# Morningstar Corporate Credit Research Highlights
## Corporate Bonds Start 2019 With Strong Performance

**Morningstar Credit Ratings, LLC**
4 February 2019

**Contents**


### Credit Market Insights

- Corporate Bonds Start 2019 With Strong Performance
- Recent Research From Morningstar Credit Ratings: Consumer Defensive Sector
- Weekly High-Yield Fund Flows

### Credit Rating Actions

- Rating Actions

| Issuer/Ticker | Current Issuer Credit Rating | Previous Issuer Credit Rating |
|---|---|---|
| Teck Resources **TECK** | BBB- | BB |
| Vale **VALE** | BBB-/UR- | BBB- |

- Rating Affirmation

| Issuer/Ticker | Current Issuer Credit Rating | Previous Issuer Credit Rating |
|---|---|---|
| Costco Wholesale **COST** | AA- | AA- |
| Johnson & Johnson **JNJ** | AAA | AAA |
| Eli Lilly **LLY** | AA | AA |
| Target **TGT** | A | A |
| Celgene **CELG** | A-/UR+ | A-/UR+ |
| Walmart **WMT** | AA- | AA- |
| McDonald's **MCD** | A- | A- |
| Mondelez International **MDLZ** | BBB | BBB |
| Highwoods Properties **HIW** | BBB | BBB |
| EOG Resources **EOG** | BBB+ | BBB+ |
| Kilroy Realty **KRC** | BBB | BBB |
| Occidental Petroleum **OXY** | A | A |
| Boston Properties **BXP** | A- | A- |

### Recent Notes Published by Credit Analysts

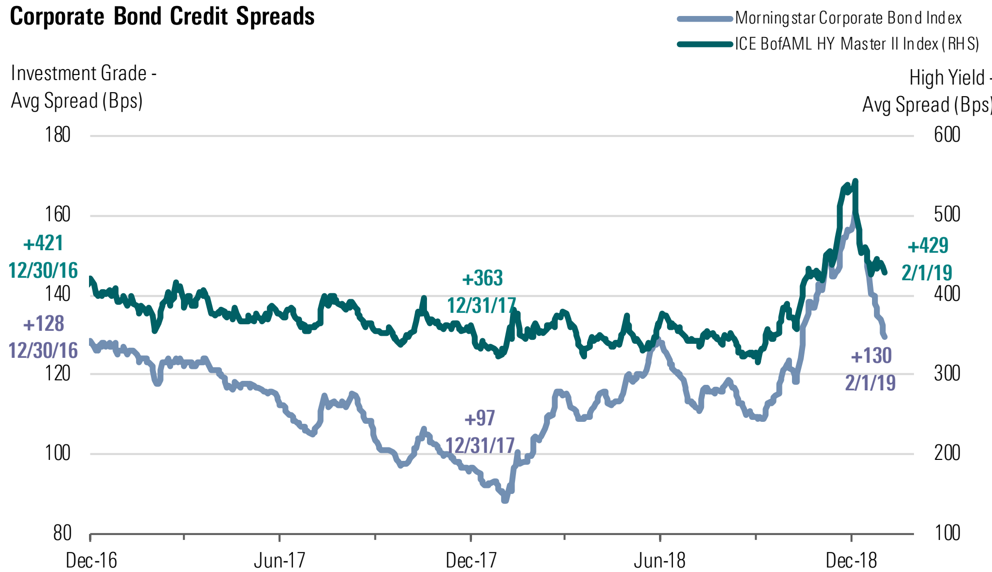
- **Schlumberger** (A, Stable) Announces New 5- and 10-Year Senior Notes to Repay Existing Debt
- **Boston Properties** (A-, Stable) Reports Robust Leasing Activity and Tightens 2019 Guidance Higher
- **Equity Residential** (A-, Stable) Reports Solid 2018 FFO Uptick With Demand Momentum Building Into 2019
- **Kimco Realty** (BBB+, Stable) Reports 4Q With Smaller Portfolio, Slowing Rent Growth
- **Duke Realty** (BBB+, Positive) Puts Solid 2018 in the Books and Sees Warehouse Strength Continuing
- **Camden Property Trust** (A-, Stable) Reports Solid 4Q With No Sign of Weakening Fundamentals

## Credit Market Insights

### Corporate Bonds Start 2019 With Strong Performance

In the investment-grade corporate bond market, the average spread of the Morningstar Corporate Bond Index tightened 5 basis points to +130 last week. In the high-yield market, the average credit spread of the ICE BofAML High Yield Master Index tightened 5 basis points to +429. Since the end of last year, investment-grade spreads have tightened 27 basis points and high-yield spreads have tightened 104 basis points.

**Corporate Bond Credit Spreads**



Source: Morningstar, Inc., ICE BofAML Global Indexes. Data as of 02/01/2019

The rally among corporate bonds has propelled both the investment-grade and high-yield bond indexes to strong returns thus far this year, well outpacing the return in government bonds. Through last Friday, the Morningstar Corporate Bond Index has risen 2.20% and the ICE BofAML US High Yield Master Index has risen 4.72%, whereas the Morningstar US Government Bond Index has only increased 0.16%.

While Treasury bonds rallied last week, year-to-date interest rates have generally only returned to the levels where they began the year. Across the short end of the yield curve, it appears that the multiyear trend of rising rates will pause in the near term. Following the Federal Open Market Committee meeting last week, Federal Reserve Chair Jerome Powell said the case for further raising the federal-funds rate has weakened. Myriad economic risks have cooled the Fed's outlook. Although the Atlanta Fed's GDPNow forecast for first-quarter GDP growth is 2.5%, economists are concerned that contagion from slowing growth in Europe (for example, Italy, the European Union's third-largest economy, has officially entered a recession with two consecutive quarters of economic contraction) and weakening in China may negatively affect U.S. economic growth. In addition, poor weather conditions in the Midwest and the impact of the government shutdown have heightened the downside risk to economic growth in the first quarter. Economic growth also could be damped by ongoing trade disputes, a potential hard Brexit without a trade agreement, and the potential for additional U.S. government shutdowns if Congress and the executive branch are unable to reach an agreement on spending.

