



# EPRA RESEARCH

European Public Real Estate Association

## EPRA Total Markets Table

June 2017



# Size of the total commercial real estate market

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## EPRA Investor Outreach

**Tim Kessler**  
Investor Outreach Continental Europe  
t.kessler@epra.com  
T +32 (0) 2739 10 28

## EPRA Research & Indices Team

**Inna Maslova**  
Analyst Research & Indices  
i.maslova@epra.com  
T +32 (0) 2739 10 22

**Ali Zaidi**  
Director Research & Indices  
a.zaidi@epra.com  
T + 32 (0) 2739 10 19

**David Moreno**  
Analyst Research & Indices  
d.moreno@epra.com  
T +32 (0) 2739 10 10



# Total Markets Table Commentary Q2-2017

## EPRA Developed Markets

At the end of the second quarter of 2017 the value of the total listed real estate sector in Developed Europe was USD 447.61 billion. Largest markets are the United Kingdom (USD 92.78 billion), France (USD 90.36 billion), and Germany (USD 79.07 billion). Of the USD 447.61 billion listed real estate sector 63.7% is represented in the FTSE EPRA/NAREIT Developed Europe Index. The estimated total Commercial Real Estate (CRE) value in Developed Europe hit almost USD 7.5 trillion on a total GDP of close to USD 16 trillion. The listed real estate sector in Developed Europe represents 6.02% of the total Commercial Real Estate Value. In North America the estimated value of the Commercial Real Estate sector is over USD 9 trillion and the value of the listed real estate sector USD 1,166.51 billion. 72.69% of the listed real estate sector is represented in the FTSE EPRA/NAREIT North America Index. The estimated value of the Commercial Real Estate sector in the Asia-Pacific region is USD 4.06 trillion and the total value of listed real estate in the region is USD 735.26 billion.

## EPRA Emerging Markets

The emerging markets have a total estimated Commercial Real Estate value of just under USD 7 trillion, covering 23 countries. The total listed real estate sector in the emerging market is USD 756.31 billion.

## EPRA Global Markets

Commercial Real Estate in the global markets covered by FTSE EPRA/NAREIT is estimated at USD 27.68 trillion, with a total listed real estate sector valued at USD 3.13 trillion (11.32%). The full index market cap at the end of Q2-2017 was USD 2.06 trillion.

## The European Union

The 28 member states of the European Union have a combined estimated Commercial Real Estate market value of over USD 7.5 trillion on a combined GDP of USD 16.4 trillion. The value of the listed real estate sector is USD 400 billion, represented in the FTSE EPRA/NAREIT Global Real Estate Index by USD 267.67 billion (or 5.31% of the total CRE value).

## Global estimated value of the Commercial Real Estate sector

All 68 covered countries in this Total Markets Table report represent an estimated Commercial Real Estate Value of USD 28.6 trillion.

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# Market Activity & Corporate Actions Q2-2017

## Initial Public Offerings

During the second quarter of 2017 there were a total of 7 real estate IPO's in Developed Europe, raising over EUR 1.2 billion, including 2 REITs in the United Kingdom, raising nearly EUR 400 million combined: **Private Rental Sector (PRS) REIT** and **AEW UK Long Lease REIT**. An overview of all IPO's in the quarter can be found in Table 1. In the first half of 2017 a total of 10 real estate companies raised over EUR 2.3 billion through an IPO, including 4 REIT's (all from the United Kingdom) raising over EUR 720 million.

## Mergers & Acquisitions

Austrian constituent **Conwert Immobilien Invest** was taken over by German residential company and index constituent **Vonovia** and has been removed from the indices in April. **Carmila**, a French REIT, listed on the Paris stock exchange in June via a reverse takeover of **Cardety**, creating one of the largest European shopping centre REITs with a market cap of EUR 3.2 billion.

## Capital Raises

In Q2 2017 the total of debt and equity raised by FTSE EPRA/NAREIT Developed Europe Index constituents is EUR 5.8 billion, divided into equity & rights issues (EUR 1.4 billion) and debt issues (EUR 4.4 billion). The capital raised in the first half of 2017 for the FTSE EPRA/NAREIT Developed Europe Index constituents totals over EUR 14.1 billion. More detailed information regarding capital raises for the FTSE EPRA/NAREIT Developed Europe Index can be found in the EPRA Monthly LTV Monitor.

## General Corporate Actions

**Unite Group** (United Kingdom) and **Inmobiliaria Colonial** (Spain), both in the FTSE EPRA/NAREIT Developed Europe Index have been reclassified from Non-REIT to REIT. Phoenix Spree Deutschland, listed in London, has been added to the FTSE EPRA/NAREIT Developed Europe Index following the June quarterly index review. The Mercado Alternativo Bursatil (MAB), the Spanish junior stock exchange, now has 33 SOCIMI's with a combined market cap of EUR 3.9 billion.

