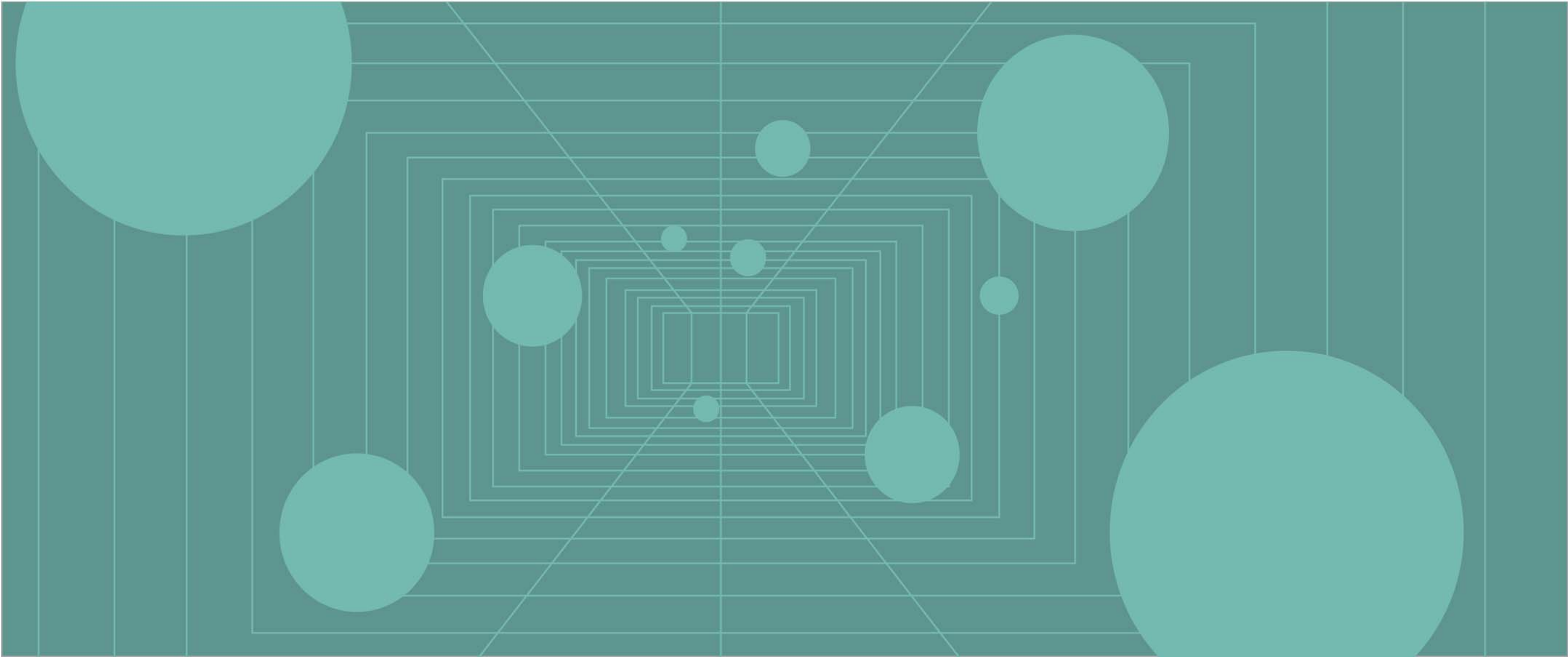
PRIVATE PROPERTY TRENDS

ANALYSIS OF OPERATING METRICS FOR US REAL ESTATE PROPERTIES



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Introduction to Operating Metrics and Key Takeaways

- The data in this report provide insights into key metrics for private real estate managers and how these metrics have evolved over time: exposures by property type, risk profile, and market exposure; trends in occupancy rates and capitalization (cap) rates at acquisition and exit; and use of debt financing.
- The increase in exposure to demographic-driven sectors, which include apartments, student and senior housing, and healthcare-related properties, and a corresponding shift away from more cyclical property types correlated to GDP growth, is likely to continue going forward as investors gravitate toward more defensive sectors given the late stage of the current economic cycle.
- E-commerce growth drove the demand for and capital allocation to industrial properties, which saw a noticeable increase in transactions in 2017. We expect this trend to continue as fundamentals for the sector remain strong.
- The dramatic decline in distressed transactions in 2017 should not be surprising at this late stage of the investment cycle. Notably, managers increased exposure to development transactions in recent years, which generally entail a greater level of risk than distressed deals.
- The flow of capital to secondary markets remained in line with the longer-term average as managers continued to strike a balance between lower yields in the more liquid primary gateway cities and higher yields in less liquid secondary markets.
- Across participating managers, leverage remains consistent at a level of approximately 55% loan-to-value. Greater discipline around the use of leverage is a notable difference relative to prior cycles, and likely reflects the application of lessons learned (on the part of both managers and investors) from the global financial crisis.

Notes on the Data

- Cambridge Associates collected information from private equity real estate firms of all sizes with broad mandates, as well as regional- and property type-focused strategies. These firms pursue a variety of strategies, ranging from core to opportunistic. Cambridge Associates has captured and analyzed current and historical data from global real estate funds for seven consecutive years; this report includes data through December 31, 2017, from more than 5,000 properties in the United States. The properties in the universe range in size from equity commitments of less than $1 million to over $1 billion and have a median equity commitment of $12.9 million. The sample of properties includes properties acquired from 2005 to 2017, with an aggregate equity commitment of around $140 billion. Within the report, depending on the metric analyzed, the set of properties represented may differ.
- Based on equity commitment over the time period analyzed, office properties make up 27% of the sample, and apartments 16%—both nearly identical to last year's report sample. Hotels make up 9%, and industrial properties make up 4%, again very similar to their respective weights in the sample for last year's report. The remainder of the sample includes a range of mixed-use properties, retail, condominiums, and land.
- Operating metrics data were collected directly from investment managers and have not been independently verified.
- Unless specified, the exhibits include unrealized and realized investments. Unrealized deals may represent a smaller share than displayed due to discontinued manager reporting.
- Data sets with fewer than ten transactions have been marked "NA" or excluded.
- Individual property operating metrics have not been adjusted for add-on acquisitions to existing properties.
- Because the operating metrics information is disaggregated into property types, the sample sizes are smaller and may be biased by one or several data points.
- Property counts are not necessarily consistent across exhibits, as managers do not always provide all data points requested.
- Past performance is not an indication of future performance, provides no guarantee for the future, and is not constant over time.