Over the past month, there has been a sizable shift in expectations regarding the amount and timing that the Fed may hike the federal-funds rate in 2019. According to the CME's FedWatch Tool, the market-implied probability that the federal-funds rate will end 2019 unchanged at the current range of 2.25%-2.50% rose to 86% from 66% just one week ago. As of last Friday, there is only a 3% probability that the Fed will hike short-term rates over the course of the year, whereas last week there was a 26% probability that the Fed would increase rates at least once. One of the more significant changes in the futures market is the increase in the probability that the Fed will cut interest rates by the end of the year. The probability that the Fed will cut interest rates this year has increased to 10% from only 4% last week.

**Recent Research from Morningstar Credit Ratings: Consumer Defensive Sector**

Last week, Wesley Moultrie, our analyst covering the consumer defensive sector, published the Consumer Defensive Sector Quarterly Credit Trend and Spread Chartbook. Over the past quarter in the consumer defensive space, MCR upgraded one firm and affirmed the ratings of eight companies.

In the packaged foods and nonalcoholic beverages subsector, Moultrie notes that operating earnings improvement has slowed for most packaged food firms that Morningstar covers, as benefits of extensive restructuring programs and cost-saving initiatives, which have generally resulted in greater profitability, are being absorbed by higher packaging and distribution costs and incremental brand investment. However, he expects the higher costs to be passed to consumers. Generally, debt leverage across the subsector remains high as most companies have recently engaged in M&A activities, but he expects debt leverage will moderate over time.

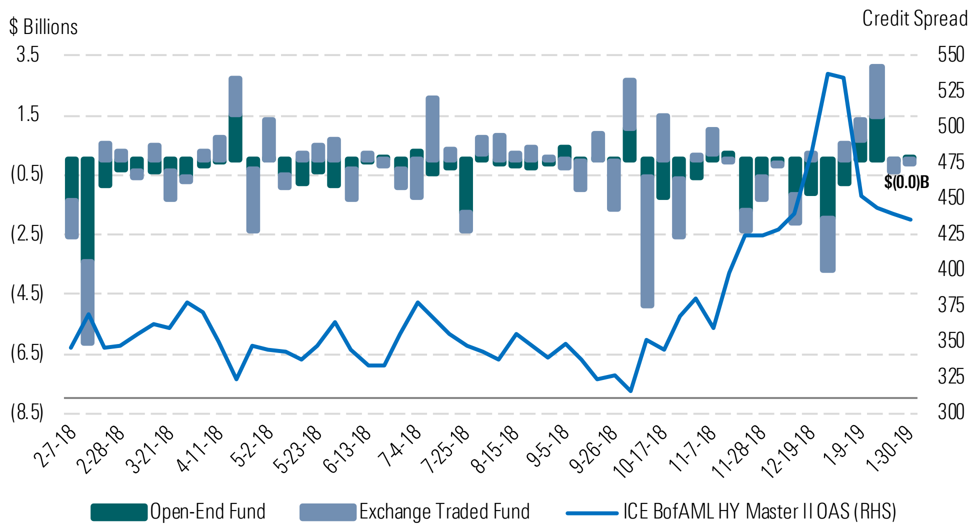
Across the restaurant sector, after mid- to high-single-digit growth over the past few years, same-restaurant sales growth has slowed, but operating margins remain strong thanks to structural improvements. From a macroeconomic perspective, an expanding economy, lower unemployment, and higher real wages have led to an increase in food consumed away from home; as a result, Moultrie anticipates continued increased spending on food service and restaurants.

For this research report, as well as all of our credit ratings and research, please visit www.morningstarcreditratings.com.

### Weekly High-Yield Fund Flows

High-yield fund flows were essentially unchanged last week as outflows among high-yield exchange-traded funds just barely edged out inflows across high-yield open-end mutual funds. Year to date, total inflows into the high-yield asset class are $3.9 billion, consisting of $2.5 billion of net unit creation among high-yield exchange-traded funds and $1.4 billion of inflows across high-yield open-end mutual funds.

**Estimated Weekly High-Yield Bond Fund Flows and High Yield Credit Spreads**




Source: Morningstar, Inc. and ICE BofAML Global Indexes.

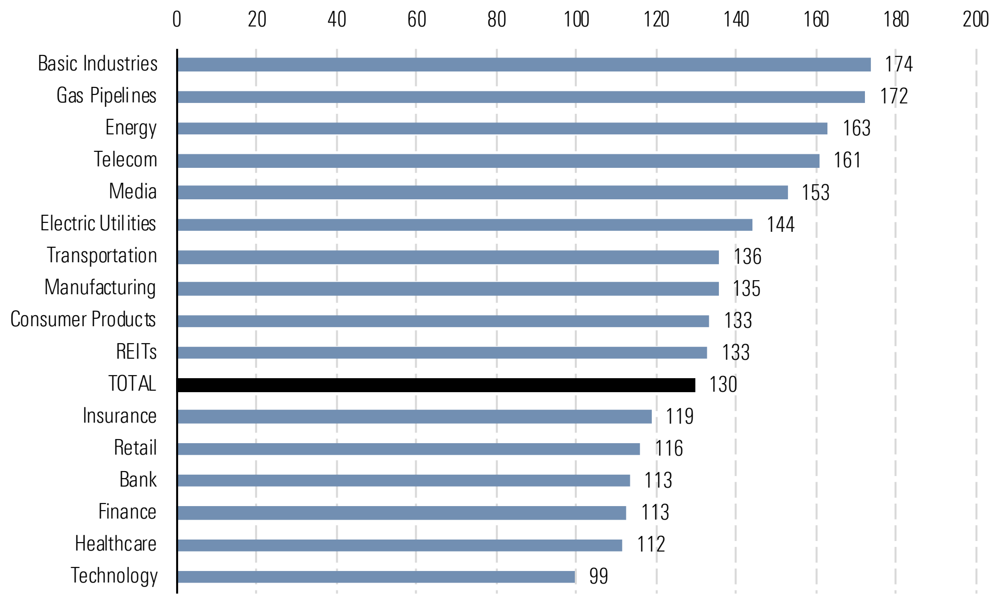
**Exhibit 1** Morningstar Corporate Bond Index Sector Summary