**Table 1. Real Estate IPO's in Developed Europe**

IPO Date	Company Name	Country	Listing	IPO Proceeds (EUR Mln)
06-04-17	SSM Holding AB	Sweden	Main	64.5
13-04-17	Consus Commercial Property AG	Germany	Munich	33.0
12-05-17	VolkerWessels	Netherlands	Main	648.3
31-05-17	Private Rental Sector (PRS) REIT	UK	SFM	294.4
06-06-17	AEW UK Long Lease REIT	UK	Main	95.4
21-06-17	Fastighets AB Trianon	Sweden	First North	51.2
30-06-17	Noratis AG	Germany	Main	17.3
<b>Q2 2017</b>	<b>Total Developed Europe</b>			<b>1,204.1</b>

## Other EPRA Research

**Monthly Market Review** [Link](#)

**Monthly Statistical Bulletin** [Link](#)


**Monthly LTV Monitor** [Link](#)


**Monthly Published NAV Bulletin** [Link](#)

**Academic Papers** [Link](#)




## Size of the total commercial real estate market - Developed Markets


	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Jun-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
Austria	44,498.37	386.75	174.04	11.49	10	-	5.50	2	134.32	8.55%	6.60%
Belgium	41,283.27	466.96	210.13	15.89	26	17	10.45	8	447.03	3.56%	7.56%
Denmark	53,743.97	306.73	138.03	1.60	10	-	-	-	423.05	0.38%	1.16%
Finland	43,169.22	236.88	106.60	5.27	6	1	4.96	3	255.16	2.06%	4.94%
France	38,127.65	2,463.22	1,108.45	90.36	57	32	62.99	7	2,347.03	3.85%	8.15%
Germany	41,902.28	3,466.64	1,559.99	79.07	59	4	54.05	13	2,161.55	3.66%	5.07%
Ireland	65,870.83	293.61	132.12	2.84	3	3	2.84	3	120.82	2.35%	2.15%
Italy	30,507.18	1,850.74	832.83	2.98	10	5	2.35	2	636.83	0.47%	0.36%
Luxembourg	103,198.82	59.47	26.76	0.73	1	-	-	-	21.45	3.40%	2.73%
Netherlands	45,282.63	771.16	347.02	6.40	11	5	5.35	4	577.14	1.11%	1.84%
Norway	70,391.57	370.45	166.70	5.57	7	-	2.96	2	252.26	2.21%	3.34%
Portugal	19,831.61	204.76	82.26	0.04	2	1	-	-	70.22	0.05%	0.05%
Spain	26,608.87	1,232.60	546.14	24.90	55	39	13.29	5	799.70	3.11%	4.56%
Sweden	51,164.51	511.40	230.13	54.90	55	-	26.16	12	790.15	6.95%	23.85%
Switzerland	79,242.28	659.85	296.93	52.88	56	-	15.42	4	1,724.66	3.07%	17.81%
United Kingdom	40,095.95	2,629.19	1,478.92	92.68	106	48	78.71	38	3,432.33	2.70%	6.27%
<b>Total Europe</b>		<b>15,910.40</b>	<b>7,437.05</b>	<b>447.61</b>	<b>474</b>	<b>155</b>	<b>285.03</b>	<b>103</b>	<b>14,193.69</b>	<b>3.15%</b>	<b>6.02%</b>

	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Jun-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
Israel	37,262.40	318.39	143.27	28.48	64	3	6.74	1	177.58	16.04%	19.88%
<b>Total MEA</b>		<b>318.39</b>	<b>143.27</b>	<b>28.48</b>	<b>64</b>	<b>3</b>	<b>6.74</b>	<b>1</b>	<b>177.58</b>	<b>16.04%</b>	<b>19.88%</b>
<b>Total EMEA</b>		<b>16,228.79</b>	<b>7,580.32</b>	<b>476.09</b>	<b>538</b>	<b>158</b>	<b>291.77</b>	<b>104</b>	<b>14,371.27</b>	<b>3.31%</b>	<b>6.28%</b>




## Size of the total commercial real estate market - Developed Markets


	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Jun-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
Canada	42,210.13	1,529.22	688.15	66.95	80	47	42.24	18	2,123.23	3.15%	9.73%
United States	57,436.41	18,569.10	8,356.10	1,099.55	316	227	805.69	134	26,997.56	4.07%	13.16%
<b>Total North America</b>		<b>20,098.32</b>	<b>9,044.25</b>	<b>1,166.51</b>	<b>396</b>	<b>274</b>	<b>847.93</b>	<b>152</b>	<b>29,120.79</b>	<b>4.01%</b>	<b>12.90%</b>

	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Jun-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
Australia	51,850.27	1,258.98	566.54	104.71	82	56	83.47	13	1,251.21	8.37%	18.48%
Hong Kong	43,527.99	320.67	288.60	301.67	120	12	217.65	13	4,577.35	6.59%	104.53%
Japan	38,917.29	4,938.64	2,222.39	229.01	154	60	172.25	40	5,652.60	4.05%	10.30%
New Zealand	38,345.40	181.99	81.90	6.10	9	6	1.46	1	83.99	7.26%	7.44%
Singapore	52,960.73	296.97	267.27	91.57	66	36	51.93	12	542.66	16.87%	34.26%
South Korea	27,538.81	1,411.25	632.50	2.20	8	6	-	-	1,502.69	0.15%	0.35%
<b>Total Asia-Pacific</b>		<b>8,408.49</b>	<b>4,059.19</b>	<b>735.26</b>	<b>439</b>	<b>176</b>	<b>526.76</b>	<b>79</b>	<b>13,610.50</b>	<b>5.40%</b>	<b>18.11%</b>
<b>Total Developed Markets</b>		<b>44,735.60</b>	<b>20,683.76</b>	<b>2,377.86</b>	<b>1,373</b>	<b>608</b>	<b>1,666.46</b>	<b>335</b>	<b>57,102.56</b>	<b>4.16%</b>	<b>11.50%</b>
<b>Total Global Markets</b>		<b>68,805.85</b>	<b>27,680.29</b>	<b>3,134.17</b>	<b>2,284</b>	<b>791</b>	<b>2,055.03</b>	<b>482</b>	<b>72,274.66</b>	<b>4.34%</b>	<b>11.32%</b>




