

## Estimating the Size of the Commercial Real Estate Market

### Highlights

- The base estimate values U.S. commercial real estate at \$16.0 trillion.
- \$14 to \$17 trillion is a reasonable range, given uncertainties about underlying data.
- Approximately one-third of commercial real estate is located within gateway markets.

### Key Results

- ◆ This research note summarizes a study by Nareit primarily using data from CoStar that estimates the 2018 total dollar value of commercial real estate at \$16 trillion.
- ◆ Table 1 summarizes the base estimates by property sector. The base estimate is \$16.0 trillion with low and high estimates of \$14.4 and \$17.0 trillion, respectively. Given fundamental uncertainties about the underlying data, we feel that \$14 to \$17 trillion is a reasonable range. These estimates are based on a bottom-up approach using the best available data for each property sector.
- ◆ The estimates do not include billboards, single family home rental, timber, or infrastructure other than wireless towers. Data Centers are captured in the Industrial and Flex sectors.
- ◆ Owner occupied properties account for about 10 percent of the total value. Approximately one-third of commercial real estate value is located in the seven “gateway” markets<sup>1</sup>, half is in the next largest 47 markets and the balance is in other markets.

**Table 1**  
**Estimates of Commercial Property Value: 2018Q4**

Sector	Square Footage (Millions)	Price per Square Foot (\$)	Value (\$ Trillions)
Multifamily	17,541	\$165	\$2.9
Office	11,266	\$218	\$2.5
Retail	13,646	\$179	\$2.4
Health Care	2,705	\$864	\$2.3
Specialty, Sports and Other	N/A	N/A	\$2.2
Hospitality	2,625	\$617	\$1.6
Industrial	20,749	\$73	\$1.5
Flex	2,402	\$145	\$0.3
Self-Storage	N/A	N/A	\$0.2
Towers	N/A	N/A	\$0.1
<b>Total</b>	<b>70,933</b>		<b>\$16.0</b>
<b>High Estimate</b>			<b>\$17.0</b>
<b>Low Estimate</b>			<b>\$14.4</b>

## Methodology

To estimate the size of the commercial real estate market we use a multi-step approach based on the best available data for each relevant property sector.

- ◆ We employ a bottom up approach, identifying and estimating the number of units and total square footage by property sector and property quality type for the largest 200 markets in the U.S. This process used data from CoStar covering the Office, Industrial and Flex Industrial, Retail (including Restaurant), and Multi-family sectors. To estimate the appropriate dollar value per square foot we derived average transaction prices by market, property sector, and property quality type for 2018Q4<sup>2</sup>.
- ◆ The details on square footage and average price by property type, CoStar quality rating (1-2 Star, 3 Star, 4-5 Star) and groups of metro areas (gateway cities, next largest 47 metro areas, and all other metro areas) allow for further analysis of the geographic distribution of commercial real estate across the country and estimates of institutional-grade commercial real estate versus all other. These estimates in turn are useful for calculating the REIT share of commercial real estate by property sector (The estimates by geography, quality grade and REIT share are not included in this note).
- ◆ To estimate values for the Health Care and Hospitality sectors where we do not have disaggregated totals available from CoStar, we use the values from an aggregate analysis of commercial real estate market size conducted by CoStar in 2009 and updated quarterly using aggregate growth rate assumptions.
- ◆ To capture other property types including concert venues, amusement parks, sport facilities and other specialty use facilities, we use CoStar estimates and apply a haircut equal to the share of properties estimated to be churches, schools, post offices and parking lots.
- ◆ For Wireless Towers, we estimate total property value using gross asset estimates for from REITs Across America (covering roughly 95 thousand towers) and grossing up to cover the entire marketplace of 122 thousand towers.<sup>3</sup>
- ◆ The total value for Self Storage properties was approximated using an estimate of total facilities from Yardi Matrix<sup>4</sup> and an average price per facility based on data from Self Storage REITs and self storage properties for sale listed in CoStar's database.