| Sector | Average Rating | Number of Issues | Modified Duration | Spread (bps) | MTD Spread Chg (bps) | YTD Spread Chg (bps) | MTD Total Return (%) | YTD Total Return (%) |
|---|---|---|---|---|---|---|---|---|
| **TOTAL** | **A-** | **5,150** | **6.8** | **130** | **(1)** | **(27)** | **(0.16)** | **2.20** |
| **FINANCIAL** | **A-** | **1,448** | **5.2** | **114** | **(1)** | **(27)** | **(0.19)** | **1.91** |
| Bank | A- | 898 | 4.7 | 113 | (0) | (29) | (0.19) | 2.02 |
| Finance | A | 232 | 5.1 | 113 | (2) | (23) | (0.19) | 1.55 |
| Insurance | A | 220 | 8.3 | 119 | (2) | (19) | (0.17) | 1.81 |
| REITs | BBB+ | 89 | 5.9 | 133 | (1) | (16) | (0.21) | 1.33 |
| **INDUSTRIAL** | **A-** | **3,031** | **7.5** | **135** | **(1)** | **(27)** | **(0.14)** | **2.39** |
| Basic Industries | BBB | 254 | 7.3 | 174 | (3) | (25) | (0.13) | 2.32 |
| Consumer Products | BBB+ | 363 | 7.5 | 133 | 0 | (26) | (0.17) | 2.22 |
| Energy | A- | 398 | 7.2 | 163 | (1) | (33) | 0.06 | 3.08 |
| Healthcare | BBB+ | 430 | 7.6 | 112 | (0) | (24) | (0.21) | 2.13 |
| Manufacturing | A- | 486 | 6.0 | 135 | (2) | (25) | (0.10) | 1.97 |
| Media | BBB+ | 182 | 8.5 | 153 | (2) | (25) | (0.10) | 2.66 |
| Retail | A- | 170 | 7.6 | 116 | (0) | (27) | (0.26) | 2.28 |
| Technology | A+ | 345 | 7.2 | 99 | (1) | (28) | (0.17) | 2.28 |
| Telecom | BBB+ | 162 | 9.0 | 161 | (1) | (31) | (0.27) | 3.01 |
| Transportation | BBB+ | 178 | 8.8 | 136 | (3) | (21) | (0.13) | 2.26 |
| **UTILITY** | **BBB+** | **614** | **8.7** | **156** | **(2)** | **(29)** | **(0.18)** | **2.12** |
| Electric Utilities | A- | 349 | 9.2 | 144 | (3) | (26) | (0.20) | 1.28 |
| Gas Pipelines | BBB | 248 | 7.9 | 172 | (1) | (36) | (0.16) | 3.30 |
| **Rating Bucket** | | | | | | | | |
| AAA Bucket | | 123 | 7.5 | 47 | (1) | (12) | (0.23) | 1.35 |
| AA Bucket | | 500 | 5.8 | 66 | (0) | (20) | (0.19) | 1.40 |
| A Bucket | | 1,859 | 6.8 | 97 | (1) | (27) | (0.19) | 1.93 |
| BBB Bucket | | 2,668 | 7.1 | 171 | (2) | (33) | (0.13) | 2.60 |
| **Term Bucket** | | | | | | | | |
| 1-4 | A- | 1,706 | 2.3 | 78 | 1 | (23) | (0.09) | 0.87 |
| 4-7 | A- | 1,153 | 4.7 | 123 | (0) | (32) | (0.23) | 1.96 |
| 7-10 | A- | 870 | 6.9 | 148 | (2) | (31) | (0.24) | 2.49 |
| 10PLUS | A- | 1,421 | 13.5 | 182 | (3) | (27) | (0.13) | 3.72 |

*Data as of 02/01/2019*

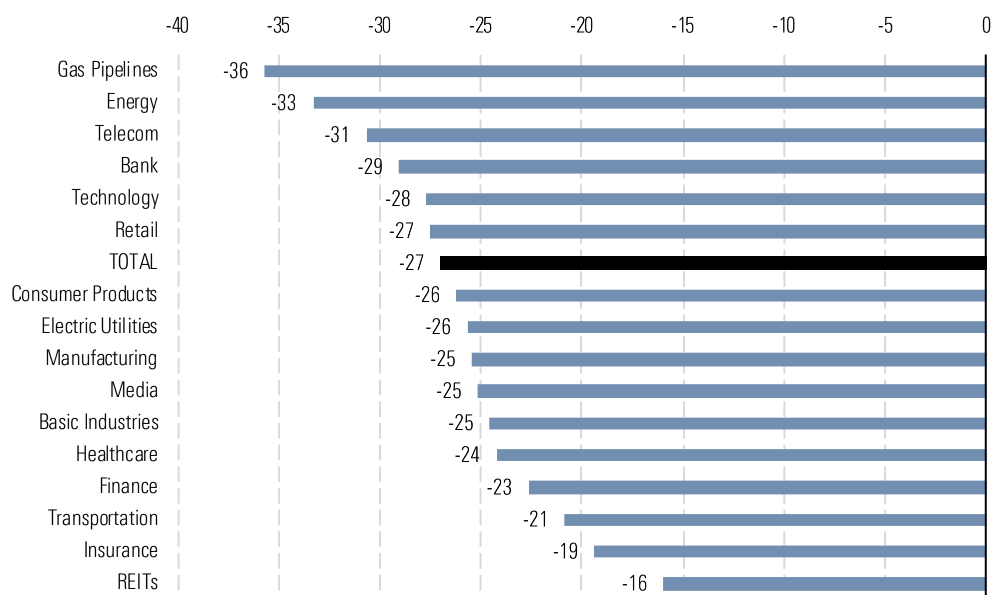
Source: Morningstar, Inc.