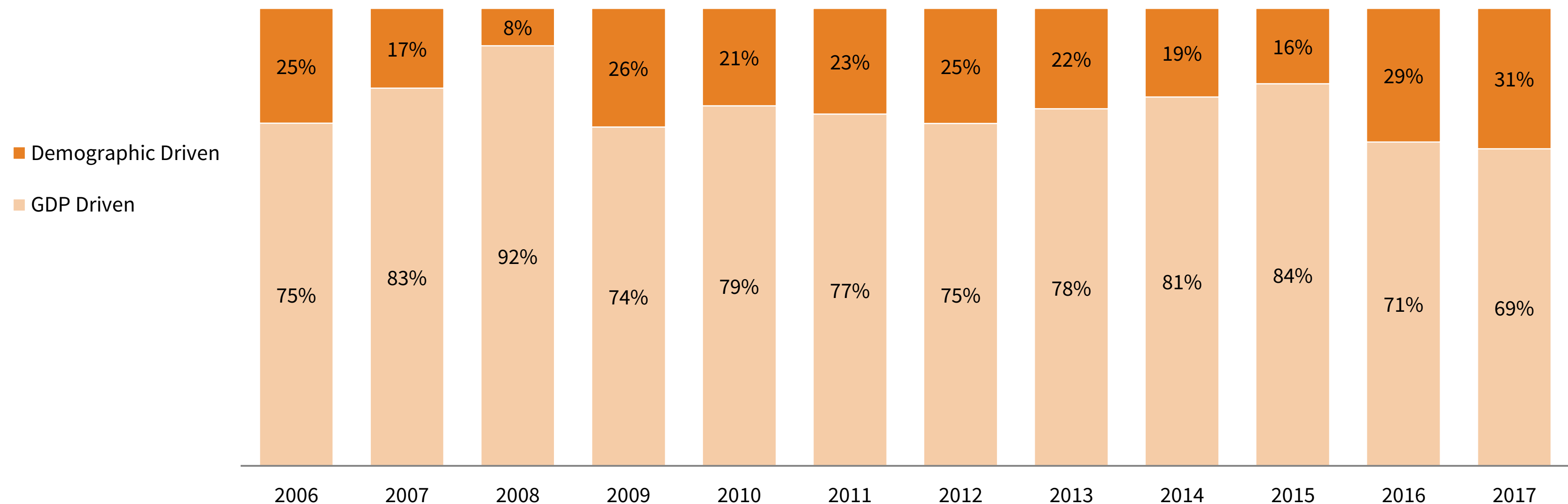
Demographic- and GDP-Driven Sector Exposure

Since 2015, we have seen an increase in allocations to demographic-driven real estate, which can be defined as real asset sectors where demand is driven by changes in demographics trends (for example, aging population). Demographic-driven real estate typically includes sectors, such as multi-family apartments, senior housing, student housing, and medical offices. Whereas GDP-driven sectors are influenced by overall economic performance (for example, increased business demand for office space or higher consumer spending).

In our survey, the increase in demographic-driven sector exposure supports the notion that in anticipation of a market correction, real estate investors are shifting away from cyclical sectors, such as office, hotel, and retail, and moving toward demographic-driven sectors that may have more defensive attributes. This is vastly different from 2008, when demographic-driven sectors represented less than 10% of the volume and portfolios were weighted toward property types with higher correlation to GDP. We expect this trend to continue going forward as investors gravitate toward these more defensive sectors given the late stage of the current economic cycle.

COMMITTED CAPITAL TO DEMOGRAPHIC- AND GDP-DRIVEN SECTORS

As of December 31, 2017 • Percent (%)



Source: Cambridge Associates LLC Private Investments Database (as reported by investment managers).
Notes: Demographic-driven real estate in our chart includes two property types, "Apartment" and "Residential" (i.e., non-multifamily); individual allocation to each is shown on the following slide. GDP-driven real estate includes all other property types but "Apartment" or "Residential".