## Size of the total commercial real estate market - Emerging Markets


	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Jun-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
Czech Republic	18,286.33	192.99	75.46	-	-	-	-	-	28.28	0.00%	0.00%
Greece	17,900.73	194.25	75.41	3.21	12	4	1.01	1	48.47	6.62%	4.26%
Hungary	11,902.79	125.68	42.59	0.22	3	-	-	-	25.99	0.84%	0.51%
Poland	12,315.65	467.59	160.26	5.77	42	-	-	-	181.45	3.18%	3.60%
Russian Federation	8,928.70	1,280.73	394.33	4.98	9	-	-	-	522.60	0.95%	1.26%
<b>Total Europe</b>		<b>2,261.24</b>	<b>748.05</b>	<b>14.18</b>	<b>66</b>	<b>4</b>	<b>1.01</b>	<b>1</b>	<b>806.79</b>	<b>1.76%</b>	<b>1.90%</b>

	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Jun-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
Egypt	3,684.57	332.35	76.18	5.31	28	-	0.68	1	39.91	13.30%	6.97%
Qatar	60,786.72	156.73	70.53	13.96	4	-	-	-	131.84	10.59%	19.79%
South Africa	5,260.90	294.13	75.92	32.09	41	29	22.28	14	442.07	7.26%	42.27%
Turkey	10,742.70	857.43	280.79	7.52	32	25	4.54	4	212.20	3.54%	2.68%
United Arab Emirates	37,677.91	371.35	167.11	37.84	12	3	9.28	2	224.65	16.84%	22.64%
<b>Total MEA</b>		<b>2,012.00</b>	<b>670.53</b>	<b>96.71</b>	<b>117</b>	<b>57</b>	<b>36.78</b>	<b>21</b>	<b>1,050.67</b>	<b>9.20%</b>	<b>14.42%</b>
<b>Total EMEA</b>		<b>4,273.23</b>	<b>1,418.59</b>	<b>110.90</b>	<b>183</b>	<b>61</b>	<b>37.80</b>	<b>22</b>	<b>1,857.46</b>	<b>5.97%</b>	<b>7.82%</b>



## Size of the total commercial real estate market - Emerging Markets

	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Mar-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
Brazil	8,726.90	1,798.62	549.58	20.56	51	22	16.61	17	735.08	2.80%	3.74%
Chile	13,576.00	247.03	87.46	2.60	10	-	2.25	1	234.50	1.11%	2.98%
Colombia	5,792.18	282.36	75.26	-	-	-	-	-	101.48	0.00%	0.00%
Mexico	8,554.62	1,046.00	317.50	17.66	19	13	13.80	8	387.14	4.56%	5.56%
Peru	6,198.61	195.14	53.20	0.38	7	-	-	-	80.24	0.47%	0.71%
<b>Total Americas</b>		<b>3,569.15</b>	<b>1,083.00</b>	<b>41.21</b>	<b>87</b>	<b>35</b>	<b>32.66</b>	<b>26</b>	<b>1,538.44</b>	<b>2.68%</b>	<b>3.81%</b>

	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Mar-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
China	8,113.26	11,218.28	3,345.54	422.42	181	-	225.26	54	6,996.99	6.04%	12.63%
India	1,723.30	2,256.40	401.49	20.39	113	-	9.62	5	1,951.00	1.05%	5.08%
Indonesia	3,604.29	932.45	212.18	20.29	51	1	11.14	9	475.38	4.27%	9.56%
Malaysia	9,360.47	296.36	92.70	31.12	98	17	16.59	13	408.10	7.63%	33.57%
Pakistan	1,468.20	284.19	47.94	0.30	4	1	-	-	89.01	0.33%	0.62%
Philippines	2,924.29	304.70	64.67	51.53	46	-	38.07	6	265.09	19.44%	79.69%
Taiwan	22,453.43	528.55	221.30	15.06	33	5	0.26	1	1,140.91	1.32%	6.80%
Thailand	5,899.42	406.95	109.13	43.09	115	63	17.18	11	449.72	9.58%	39.49%
<b>Total Asia-Pacific</b>		<b>16,227.87</b>	<b>4,494.94</b>	<b>604.21</b>	<b>641</b>	<b>87</b>	<b>318.11</b>	<b>99</b>	<b>11,776.21</b>	<b>5.13%</b>	<b>13.44%</b>
<b>Total Emerging Markets</b>		<b>24,070.24</b>	<b>6,996.53</b>	<b>756.31</b>	<b>911</b>	<b>183</b>	<b>388.57</b>	<b>147</b>	<b>15,172.11</b>	<b>4.98%</b>	<b>10.81%</b>
<b>Total Global Markets</b>		<b>68,805.85</b>	<b>27,680.29</b>	<b>3,134.17</b>	<b>2,284</b>	<b>791</b>	<b>2,055.03</b>	<b>482</b>	<b>72,274.66</b>	<b>4.34%</b>	<b>11.32%</b>