**Exhibit 2** Morningstar Corporate Bond Index Spread by Sector



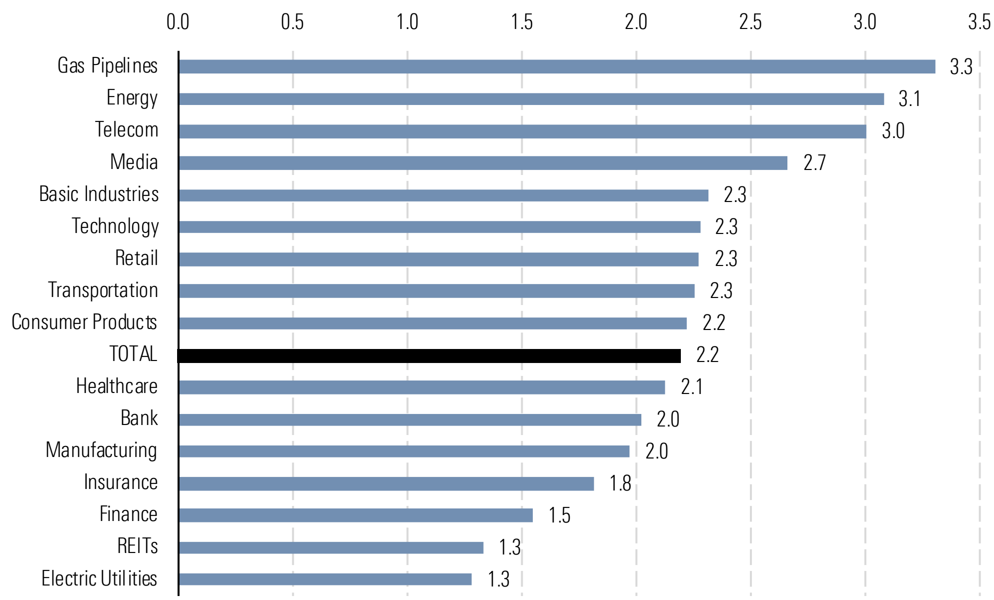

Source: Morningstar, Inc.

**Exhibit 3** Morningstar Corporate Bond Index YTD Spread Change




Source: Morningstar, Inc.

**Exhibit 4** Morningstar Corporate Bond Index YTD Return




Source: Morningstar, Inc.

## Credit Rating Actions

### Rating Actions

| Issuer/Ticker | Current Issuer Credit Rating | Previous Issuer Credit Rating |
|---|---|---|
| Teck Resources **TECK** | BBB- | BB |
| Vale **VALE** | BBB-/UR- | BBB- |

### Rating Affirmation

| Issuer/Ticker | Current Issuer Credit Rating | Previous Issuer Credit Rating |
|---|---|---|
| Costco Wholesale **COST** | AA- | AA- |
| Johnson & Johnson **JNJ** | AAA | AAA |
| Eli Lilly **LLY** | AA | AA |
| Target **TGT** | A | A |
| Celgene **CELG** | A-/UR+ | A-/UR+ |
| Walmart **WMT** | AA- | AA- |
| McDonald's **MCD** | A- | A- |
| Mondelez International **MDLZ** | BBB | BBB |
| Highwoods Properties **HIW** | BBB | BBB |
| EOG Resources **EOG** | BBB+ | BBB+ |
| Kilroy Realty **KRC** | BBB | BBB |
| Occidental Petroleum **OXY** | A | A |
| Boston Properties **BXP** | A- | A- |

**Morningstar Credit Ratings Releases Updated Ratings for Teck Resources**

Morningstar Credit Ratings, LLC is upgrading the corporate credit rating of Teck Resources Ltd. to BBB- from BB and revising the outlook to stable from positive.

The upgrade stems from the company's debt reduction in 2018 and the recent joint venture agreement signed with Sumitomo Metal Mining Co. LTD and Sumitomo Corporation to develop the company's Quebrada Blanca 2 copper project in Chile. Through the first nine months of 2018, Teck reduced balance sheet debt to CAD 5.2 billion from CAD 6.4 billion at year-end 2017 or approximately 20%. The joint venture agreement with SSM and SC will effectively reduce Teck's ownership in QB2 to 60% from 90%; SSM and SC will initially contribute $1.2 billion as consideration for the 30% interest. This agreement helps to mitigate the financing and concentration risk associated with the approximately $5 billion project. We estimate that most of the capital for QB2 will be spent in 2020 and 2021, and copper production for Teck will effectively double on a consolidated basis after the project is completed. As of Sept. 30, Teck's debt/LTM EBITDA was 0.8 times (0.6 times net), and it was free cash flow positive (CFFO minus capital expenditures) for the last 12 months by $1.7 billion. The robust credit metrics were driven by strong steelmaking coal prices and reasonably good prices for copper and zinc.

Our BBB- credit rating on Teck reflects its high Business Risk, a moderate Cash Flow Cushion and Distance to Default, and its strong to moderate Solvency Score. The Business Risk is negatively affected by its product concentration, the cyclicality of commodity prices, and the lack of an economic moat rating, as assigned by Morningstar's Equity Research Group. The company's production mix of steelmaking coal, copper, and zinc/lead offers limited diversification in terms of price sensitivity. Additionally, Teck has significant operating leverage to steelmaking coal as it is currently providing over

60% of the company's gross profits. Teck's Cash Flow Cushion is supported by relatively healthy cash inflows and light near-term debt maturities, reasonable capital spending, and shareholder remuneration. The company's Solvency Score is supported by a moderately leveraged capital structure and robust interest coverage.

Near to intermediate term, we expect that Teck will continue to be generally free cash flow positive and that debt/EBITDA will be 2.0 times or less. Our expectations are based on lower assumed steelmaking coal prices ($150-$120 per metric ton) throughout our forecast thru 2022 and copper prices ranging between approximately $2.70 and $2.30 per pound while zinc assumptions approximate $1.30 per pound. For liquidity, Teck has approximately CAD 1.5 billion of cash and equivalents as of Sept. 30 and two committed revolving unsecured credit facilities. A $1.2 billion facility, due in 2020, is primarily used for letters of credit. This facility had no borrowings against it and $730 million of letters of credit outstanding as of Sept. 30 for power offtake contracts and pipeline commitments. Teck has another $4 billion unsecured revolving facility due in November 2023, which was undrawn as of Sept. 30. Teck's nearer-term maturities are CAD 150 million due in 2021, CAD 260 million in 2022, CAD 275 million in 2023, and CAD 777 million in 2024.

Given our stable rating outlook, we do not envision moving the rating in the near term. However, the rating could be upgraded longer term if Teck's Business Risk or Cash Flow Cushion were to improve, which could be a result of sustainably higher prices for steelmaking coal and/or copper and zinc. Conversely, the rating could be downgraded if its Business Risk, Cash Flow Cushion, or Solvency Score were to markedly deteriorate, which could result from much lower prices for steelmaking coal and/or copper and zinc or a significant increase in shareholder remuneration that is effectively leveraging.

### Morningstar Credit Ratings Places Ratings for Vale Under Review

Morningstar Credit Ratings, LLC is placing the corporate credit rating of Vale SA under review negative following the failure of the company's tailings dam at its Feijão mine at Brumadinho in the state of Minas Gerais, Brazil. So far, it is reported that at least 60 lives have been lost while hundreds more are still reported missing. The dam failure at the Feijão mine follows the company's Samarco dam failure three years ago, which resulted in 19 fatalities and extensive environmental damage.

