



X VOLUME AND PRICING TRENDS

WINTER 2018



TEN-X RESEARCH

Ten-X Research, led by Chief Economist and industry veteran, Peter Muoio, Ph.D. is based in New York. The group focuses primarily on custom analysis and business development support services, as well as industry-leading data science and predictive modeling initiatives.

CAPITAL MARKETS ACTIVITY OVERVIEW

Commercial real estate capital markets faltered in the fourth quarter, as deal volume among the five major property sectors declined to \$117.4 billion. This comes after two quarters of growth, and is due in large part to a \$6.7 billion quarterly decline in industrial deal volume. Overall five-sector deal volume in the fourth quarter was 13.2% lower than its reading in the final quarter of 2016.

The decline was largely due to investors delaying transaction closings amid the looming specter of tax reform. This policy uncertainty and eventual passage of tax reform legislation, which is expected to be advantageous to the real estate industry, prompted many investors to delay closings until 2018, thereby sapping deal volume readings.

For full-year 2017, overall five-sector deal volume declined 6.9% from 2016 to \$445.2 billion. Industrial deal volume,

despite its fourth quarter downturn, grew nearly 20% on the year and was the only major sector to see volume increase.

The US economic expansion is now in its 104th month, almost the second longest in modern US history. A pricing gap between buyers and sellers remains an ongoing concern in commercial real estate capital markets. Buyers appear to be wary of purchasing at high price points and tight cap rates so late in the real estate cycle, while sellers demand high valuations. This has resulted in stalling volume and prices through 2017.

It remains to be seen whether capital markets come back to life in the first quarter in the wake of tax reform. Multiple pockets of uncertainty linger. New Fed Chair Jerome Powell is expected to follow a similar path as his predecessor, Janet Yellen, but investors will closely watch his initial actions. The long-running stock market boom also suffered through multiple major sell-offs in the last few days, which could leave an impression on investors' spirits.

DEAL FLOW

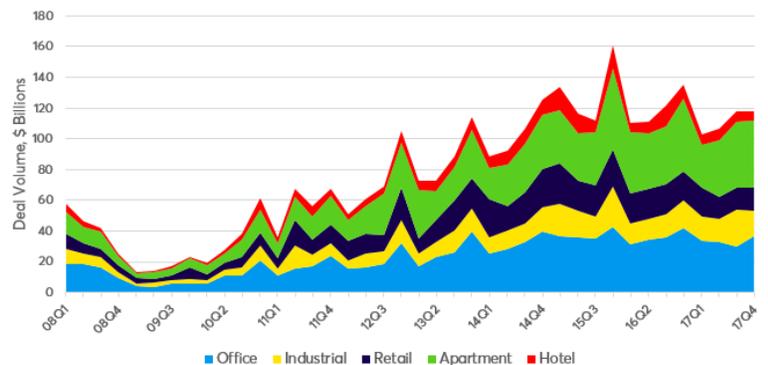
CRE Deal Volume Remains Muted, Saw Minor Decline in Fourth Quarter

Deal volume measured \$117 billion in the fourth quarter, as it continues to recover from its downturn at the beginning of the year. Transaction volume remains far off its cyclical peak and is down 13.2% from a year ago. The industrial sector saw the largest decline this quarter - about \$6.7 billion - while hotel deal volume fell by about \$1.7 billion. However, the overall loss was diluted by gains in the office and apartment sectors, whose deal volume grew respective \$6.2 billion and \$1.4 billion from the prior quarter. As a result, overall deal volume is down just 0.5% from the prior quarter.