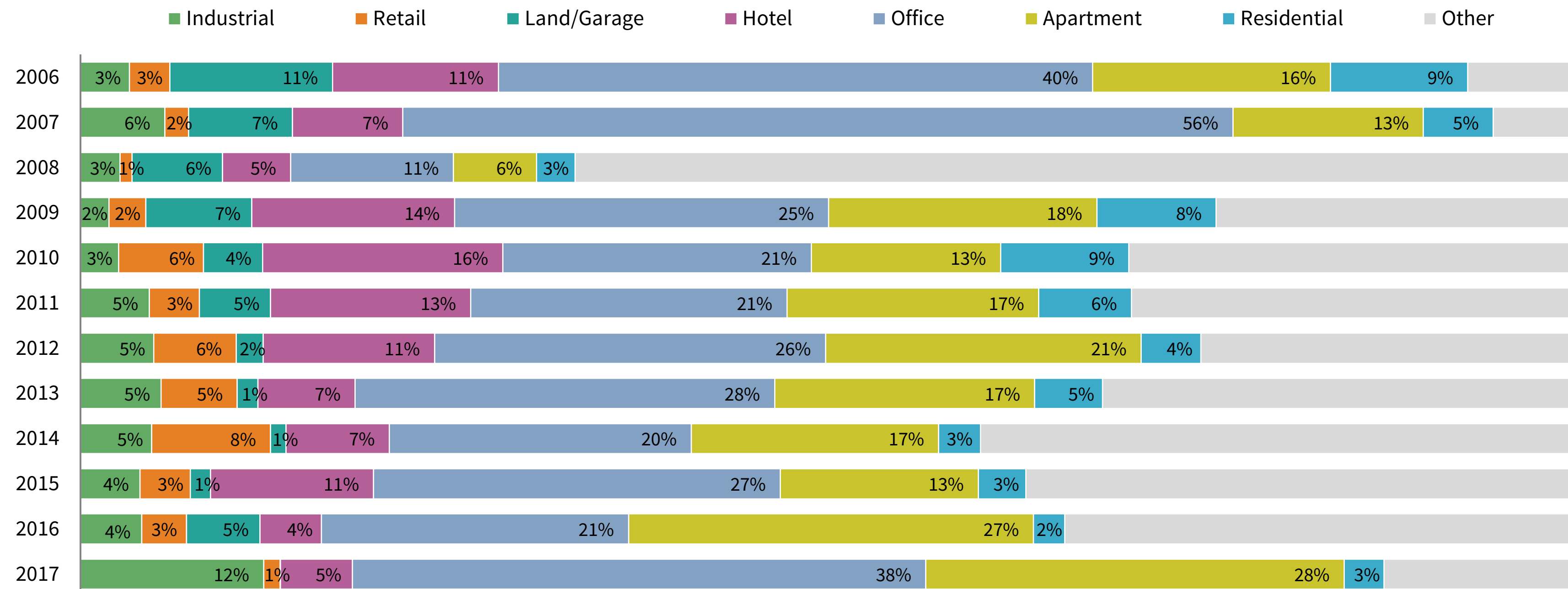
Exposure by Property Type

Apartment transactions continued to account for the majority of the demographic-driven sector activity and almost one-third of the overall transaction volume in 2017. Development, as a share of total apartment capital, was in the low 20% range in 2017, but the same as the prior year. Many managers view new construction as offering a more favorable risk/reward profile than the acquisition of existing apartments and execution of a refurbishment strategy.

Consistent with the rise of e-commerce and consumer preference for same-day delivery, the capital committed to industrial properties has grown dramatically since last year, accounting for 12% of the committed capital. At the same time, the percentage of retail acquisitions declined sharply to slightly over 1% in our surveyed pool. We expect these trends to continue due to the inexorable growth in online sales and the corresponding demand for distribution facilities.

COMMITTED CAPITAL BY PROPERTY TYPE

As of December 31, 2017 • Percent (%)



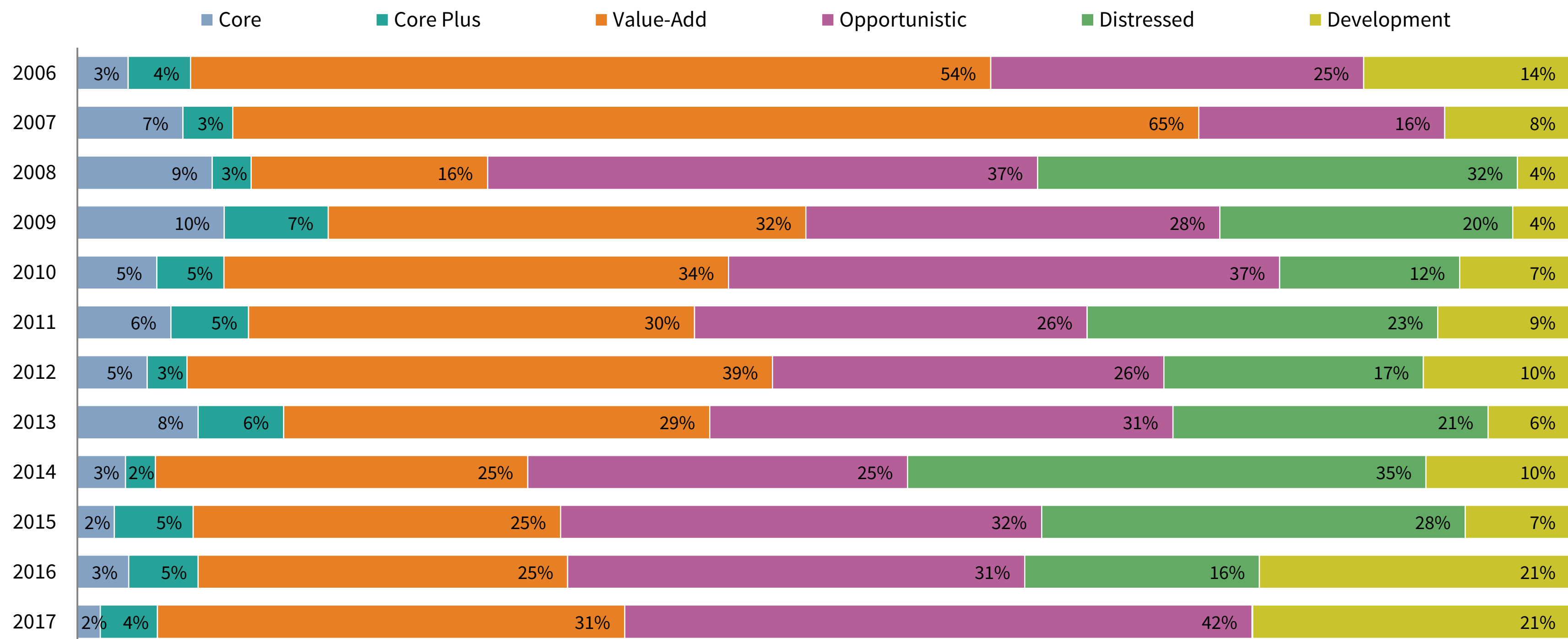
Source: Cambridge Associates LLC Private Investments Database (as reported by investment managers).
Notes: “Other" category includes loans, mixed use, real estate operating companies, and portfolios—sorted by acquisition year. All capital is reflected during the year or initial investment.

