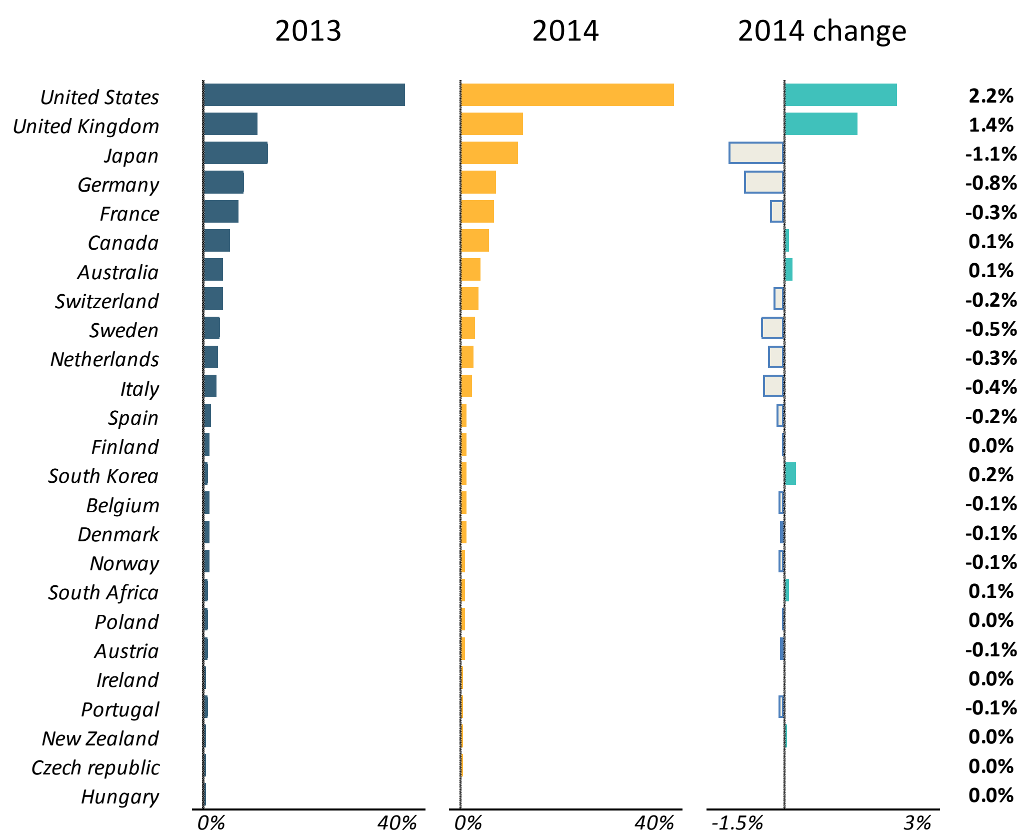
Exhibit 1: Absolute Market Size in 2013 and 2014, USD Billion



Source: MSCI, KTI (Finland).

Within the IPD Global Annual Property Index, (Exhibit 2), no single country weighting changed by more than 3% between 2013 and 2014, while the total of all positive and negative changes was only 8.3%. The U.S. remained the largest market in 2014, its share increasing from 37% to 39%, mainly due to the relative strengthening of the US Dollar through the year. The UK moved into second position ahead of Japan, its weight increasing slightly to 11.2%. Conversely, Japan's weighting decreased slightly to 10.5%. For all other markets the change in weight was less than 0.5%, with the exception of Germany for which the weight decreased by 0.8%.

Exhibit 2: Weight in the IPD Global Annual Property Index, 2013 and 2014.