## Size of the total commercial real estate market - European Union



	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Mar-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
Austria	44,498.37	386.75	174.04	11.49	10	-	5.50	2	134.32	8.55%	6.60%
Belgium	41,283.27	466.96	210.13	15.89	26	17	10.45	8	447.03	3.56%	7.56%
Bulgaria	7,368.52	52.42	15.14	0.46	37	33	-	-	6.02	7.56%	3.01%
Croatia	12,095.48	50.44	17.18	0.08	2	-	-	-	22.25	0.35%	0.45%
Cyprus	23,351.87	19.81	8.40	0.09	6	-	-	-	2.15	4.14%	1.06%
Czech Republic	18,286.33	192.99	75.46	-	-	-	-	-	28.28	0.00%	0.00%
Denmark	53,743.97	306.73	138.03	1.60	10	-	-	-	423.05	0.38%	1.16%
Estonia	17,632.70	23.13	8.93	0.14	3	-	-	-	2.68	5.32%	1.60%
Finland	43,169.22	236.88	106.60	5.27	6	1	4.96	3	255.16	2.06%	4.94%
France	38,127.65	2,463.22	1,108.45	90.36	57	32	62.99	7	2,347.03	3.85%	8.15%
Germany	41,902.28	3,466.64	1,559.99	79.07	59	4	54.05	13	2,161.55	3.66%	5.07%
Greece	17,900.73	194.25	75.41	3.21	12	4	1.01	1	48.47	6.62%	4.26%
Hungary	11,902.79	125.68	42.59	0.22	3	-	-	-	25.99	0.84%	0.51%
Ireland	65,870.83	293.61	132.12	2.84	3	3	2.84	3	120.82	2.35%	2.15%
Italy	30,507.18	1,850.74	832.83	2.98	10	5	2.35	2	636.83	0.47%	0.36%
Latvia	14,060.40	27.68	9.92	0.00	1	-	-	-	1.10	0.14%	0.01%
Lithuania	14,890.07	42.75	15.61	0.05	2	-	-	-	4.12	1.13%	0.30%
Luxembourg	103,198.82	59.47	26.76	0.73	1	-	-	-	21.45	3.40%	2.73%
Malta	25,214.34	10.95	4.77	0.17	3	-	-	-	5.14	3.33%	3.59%
Netherlands	45,282.63	771.16	347.02	6.40	11	5	5.35	4	577.14	1.11%	1.84%
Poland	12,315.65	467.59	160.26	5.77	42	-	-	-	181.45	3.18%	3.60%
Portugal	19,831.61	204.76	82.26	0.04	2	1	-	-	70.22	0.05%	0.05%
Romania	9,465.42	187.04	58.72	0.01	4	1	-	-	20.05	0.04%	0.01%
Slovak Republic	16,498.53	90.26	34.10	-	-	-	-	-	7.41	0.00%	0.00%
Slovenia	21,320.16	44.01	18.11	-	-	-	-	-	6.00	0.00%	0.00%
Spain	26,608.87	1,232.60	546.14	24.90	55	39	13.29	5	799.70	3.11%	4.56%
Sweden	51,164.51	511.40	230.13	54.90	55	-	26.16	12	790.15	6.95%	23.85%
United Kingdom	40,095.95	2,629.19	1,478.92	92.68	106	48	78.71	38	3,432.33	2.70%	6.27%
<b>Total European Union</b>		<b>16,409.10</b>	<b>7,518.03</b>	<b>399.35</b>	<b>526</b>	<b>193</b>	<b>267.67</b>	<b>98</b>	<b>12,577.90</b>	<b>3.17%</b>	<b>5.31%</b>