Risk Profile

From the risk-profile standpoint, value-add and opportunistic strategies continued to dominate, accounting for 73% of the total committed capital in 2017, up from 56% in 2016. Our annual survey is skewed mostly toward value-add and opportunistic managers, which explains limited allocation to core and core-plus strategies in the portfolios we survey.

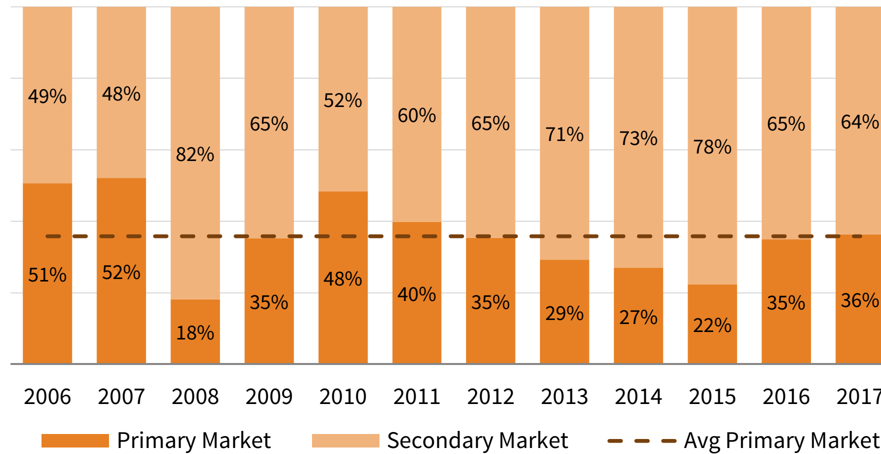
Distressed investments were negligible in 2017 after comprising a meaningful portion of investment activity over the past decade. This is hardly surprising since the United States is now ten years removed from the Lehman Brothers bankruptcy and beginning of the GFC. As distressed investments have become a less prevalent strategy, more managers increased allocation to development, which now accounts for slightly more than 20% of investment activity, the highest level in the sample, based on the managers' responses.

COMMITTED CAPITAL BY RISK PROFILE
As of December 31, 2017 • Percent (%)



Source: Cambridge Associates LLC Private Investments Database (as reported by investment managers).
Note: Managers responding to survey are less likely to pursue core and core-plus strategies.

Primary and Secondary Market Exposure



The mix of capital allocated to primary markets and secondary markets remained in line with the longer-term average. Our definition of primary markets includes the cities highlighted in the bubbles on the map.

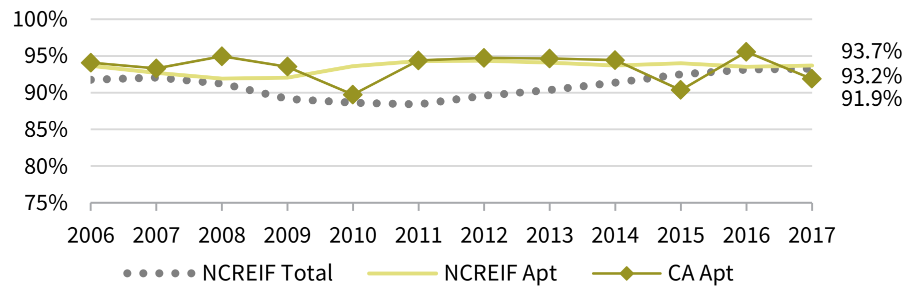
In the years immediately following the GFC, real estate managers focused on properties located in the most liquid, primary markets. As yields in these major gateway cities compressed, capital began flowing into secondary markets.

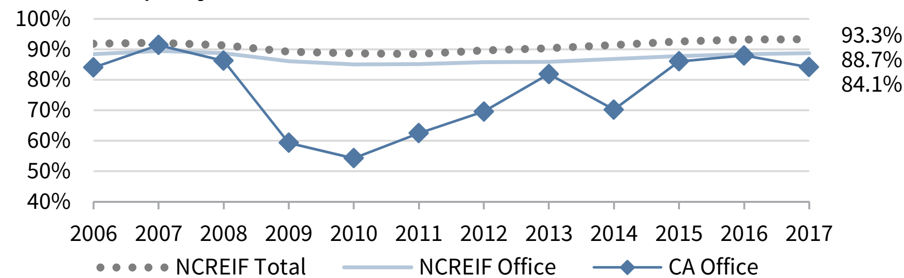
Among primary markets, based on volume, New York City has led over the past 12 years at 32% (or $15.5 billion in total) of the capital allocated to primary markets from 2006 through 2017. However, this trend has shown signs of changing; in 2017, San Francisco was the lead primary market followed very closely by the metropolitan areas of Boston and then by Los Angeles, based on volume.

