

Corporate Credit Spread Chartbook

Real estate investment trusts: industrial, multifamily, office, and retail.

Morningstar Credit Research

21 February 2018

Contents

- Executive Summary & Historical Sector Spreads
- 3 Spread Chartbook by REIT Sector 3 Industrial
 - 5 Multifamily
 - 7 Office
 - 9 Retail
- 11 Morningstar Credit Ratings Sector Coverage — Industrials

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Executive Summary

Morningstar Credit Ratings, LLC published its real estate investment trust rating methodology in August 2017, and since then we have initiated ratings for 21 REITs across five sectors. One REIT currently maintains a positive rating outlook, and all others are stable. With data suggesting we are near the top of the commercial real estate cycle, we are anticipating a deceleration in earnings and some softening in underlying fundamentals for REITs, with few exceptions. Investment-grade REITs, however, are at least as well-positioned as they were entering the Great Recession, with superior balance sheet flexibility and plenty of dry powder, such that we do not expect deterioration in the average credit profile or overall negative rating pressure.

Historical Sector Spreads

The credit spreads of the Morningstar, Inc. Corporate Bond Index and the REIT Sector Index (average ratings A- and BBB+, respectively) generally tightened together over the course of the last 12 months, with some notable degrees of variation. Over this period, the CBI tightened 26 basis points to +98 over Treasuries, while REITs moved in slightly more, 28 basis points to +101. The average difference between the two had REITs wider by 7 basis points, with REITs maxing outside of the CBI by 12 basis points in June 2017, before the CBI moved relatively wider during the middle of the summer and briefly outside of REITs by just under 1 basis point.

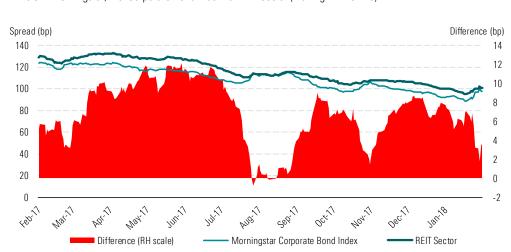


Exhibit 1 Morningstar, Inc. Corporate Bond Index vs. REIT Sector (Trailing 12 Months)

Source: Morningstar Credit Ratings, LLC Morningstar, Inc. as of 02/15/2018.

Over the past five years, REITs have traded inside of the CBI on average by 2 basis points, with some significant swings. The CBI traded its widest to REITs over this period in late 2014 and early 2015 at 29 basis points wide, as the swooning oil and gas prices pressured a number of sectors outside of REITs, especially energy and industrial manufacturing. The CBI moved wide again by 28 basis points relative REITs again in late 2015 and early 2016, as global growth worries increased along with the continuing weakness in energy prices led to heightening concerns for default risk. REITs benefited as investors prized the stability afforded by their ownership of hard assets that generate contractual cash flows. Starting in November 2016, when REITs traded at their widest to the CBI over the period, 16 basis points, both indexes have trended lower, with the CBI inside of REITs since with few exceptions.

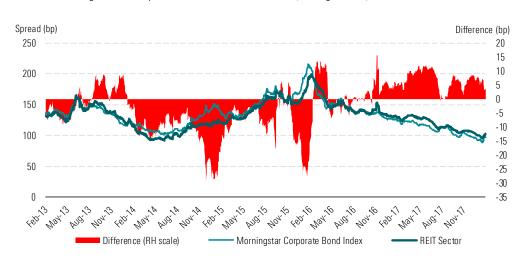


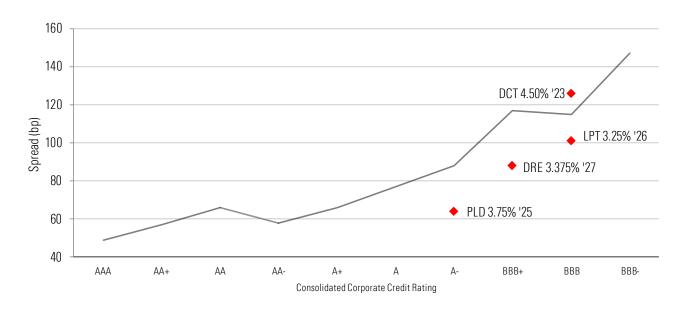
Exhibit 2 Morningstar, Inc. Corporate Bond Index vs. REIT Sector (Trailing 5 Years)

Source: Morningstar Credit Ratings, LLC Morningstar, Inc. as of 02/15/2018.