## Size of the total commercial real estate market - European Union



	Dec-16 FTSE/EPRA Country	Historic Joined the EU Date	Historic Joined the OECD Date	Historic Joined the Eurozone Date	Dec-16 Country Population (# Mln)	Dec-16 Country Population (% of EU)	Dec-16 GDP (\$ Bln.)	Dec-16 GDP (% of EU)	Dec-16 Unemploy- ment Rate % labor force
Austria	Developed	01-01-95	29-09-61	01-01-99	8.69	1.71%	386.75	2.36%	6.16%
Belgium	Developed	01-01-58	13-09-61	01-01-99	11.31	2.22%	466.96	2.85%	8.38%
Bulgaria	Frontier	01-01-07	-	-	7.11	1.40%	52.42	0.32%	8.24%
Croatia	Frontier	01-07-13	-	-	4.17	0.82%	50.44	0.31%	16.39%
Cyprus	Frontier	01-05-04	-	01-01-08	0.85	0.17%	19.81	0.12%	13.04%
Czech Republic	Emerging	01-05-04	21-12-95	-	10.55	2.07%	192.99	1.18%	4.14%
Denmark	Developed	01-01-73	30-05-61	-	5.71	1.12%	306.73	1.87%	6.00%
Estonia	Frontier	01-05-04	09-12-10	01-01-11	1.31	0.26%	23.13	0.14%	5.57%
Finland	Developed	01-01-95	28-01-69	01-01-99	5.49	1.08%	236.88	1.44%	9.09%
France	Developed	01-01-58	07-08-61	01-01-99	64.61	12.70%	2,463.22	15.01%	9.84%
Germany	Developed	01-01-58	27-09-61	01-01-99	82.73	16.26%	3,466.64	21.13%	4.29%
Greece	Emerging	01-01-81	27-09-61	01-01-01	10.85	2.13%	194.25	1.18%	23.27%
Hungary	Emerging	01-05-04	07-05-96	-	9.84	1.93%	125.68	0.77%	6.02%
Ireland	Developed	01-01-73	17-08-61	01-01-99	4.69	0.92%	293.61	1.79%	8.29%
Italy	Developed	01-01-58	29-03-62	01-01-99	60.67	11.92%	1,850.74	11.28%	11.46%
Latvia	Frontier	01-05-04	01-07-16	01-01-14	1.97	0.39%	27.68	0.17%	9.43%
Lithuania	Frontier	01-05-04	-	01-01-15	2.87	0.56%	42.75	0.26%	7.82%
Luxembourg	Developed	01-01-58	07-12-61	01-01-99	0.58	0.11%	59.47	0.36%	6.45%
Malta	Frontier	01-05-04	-	01-01-08	0.43	0.09%	10.95	0.07%	4.80%
Netherlands	Developed	01-01-58	13-11-61	01-01-99	17.03	3.35%	771.16	4.70%	6.70%
Poland	Emerging	01-05-04	22-11-96	-	37.97	7.46%	467.59	2.85%	6.34%
Portugal	Developed	01-01-86	04-08-61	01-01-99	10.33	2.03%	204.76	1.25%	11.16%
Romania	Frontier	01-01-07	-	-	19.76	3.88%	187.04	1.14%	6.40%
Slovak Republic	Frontier	01-05-04	14-12-00	01-01-09	5.43	1.07%	90.26	0.55%	9.86%
Slovenia	Frontier	01-05-04	21-07-10	01-01-07	2.06	0.41%	44.01	0.27%	8.24%
Spain	Developed	01-01-86	03-08-61	01-01-99	46.32	9.10%	1,232.60	7.51%	19.40%
Sweden	Developed	01-01-95	28-09-61	-	10.00	1.96%	511.40	3.12%	6.91%
United Kingdom	Developed	01-01-73	02-05-61	-	65.57	12.89%	2,629.19	16.02%	4.96%
<b>Total European Union</b>		<b>28</b>	<b>22</b>	<b>19</b>	<b>508.89</b>	<b>100.00%</b>	<b>16,409.10</b>	<b>100.00%</b>	