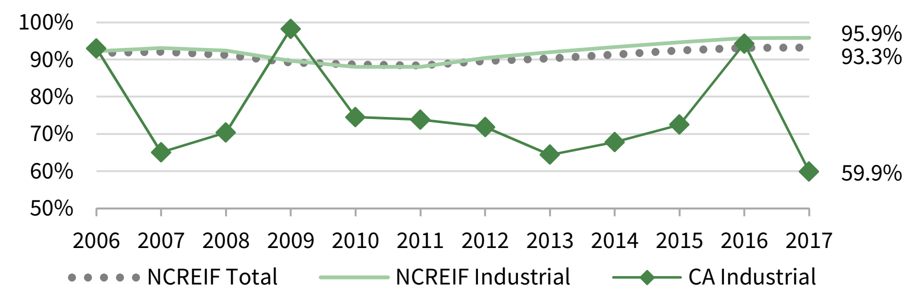
Source: Cambridge Associates LLC Private Investments Database (as reported by investment managers).
Notes: Primary markets include the Boston, Chicago, Los Angeles, New York, San Francisco, Seattle, and Washington, DC metropolitan statistical areas. The total may not add up to 100% due to rounding.

Occupancy Rate Trends

AVERAGE OCCUPANCY RATE AT ACQUISITION
As of December 31, 2017







The NCREIF average occupancy across all asset classes has been trending upward since 2010, and by the end of 2017 was 93%. The universe of CA properties, except for apartments that are more in line with NCREIF, is generally more volatile because the manager sample is skewed toward more opportunistic and value-add strategies.

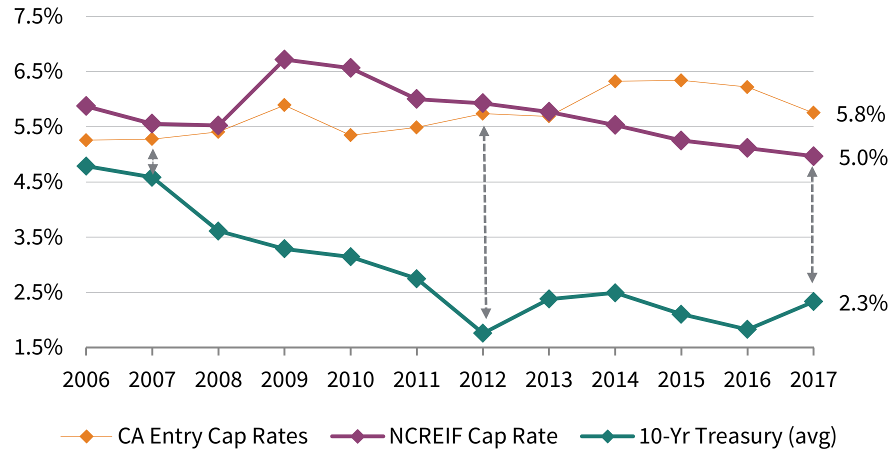
Occupancy rates for offices acquired by survey participants have averaged in the mid-80% range for the last three years, a meaningful increase since 2009–12 when managers were willing to take on greater vacancy risk.

A significant decline in occupancy of the CA surveyed industrial properties has been driven in part by a higher share of opportunistic deals in this property class, increasing from 18% of capital allocated in 2016 to 45% in 2017. The lower occupancy at acquisition can also be explained by a higher percentage of development deals. Industrial fundamentals have remained strong and managers are likely to continue taking on vacancy risk in the industrial sector.

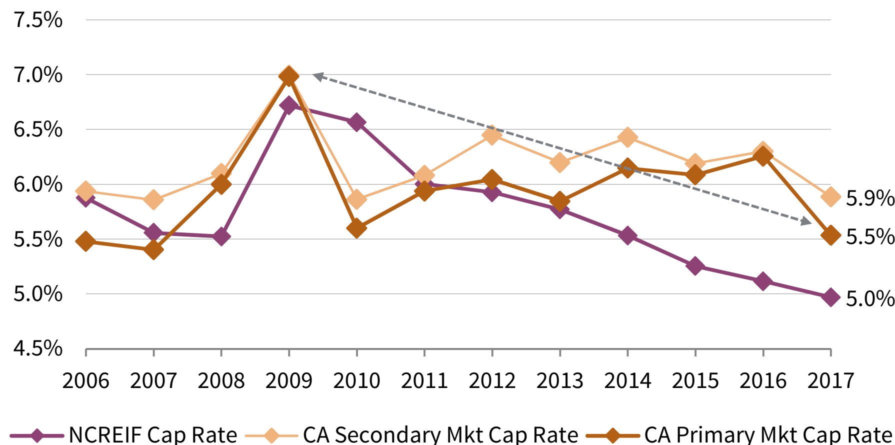
Sources: Cambridge Associates LLC Private Investments Database (as reported by investment managers) and National Council of Real Estate Investment Fiduciaries.
Notes: NCREIF average occupancy represents a four-quarter average occupancy for that year either for all property types, shown as "NCREIF Total Occupancy" or for a particular property type. CA occupancy shows average occupancy at acquisition for that year for a particular property type.

Capitalization Rate Trends

AVERAGE CAPITALIZATION AND INTEREST RATES
As of December 31, 2017



AVERAGE PRIMARY AND SECONDARY MARKET CAPITALIZATION RATES
As of December 31, 2017



Before reviewing valuation trends, it is worth noting that acquisition cap rates are less meaningful when assessing value-added real estate managers. To the extent these managers are buying properties with significant vacancy, acquisition cap rates are likely to be quite low on the in-place income and not reflective of what managers expect to achieve once the property is stabilized. Thus, it is surprising to see that the average cap rate in the survey data is meaningfully higher than NCREIF cap rates, and likely reflects the valuation discount that these managers are able to achieve when acquiring properties with some element of complexity related to the seller, tenant mix, or physical condition of the asset.

