

CMBS Research

Secondary Markets, Tax Reform, and Oil Prices Are Exerting a Greater Pull on the U.S. Multifamily Sector

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Morningstar Perspective

Regional trends tend to have the greatest influence on the U.S. multifamily sector, which represents \$402.48 billion of loans in commercial mortgage-backed securities, but Morningstar Credit Ratings, LLC believes three larger factors will also prove to be driving forces in the months ahead. First, because of demographic changes, secondary markets and even suburbs are emerging as unexpected areas of growth, while major gateway markets appear to have reached their ceilings. Second, the Tax Cuts and Jobs Act of 2017 will have a long-term effect on the industry and some immediate effects because changes under the new law may make homeownership less beneficial from a tax perspective, especially in certain states. Finally, oil prices play a key role in markets with a heavy concentration of jobs in the oil industry. Prices have climbed again after declining for several years, but that hasn't translated into an influx of jobs in the industry. As a result, demand for multifamily housing has been slow to recover, but these markets will gradually improve as oil prices and employment stabilizes.

Exhibit 1 - Multifamily CMBS Exposure by Vintage as of May 2018 (\$)

Year	Agency	Nonagency	Total
2006	-	887,438,925	887,438,925
2007	-	42,207,040,237	42,207,040,237
2008	-	62,534,605	62,534,605
2009	1,801,136,839	-	1,801,136,839
2010	5,132,473,308	53,161,099	5,185,634,407
2011	9,126,212,957	2,355,927,397	11,482,140,354
2012	16,790,257,370	5,453,443,331	22,243,700,701
2013	24,104,043,109	24,527,918,114	48,631,961,223
2014	15,291,156,632	19,852,062,360	35,143,218,992
2015	31,100,839,077	20,280,974,535	51,381,813,612
2016	37,964,911,426	41,050,656,430	79,015,567,856
2017	56,839,795,500	13,844,760,863	70,684,556,363
2018	28,701,631,431	5,049,018,116	33,750,649,547
Total	226,852,457,649	175,624,936,012	402,477,393,661

Source: Morningstar Credit Ratings, LLC

Economic Context

Apartment demand rose to its highest level in 25 years in 2017, in line with the overall growth of the U.S. economy, according to Trepp, LLC. Apartment loans have been the best performers in the CMBS sector, as the multifamily delinquency rate (as a percent of property type) registered only 0.36% in March 2018, while representing nearly 50% of the CMBS universe. The real economy--the segments that produce nonfinancial goods and services--appears to be on firm footing so far in 2018, with strong consumer spending, higher private investment, and tax reform that will likely continue to drive growth. In addition, the unemployment rate reached an 18-year low of 3.9%, according to the Bureau of Labor Statistics, and it will likely keep dropping, which is likely to lead to a rise in wages. Further wage growth would benefit both renters and landlords by improving affordability, despite landlords seeing rent growth slow. In addition, the Federal Reserve expects to raise rates several times in 2018, which will discourage some would-be homebuyers and push them into the rental market.

Absorption in the apartment market remained robust through fourth-quarter 2017, but supply still outpaced demand slightly, per CBRE Econometric Advisors. As a result, the vacancy rate across all markets rose about 10 basis points to 4.9% as of year-end 2017. Supply growth from 2016 to 2017 reached 1.8%, exceeding CBRE EA's long-run average of 1.1%. This trend is weighing on rent growth and will likely continue through the first half of 2018. However, rent growth will hold up well in larger, nongateway cities. Demand in first-

quarter 2018 was strongest in secondary markets, such as Austin, Texas; Nashville, Tennessee; Orlando, Florida; Denver; and Pittsburgh--markets that are generally more affordable for renters.