# Real Estate Investment Trusts (REITs) in the European Union

## Countries within the European Union with a REIT regime



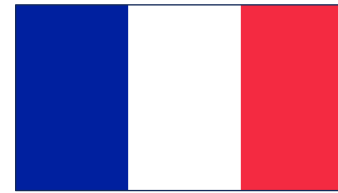
Belgium



Bulgaria



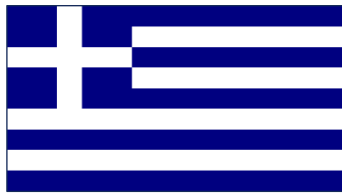
Finland



France



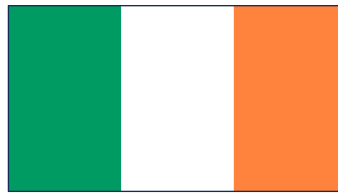
Germany



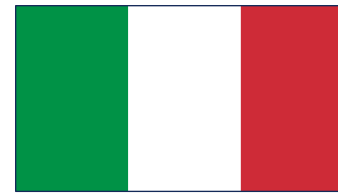
Greece



Hungary



Ireland



Italy



Lithuania



Netherlands



Spain



United Kingdom

## Countries within the European Union considering adoption of REIT regime



Poland



Sweden



Portugal



Luxembourg



Malta



## Size of the total commercial real estate market - Eurozone

USD	Dec-16	Dec-16	Dec-16	Jun-17	Jun-17	Jun-17	Jun-17	Jun-17	Jun-17	Jun-17	Jun-17
	GDP per Capita (\$)	GDP (\$ Bln.)	Commercial Real Estate (\$ Bln.)	Total Listed Real Estate (\$ Bln.)	Number of Companies #	Of which REITs #	Index Full Market Cap (\$ Bln.)	No. of Index Cons. #	Stock Market Size (\$ Bln.)	RE/Stock Market %	Listed RE / Total RE %
Austria	44,498.37	386.75	174.04	11.49	10	-	5.50	2	134.32	8.55%	6.60%
Belgium	41,283.27	466.96	210.13	15.89	26	17	10.45	8	447.03	3.56%	7.56%
Cyprus	23,351.87	19.81	8.40	0.09	6	-	-	-	2.15	4.14%	1.06%
Estonia	17,632.70	23.13	8.93	0.14	3	-	-	-	2.68	5.32%	1.60%
Finland	43,169.22	236.88	106.60	5.27	6	1	4.96	3	255.16	2.06%	4.94%
France	38,127.65	2,463.22	1,108.45	90.36	57	32	62.99	7	2,347.03	3.85%	8.15%
Germany	41,902.28	3,466.64	1,559.99	79.07	59	4	54.05	13	2,161.55	3.66%	5.07%
Greece	17,900.73	194.25	75.41	3.21	12	4	1.01	1	48.47	6.62%	4.26%
Ireland	65,870.83	293.61	132.12	2.84	3	3	2.84	3	120.82	2.35%	2.15%
Italy	30,507.18	1,850.74	832.83	2.98	10	5	2.35	2	636.83	0.47%	0.36%
Latvia	14,060.40	27.68	9.92	0.00	1	-	-	-	1.10	0.14%	0.01%
Lithuania	14,890.07	42.75	15.61	0.05	2	-	-	-	4.12	1.13%	0.30%
Luxembourg	103,198.82	59.47	26.76	0.73	1	-	-	-	21.45	3.40%	2.73%
Malta	25,214.34	10.95	4.77	0.17	3	-	-	-	5.14	3.33%	3.59%
Netherlands	45,282.63	771.16	347.02	6.40	11	5	5.35	4	577.14	1.11%	1.84%
Portugal	19,831.61	204.76	82.26	0.04	2	1	-	-	70.22	0.05%	0.05%
Slovak Republic	16,498.53	90.26	34.10	-	-	-	-	-	7.41	0.00%	0.00%
Slovenia	21,320.16	44.01	18.11	-	-	-	-	-	6.00	0.00%	0.00%
Spain	26,608.87	1,232.60	546.14	24.90	55	39	13.29	5	799.70	3.11%	4.56%
<b>Total Eurozone</b>		<b>11,885.63</b>	<b>5,301.60</b>	<b>243.63</b>	<b>267</b>	<b>111</b>	<b>162.79</b>	<b>48</b>	<b>7,648.32</b>	<b>3.19%</b>	<b>4.60%</b>



## Size of the total commercial real estate market - Eurozone

EUR	Dec-16	Dec-16	Dec-16	Jun-17	Jun-17	Jun-17	Jun-17	Jun-17	Jun-17	Jun-17	Jun-17
	GDP per Capita (€)	GDP (€ Bln.)	Commercial Real Estate (€ Bln.)	Total Listed Real Estate (€ Bln.)	Number of Companies #	Of which REITs #	Index Full Market Cap (€ Bln.)	No. of Index Cons. #	Stock Market Size (€ Bln.)	RE/Stock Market %	Listed RE / Total RE %
Austria	42,188.55	366.68	165.00	10.07	10	-	4.82	2	117.76	8.55%	6.11%
Belgium	39,140.34	442.72	199.22	13.94	26	17	9.16	8	391.94	3.56%	7.00%
Cyprus	22,139.72	18.78	7.97	0.08	6	-	-	-	1.89	4.14%	0.98%
Estonia	16,717.42	21.93	8.47	0.13	3	-	-	-	2.35	5.33%	1.48%
Finland	40,928.39	224.59	101.06	4.62	6	1	4.35	3	223.72	2.07%	4.57%
France	36,148.52	2,335.36	1,050.91	79.24	57	32	55.23	7	2,057.80	3.85%	7.54%
Germany	39,727.22	3,286.69	1,479.01	69.33	59	4	47.39	13	1,895.18	3.66%	4.69%
Greece	16,971.54	184.16	71.50	2.81	12	4	0.89	1	42.50	6.62%	3.94%
Ireland	62,451.60	278.36	125.26	2.49	3	3	2.49	3	105.93	2.35%	1.99%
Italy	28,923.61	1,754.67	789.60	2.61	10	5	2.06	2	558.35	0.47%	0.33%
Latvia	13,330.55	26.25	9.40	0.00	1	-	-	-	0.96	0.14%	0.01%
Lithuania	14,117.15	40.53	14.80	0.04	2	-	-	-	3.61	1.13%	0.27%
Luxembourg	97,841.98	56.38	25.37	0.64	1	-	-	-	18.81	3.40%	2.52%
Malta	23,905.52	10.38	4.52	0.15	3	-	-	-	4.51	3.33%	3.32%
Netherlands	42,932.10	731.13	329.01	5.61	11	5	4.69	4	506.02	1.11%	1.71%
Portugal	18,802.19	194.13	77.99	0.03	2	1	-	-	61.57	0.05%	0.04%
Slovak Republic	15,642.13	85.58	32.33	-	-	-	-	-	6.50	0.00%	0.00%
Slovenia	20,213.47	41.72	17.17	-	-	-	-	-	5.26	0.00%	0.00%
Spain	25,227.65	1,168.62	517.79	21.84	55	39	11.65	5	701.15	3.11%	4.22%
<b>Total Eurozone</b>		<b>11,268.67</b>	<b>5,026.40</b>	<b>213.64</b>	<b>267</b>	<b>111</b>	<b>142.73</b>	<b>48</b>	<b>6,705.82</b>	<b>3.19%</b>	<b>4.25%</b>