Spread Charts by REIT Sector

Industrial

Exhibit 3 Industrial REITs vs. Morningstar Corporate Bond Index



Source: Morningstar Credit Ratings, LLC, Morningstar, Inc., and Interactive Data as of 02/15/18 (UR) = rating under review / (p) = positive outlook / (n) = negative outlook

Sector Trends

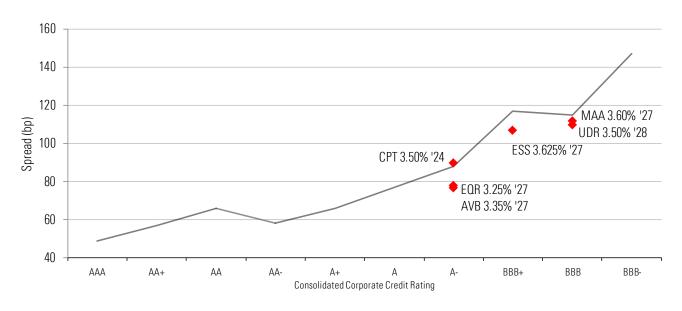
We initiated rating coverage of five REITs in the sector in October 2017. On average, bonds issued by industrial REITs rated by Morningstar Credit Ratings are trading +95 basis points wide versus Treasuries with an average credit rating of BBB+. The industrial real estate sector is experiencing strong demand for warehouse space, fueled by the growth in e-commerce. The increase in merchandise ordered online over the past decade, along with a need for ever speedier delivery induced by competition, has created demand for both larger distribution warehouses and those closer to and even within major cities. We expect that demand will be further strengthened as a result of tax reform, leading to more investment and manufacturing activity. Most industrial REITs continued to report strong earnings in the fourth quarter, a trend that has been evident for the past three years. Though rent growth slowed in 2017, the previous two years reported average annual growth of 6% across the industry, and the pace of growth remains well above historical averages. Occupancy among the major industrial REITs exceeded 95% in 2016 and 2017. Speculative development is picking up in some markets, even as construction costs are picking up.

Issuer Highlights

- Prologis (A-, stable) is a dominant company in the industrial sector and is among the largest and most well-capitalized in the REIT industry. Prologis continued to report robust growth in rent and net operating income in the fourth quarter.
- ▶ Duke Realty (BBB+, stable) has a meaningful presence in all of the important distribution hub markets in the U.S., and its properties tend to be newer and somewhat larger than those of its competitors. Like its peers, Duke has benefited greatly from the surge in demand for distribution space brought on by ecommerce.
- ▶ In recent years, Liberty Property Trust (BBB, stable) has recast itself into a virtual pure-play industrial REIT from its beginnings as an office developer and later a hybrid office and industrial company. Liberty rode strong rent increases to solid operating results for the fourth quarter and all of 2017. The company plans to sell its few remaining office properties during 2018.
- ▶ DCT Industrial Trust (BBB, stable) maintains a strong portfolio of unencumbered assets consisting of midsize and reasonably diverse industrial properties in locations that exhibit strong demand for warehouses and will continue to benefit from trends in e-commerce. We anticipate that DCT will continue to sign leases that increase cash rents in the high-teens percentage range over expiring rent for the duration of 2017 and into 2018.

Multifamily

Exhibit 4 Multifamily REITs vs. Morningstar Corporate Bond Index



Source: Morningstar Credit Ratings, LLC, Morningstar, Inc., and Interactive Data as of 02/15/18 (UR) = rating under review / (p) = positive outlook / (n) = negative outlook

Sector Trends

We initiated rating coverage on six REITs in the sector in September 2017. On average, bonds issued by multifamily REITs rated by Morningstar Credit Ratings are trading +96 basis points wide versus

Treasuries with an average credit rating of BBB+. Homeownership in U.S. remains at historic lows, with the fourth-quarter rate at 64.2%, well below the prerecession peak of 69.2% set in 2004, according to the U.S. Census Bureau. Though demographics will continue to favor demand for apartments, with the population segments with relatively higher propensities to rent, the youngest and oldest adults, having the fastest growth in the coming years, there remain some drags on demand. In some markets, supply of apartments is increasing faster than can be absorbed by demand, especially among upscale offerings. As well, younger adults have been demonstrating an increasing tendency to purchase homes over renting in recent years. On the positive side, newly imposed limits on the deductibility of mortgage interest may swing some potential home purchasers to opt for renting high-end apartments.