## Areas of Uncertainty

- ◆ Given the scope of the commercial real estate market and the inherent limitations of the data, there are a number of areas of uncertainty. Table 2 shows the impact of modifying some key assumptions.
- ◆ CoStar estimates of the commercial real estate market size include a “Specialty, Sports” category. Based on reviewing properties in the category for selected markets, we determined this category includes a wide variety of relevant property types including sports and amusement centers, casinos and other specialty real estate. The category also includes a number of property types we deemed ineligible in order to comport with a conservative view of investable commercial real estate. These include churches, schools and parking lots (parking garages are included). Our analysis suggests that these account for roughly one third of square footage. In our base case we use a haircut of 30% on the CoStar value reflecting the likelihood that these are relatively low value properties. In Table 2 the low estimate reflects a haircut of 40% and the high estimate reflects a haircut of 20%.
- ◆ As noted above, to estimate values for the Health Care and Hospitality sectors where we do not have disaggregated totals available from CoStar, we use the values from an aggregate analysis of commercial real estate market size conducted by CoStar in 2009 and updated quarterly using aggregate growth rate assumptions. In the low estimate, we apply a 20 percent haircut to the CoStar value estimates based on difference between the bottom-up results and estimates for Office, Industrial, Flex and Multifamily.
- ◆ A five percent discount was also applied to the price per square foot for Office, Industrial, Flex, Retail, and Multifamily property sectors to help calculate a low estimate. A five percent premium over the base case in price per square foot was applied to create the high estimate.

<sup>1</sup> Gateway markets include Atlanta, Boston, Chicago, Los Angeles, New York, San Francisco and Washington DC.

<sup>2</sup> Using average transaction prices for full-year 2018 yields comparable results.

<sup>3</sup> Source: ‘Top 100 Tower Companies’ in the U.S. from WirelessEstimator.com

<sup>4</sup> Source: Self Storage Industry Overview & Analysis from Yardi Matrix, Summer 2017

**Table 2  
Detailed Estimates of Commercial Property Value: 2018Q4**

Sector	Low Estimate			Base Estimates			High Estimate		
	Square Footage (Millions)	Price per Square Foot (\$)	Value (\$ Trillions)	Square Footage (Millions)	Price per Square Foot (\$)	Value (\$ Trillions)	Square Footage (Millions)	Price per Square Foot (\$)	Value (\$ Trillions)
Multifamily	17,541	\$156	\$2.7	17,541	\$165	\$2.9	17,541	\$173	\$3.0
Office	11,266	\$207	\$2.3	11,266	\$218	\$2.5	11,266	\$228	\$2.6
Retail	13,646	\$170	\$2.3	13,646	\$179	\$2.4	13,442	\$188	\$2.6
Health Care	2,705	\$864	\$1.9 *	2,705	\$864	\$2.3	2,698	\$907	\$2.5
Specialty, Sports and Other **	-	-	\$1.8	-	-	\$2.2	-	-	\$2.5
Hospitality	2,625	\$617	\$1.3 *	2,625	\$617	\$1.6	2,618	\$648	\$1.7
Industrial	20,749	\$69	\$1.4	20,749	\$73	\$1.5	20,148	\$76	\$1.6
Flex	2,402	\$138	\$0.3	2,402	\$145	\$0.3	2,362	\$152	\$0.4
Self-Storage	-	-	\$0.2	-	-	\$0.2	-	-	\$0.2
Towers	-	-	\$0.1	-	-	\$0.1	-	-	\$0.1
<b>Total</b>	<b>70,933</b>		<b>\$14.4</b>	<b>70,933</b>		<b>\$16.0</b>	<b>70,933</b>		<b>\$17.0</b>

\* Includes 20% haircut on CoStar value estimate.

\*\* Includes a haircut on CoStar estimate to account for churches and public schools. Haircut set at 40% of low estimate, 30% for base, and 20% for high estimate.