Secondary Market Mojo

As housing construction continues to slow in 2018 because of more conservative bank lending and a rise in building costs, smaller secondary markets and suburbs are beginning to show more promise than primary gateway cities, such as Los Angeles, New York, and Boston. Renting is generally more affordable in these secondary cities, and demand has been strong overall. Orlando, Denver, and Austin had net absorption rates of greater than 3% for 2017, per CBRE EA. In fact, of the past year's top 20 absorption markets, Houston was the only one that was also within the top 10 by inventory size. In the case of many of these midsize markets, growth in higher-skilled industries, especially within the technology sector, has been a primary demand driver. The Praxis Strategy Group analyzed employment growth at companies in high-tech industries and changes in the number of workers in science, technology, engineering, and mathematics jobs from 2006 to 2016. According to its study, the San Francisco Bay Area experienced the highest growth in STEM jobs during that period, but secondary markets dominated the top-15 list, including Charlotte, North Carolina; Salt Lake City; Denver; and Austin. Over the next couple of years, we expect demand to continue to rise in these markets and outpace that of gateway cities.

While we expect rent growth in most of the major markets in the near term, secondary and tertiary markets will likely experience stronger rent growth because higher demand in those regions will be coupled with lower supply growth in the long term. Most of the largest 20 markets experienced rent growth in 2017, per CBRE EA. Phoenix topped the list with year-over-year growth of 3.6%, while New York rents declined 4.7%. In addition, CBRE EA includes only three of the 20 largest markets on its list of 20 markets that will see the biggest rent increases, meaning most of the forecast growth will occur outside the major markets. Coastal areas will also do well, with cities in California and Florida making up half the list.

Managing the balance of supply and demand will be the key to success for certain secondary markets. Vacancy rates increase in markets with abundant supply growth and in markets where economic factors have slowed demand growth. San Antonio and Nashville are examples of the former, with annual supply growth over the past year of 4.7% and 4.1%, respectively, according to CBRE EA. These two cities were among the top 10 markets with vacancy growth over 2017 (1.2% for San Antonio and 0.8% for Nashville). St. Louis and Cleveland are examples of markets where economic factors have taken a toll on multifamily demand and pushed vacancy higher. St. Louis has been affected by an aging and declining population as well as the downturn in manufacturing, according to CoStar Group, Inc. It is also consistently ranked among the most violent U.S. cities, based on crime rates. Similar issues exist in Cleveland, a city where the number of residents living under the poverty line continues to grow.

Suburban Revival

Beyond major market cities, suburbs are poised for greater returns, as the increased supply in the urban core during the past several years has led to declining rent among multifamily housing. According to CBRE EA, during the past two years, rent growth in the suburbs has averaged 3.4% nationally, while urban rents have grown at just 0.6%. On the capital front, Jones Lang LaSalle Inc. reported that garden-style assets (typically found in the suburbs) represented 65.9% of all multifamily acquisitions in 2017, the highest rate during the past 10 years, whereas high-rise acquisitions fell by 41.5%.

Migration patterns across the country suggest that individuals are increasingly preferring to settle in the suburbs. The U.S. Census Bureau's most recent annual county and metropolitan area estimates, for the period between July 2016 and July 2017, support this somewhat recent suburbanization trend. Using the census data, William H. Frey of the Brookings Institution classified counties associated with urban cores and suburban counties within large metropolitan areas. The results show a rise in both outer exurban areas and emerging suburban counties. Since 2012, which Frey refers to as the peak year of the "back to the city" movement, the growth of urban cores has halved, whereas exurban growth has quadrupled.

While these changes have been associated with an improving economy and housing market since the Great Recession, leading more individuals to buy rather than rent, we cannot discount other factors. The rental boom that occurred in the early 2010s was a result of young, single millennials who not only looked to rent rather than own, but also wanted to live in urban cores filled with job opportunities and lifestyle amenities. As these same millennials now start to settle down and raise families, their preferences are changing. Because major cities have a high cost of living and typically less living space, the benefits of urban districts may not be enough to offset the costs. Even if this aging demographic still chooses to rent, possibly spurred by the new tax reforms, sprawling new suburban developments may lure them away from cities.

However, not all suburbs are created equal, and those counties that can ease the transition for city dwellers will likely achieve the greatest success. To attract this new cycle of residents, developers will need to deliver products that offer the best of both suburban and city life. And suburban communities with similar characteristics to downtown areas--such as transit access, concentrated employment, and retail amenities--will be in the best position.

Taxing Changes

The Tax Cuts and Jobs Act of 2017 is very likely to influence multifamily properties in and beyond 2018. While the true effect will not be known conclusively for some time, three major changes will likely affect the multifamily market through its correlation with homeownership. Because of the nature of the multifamily market, each change will influence the housing markets in varying ways.