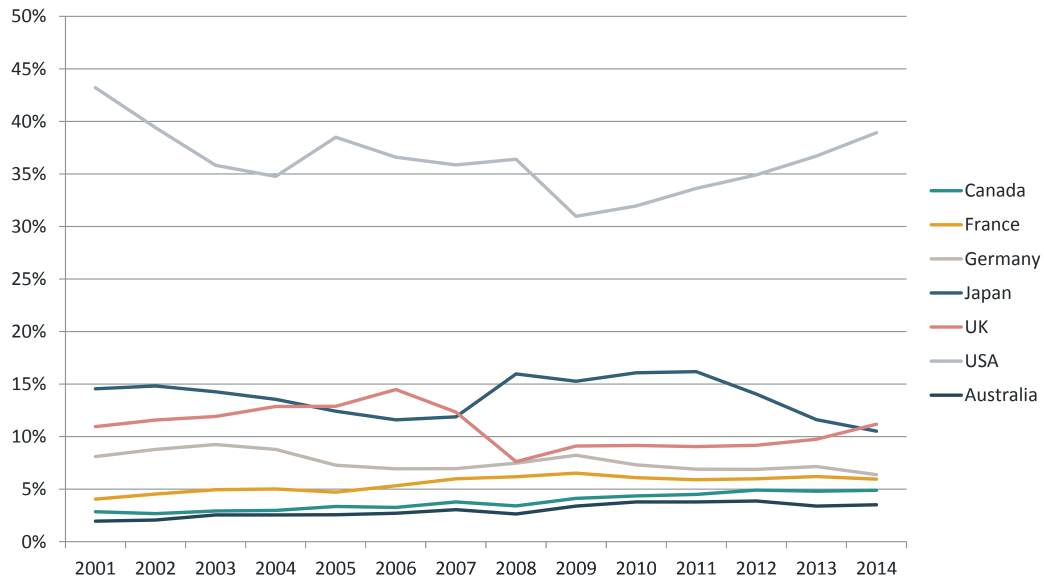


LONGER TERM CHANGES IN MARKET WEIGHTING

In the 14 years since the inception of the IPD Global Annual Property Index there have been changes in the relative weights of individual countries, as shown in Exhibit 3. The changes have mainly resulted from a combination of capital value growth and currency impacts. The national weightings were particularly impacted by the global financial crisis, with large decreases seen in the weightings of both the UK and the USA, due to negative capital growth. The appreciation of the Japanese Yen against the US dollar in 2008 led to an increase in Japan's estimated size to become the second largest market. In 2014 both the

British Pound and the Japanese Yen depreciated against the US Dollar, though the Yen depreciation was more acute. Both Australia and Canada, now the sixth and seventh largest markets respectively, have become increasingly important over the past decade due to the growth of their economies, real estate markets and currency values, while the weight of Germany has decreased over this period, the result of declining capital values in most years since 2002.

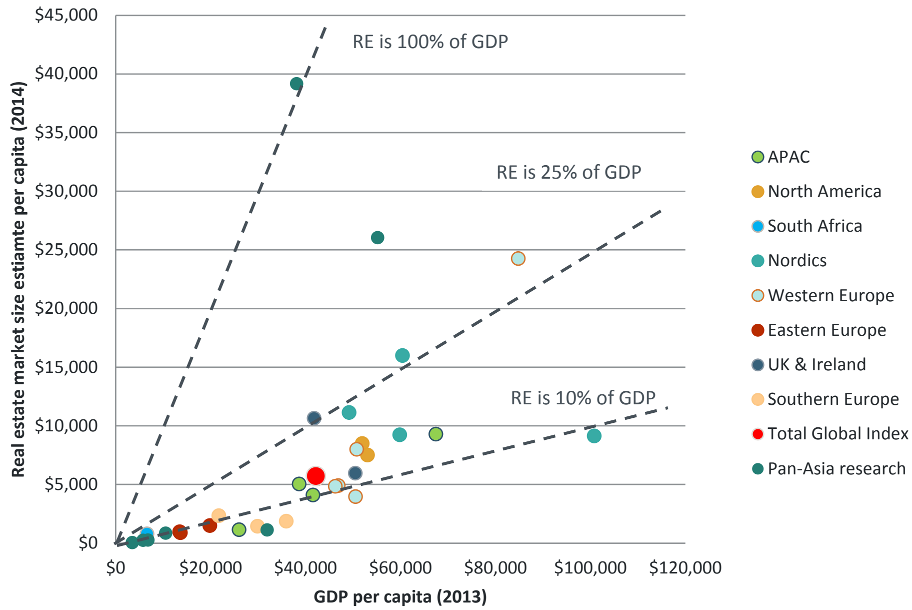
Exhibit 3: Weighting of the Seven Largest Countries Within the IPD Global Annual Property Index.