Our review will focus on the potential environmental, criminal, and civil liabilities that are currently unquantifiable at this early stage as well as the effects on the company's operations and liquidity. Thus far, the state of Minas Gerais has mandated that Vale set aside approximately $3 billion in cash for damages. As of Sept. 30, Vale's gross debt balance was $16.8 billion ($10.7 billion net), and we estimate its latest 12 months free cash flow was approximately $10 billion. Cash and equivalents totaled $6.1 billion at Sept. 30, and we estimate available external liquidity includes $5 billion in remaining availability on its two main revolving credit facilities, due 2020 and 2022, both of which were undrawn as of the end of September. Vale has announced that it is suspending dividends and share purchases in light of the dam failing. We estimate near-term debt maturities as $900 million in 2019, $1.1 billion in 2020, $1.3 billion in 2021, and $12.8 billion thereafter.

Vale's current rating is reflective of high Business Risk coupled with moderate Cash Flow Cushion and Distance to Default credit pillars and a strong Solvency Score credit pillar. Its Business Risk is negatively affected by industry cyclicality, production concentration, and lack of an economic moat assigned by Morningstar's Equity Research Group, offset somewhat by the company's large size. Vale's Cash Flow Cushion is boosted by strong internally generated cash flow that is primarily a result of good iron ore prices and Vale's massive production volume. The company's Solvency Score is a product of moderate leverage and robust interest coverage and its Distance to Default reflects the large market capitalization of its equity ($65 billion) relative to its debt balance

**Morningstar Credit Ratings Releases Updated Ratings for Costco Wholesale**
Morningstar Credit Ratings, LLC is affirming Costco Wholesale Corporation's AA- credit rating and maintaining a stable outlook. The rating affirmation is based on Costco's leading market position among big-box discount retailers, strong high teens returns on invested capital, solid free cash flow, and conservative balance sheet.

Costco's Business Risk score is minimal based on its position as the second-largest retailer in the world, a valuable brand, recurring membership fees, and a low-cost operating model. The company operated 762 warehouses at the end of fiscal 2018 (ended September), and plans to open 20-25 new stores in 2019, consistent with its historical moderate pace. Costco's brand asset is validated by the high 90% renewal rate of its members in the U.S. and Canada. In addition, despite a fee increase in 2017, membership continued to grow by 4% in fiscal 2018 to 51.6 million members. This stable stream of recurring fee revenue represents 70% of operating profit. Costco continues to add value for its members, such as through the development of its delivery options, including in-store pickup, two-day delivery, and two-hour delivery in partnership with Instacart.com. Same-day grocery delivery is available to members within a 20-minute drive of 99% of its U.S. locations. While online sales approximate only 4% of total sales, first-quarter e-commerce adjusted revenue grew 26%. Costco's no-frills warehouses stock an average of just 3,700 products per location, which allows the company to better concentrate its bargaining power. This limited selection of nationally branded and private-label products produces high sales volume and rapid inventory turnover and generates $1,200 in sales per square foot. Working capital needs are limited, as the company typically sells inventory before it pays its supplier. Reflecting many of these attributes, Morningstar's Equity Research Group assigns Costco a wide economic moat.

Costco has a strong Solvency Score supported by solid and consistent returns on invested capital that have averaged in the high teens over the past decade. Recent results have been impressive despite increasing competition and higher investment in e-commerce and delivery capabilities. In this competitive environment, the company continues to generate solid same-store sales growth and stable EBITDA margins. While Morningstar forecasts additional EBITDA margin expansion to slow due to increasing competitive pressure, Costco is forecast to increase revenue in the mid- to high-single-digit range for the next several years, driven by new warehouse openings, increasing traffic, and new membership growth.

Costco has consistently maintained a conservative balance sheet. Over the past five years, adjusted debt/EBITDAR has been within 1.4-1.6 times. At the end of the first quarter of fiscal 2019, adjusted debt totaled $9.0 billion: $6.5 billion of senior notes, $2.1 billion of operating lease commitments, and $400 million of capital lease obligations. Costco has historically maintained excellent liquidity, including cash and short-term investments totaling $8.0 billion, reducing adjusted net leverage to 0.2 times. Bank credit facilities provide nearly $900 million of additional borrowing capacity. Debt leverage has remained consistent despite substantial shareholder distributions. In recent years Costco has periodically issued new debt for special cash dividends that have exceeded free cash flow.

Costco is forecast to continue generating strong returns on invested capital and free cash flow that, coupled with the maintenance of a conservative balance sheet, will support a stable rating outlook. The rating could be raised with further improvements in profitability, which along with limited balance sheet leverage could improve its Solvency Score and Cash Flow Cushion. Costco's rating could be lowered if its Business Risk or Solvency Score deteriorate from an erosion in its competitive advantages, margins, and returns.

**Morningstar Credit Ratings Releases Updated Ratings for Johnson & Johnson**
Morningstar Credit Ratings, LLC is affirming Johnson & Johnson's AAA rating and stable outlook, reflecting the firm's maintaining of the healthcare industry's most diversified corporate portfolio, which we expect to sustain operational success and yield exceptional financial flexibility.

J&J operates a well-diversified product portfolio with offerings in pharmaceuticals, medical devices, and over-the-counter medicines (representing roughly 50%, 33%, and 17% of total sales, respectively). This helps offset exposure from operational drags in a particular segment at any given time and contributes to a minimal Business Risk pillar. We also see this diversity mitigating J&J's key drug patent expirations over the next few years, including ongoing biosimilar competition to best-seller autoimmune therapy Remicade as well as generic entrants for cancer drugs Velcade and Zytiga, atypical antipsychotic Invega Sustenna, and HIV medication Prezista (collectively representing around 12% of total revenue). As such, we see sustained overall revenue growth in the midsingle digits through 2022 compounded annually, supported by the launch of promising medicines over the past few years, most notably oncology medicines Darzalex and Imbruvica as well as next-generation psoriasis treatment Tremfya. Aided by cost initiatives in its medical devices business and refinement of its global supply chain, we expect EBITDA growth pacing slightly ahead of revenue compounded annually through 2022. This continuity of earnings and cash flows contributes to a strong Cash Flow Cushion.