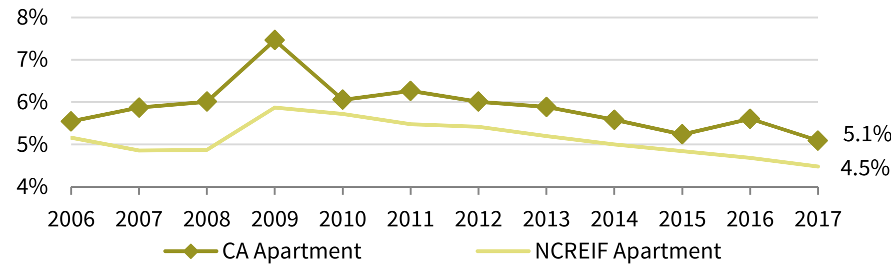
The spread between 2017 NCREIF average cap rate of 5.0% and yield on ten-year Treasuries, which represents a risk premium investors require of real estate, compressed from 417 basis points (bps) in 2012 to 264 bps in 2017, still far above the historical low 97 bp spread in 2007.

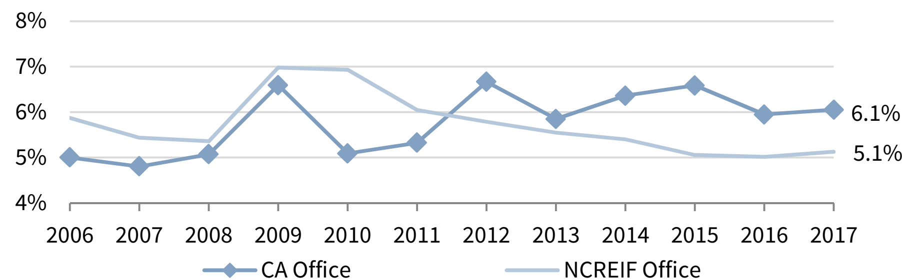
Acquisition cap rates in the primary markets have substantially compressed since peaking in 2009. Secondary markets did not benefit from declining cap rates to the same degree as the primary markets, as investors were concerned about the ease with which many secondary markets can add new supply. The spread between primary and secondary markets has remained relatively stable over the past five years.

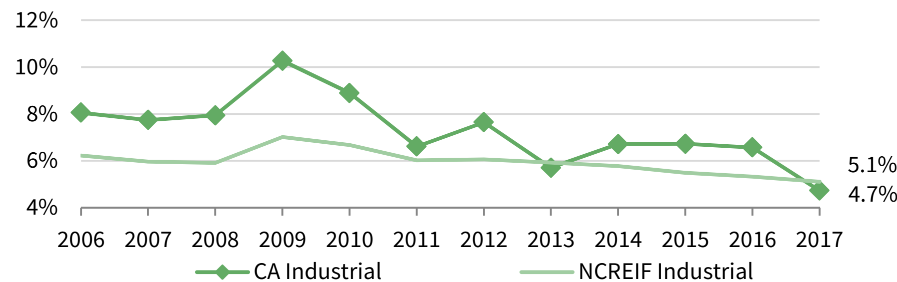
Sources: Cambridge Associates LLC Private Investments Database (as reported by investment managers), Federal Reserve, National Council of Real Estate Investment Fiduciaries, and Thomson Reuters Datastream.
Notes: Annual NCREIF capitalization rate is calculated as four-quarter average. CA data represent capitalization rates for properties acquired in each year. Primary markets include the Boston, Chicago, Los Angeles, New York, San Francisco, Seattle, and Washington, DC metropolitan statistical areas. The total may not add up to 100% due to rounding.

Capitalization Rates by Property Type

AVERAGE CAPITALIZATION RATE BY PROPERTY TYPE
As of December 31, 2017







Across all major asset classes for which our survey has a significant sample size, CA average acquisition cap rates are generally higher than NCREIF cap rates, consistent with our universe being skewed mostly toward opportunistic and value-add transactions.

The average acquisition cap rates for apartment properties in our survey declined for all but two years since their peak in 2009, reaching a new low of 5.1% in 2017, which compares to the NCREIF apartment cap rate of 4.5%.