## Size of the total commercial real estate market - OECD



	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Jun-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
Australia	51,850.27	1,258.98	566.54	104.71	82	56	83.47	13	1,251.21	8.37%	18.48%
Austria	44,498.37	386.75	174.04	11.49	10	-	5.50	2	134.32	8.55%	6.60%
Belgium	41,283.27	466.96	210.13	15.89	26	17	10.45	8	447.03	3.56%	7.56%
Canada	42,210.13	1,529.22	688.15	66.95	80	47	42.24	18	2,123.23	3.15%	9.73%
Chile	13,576.00	247.03	87.46	2.60	10	-	2.25	1	234.50	1.11%	2.98%
Czech Republic	18,286.33	192.99	75.46	-	-	-	-	-	28.28	0.00%	0.00%
Denmark	53,743.97	306.73	138.03	1.60	10	-	-	-	423.05	0.38%	1.16%
Estonia	17,632.70	23.13	8.93	0.14	3	-	-	-	2.68	5.32%	1.60%
Finland	43,169.22	236.88	106.60	5.27	6	1	4.96	3	255.16	2.06%	4.94%
France	38,127.65	2,463.22	1,108.45	90.36	57	32	62.99	7	2,347.03	3.85%	8.15%
Germany	41,902.28	3,466.64	1,559.99	79.07	59	4	54.05	13	2,161.55	3.66%	5.07%
Greece	17,900.73	194.25	75.41	3.21	12	4	1.01	1	48.47	6.62%	4.26%
Hungary	11,902.79	125.68	42.59	0.22	3	-	-	-	25.99	0.84%	0.51%
Iceland	59,629.05	20.05	9.02	1.50	3	-	-	-	10.51	14.27%	16.62%
Ireland	65,870.83	293.61	132.12	2.84	3	3	2.84	3	120.82	2.35%	2.15%
Israel	37,262.40	318.39	143.27	28.48	64	3	6.74	1	177.58	16.04%	19.88%
Italy	30,507.18	1,850.74	832.83	2.98	10	5	2.35	2	636.83	0.47%	0.36%
Japan	38,917.29	4,938.64	2,222.39	229.01	154	60	172.25	40	5,652.60	4.05%	10.30%
South Korea	27,538.81	1,411.25	632.50	2.20	8	6	-	-	1,502.69	0.15%	0.35%
Latvia	14,060.40	27.68	9.92	0.00	1	-	-	-	1.10	0.14%	0.01%
Luxembourg	103,198.82	59.47	26.76	0.73	1	-	-	-	21.45	3.40%	2.73%
Mexico	8,554.62	1,046.00	317.50	17.66	19	13	13.80	8	387.14	4.56%	5.56%
Netherlands	45,282.63	771.16	347.02	6.40	11	5	5.35	4	577.14	1.11%	1.84%
New Zealand	38,345.40	181.99	81.90	6.10	9	6	1.46	1	83.99	7.26%	7.44%
Norway	70,391.57	370.45	166.70	5.57	7	-	2.96	2	252.26	2.21%	3.34%
Poland	12,315.65	467.59	160.26	5.77	42	-	-	-	181.45	3.18%	3.60%
Portugal	19,831.61	204.76	82.26	0.04	2	1	-	-	70.22	0.05%	0.05%
Slovak Republic	16,498.53	90.26	34.10	-	-	-	-	-	7.41	0.00%	0.00%
Slovenia	21,320.16	44.01	18.11	-	-	-	-	-	6.00	0.00%	0.00%
		<b>22,994.50</b>	<b>10,058.44</b>	<b>690.82</b>	<b>692.00</b>	<b>263.00</b>	<b>474.67</b>	<b>127</b>	<b>19,171.69</b>		

Continued >>



## Size of the total commercial real estate market - OECD

	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Jun-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
Spain	26,608.87	1,232.60	546.14	24.90	55	39	13.29	5	799.70	3.11%	4.56%
Sweden	51,164.51	511.40	230.13	54.90	55	-	26.16	12	790.15	6.95%	23.85%
Switzerland	79,242.28	659.85	296.93	52.88	56	-	15.42	4	1,724.66	3.07%	17.81%
Turkey	10,742.70	857.43	280.79	7.52	32	25	4.54	4	212.20	3.54%	2.68%
United Kingdom	40,095.95	2,629.19	1,478.92	92.68	106	48	78.71	38	3,432.33	2.70%	6.27%
United States	57,436.41	18,569.10	8,356.10	1,099.55	316	227	805.69	134	26,997.56	4.07%	13.16%
<b>Total OECD</b>		<b>24,459.56</b>	<b>11,189.00</b>	<b>1,332.43</b>	<b>620.00</b>	<b>339.00</b>	<b>943.82</b>	<b>197</b>	<b>33,956.60</b>	<b>3.81%</b>	<b>9.52%</b>




**Global REIT Survey 2016**  
A COMPARISON OF THE MAJOR REIT REGIMES AROUND THE WORLD


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## Size of the total commercial real estate market - G7



	Dec-16 GDP per Capita (\$)	Dec-16 GDP (\$ Bln.)	Dec-16 Commercial Real Estate (\$ Bln.)	Jun-17 Total Listed Real Estate (\$ Bln.)	Jun-17 Number of Companies #	Jun-17 Of which REITs #	Jun-17 Index Full Market Cap (\$ Bln.)	Jun-17 No. of Index Cons. #	Jun-17 Stock Market Size (\$ Bln.)	Jun-17 RE/Stock Market %	Jun-17 Listed RE / Total RE %
Canada	42,210.13	1,529.22	688.15	66.95	80	47	42.24	18	2,123.23	3.15%	9.73%
France	38,127.65	2,463.22	1,108.45	90.36	57	32	62.99	7	2,347.03	3.85%	8.15%
Germany	41,902.28	3,466.64	1,559.99	79.07	59	4	54.05	13	2,161.55	3.66%	5.07%
Italy	30,507.18	1,850.74	832.83	2.98	10	5	2.35	2	636.83	0.47%	0.36%
Japan	38,917.29	4,938.64	2,222.39	229.01	154	60	172.25	40	5,652.60	4.05%	10.30%
United Kingdom	40,095.95	2,629.19	1,478.92	92.68	106	48	78.71	38	3,432.33	2.70%	6.27%
United States	57,436.41	18,569.10	8,356.10	1,099.55	316	227	805.69	134	26,997.56	4.07%	13.16%
<b>Total G7</b>		<b>35,446.75</b>	<b>16,246.82</b>	<b>1,660.61</b>	<b>782</b>	<b>423</b>	<b>1,218.28</b>	<b>252</b>	<b>43,351.12</b>	<b>3.83%</b>	<b>10.22%</b>