Higher Standard Deductions

The increase in the standard deduction (to \$24,000 from \$12,700 for joint filers and to \$12,000 from \$6,350 for single filers) will lead more taxpayers to take this deduction instead of itemizing their returns. The most common itemized deductions are state and local taxes, medical expenses, charitable contributions, and interest on mortgage payments. Most homeowners with mortgages itemize their deductions, especially those who own homes in expensive real estate markets, but the increase in the standard deduction will lessen the incentive to bear the expenses associated with itemized deductible items, which in turn will limit the tax benefits of homeownership for many people.

State and Local Tax Deduction Limitations

This is widely considered one of the most controversial aspects of the new law. Previously, all state and local taxes served as an itemized deduction of income on a tax return. Under the new law, taxpayers can deduct only up to \$10,000. As seen in Exhibit 2 below, this change will have a greater effect on states with high tax burdens, most notably New York and Connecticut. Based on analysis from the Pew Charitable Trusts, the average state and local deduction that was claimed in 2015, by taxpayers electing to itemize their deductions, was greater than \$22,000 for New York taxpayers, more than double the allowable limit under the new law. In fact, 19 states and the District of Columbia had average claims greater than \$10,000 in 2015. The top- and bottom-10 states by average claim size of state and local taxes in 2015 are as follows:

Exhibit 2 - Average State and Local Taxes Federal Deduction Per Claimant by State in 2015

Top-10 States	Per Claimant (\$)	Multifamily CMBS Exposure as of May 2018 (\$)	Rank
New York	22,169	19,864,132,349	5
Connecticut	19,665	2,799,376,341	27
California	18,438	65,889,048,166	1
New Jersey	17,850	5,881,866,817	18
District of Columbia	16,443	861,926,480	39
Massachusetts	15,572	6,020,194,197	17
Minnesota	12,954	2,010,679,146	31
Maryland	12,931	14,933,744,478	7
Oregon	12,617	3,250,024,628	24
Illinois	12,524	12,732,027,175	10

Bottom-10 States	Per Claimant (\$)	Multifamily CMBS Exposure as of May 2018 (\$)	Rank
New Mexico	7,091	1,581,020,338	34
North Dakota	6,865	454,384,036	43
Louisiana	6,742	1,584,541,107	34
Wyoming	6,307	3,888,155,492	22
Mississippi	6,303	766,314,770	40
South Dakota	6,098	198,069,212	48
Nevada	5,989	5,320,478,172	20
Alabama	5,919	2,763,133,551	28
Tennessee	5,612	5,666,209,149	19
Alaska	4,932	106,819,223	51

Sources: The Pew Charitable Trusts and Morningstar Credit Ratings, LLC

States with high taxes may face even higher tax burdens under this new law. This will effectively erode the limited purchasing power and affordability of homeownership in these states, which potentially may result in people continuing to rent, or in more rare cases, move to a state with lower taxes.

In fact, because of the higher standard deduction, there are likely to be significantly fewer people who can take advantage of the state and local tax deduction. According to an April 2018 congressional report prepared by the Joint Committee on Taxation, the committee projects about 16.6 million taxpayers will take this deduction, down from 42.3 million taxpayers in 2017.

A Lower Ceiling for Mortgage-Interest Deductions

Another significant deduction associated with homeownership is the mortgage-interest deduction, which previously allowed interest for the first \$1 million of a mortgage to be deductible. Under the new law, only the interest associated with the first \$750,000 of the mortgage balance will be deductible, although all mortgages initiated before the December 2017 law will be grandfathered into the higher limit. The regions that are most affected by the state and local tax deduction limit will also be more affected by this. According to online residential real estate website Trulia, the top five states by highest average listing price for homes, as of the week ended Aug. 23, 2017, were Hawaii, the District of Columbia, California, Massachusetts, and New York. Four of these states are in Exhibit 2 as within the top 10 most harmed by the state and local tax deduction limit.