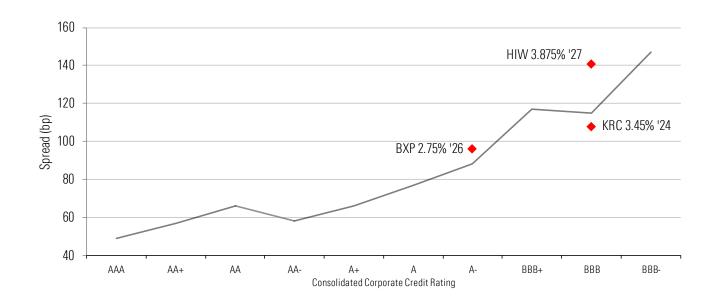
Issuer Highlights

▶ Equity Residential (A-, stable) is one of the dominant companies in the apartment REIT space. We view the company as among the largest and most well-capitalized in the REIT industry and run by a talented management team with a long and successful track record. The company's high-quality portfolio of apartment complexes is located primarily in high-rent and high-barrier markets. Equity Residential reported good occupancy and solid growth in net operating income in the fourth quarter, especially in

- Seattle, Los Angeles, and San Diego. Same-store NOI declined in New York City in the fourth quarter, however, as the supply of high-end apartments increased.
- ▶ Like Equity Residential, AvalonBay Communities (A-, stable) is a significant player in the public apartment REIT space and is likewise among the largest and most well-capitalized in the REIT industry. It concentrates its investments in high-rent, high-barriers markets on the coasts, though it maintains a greater focus on development. We expect AvalonBay to maintain meaningful liquidity to mitigate additional risks from development and earn among the highest rents as a result of owning newer and more desirable apartment complexes. Same-store revenue growth was a solid 2.5% for 2017, though fourth-quarter growth was slightly lower.
- Camden Property Trust (A-, stable) tends to own properties in markets with lower barriers to entry compared with similarly rated Equity Residential and AvalonBay. That being said, Camden's communities are relatively higher quality in their markets as well as better managed. We also recognize the management team as among the highest in continuity and innovation, as well as having demonstrated its long-standing commitment to the unsecured borrowing platform and its creditors. For 2018, we expect that several markets will continue to experience relatively elevated levels of new supply, which will put further pressure on rents. However, generally favorable economic conditions, particularly with respect to employment and wages, should continue to support demand and mitigate some of the effects of supply pressure.
- ► Essex Property Trust's rating (BBB+, stable) is supported by the firm's portfolio of apartment complexes located primarily in highest-rent and highest-barrier markets, albeit concentrated on the West Coast, as well as a capital structure that has seen secured debt declining relative to unsecured debt, enhancing balance sheet flexibility. For 2017, Essex earned FFO that was 7.6% above 2016, which was driven by respectable same-store revenue and NOI growth of 3.7% and 4.2%, respectively. Occupancy in the same-store portfolio remained flat albeit at a high level, 96.8%, compared with 96.6% at year-end 2016. While momentum is picking up in favor of rent control in California, around 80% of the portfolio, we believe it will take years (if ever) before any impact registers in Essex's results.
- ► The December 2016 acquisition of Atlanta-based Post Properties added to Mid-America Apartment Communities' (BBB, stable) portfolio in the southeastern U.S. and brought total properties to more than 300, with more than 100,000 units, creating the largest multifamily REIT in terms of properties and units. While leverage improved as a result of the Post transaction, to 33.9% debt to gross assets in 2016 from 41.1% in 2015, we expect it tick up modestly to near 35.0% as a result of acquisitions this year, as the MAA management team opportunistically picks off assets, often newer projects which are having trouble stabilizing.
- ▶ UDR (BBB, stable) has a high average rent at more than \$2,000 per month, with substantial holdings in high-rent markets in California, New York City, and Boston. The rent levels in most of UDR's portfolio are average to above average in their respective markets. By region, fourth-quarter 2017 performance was strongest in the West, followed by the Southeast and Southwest, as measured by increases in samestore net operating income. Average occupancy for the fourth quarter topped 96% in all five regions. We anticipate that UDR will carry on building its exposure among a variety of first- and second-tier markets across the United States while recycling out of older assets and into newer ones.