Apartment Sector is Ahead of its Long-Run Average, While Retail and Hotel Lag Behind

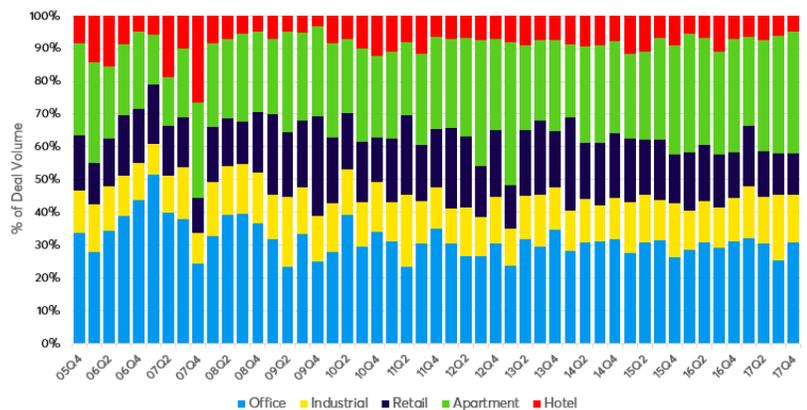
The apartment share of total deal volume rose for the third consecutive quarter to its highest level on record and more than 800 bps beyond its 10-year average. Furthermore, at 37.1%, the apartment share of total deal volume represents the largest share of total volume in the fourth quarter. The industrial sector saw the largest quarterly share decline among all sectors - 560 bps - but is still on par with its 10-year average. Hotel's share declined moderately to 4.9%, representing its lowest level since the recession and bringing it nearly 300 bps behind its 10-year average. After rising some 550 bps over the quarter, the share of office deal volume is in line with its long-run average at 30.6%.

TOTAL DEAL VOLUME BY SECTOR



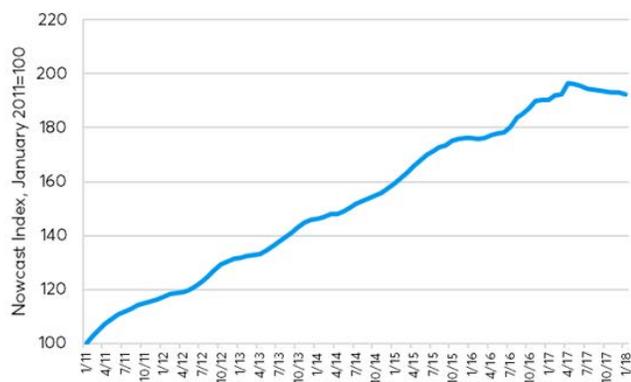
Sources: Real Capital Analytics <http://www.rcanalytics.com>, Ten-X Research

PERCENTAGE OF DEAL VOLUME BY SECTOR



Sources: Real Capital Analytics <http://www.rcanalytics.com>, Ten-X Research

Ten-X National CRE Nowcast



Sources: Ten-X Research, Google Trends, Situs/RERC

Pricing Continues to be Weak in the New Year

Pricing in four of the five major property segments declined in January, with office seeing the only uptick in the index.

The Hotel Nowcast posted the largest monthly decline in January, as pricing fell 1.1%, marking the third month of declines in the past four. The monthly loss may be due to plateauing in the sector: occupancy rates remain at high levels but have been stationary for the past twelve quarters, while RevPAR growth has slackened. However, the sector still managed a 1.7% pricing gain from a year ago.

On a monthly basis, the apartment, retail, and industrial sectors saw muted losses in January. There was a 0.2% drop in the Ten-X Retail Nowcast, but the sector still managed a solid 4.5% gain from a year ago. This is despite poor fundamentals, as the threat of e-commerce continues to loom and rents climb higher.

Apartment pricing also continues to weaken. The 0.5% decline in the January Apartment Nowcast marks the seventh straight month of losses for the sector, bringing annual gains to just 1.3%. National apartment vacancies have been climbing throughout 2017 and now hold in the mid-4% range, according to Reis, as the market struggles to absorb a recent onslaught of supply additions.