RELATIVE MARKET SIZE ESTIMATES

A summary of national real estate market size compared with GDP per capita is shown in Exhibit 4. There are some clear regional differences. The city states of Singapore and Hong Kong have the largest relative market size. For Hong Kong the real estate market size is even larger than its GDP, with the main driver a high value per floor area. Switzerland has the largest relative size in Europe measured in these terms. The Nordic markets have a larger size per capita than the average across the IPD Global Annual Property Index, as well as a larger market size relative to GDP, with the exception of Norway. In general, emerging markets have a relatively small size compared to developed markets. A more detailed discussion of relative market size is included in the 2013 market size report[2].

Exhibit 4: Relative Estimated Market Size



Sources: World Bank, MSCI, KTI

[2] Clacy-Jones, M., Teuben, A.J.J., Real Estate Investment Market Size, A better understanding of the professionally managed real estate investment universe, September 2014

MAIN CONTRIBUTIONS TO MARKET SIZE CHANGE IN 2014

The total market size estimates are based on the most recent information available from the public and private sources outlined on Page 4. They are influenced by market changes including local capital value increases and decreases, currency movements and changes to the structure of each market.

Ideally all information is updated to the year-end based on all the portfolios known to exist in each market; but in practice this is not possible. One reason is that not all of the portfolios with available information report their year-end values by the dates when the market sizes are estimated: early April for countries included in the IPD Global Annual Property Index and early June for additional Asian markets. This is particularly the case for information on the investment portfolios of high net worth individuals, but also applies to some portfolios held by insurance companies, pension funds and sovereign wealth funds. These often have long lead times on the release of their annual reports, in some cases more than three months following period-end. In general, listed companies do better, publishing their annual reports within three months of their reporting year end, often with quarterly or biannual reports as well. For unlisted funds the information is also often regularly available. To minimize the effect of the currency fluctuations due to lagging information, the vast majority of information is based on the value of the portfolio in local currency.

Around two thirds of the total estimated market size for the IPD Global Annual Property Index is based on 2014 real estate market values. The proportion of updated information varies between countries, but generally stands at between 60% and 80% of the total identified investment stock. Ireland was the only market to have less than 50% updated in 2014. Of the total identified universe of approximately 10,000 real estate portfolios, over 2,600 were updated, with just over half of these submitting data to MSCI as part of IPD benchmarking services.

The changes in market size estimates between 2013 and 2014 are considered below, broken down into the contributions of currency impacts, capital value growth in local currency and other changes.