J&J is rebuilding its financial flexibility after losing its net cash position following the cash purchase of Actelion for $30 billion in June 2017. While J&J prudently used offshore cash to fund the acquisition, total debt jumped to over $34 billion on July 2, 2017, or gross leverage of 1.4 times for the trailing 12 months, from $27.1 billion in 2016, given funding for heavy share repurchasing. J&J eased gross leverage during 2018 to a more historical level through increasing profitability and modest debt reduction, which supports its strong Solvency Score and very strong Distance to Default pillars. Presently, the firm owes unsecured debt of $31.3 billion or gross leverage of 1.1 times for the trailing 12 months as of Sept. 30, 2018. Considering $19.4 billion in cash and short-term investments on Sept. 30, net leverage was 0.4 times for the latest 12 months. With its cash holdings and free cash flow averaging around $21 billion annually over the next five years by our estimation, the firm could easily repay well-laddered unsecured debt maturities totaling around $9.5 billion through 2023. Despite manageable maturing securities, we expect debt reduction to take a back seat to annual dividends ($9.3 billion for the latest 12 months as of Sept. 30), opportunistic share repurchases ($2.9 billion for the latest 12 months as of Sept. 30), and business development. As such, we anticipate gross leverage to ease and remain at 1 times starting in 2019 through steady operational performance and limited debt reduction. We anticipate that capital deployment may return to its traditional balance between asset purchasing and returning value to shareholders through dividends and share repurchases, allowing J&J to build its cash holdings and near a net cash position in the next few years.

Given the stable outlook, we see no catalyst to alter the current rating over the next year or so. While we see reduced financial flexibility over the next few years as the firm rebuilds its cash balance, we would need to see larger debt-funded repurchases or acquisitions, such that our Solvency Score and Cash Flow Cushion pillars become impaired, to downgrade J&J's top-echelon credit rating.

### Morningstar Credit Ratings Releases Updated Ratings for Eli Lilly

Morningstar Credit Ratings, LLC is affirming Eli Lilly's AA rating and stable outlook, reflecting the firm's sustained research productivity that we expect to more than mitigate revenue and earnings erosion from key drug patent lapses.

Through its industry-leading commitment to research innovation with R&D investment topping 20% of sales, Eli Lilly has introduced promising treatments since 2014 such as Trulicity, Jardiance, and Basaglar in diabetes; Cyramza and Verzenio in cancer; and Taltz and Olumiant in immunology. Together, these newer medicines generate around 27% of overall revenue, which we expect to more than offset current generic competition to erectile dysfunction drug Cialis and potentially to osteoporosis drug Forteo in the near term. These two drugs alone represent about 15% of total sales. Despite these key drug patent losses and the looming patent lapse of oncology treatment Alimta in 2022, we think that solid demand for the firm's newer drug portfolio supports mid-single-digit sales growth compounded annually over the next five years. Our assumption includes the divestment of the firm's animal health business Elanco (nearly 13% of total revenue) in the first half of 2019, which decreases diversity of the overall portfolio and increases sensitivity of the firm's minimal Business Risk. Eli Lilly's commitment to achieving an operating margin of at least 31% by 2020 reinforces our conviction that EBITDA may grow in the high single digits through 2022 and supports a strong Cash Flow Cushion even as the firm steps up shareholder rewards (including a 15% dividend increase in December 2018).

Eli Lilly's gross debt balance dropped to $12.7 billion in unsecured securities as of Sept. 30, 2018, from $13.6 billion at the end of 2017 despite its animal health business Elanco issuing around $2.5 billion of new debt in August, including $2 billion in private-placement unsecured notes and executing a $500 million three-year term loan. This incremental debt was offset by a reduction of commercial paper borrowings to $400 million as of Sept. 30, 2018, from $2.7 billion on Dec. 31, 2017. Helped by this debt reduction, gross leverage fell to 1.7 times for the 12 months ended Sept. 30, 2018, from 2.1 times for full-year 2017. We expect Eli Lilly's debt load to ease from the Elanco divestiture in 2019 as the subsidiary's debt will flow into the fully independent business. We think that this benefit may be short-lived, though, as Eli Lilly focuses on supplementing its research program, including the pending purchase of Loxo Oncology for $8 billion and rewarding shareholders with increasing dividends and opportunistic share repurchases. Eli Lilly utilized its cash and investments to ramp share repurchasing and distribute dividends (about $2.3 billion for the trailing 12 months as of Sept. 30, 2018). In the first nine months of 2018, the firm repurchased $3 billion in shares (compared with $300 million in 2017), leaving $7 billion of repurchase authorization against an $8 billion program on Sept. 30, 2018. The firm's cash and investments totaled $11.0 billion on Sept. 30, 2018 (or net leverage of 0.2 time for the latest 12 months as of Sept. 30), after falling to $9 billion during the year mainly due to shareholder returns. We see the firm repaying $600 million of 1.95% notes maturing in 2019 using free cash flow that we see averaging over $5.0 billion annually through 2022. This debt reduction along with solid operational performance driven by strong demand for new medicines may further decrease gross leverage to the mid-1s by 2020, in our estimation, which may keep strong Solvency Score and very strong Distance to Default pillars intact. Financial flexibility also stems from two credit facilities: a $3.8 billion one-year revolver due December 2018 (likely extended another year) and a $1.2 billion five-year revolver due August 2019.

The stable outlook on Eli Lilly's rating indicates we see no immediate fundamental or financial catalyst to change the current rating over the next few years. However, if commercial uptake for the firm's new drug portfolio materially slows, causing significant EBITDA generation compression, such that our Cash Flow Cushion deteriorates, then a downgrade may be warranted. In addition, large leveraging transactions, like a transformational acquisition or aggressive share repurchasing, which severely impairs our leverage-based pillars, a downgrade could be possible. On the other hand, a return of gross debt leverage to a historical level around 1 times, most likely requiring a long-term commitment to operating with a lower debt burden, could prompt an upgrade to the rating.

### Morningstar Credit Ratings Releases Updated Ratings for Target

Morningstar Credit Ratings, LLC is affirming Target Corporation's rating at A based on the company's solid market position among discount retailers, strong free cash flow generation, and moderate financial policy. The outlook is revised to stable from negative following evidence that profitability is stabilizing, and returns are forecast to improve with successful investment initiatives.