According to the previously mentioned congressional report, the committee estimates that only about 13.8 million taxpayers will claim the mortgage-interest deduction in 2018, down from 32.3 million in 2017. Again, this is primarily a result of the increased standard deduction, which eliminates the benefit of taking the deduction for taxpayers who don't have itemized deductions that exceed the threshold.

These three significant attributes of the new tax law will limit certain tax benefits that are inherent with homeownership for large portions of the country, primarily in areas with high home values and high state and local taxes. As homeownership becomes less affordable in these markets, multifamily demand should experience a significant boost.

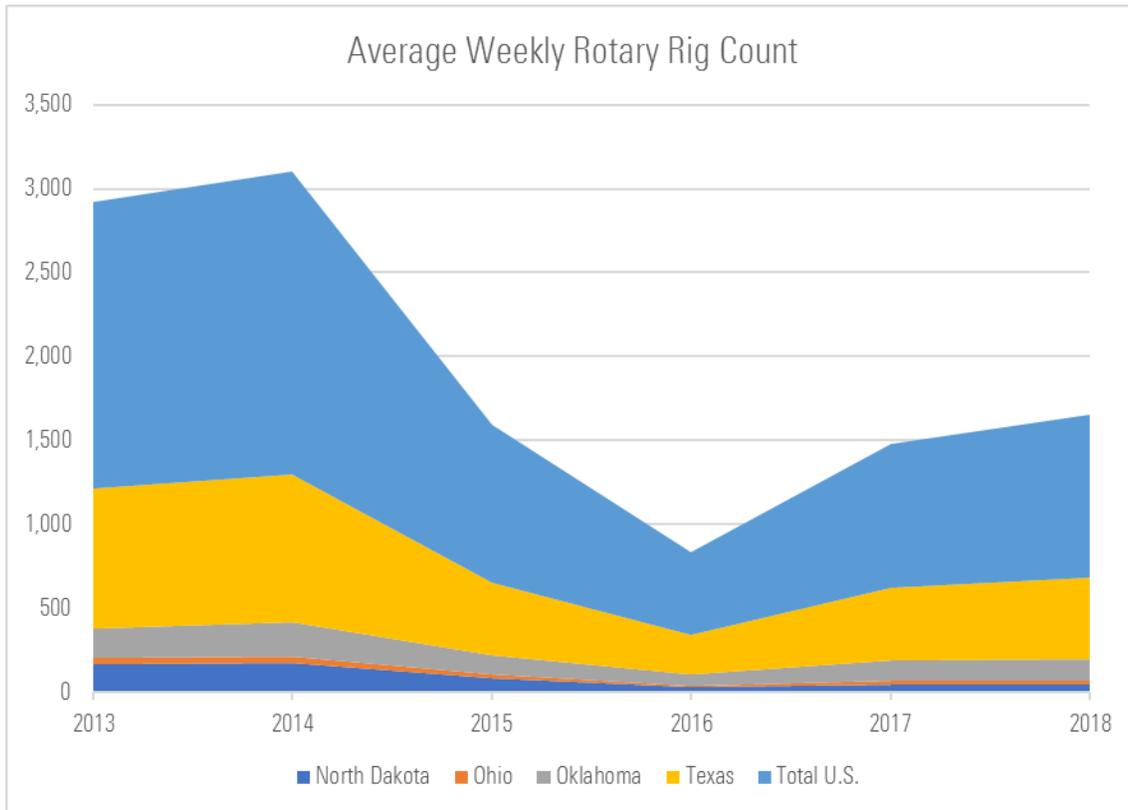
An Oil Price Revival

After reaching a low point in 2016, oil prices are on the rise again and demand for oil is increasing. However, because oil companies are relying less on human labor, occupancy in multifamily housing in oil industry-dependent areas will not suddenly skyrocket. As a result, job growth in the oil industry needs to stabilize, and multifamily demand will gradually grow as a result, especially near physical rig locations, refineries, and exploration and production sites. Once oil reaches a sustainably higher price, ancillary industries such as banking, private equity, and research firms will return to oil-dependent markets, adding to the multifamily demand.