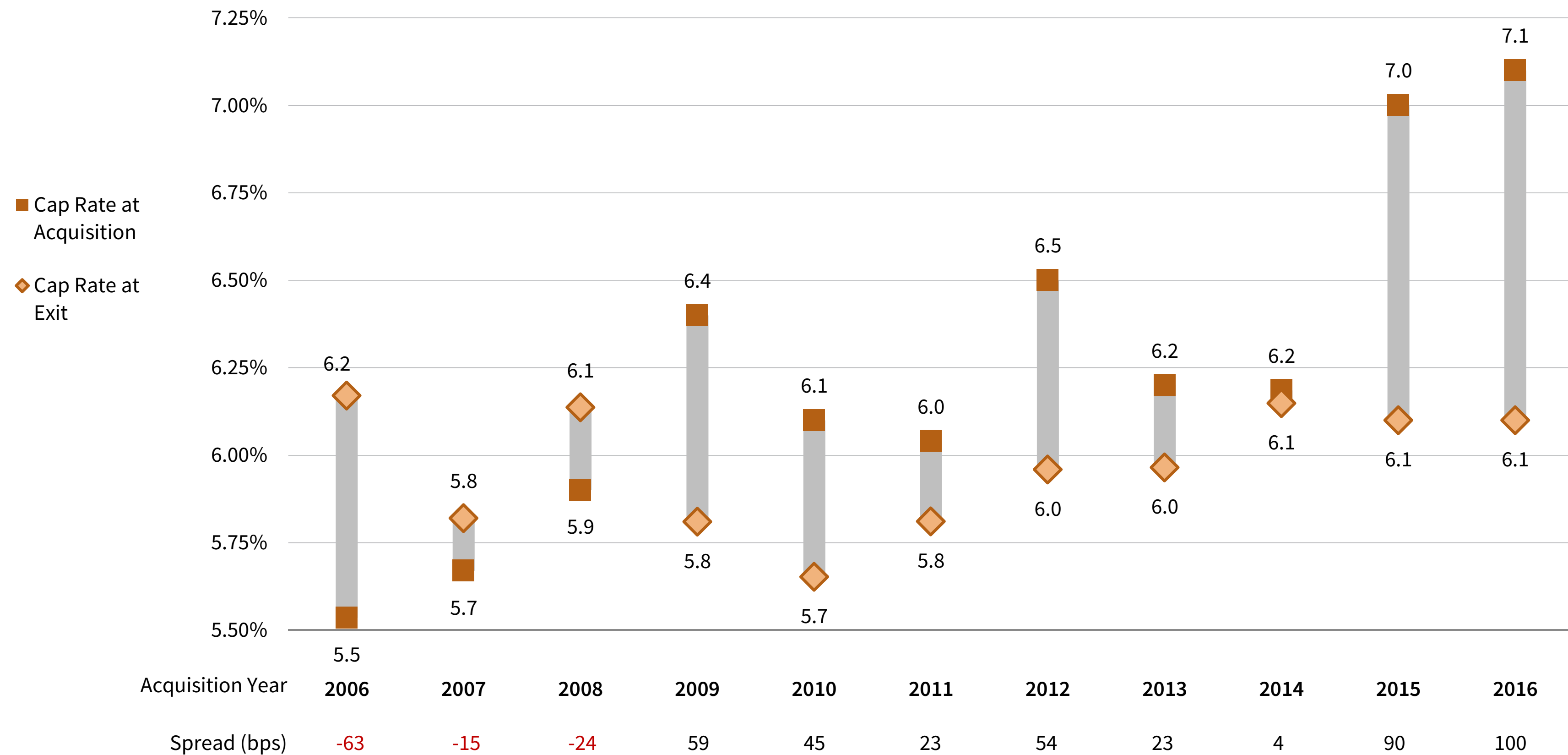
Average office cap rates in our survey saw a minor uptick in 2017 to 6.1%, similar to NCREIF data, which show a minor uptick to 5.1% for the office sector. High office acquisition cap rates in our survey may reflect greater exposure to secondary markets.

Industrial transaction volume ramped up in 2017 driven by shifting consumer trends (e-commerce). Intense competition for properties has resulted in considerable cap rate compression, with average entry cap rates in 2017 declining below 5%.

Sources: Cambridge Associates LLC Private Investments Database (as reported by investment managers) and National Council of Real Estate Investment Fiduciaries.
Notes: Annual NCREIF capitalization rate is calculated as four-quarter average. CA data represent capitalization rates for properties acquired in each year.

Analysis of Entry/Exit Capitalization Rates over Holding Periods

Managers have generally benefited from cap rate compression on properties acquired since 2009, with an average cap rate compression of nearly 60 bps. The modest cap rate compression enjoyed by managers that acquired assets in 2014 will likely persist in subsequent years given the expectation for higher interest rates and, thus, higher cap rates in the future. As a result, NOI growth will likely be a more meaningful component of overall real estate returns over the next few years.



Source: Cambridge Associates LLC Private Investments Database (as reported by investment managers).

Analysis of Net Operating Income Growth (NOI) over Holding Periods

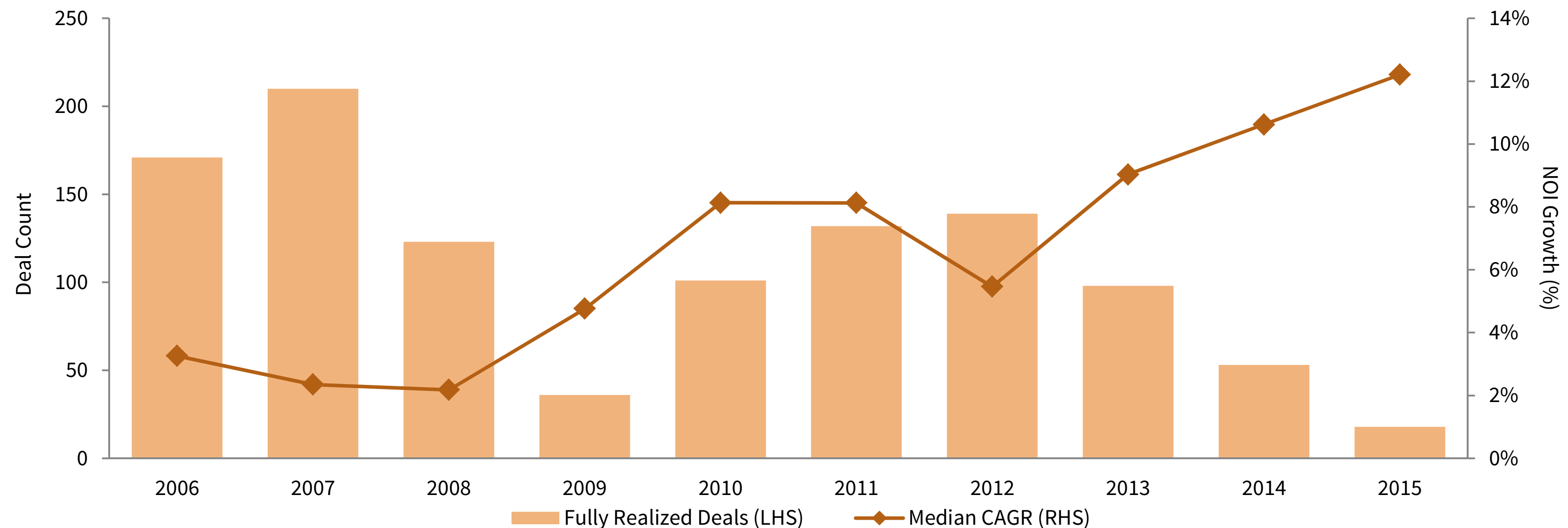
NOI growth over various holding periods was impacted by the GFC; properties acquired pre-GFC generated weaker NOI growth (the line in the chart below) than those acquired post-GFC, which is not surprising. Furthermore, the hold periods for properties acquired pre-GFC have been longer, generally ranging from six to seven years. In aggregate, properties acquired prior to the GFC still generated positive NOI growth, though these figures varied considerably by property type.