Target's low Business Risk reflects its well-known brand, considerable scale, and operational improvements that have strengthened its competitive position. The company has an established national network consisting of over 1,800 stores. In 2017, Target announced a three-year $7 billion capital investment plan designed to improve its competitive position. These initiatives include accelerated investments to remodel its existing store base, a higher penetration rate of digital sales, the additional rollout of roughly 30 smaller strategic urban format stores per year, and improvement in customer fulfillment. Through the third quarter of fiscal 2018 (ended Nov. 3), Target has completed over 400 store remodels and remains on pace to complete its goal of 1,000 remodels in 2020. Store remodels have resulted in incremental comparable sales growth of 2%-4%, while double-digit sales growth from online sales contributed 1.5% of the 4.9% comparable sales growth posted through the first nine months of fiscal 2018. Target has designed most of its customer fulfillment to come from within the store in order to lower delivery costs. Currently, over two thirds of online orders are fulfilled at the store, which includes in-store pickup (15% of digital volume), drive-up pickup that is now available at nearly 1,000 stores, and same-day delivery from its wholly owned Shipt.com business. Shipt-employed shoppers now fill orders at more than 1,400 Target stores, making it accessible to nearly two thirds of the U.S. population. Morningstar's Equity Research Group does not assign Target an economic moat.

Target's moderate Solvency Score reflects its low teens return on invested capital along with a moderate capital structure. Morningstar's rating incorporates an expectation of modest profitability improvement as measured by return on invested capital. Still, near-term accelerated investment spending coupled with price investments will pressure operating margins at least over the next couple years. Nevertheless, Target generates higher EBITDA margins than many of its peers, including Walmart and Costco, due to its focus on higher-margin products such as apparel and home decor. Target is expected to post mid-single-digit revenue growth for fiscal 2018, ended January, supporting its investment initiative.

The rating reflects a moderately leveraged balance sheet, with adjusted debt/EBITDA maintained near 2.0 times. At the end of the third quarter, adjusted debt totaled $13.7 billion, including $2.0 billion related to balance sheet operating lease liabilities. Further, as Target ramped up investment spending and posted moderately lower EBITDA, management reduced share repurchases to maintain its debt leverage. Target maintains a $2.5 billion revolver that expires in 2023, which is utilized to back up the company's commercial paper program, which had $490 million outstanding at the end of the third quarter. Target's debt maturity schedule is well laddered, with about one third of outstanding debt maturing within the next five years.

A stable outlook reflects Target's success with stabilizing its competitive position, including a recovery in revenue and return on invested capital. The rating could be raised if Target's investments generate substantially higher returns and lower debt leverage, which would positively influence its Solvency Score. The rating could be lowered if the company's profit metrics deteriorate despite investment initiatives, along with an increase in shareholder distributions that could lead to higher debt leverage.

**Morningstar Credit Ratings Releases Updated Ratings for Celgene**

Morningstar Credit Ratings, LLC is affirming Celgene's A- rating, reflecting the firm's intention to reduce heavy reliance on top-selling medicine Revlimid through external means balanced against elevated debt leverage resulting from purchasing these diversifying assets. We placed the firm's credit rating under review positive owing to the proposed merger with Bristol-Myers Squibb (AA-/UR-) in January 2019 that may bolster its credit rating pillars as a combined entity compared with its stand-alone business.

The potential combination of Celgene and Bristol-Myers Squibb will have a more diverse portfolio than Celgene alone, given its high dependence on oncology medicine Revlimid, which represents about 64% of total sales. The transaction, which is expected to close in the third quarter of 2019, adds Bristol-Myers Squibb's strength in immuno-oncology to Celgene's expertise in blood cancer while also bringing together leading immunology and inflammation treatments, Orencia and Otezla. We expect lessened product concentration to positively influence the Business Risk pillar of the combined entity. In addition, the combined entity's balance sheet will be stretched with incremental debt to fund the transaction combined with Celgene's existing debt load. We expect gross leverage to stand around 3 times at completion of the deal, like roughly 3 times at Celgene for the trailing 12 months as of Sept. 30, 2018.

Celgene has already stressed its balance sheet to complete the Juno and Impact transactions during 2018 (totaling $11.5 billion) and owed $20.2 billion in senior unsecured debt as of Sept. 30, 2018, compared with $15.8 billion at the end of 2017. Gross debt leverage was 2.9 times for the trailing 12 months as of Sept. 30, 2018, and considering $4.4 billion of cash and investments, net debt leverage was 2.3 times for the latest 12 months. Gross debt will balloon in conjunction with the acquisition as Bristol-Myers Squibb plans to fund the proposed purchase with $32 billion in incremental debt, $38 billion of equity funding, and available cash. Strong cash generation may facilitate debt reduction after the combination, given that management thinks free cash flow may total more than $45 billion over the first three years after the transaction. This could be used to repay outstanding debt as management expects to maintain a strong investment-grade rating. Over the next five years, Celgene has $5.5 billion in debt maturing while Bristol-Myers Squibb has only $2 billion coming due. In conjunction with the merger announcement, Bristol-Myers Squibb plans to repurchase $5 billion in shares through an accelerated share-repurchase program after completion of the deal, which we will also consider in the combined entity's rating.

Within the context of the under review positive, we believe there may be some uplift to Celgene's currently strong Cash Flow Cushion and moderate Distance to Default pillars upon completion of the combination. All in all, considering the similar gross leverage and rising diversity relative to its stand-alone status, Celgene's credit rating could rise if the merger is completed as planned.

**Morningstar Credit Ratings Releases Updated Ratings for Walmart**

Morningstar Credit Ratings, LLC is affirming Walmart Inc.'s credit rating at AA-, reflecting the company's leading competitive position in the discount retail market and the maintenance of a liquid, conservatively managed balance sheet. The outlook remains negative, reflecting the potential for a lower rating if investment spending fails to sustain comparable sales growth and core operating margin enhancement.

Walmart's Business Risk is minimal, reflecting its dominant size, valuable brand asset, and healthy return on invested capital. Walmart generates over $500 billion in annual global sales and operates over 11,000 stores as the world's largest retailer. This scale provides the company with a tremendous cost advantage and purchasing power leveraged to obtain favorable terms from suppliers, vendors, and manufacturers. Walmart has developed a strong brand asset based on its everyday low-price strategy that has resulted in exceptional customer loyalty. Over the past several years, the company has accelerated investments and acquisitions in e-commerce to maintain these competitive advantages, including allocating less capital to new stores and more to e-commerce, store remodels, supply chain, and technology. Walmart's acquisition of a 77% stake in privately held Flipkart Group for $16 billion in August 2018 followed the $2.4 billion purchase of Jet.com and a $1.9 billion stake in JD.com in fiscal

2017. Driven by higher investments in Jet.com, Walmart's U.S. e-commerce revenue is forecast to increase 40% this current fiscal year. Additional initiatives include leveraging its massive store base as points of distribution for delivery by investing in free shipping, store pickup, and mobile payment systems. Walmart now provides free two-day shipping on e-commerce orders over $35, while grocery pickup has grown during the past four years to over 2,000 locations and is estimated to service roughly 70% of the U.S. population. Morningstar's Equity Research Group has assigned Walmart a wide economic moat.