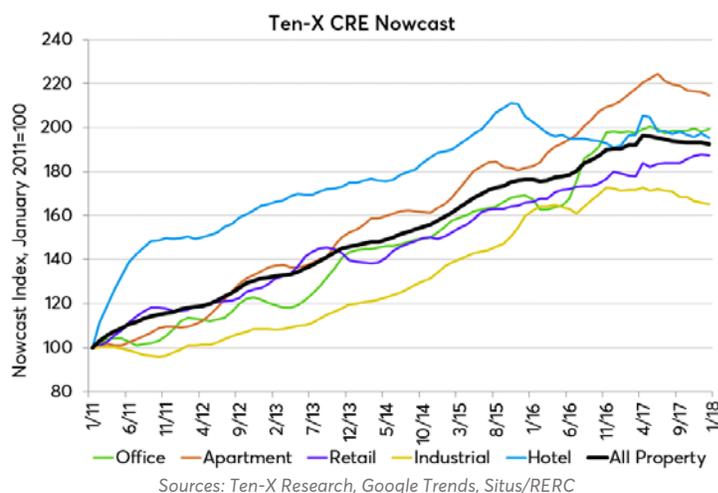
The Industrial Nowcast was the only one to see year-on-year declines in January, falling by 3.6% from a year ago in addition to a 0.4% monthly decline. Pricing in the sector has been declining year-on-year for the past four months, and the Nowcast is now at its lowest point since mid-2016. The sector's path thus far is perplexing given it has some of the healthiest fundamentals at this time. One explanation may be that investors believe pricing has outpaced fundamentals.

The Office Nowcast rose 0.6% in January after falling 0.8% in December. Year-on-year growth is back up to 0.9% after dipping into negative territory last month; however, this is a stark deceleration from the annual growth seen just four months ago. Per Reis, office vacancies are stalling at a low point, suggesting the sector may have reached a plateau.

PROPERTY PRICES

Ten-X All-Property Nowcast Up 1% Year-over-Year

The Ten-X Nowcast - which gauges CRE property valuations on a contemporaneous basis using Google trends, Ten-X proprietary data from transactions on its platform, and survey data done in conjunction with Situs/RERC - currently pegs commercial real estate prices at 1% higher than a year ago. This marks the weakest year-on-year gain for the index in its seven-year history. On a monthly basis, the latest All-Property Nowcast declined 0.3% in January. This was the ninth consecutive month of decline, following fourteen straight months of growth.



Sources: Ten-X Research, Google Trends, Situs/RERC

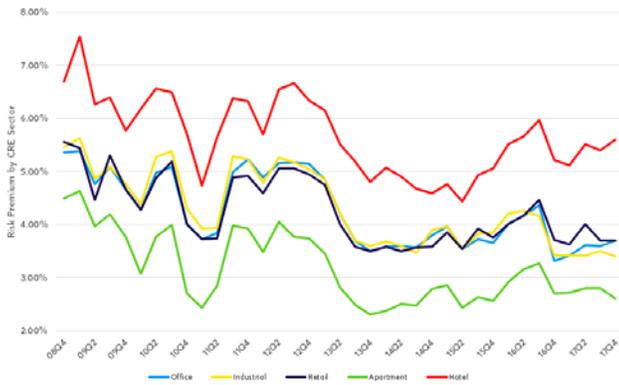
RISK PREMIUM & CAP RATES

Risk Premiums Hold Fast Despite Slight Uptick in Interest Rates

Following a bump up in December, 10-year US Treasury rates rose 20 bps from the third quarter to 2.4%. This led to a minor rise in cap rates across most sectors, while inherent risk premiums largely held fast. Retail risk premiums are flat from the prior quarter, while office and hotel premiums are up a respective 10 and 20 bps. Industrial and apartment premiums edged down 10 and 20 bps, respectively.

Treasury rates now stand just 10 bps below their year-ago level, and the US Federal Reserve, led by new Fed Chair Jerome Powell, is expected to increase the rate again in March as the economy improves.