Office

Exhibit 5 Office REITs vs. Morningstar Corporate Bond Index



Source: Morningstar Credit Ratings, LLC, Morningstar, Inc., and Interactive Data as of 02/15/18 (UR) = rating under review / (p) = positive outlook / (n) = negative outlook

Sector Trends

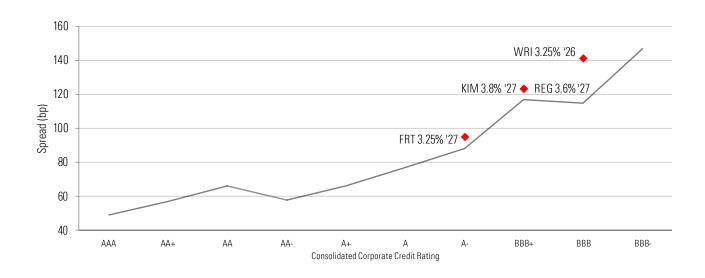
We initiated rating coverage on three REITs in the sector in January 2018. On average, bonds issued by office REITs rated by Morningstar Credit Ratings are trading at +115 basis points over Treasuries with an average credit rating of BBB+. Across the office sector, there is a lack of speculative development in most markets relative to other real estate cycles. Landlords with portfolios that are focused in the major central business districts are benefitting the most from pricing power, though in some markets leasing concessions are rising, sometimes noticeably. Certain data suggest the office sector is near the peak of the cycle: according to Reis, net absorption in 2017 was 21 million square feet, down from 29 million square feet in 2016. In addition, according to Reuters, national vacancy in the fourth quarter was 16.3%, up from 16.1% in the prior-year period. Office REITs credit metrics nonetheless have been improving, as we estimate average debt/gross assets to be 34.3%, down from a prior three-year average of 36.8%. Most office REITs reported solid fourth-quarter earnings, though some deceleration was evident in leasing spreads, as rent growth appears to be slowing in many markets. Markets with a high presence of technology, most notably those along the West Coast, are faring the best. Good economic growth and tenants with smaller tax bills will support demand for office space, while increased off-site work, such as telecommuting, and businesses reducing physical space per employee act as offsets to demand growth.

Issuer Highlights

- ► Though concentrated in just four major office markets, the we recognize Boston Properties (A-, stable) as among the largest and most well-capitalized in the REIT industry. Strength in its Boston-area portfolio offset some weakness in the New York City portfolio in the fourth quarter.
- ▶ Highwoods Properties (BBB, stable) operates in several markets across the southeastern U.S. Its mostly second-tier markets are generally not as prone to overbuilding as some larger markets, and in our view currently have better prospects for economic growth than the nation overall. Fourth-quarter results showed solid growth in revenue and net operating income.
- ► Kilroy Realty's (BBB, stable) Pacific Coast-based portfolio is exclusively in major markets in California and Washington. Its markets are important centers for technology, life science, and entertainment, which are all producing good employment growth, with prospects for continued office demand.

Retail

Exhibit 6 Retail REITs vs. Morningstar Corporate Bond Index



Source: Morningstar Credit Ratings, LLC, Morningstar, Inc., and Interactive Data as of 02/15/18 (UR) = rating under review / (p) = positive outlook / (n) = negative outlook

Sector Trends

We initiated ratings coverage on four REITs in the sector in October and November 2017. On average, bonds issued by retail REITs rated by Morningstar Credit Ratings are trading +121 basis points wide versus Treasuries and have an average credit rating of BBB+. Despite recent negative news pervading the retail industry, with the number of retailer bankruptcies in 2017 higher than any year since 2011, these REITs in the business of owning retail shopping center properties are performing well through astute management of their portfolios. Generally, REIT-owned properties tend toward higher desirability than the average shopping center, as most retail REITs are well-capitalized and have the resources to maintain properties at a relatively higher competitive level. Also, public REITs are accountable to their stakeholders, such as creditors and shareholders, so keeping properties performing well is a top priority. As a result, we currently do not foresee any threats to their investment-grade status. While rent growth has slowed and vacancy has ticked up for many companies in this subsector, some tenant bankruptcies have created opportunities for owners to reconfigure space and bring in replacement tenants with better offerings at higher rents. While we expect secular challenges to continue, retail landlords can take solace in the recent improvements in consumer spending and holiday retail sales (up 5.5% year over year, according to the National Retail Federation), as well as consumers who are going to have more post-tax dollars in their pockets.