As depicted in Exhibit 3, the average weekly rotary rig count by Baker Hughes, a benchmark used by economists to forecast the growth in the oil industry, over the six-year period beginning in 2013, reached a low point in 2016. However, from then on, the average weekly rig count has climbed along with oil prices. It is worth noting that Exhibit 3 is for land drilling and not offshore drilling. According to the financial analysis site briefing.com, the international offshore rig count for April 2018 was at 194, up from March 2018 at 185. Exhibit 4

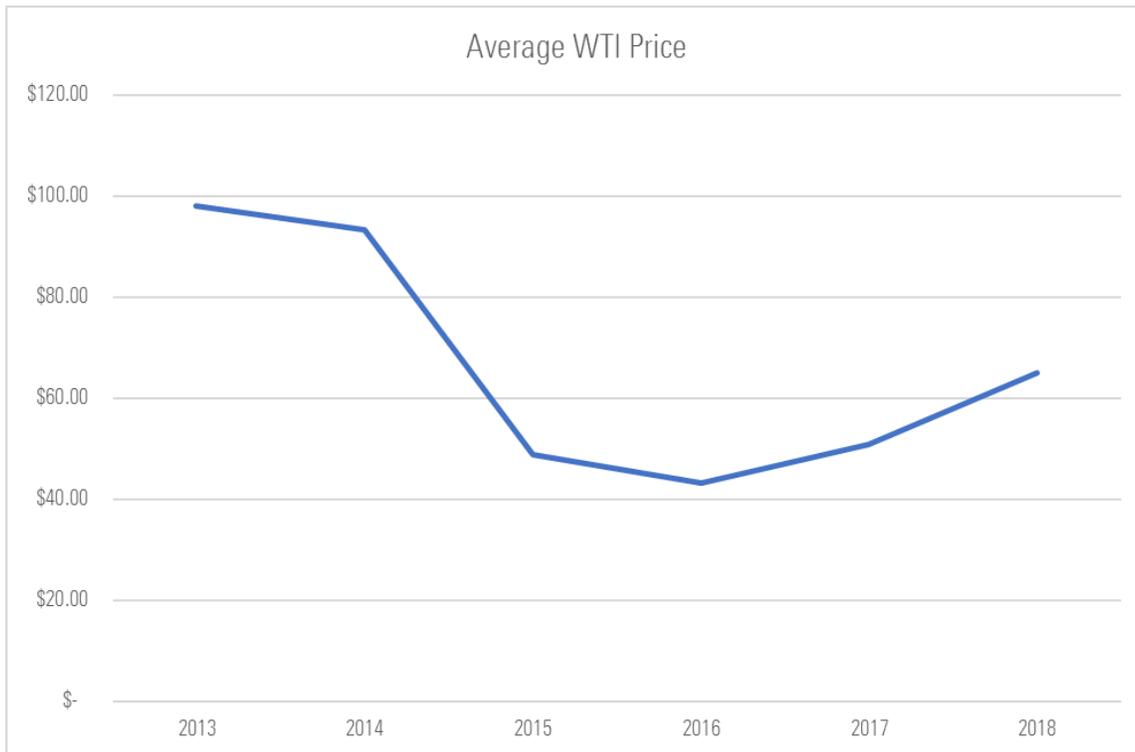
shows an uptick in the average price of the West Texas Intermediate crude oil benchmark between 2016 and 2017. As of May 2018, WTI was trading over \$70 per barrel.

Exhibit 3



Source: Baker Hughes

Exhibit 4



Source: Baker Hughes

Perhaps the best example of how oil prices have affected multifamily supply and demand is Houston, which has a heavy concentration of jobs in the oil sector and experienced a significant boom in multifamily construction in the years leading up to the drop in oil prices. However, there is employment diversity in Houston’s economy. In fact, the Texas Medical Center is a large demand driver for multifamily housing in the area by employing more than 106,000 people, having over 40 member institutions, and handling 8 million patient visits per year. Supply and demand in the Houston apartment market was steady leading into 2014 and 2015, but as oil prices began to decline, demand fell, while supply remained high. According to CoStar Portfolio Strategy reports, this imbalance resulted in a large increase in vacancy rates, peaking at 11% in 2016, and a drop in annual rent, which decreased 1.3% between 2015 and 2016.