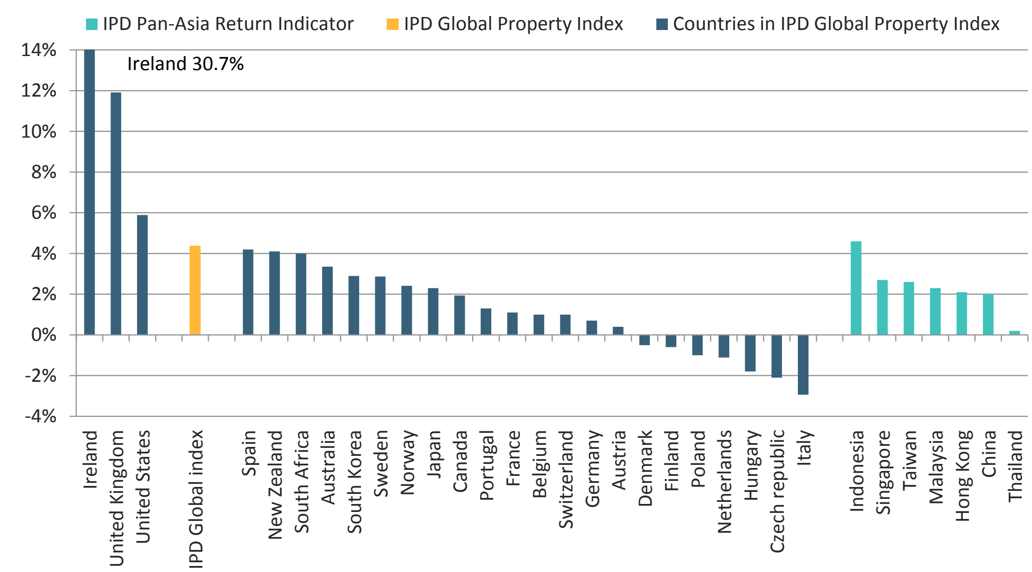
CURRENCY IMPACT

Some impacts of currency movements have been discussed above, in particular for Japan following the depreciation of the Yen against the dollar. The 2014 impacts are summarized in Exhibit 5, which shows large negative impacts for all markets except the U.S. The impacts exceeded 10% for many countries, reaching more than 15% for Sweden and Norway. The most stable markets (though still with depreciation of around 5%) were Korea, New Zealand and the UK.

CAPITAL VALUE GROWTH

Many markets showed positive capital value growth in their local currency in 2014, as shown in Exhibit 5. The highest levels of capital value growth were recorded for Ireland (over 30%) and the UK (12%). The USA was the only other market where 2014 capital value growth was higher than that of the IPD Global Annual Property Index. All Continental European countries recorded lower capital value growth than the IPD Global Annual Property Index in 2014, with a small number delivering negative capital value growth. Spain, however, was notable in showing positive capital growth following six years of decline.

Exhibit 5: Capital Value Growth by Country in 2014, Local Currencies.