NOI growth really took off for deals acquired after 2013 with a compound annual growth rate (CAGR) greater than 8.0%; however, consideration should be given to the relatively small size of the property pool. In addition, properties that have experienced higher NOI growth are more likely to be sold earlier and are more heavily represented in this data.

Consistent with NCREIF data, in the realized deals sample, apartment transactions have generated the most robust levels of NOI growth relative to office and industrial transactions. Apartment assets have generated an average CAGR in NOI of 8.0% from 2010 through 2017, which compares to CAGRs of 3.7% and 3.8% for office and industrial assets, respectively.

GROWTH RATE OF REALIZED DEALS BY ACQUISITION YEAR

As of December 31, 2017



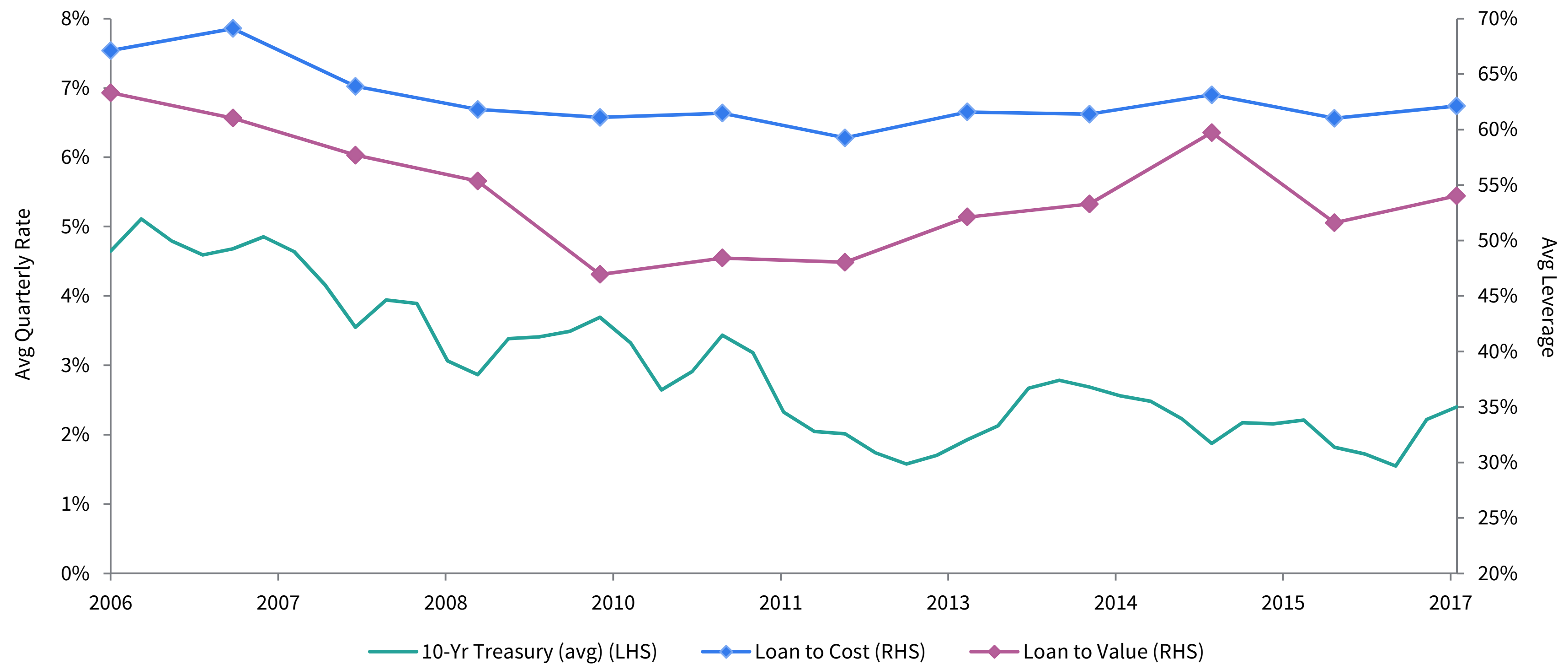
Source: Cambridge Associates LLC Private Investments Database (as reported by investment managers).

Capital Structure Trends

The use of debt when financing transactions, as measured by loan-to-cost (LTC) ratios, remains below the levels used prior to the GFC. LTCs peaked prior to the GFC and have sharply come down since, staying just above 60%. This trend reflects both the limited availability of debt following the crisis, and the more recent desire by investors for their private equity real estate managers to use less debt.

AVERAGE 10-YEAR TREASURY VS AVERAGE LTV AND LTC

As of December 31, 2017



Sources: Cambridge Associates LLC Private Investments Database (as reported by investment managers), Federal Reserve, and Thomson Reuters Datastream.
Note: Average taken of sampling removing top and bottom 5% outliers.

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