	Dec-16 FTSE/EPRA Country FTSE Russell	Historic Joined the OECD Date	Historic Joined the EU Date	Historic Joined the Eurozone Date	Dec-16 Country Population (# Mln)	Dec-16 Country Population (% of EU)	Dec-16 GDP (\$ Bln.)	Dec-16 GDP (% of EU)	Dec-16 Unemploy- ment Rate % labor force
Canada	Developed	10-04-61	-	-	36.23	4.77%	1,529.22	4.31%	7.04%
France	Developed	07-08-61	01-01-58	01-01-99	64.61	8.50%	2,463.22	6.95%	9.84%
Germany	Developed	27-09-61	01-01-58	01-01-99	82.73	10.89%	3,466.64	9.78%	4.29%
Italy	Developed	29-03-62	01-01-58	01-01-99	60.67	7.98%	1,850.74	5.22%	11.46%
Japan	Developed	28-04-64	-	-	126.90	16.70%	4,938.64	13.93%	3.18%
United Kingdom	Developed	02-05-61	01-01-73	-	65.57	8.63%	2,629.19	7.42%	4.96%
United States	Developed	12-04-61	-	-	323.30	42.54%	18,569.10	52.39%	4.90%
<b>Total G7</b>		<b>7</b>	<b>4</b>	<b>3</b>	<b>760.00</b>	<b>100.00%</b>	<b>35,447</b>	<b>100.00%</b>	





# Size of the total commercial real estate market - Methodology

## Size of the total real estate market

We estimate the size of individual country commercial real estate markets using a Gross Domestic Product (GDP) top down approach, and aggregate their values to arrive at a global estimate. Of course, individual countries are in varying stages of development, therefore, we must adjust country estimates to account for the economic situation based on the FTSE Country Classification.

With regard to the sample, we selected 48 countries from four separate regions: Asia-Pacific, EMEA, Latin America, and North America, based on the eligible markets for the FTSE EPRA/NAREIT Global Real Estate Indexes. We also added the countries from large political and economical regions (EU, Eurozone, OECD, and G7) giving a total of 59 countries that are tracked in this report. In developed countries high quality commercial real estate represents approximately 45 percent of GDP. In emerging countries, this figure is lower.

We based our estimates on a formula devised by Prudential Real Estate Investors, as published in “A Bird’s Eye View of Global Real Estate Markets: Update February 2012” – Prudential Real Estate Investors (PGIM Real Estate), Paul Fiorilla, Manidipa Kapas, and Youguo Liang. February 2012.

- ▶ For developed markets 45% of GDP is used
- ▶ For Hong Kong and Singapore the 45% of GDP is adjusted upwards by 100%
- ▶ For the United Kingdom and four of the GCC countries (Bahrain, Kuwait, Qatar, and the United Arab Emirates the 45% of GDP is adjusted upwards by 25%
- ▶ For emerging markets further adjustments are made based upon the following formulas:

For developed countries:  $RE_i = GDP_i \times 0.45$

For emerging countries:  $RE_i = GDP_i \times 0.45 (GDHi / GDP \text{ Adj. for inflation})^{(1/3)}$

Where:

**RE<sub>i</sub>** = Country high-quality commercial real estate value

**GDP<sub>i</sub>** = Country Gross Domestic Product

**GDHi** = Country Gross Domestic Product per capita

**GDP Adj. for inflation** = USD 20,000 for the year 2000 adjusted annually on the US inflation rate

The GDP numbers, and hence the total value of real estate is updated when the Organisation for Economic Co-operation and Development (OECD) publishes new GDP figures.

## Size of the listed real estate market

The calculation of the size of the total listed real estate market is based on the Industry Classification Benchmark (ICB) system provided by FTSE. Similar to the FTSE EPRA/NAREIT Global Real Estate Indexes, the starting point is defined by the index Ground Rules. The Initial Universe of stocks consists of companies with the following ICB Classifications: Supersector 8600 (Real Estate), Subsector 2357 (Heavy Construction), and Subsector 3728 (Home Construction).

We remove the following irrelevant subsectors: 8637 (Real Estate Services), 8676 (Mortgage REITs), 2357 (Heavy Construction), and 3728 (Home Construction).

The ICB Universe is updated on a quarterly basis, or on ad-hoc basis in case of IPO’s, delistings, M&A transactions, etc.

To derive the value of the real estate markets, full market caps of the listed companies are used.

Sources: EPRA, FTSE, Bloomberg, PGIM Real Estate



## Size of the total commercial real estate market - EPRA Disclaimer

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