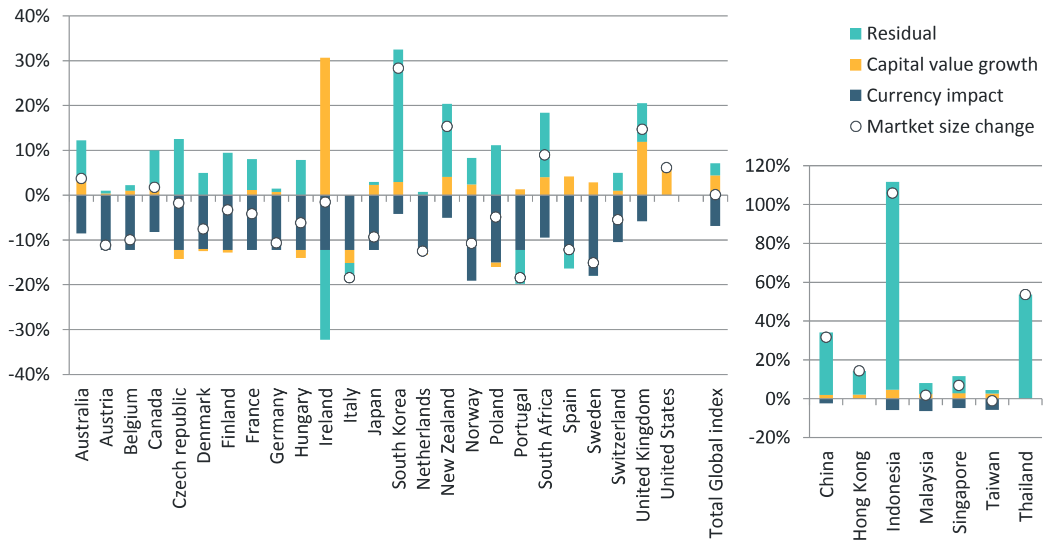


RESIDUAL

Exhibit 6 shows the percentage change in market size estimates from 2013 to 2014, together with the main drivers of change, highlighting the large impact of capital value growth and currency movements for most markets. However, a residual item remains for most markets when comparing the impact of fundamental drivers and the overall change in estimated market size. In some markets such as South Korea, New Zealand, Ireland and South Africa, this made up a large part of the change. In general the residual is larger for smaller, less transparent and emerging markets. There are a number of possible reasons for the residual, including:

- Net investment due to capital expenditure on existing assets and new developments. Whilst MSCI measures net investment on its data-submitting portfolios, this sample may not necessarily reflect the wider market. In addition, it is not always possible to break down net investment figures sufficiently to avoid double-counting. Given the uncertainty of its composition, net investment is not reported separately in this exercise, instead being included in the residual.
- Transactions with non-professionally managed organizations. These could arise from the sale of portfolios to small private investors or the acquisition of properties from developers or non-professionally managed organizations.
- Sale and leaseback transactions in which real estate becomes invested, having previously been owner-occupied. This may relate to particular sectors that become investable, such as hotels and healthcare. In some cases tenants may acquire buildings that they previously leased.
- Information lags. As discussed above, not all portfolios reported end-2014 data in time to be included in this analysis. 64% of those assets supporting IPD Global Annual Property Index weightings were updated with 2014 data, together with 85% for other Asian markets. The remainder were included using the most recently available data, mainly dated to end-2013. The types of owner behind lower levels of updating included private investors and other direct asset owners that only release data on their portfolios after the first quarter of the year. In general information on listed companies was updated.
- Capital value growth for MSCI-measured portfolios differing from overall market capital value growth, due to differences in the quality of the underlying assets.
- Newly identified portfolios that already existed, but were not previously included in market size estimates. These are more common in emerging and opaque markets.
- Newly identified information on portfolios previously included in the market size estimates. For example, in some Asian markets such as China, investment property under development was included for the first time in 2014, while for Indonesia and Thailand, market valuations were obtained for some assets that had previously been included at depreciated cost.

Exhibit 6: Drivers of Market Size Change in 2014, Markets Within IPD Global Annual Property Index and Markets in Pan-Asian Research.



APPENDIX 1. MARKET SIZE ESTIMATE METHODOLOGY

MSCI defines the real estate investment universe in each national market as the aggregation of real estate assets that meet all of the following conditions:

- They are held as investments for the purposes of delivering a mix of income and capital returns;
- They are professionally managed for the achievement of these purposes, either by the beneficial owners or by third party management businesses;
- They are structured as investment interests within portfolios.

These direct real estate portfolios, managed on behalf of institutional or private investors, are financed via a mix of equity and debt.

The criteria that are adopted for the market size estimates are summarized in Exhibit 7, with further clarifications including:

- Mortgages: Only direct real estate portfolios are included; portfolios of mortgages are excluded.

- Indirect holdings: In order to avoid double counting, fund of funds are excluded from the analysis along with the indirect investment holdings of all portfolios.

- Joint ventures: In order to avoid double counting, joint ventures are included as separate holdings, but only with the value of the share of the asset or portfolio included for each holding.

- Private investors: The number of direct private investors is enormous, ranging from those holding a single residential unit to some with portfolios of over USD1 billion. MSCI assumes that any portfolio with a value in excess of USD100 million is professionally managed. Whilst this figure is somewhat arbitrary, such a threshold is required to compile results. MSCI assumes that the majority of the professionally managed market will be captured by including these larger portfolios.

- Other real assets: This analysis aims to estimate the size of real estate markets globally. For this purpose infrastructure (such as airports, ports and toll roads), timberland and farmland are excluded.