Risk premiums in both the office and hotel sectors are some 40 bps above their year-ago level at a respective 3.7% and 5.6%. Despite this divergence, neither sectors have premiums near their cycle high. Apartment was the only sector with a risk premium below its year ago level, although the difference is minor at about 10 bps. Risk premiums in the apartment



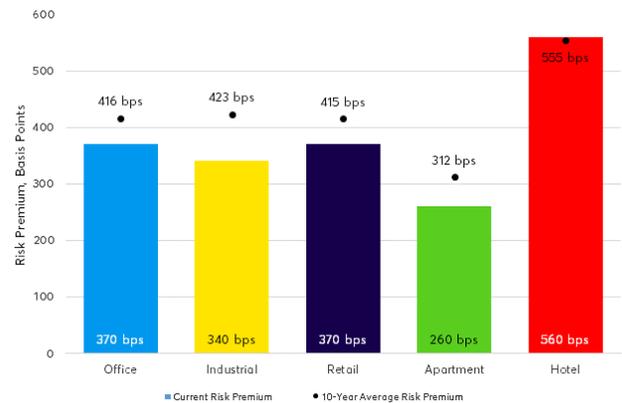
sector have been hovering in the mid-to-high 2% range for more than three years, and currently stand at 2.6%, reflecting the sector's popularity and perceived low risk among investors.

Risk premiums across all five sectors are trending more than 100 bps below their cycle high - even industrial and retail, which have seen premiums drift back up near their 10-year averages.

Hotel Remains the Only Sector with Risk Premiums above Historic Averages

The hotel sector has been trending in line with its 10-year average for five consecutive quarters, while other sectors see a much larger divergence. Hotel risk premiums also remain high because the market appears to have hit a ceiling: growth in occupancies and RevPAR is slowing down, diminishing the rate of investor's returns.

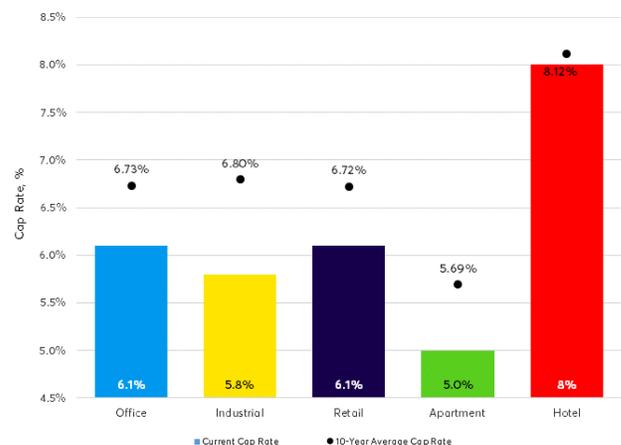
Industrial premiums are more than 80 bps below their historic mean, their largest divergence in nearly four years. The large cushion for the industrial sector reflects the sector's relative stability, as industrial fundamentals are some of the strongest among all our covered sectors.



Cap Rates across All Sectors Holding Below 10-Year Averages, Though Hotel Has Smallest Gap

The cautious uptick in treasury yields is preventing any significant movement in cap rates. Per Situs/RERC, apartment was the only sector to see no change in cap rates in the fourth quarter, and cap rates have held at 5% for the past three quarters. Cap rates across all other sectors increased, but not by much. Industrial cap rates rose just 10 bps to 5.8%, and are up just 20 bps from the sector's cycle low from the second quarter. Retail and office cap rates rose a respective 20 and 30 bps from the prior quarter, bringing both to 6.1%

Hotel cap rates stand just below their 10-year average by about 10 bps, while all other sectors stand at least 60 bps below it. Cap rates in the industrial sector stand 100 bps below their average, representing the widest gap of all sectors. Both retail and office cap rates are about 60 bps from their historic average, while the gap in the apartment sector is some 70 bps.



