

Estimating the Size of the Commercial Real Estate Market

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Highlights

- Policy makers and market participants often inquire as to the total dollar value of commercial real estate in the United States. This research note summarizes a study by Nareit primarily using data from CoStar that estimates the 2017 total dollar value of commercial real estate was \$15 trillion.
- Table 1 summarizes the base estimates by property sector. The base estimate is \$15.2 trillion with low and high estimates of \$14.1 and \$16.8 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.

Table 1
Estimates of Commercial Property Value: 2017Q4

Sector	Square Footage (Millions)	Price per Square Foot (\$)	Value (\$ Trillions)
Office	11,017	\$205	\$2.3
Industrial ¹	20,148	\$67	\$1.4
Flex	2,362	\$122	\$0.3
Retail	13,442	\$186	\$2.5
Multifamily	18,299	\$152	\$2.8
Health Care	2,698	\$809	\$2.2
Hospitality	2,618	\$578	\$1.5
Self-Storage, Specialty, Sports, Towers and Other	N/A	N/A	\$2.3
Total	69,236		\$15.2
High Estimate			\$16.8
Low Estimate			\$14.1

- 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 11 percent of the total value. Approximately one-third of commercial real estate value is located in the seven “gateway” markets,² half is in the next largest 47 markets and the balance is in other markets.

¹ Data Centers are captured in the Industrial and Flex sectors.

² Gateway cities include Atlanta, Boston, Chicago, Los Angeles, New York, San Francisco and Washington, DC.

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 start with 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 Multifamily sectors. To estimate the appropriate dollar value per square foot we derived average transaction prices by market, property sector, and property quality type for 2017Q4.³
- 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 self-storage facilities, 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 118 thousand towers.

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

³ Using average transaction prices for full-year 2017 or the last two years yields comparable results.

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 self-storage facilities, 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, consensus view of commercial real estate. These include churches, schools, parking lots (parking garages are included), and Post Office facilities. 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%.
- The weighted average price-per-square-foot we estimate for retail properties is about 25% lower than the CoStar estimate used in their estimates of the commercial real estate market size. This could be due to selection bias in reported prices (high value retail properties rarely transact) or shortcomings with the CoStar commercial property value methodology. The high estimate in Table 2 uses the CoStar price-per-square-foot for retail.
- 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.

Table 2
Detailed Estimates of Commercial Property Value: 2017Q4

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)
Office	11,017	\$205	\$2.3	11,017	\$205	\$2.3	11,017	\$205	\$2.3
Industrial	20,148	\$67	\$1.4	20,148	\$67	\$1.4	20,148	\$67	\$1.4
Flex	2,362	\$122	\$0.3	2,362	\$122	\$0.3	2,362	\$122	\$0.3
Retail	13,442	\$186	\$2.5	13,442	\$186	\$2.5	13,442	\$284	\$3.8
Multifamily	18,299	\$152	\$2.8	18,299	\$152	\$2.8	18,299	\$152	\$2.8
Health Care	2,698	\$809	\$1.7 *	2,698	\$809	\$2.2	2,698	\$809	\$2.2
Hospitality	2,618	\$578	\$1.2 *	2,618	\$578	\$1.5	2,618	\$578	\$1.5
Self-Storage, Specialty, Sports, Towers and Other **	-	-	\$2.0	-	-	\$2.3	-	-	\$2.6
Total	70,584		\$14.1	70,584		\$15.2	70,584		\$16.8

* Includes 20% haircut on CoStar value estimate.

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

Source: Nareit calculations using the CoStar All Properties database 2017:Q4 and CoStar's Commercial Real Estate Market Size Estimates 2017Q4.