Issuer Highlights

► Federal Realty Investment Trust's (A-, stable) portfolio is in fewer markets compared with some of its peer group, though its concentrations tend to be in areas with high-income residents and high barriers

- to entry. Federal has an established track record as an active developer of new properties, specializing in large, multipurpose developments with retail and office space, as well as apartments and hotels, all of which combine to form a desirable living and working environment.
- ▶ Regency Centers (BBB+, stable) expanded its portfolio with the March 2017 acquisition of Equity One, another public REIT with a southeastern U.S.-based portfolio. Regency's rating benefits from its centers, which are primarily anchored by the most successful grocers in the most desirable locations. As well, the company has successfully repositioned several centers in response to tenants lost because of bankruptcy or other store closings.
- ► Kimco Realty (BBB+, stable) has a national portfolio of holdings in 31 of the nation's 40 largest metro areas, with a large number of investment-grade tenants that are well-diversified. This includes exposure to Puerto Rico, though that amounted to just 2.5% of in-place rent as of Dec. 31, 2017. Through the third quarter of 2017, new leases were still being signed at a healthy premium over the rent paid by the previous tenant, though the average increase was less than in 2016. In February 2018, Albertsons, a privately-held supermarket company with 9.74% of its shares held by Kimco, announced an agreement to acquire all outstanding shares of Rite Aid Corporation, early in the second half of 2018, pending shareholder and regulatory approvals. Albertsons is currently Kimco's fifth leading tenant by annual base rent and would jump to third upon completion of the transaction.
- ▶ Weingarten Realty Investors' (BBB, stable) portfolio covers 21 of the nation's 40 largest metro areas, though concentrated across the southern half of the lower 48 states. The four largest contributors to inplace base rent, Houston, Miami, Las Vegas, and Phoenix, combine to account for 36.8% of the total. We note that an extensive portfolio repositioning in Houston since 2010 has more properties in high-income sections of the metro area, a credit plus.

 $\textbf{Exhibit 7} \ \ \text{Morningstar Credit Ratings Sector Coverage} - \text{Real Estate Investment Trusts}$

Industrial City Management of the City Manage	
D. I. C. I. M.	
Prologis Inc PLD A- Stable Mager	man
Duke Realty Corp DRE BBB+ Stable Win	nmer
DCT Industrial Trust Inc. DCT BBB Stable Win	nmer
First Industrial Realty Trust, Inc FR BBB Stable Mager	man
Liberty Property Trust LPT BBB Stable Win	nmer
Multifamily	
AvalonBay Communities Inc AVB A- Stable Mager	man
Camden Property Trust CPT A- Stable Mager	man
Equity Residential EQR A- Stable Win	nmer
Essex Property Trust Inc ESS BBB+ Stable Win	nmer
Mid-America Apartment Communities MAA BBB Stable Win	nmer
UDR UDR BBB Stable Mager	man
Office	
Boston Properties Inc BXP A- Stable Win	nmer
Highwoods Properties, Inc. HIW BBB Stable Win	nmer
Kilroy Realty Corp KRC BBB Stable Mager	man
Retail	
Federal Realty Investment Trust FRT A- Stable Win	nmer
Kimco Realty Corp KIM BBB+ Stable Mager	man
Regency Centers REG BBB+ Stable Win	nmer
Weingarten Realty Investors WRI BBB Stable Mager	man
Cell Tower	
American Tower Corp AMT BBB Stable Mager	man
Crown Castle International Corp CCI BBB- Positive Win	nmer
SBA Communications Corp SBAC BB+ Stable Win	nmer

Source: Morningstar Credit Ratings, LLC as of 02/20/18

About Morningstar® Credit Research

Morningstar Credit Research provides independent, fundamental equity research differentiated by a consistent focus on sustainable competitive advantages.

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