SECTOR SPOTLIGHT: HOTEL

Static Fundamentals and Wavering Capital Markets are Constraining Hotel Sector

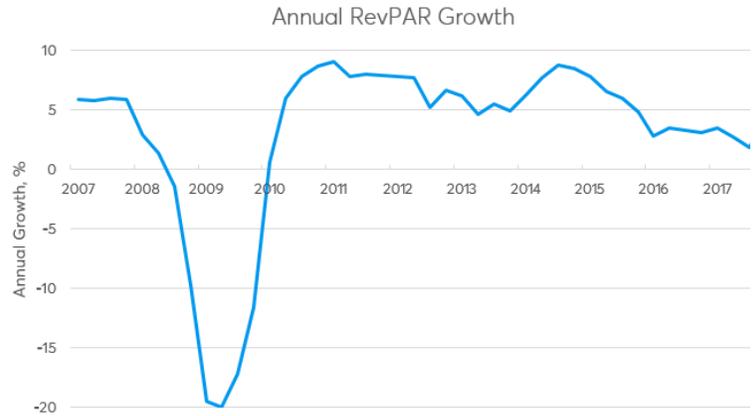
Each quarter we take a closer look at one of the major CRE sectors. This spotlight focuses on the US hotel segment.

The recent Hotel Nowcast reflects a stasis in the hotel sector, given stalling RevPAR growth and occupancies at a ceiling. According to STR, annual RevPAR growth has been bound below 5% for the past eight quarters, but RevPAR level is at a peak. Furthermore, occupancy rates have lingered at historic highs in the 65% range for three and a half years, indicating that the market may be at a plateau.

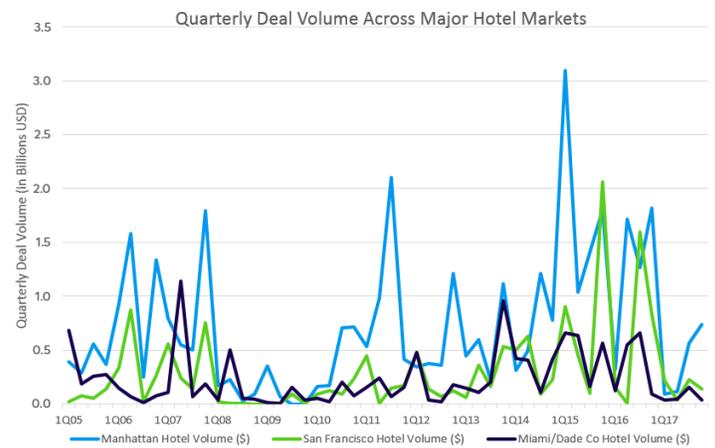
Hotel deal volume in three major hotel markets remains extremely low after declining throughout 2017. The collapse in deal volume and its stubbornly low levels can be attributed to some combination of the ongoing buyer-seller pricing gap and short-term hesitancy brought on by December tax reform.

The increase in long-term interest rates in 2016 and 2017, and the possibility of another hike in March 2018 have caused disruption on the seller-side of the CRE market. The uptick in interest rates reflects the Fed's positive outlook on economic growth, implying stronger demand for commercial real estate and higher construction costs. These higher financing costs are coupled with downward pressure on property values, as rising interest rates push cap rates upward and spreads remain narrow.

On the buyer side, investors remain wary of the end of the current business cycle, which is now the third longest in modern history. With the current real estate cycle stretching on and fundamentals across property types showing signs of peaking, investors are shifting to more conservative strategies, translating to hesitancy on price. This discrepancy between buyers and sellers has led to a pricing gap, precluding sales and constraining deal volume.



Sources: STR, Ten-X Research



Sources: RC Analytics, Ten-X Research

The December tax bill also contributed to uncertainty in the CRE market. In anticipation of January tax cuts, it is likely that developers and investors held off their deals until 2018. This would also explain the recent improvements in preliminary January deal volume readings, particularly in Manhattan. Furthermore, the bill's growth incentives are a boon to real estate developers.

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