Recovery in Houston has been slow mostly because oil companies have been reducing head count; adopting new technologies that can automate labor and knowledge gathering, such as large-scale data analysis and seismic testing of suspected sites using wireless technology; and postponing major operations, like offshore drilling, to become more efficient and profitable in the new landscape. This results in less demand for human labor as the companies return to normal operations, keeping demand for multifamily housing in the area moderate.

Even though job growth in the oil industry needs time to stabilize, the Houston metro area has shown some improvement as oil prices recover and other industries post job growth. In fact, according to the Bureau of Labor Statistics, only one industry, Information, showed a decline in employment, dropping 1.9% in January from a year ago. CoStar Portfolio Strategy reports show Houston’s vacancy rate decreased to 10.3% by first-quarter 2018 from the 11.1% peak in first-quarter 2017. Meanwhile, rent growth over the last 12 months has reached 3.5% for first-quarter 2018, per CoStar Portfolio Strategy reports, and we expect it to continue as long as oil remains at sustainably high prices.

Exhibit 5 shows the multifamily CMBS exposure by vintage, based on balances as of May 2018, on properties within the metropolitan statistical areas of the four states we deem most affected by oil prices. Beginning in 2013, each vintage still has an outstanding balance of greater than \$2.00 billion of multifamily properties that are in areas that had heavy oil drilling activities during the oil boom and are at risk because of the decline in drilling activity in recent years. CMBS loans on North Dakota apartments have been nonexistent since 2014, whereas Texas still has the most issuance activity out of all four states since 2010.

Exhibit 5 - Multifamily CMBS Exposure by State in Affected MSAs as of May 2018 (\$)

Year	States				Total
	Texas	Oklahoma	Ohio	North Dakota	
2010	189,764,701	12,602,174	18,299,745	-	220,666,620
2011	426,891,416	28,212,475	27,009,601	-	482,113,492
2012	980,527,487	183,427,008	15,733,518	-	1,179,688,013
2013	2,125,113,129	29,615,148	113,034,765	40,674,531	2,308,437,573
2014	1,886,824,036	103,698,250	165,801,194	98,622,592	2,254,946,072
2015	5,120,312,610	59,276,718	126,288,412	-	5,305,877,740
2016	2,870,991,054	214,789,484	78,903,362	-	3,164,683,900
2017	4,116,118,849	167,119,495	12,628,814	-	4,295,867,158
2018	496,132,195	68,688,338	77,615,795	-	642,436,328
Total	18,212,675,477	867,429,090	635,315,206	139,297,123	19,854,716,896

Note: Affected MSAs within Texas are Amarillo, Corpus Christi, Houston, Jacksonville, Kingsville, Laredo, Longview, Lufkin, Midland, Nacogdoches, Odessa, Palestine, San Angelo, San Antonio, Texarkana, and Tyler; affected MSAs within Ohio are Akron, Steubenville-Weirton, and Zanesville; affected MSAs within North Dakota are Dickinson and Williston; and affected MSAs within Oklahoma are Duncan, Durant, Guymon, Lawton, and Oklahoma City.

Notable excluded MSAs include Austin; Dallas-Fort-Worth; El Paso, Texas; Cincinnati; Cleveland; Columbus, Ohio; Fargo, North Dakota; and Tulsa, Oklahoma.

Source: Morningstar Credit Ratings, LLC

Looking Beyond Regional Factors

Regional conditions will continue to play an important part in the performance of the U.S. multifamily housing market. However, demographic shifts, policy changes, and broader economic factors are also an important part of the overall picture. At present, we see more opportunity in smaller secondary markets and in the suburbs, which have been outpacing gateway cities in rent growth and demand. In addition, the new tax reform law will inevitably lead to numerous indirect long-term effects on the multifamily market. Among the immediate effects are the decreased affordability of homeownership in certain high-tax states, which will likely turn prospective buyers into renters, giving a boost to the multifamily market. In addition, certain markets have been hurt by the downturn in oil prices during 2014-16. These markets suffered because of overbuilding in prior years to meet demand growth that eventually wilted. In 2017 and into 2018, oil prices have risen again, but recovery will be slow, as job growth in the industry stabilizes. Among these markets, Houston is in a better position thanks to job growth in other industries diluting the effects of the oil market.

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