- Pure development companies are excluded from this analysis as they do not seek an investment return; but investment property under development and construction is included.

Exhibit 7: Market Size Estimate Inclusion Criteria

Included:	Excluded:
Insurance and pension funds	*Small private landlords (< USD100 million)*
Sovereign Wealth Funds	*Owner occupied portfolios (pubs, hotels, hospitals)*
Unlisted funds (closed and open)	*Timberland, farmland and infrastructure*
Traditional estates and charities	*Mortgage companies*
Listed funds	*Development companies*
Large private landlords (> USD100 million)	*Fund of funds and indirect holdings (double counting)*
Leased office, retail, industrial, residential and other property	*Municipal and social housing*
Investment property under development	

Source: MSCI

APPENDIX 2. MARKET SIZE ESTIMATES

	Estimated market size 2013 (USD million)	Estimated market size 2014 (USD million)	Capital value growth (Local currency)	IPD Index Coverage 2014 (USD million)	Coverage ratio (%)
Australia	*207,200*	*214,894*	*3.4*	*117,233*	*54.6*
Austria	*37,705*	*33,492*	*0.4*	*9,257*	*27.6*
Belgium	*60,897*	*54,823*	*1.0*	*6,289*	*11.5*
Canada	*293,318*	*298,437*	*1.9*	*107,791*	*36.1*
Czech republic	*16,007*	*15,720*	*(0.1)*	*2,456*	*15.6*
Denmark	*56,088*	*51,853*	*(0.5)*	*14,454*	*27.9*
Finland	*62,570*	*60,505*	*(0.6)*	*22,416*	*37.0*
France	*378,602*	*362,834*	*1.1*	*130,518*	*36.0*
Germany	*436,491*	*389,859*	*0.7*	*63,020*	*16.2*
Hungary	*10,110*	*9,487*	*(1.5)*	*1,807*	*19.0*
Ireland	*27,823*	*27,392*	*30.7*	*4,781*	*17.5*
Italy	*136,390*	*111,258*	*(1.8)*	*29,015*	*26.1*
Japan	*707,826*	*641,796*	*2.6*	*112,202*	*17.5*
Netherlands	*153,455*	*134,242*	*(1.3)*	*39,813*	*29.7*
New Zealand	*15,871*	*18,302*	*3.5*	*9,753*	*53.3*
Norway	*52,039*	*46,435*	*2.4*	*16,908*	*36.4*
Poland	*35,633*	*33,878*	*0.0*	*6,213*	*18.3*
Portugal	*29,922*	*24,407*	*1.3*	*8,736*	*35.8*
South Africa	*37,837*	*41,224*	*4.0*	*22,855*	*55.4*
South Korea	*44,165*	*56,661*	*2.9*	*24,755*	*43.7*
Spain	*75,583*	*66,378*	*4.2*	*13,960*	*21.0*
Sweden	*180,771*	*153,428*	*2.9*	*59,241*	*38.6*
Switzerland	*207,402*	*196,042*	*1.0*	*90,896*	*46.4*
United Kingdom	*595,118*	*682,464*	*11.9*	*291,330*	*42.7*
United States	*2,237,893*	*2,374,996*	*5.9*	*255,112*	*10.7*
IPD Global index	***6,096,717***	***6,100,807***	***4.4***	***1,460,808***	***23.9***
China	*267,819*	*352,596*	*2.0*	*16,874*	*4.8*
Hong Kong	*246,296*	*281,501*	*2.1*	*57,077*	*20.3*
Indonesia	*5,036*	*10,369*	*4.6*	*2,846*	*27.4*
Malaysia	*24,836*	*25,276*	*2.3*	*8,935*	*35.4*
Singapore	*131,613*	*140,621*	*2.7*	*65,687*	*46.7*
Taiwan	*26,389*	*26,086*	*2.6*	*2,674*	*10.3*
Thailand	*10,530*	*16,167*	*0.2*	*6,270*	*38.8*

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