Profitability has been weakened over the last several years as competition from online and other discounters has increased, forcing Walmart to reduce prices in order to remain the low-price leader. The combination of e-commerce investments and pricing pressure have eroded Walmart's operating margins to 4.0% for the last 12 months ended Oct. 31, 2018. Operating margins are over 100 basis points lower versus a few years earlier. Walmart's moderate Solvency Score reflects a similar decline in the company's return on invested capital, which we forecast will approximate 10% for fiscal 2019. Morningstar projects 2% same-store sales growth over the next several years will be driven by the company's recent investments. Walmart's core operating margin, excluding Flipkart, is expected to improve in fiscal 2020 (ended Jan. 31). However, consolidated operating margins are forecast to decline in fiscal 2020 and remain under pressure as Flipkart is not projected to have an operating profit for several years.

Walmart has historically maintained a moderately leveraged balance sheet along with excellent liquidity. In 2018, the company issued $16 billion in new notes to fund the acquisition of Flipkart, increasing debt to $61 billion at the end of the third quarter (Oct. 31). Adjusting for $23 billion of operating lease commitments, Morningstar calculates total adjusted debt of $84 billion. Leverage as measured by net adjusted debt/EBITDAR has increased over the last few years to 2.2 times at the end of the third quarter compared with more historical net leverage near 1.7 times. Walmart's liquidity includes balance sheet cash of $9.2 billion, along with a $5 billion undrawn revolver and a $7.5 billion undrawn 364-day credit facility used to support commercial paper borrowings. Approximately $4 billion of cash is restricted and is expected to be used to fund the operations of Flipkart. Walmart's moderate Solvency Score and Cash Flow Cushion have been negatively affected by higher debt leverage coupled with a decline in return on invested capital.

A negative outlook reflects the potential for the rating on Walmart to be lowered if forecast lower debt levels and leverage, along with gradual improvement in its return on invested capital, fail to materialize. Given the negative outlook, an upgrade is unlikely; however, the outlook could be revised to stable with an improvement in profitability, leading to a higher Solvency Score and Cash Flow Cushion.

### Morningstar Credit Ratings Releases Updated Ratings for McDonald's

Morningstar Credit Ratings, LLC is affirming its A- credit rating on McDonald's Corporation and maintaining a stable outlook. Our rating reflects McDonald's low Business Risk and strong Solvency Score, which remain anchored by high teens returns on invested capital. Meanwhile, the company's Cash Flow Cushion is weak and constrained by significant maturities, large outflows to shareholders, and heightened capital expenditures over our five-year forecast period. McDonald's owns the largest and one of the world's most renowned brand franchises. Its low Business Risk is supported by a strong intangible asset, a cohesive franchisee system, economies of scale, and a focus on unit-level productivity improvement, which also support a wide economic moat assessment by Morningstar's Equity Research Group.

McDonald's is sustaining the success of its turnaround and continues to generate mid-single-digit systemwide sales, mid-single-digit global comparative same-store sales growth, and operating margin over 40%. Our forecast incorporates that the company will reach its general and administrative cost savings goal of $500 million annually by the end 2019. McDonald's has also been making progress revamping its customer ordering, introducing kiosks, web, and mobile to improve table service and delivery, which should make the company more efficient and support its longer-term growth. We believe McDonald's can maintain operational and financial momentum through continued product development, consistent execution, improved quality, and cost reduction, which will feed its current aggressive three-year (2017-19) $25 billion target for share repurchases and dividends. Pro forma for the payout, we forecast that lease-adjusted leverage will remain just under 4 times. As McDonald's continues to divest company-owned restaurants, reaching its goal of 95% franchised over time, we expect revenue and operating costs to decline and royalties and licensee fees to increase, leading to higher operating margins and cash flow.

McDonald's total debt, which is senior unsecured, stood $31.9 billion as of Sept. 30, 2018, and its maturities that average just over $2.0 billion per year over 2019-23 are manageable. McDonald's liquidity is adequate and provided by its cash balance of $2.5 billion at Sept. 30, 2018, augmented by the company's trailing 12 months free cash flow after dividends, which was $891 million for that period. McDonald's lease adjusted leverage was 3.9 times for the trailing 12 months ended Sept. 30, 2018, and its lease adjusted interest coverage ratio was approximately 7 times. In addition to cash on hand, additional financial flexibility is provided by McDonald's $2.5 billion credit agreement expiring in December 2019, which also acts as a backstop to the company's commercial paper program.

As McDonald's has moved to a more heavily franchised system, we believe the company is now in a better position to manage its leveraged capital structure with its more stable revenue, operating earnings, and cash flow. As a result, we believe McDonald's overall credit profile is stabilizing, and over our five-year forecast period we project the company's total adjusted debt/EBITDAR at just under 4 times, slightly higher than our previous estimate. McDonald's adjusted debt includes an estimate for the capitalization of operating leases of $13.2 billion, of which approximately 66% relates to franchisees. McDonald's adjusted interest coverage ratio is projected in the high single digits during the forecast period. We forecast flat revenue growth in 2019 as the company continues to refranchise and low-single-digit growth thereafter on higher systemwide sales. Operating margin is projected to exceed 45% due to greater rents and royalties and the company achieving its cost-saving goals.

Our stable outlook assumes that McDonald's can maintain its Business Risk and Solvency Scores. Lower leverage and a meaningful extension of its debt maturities could improve the company's capital markets dependency score and its Cash Flow Cushion, leading toward a positive rating action. Conversely, erosion of McDonald's market share and competitiveness, reflected in declining comparative-store sales or a weakening of its operating margins and cash flow, could lead to a negative rating action. An aggressive capital-allocation action that results in further increases in leverage, weakening the company's Cash Flow Cushion or Solvency Score, would also likely lead to a negative rating action.

**Morningstar Credit Ratings Releases Updated Ratings for Mondelez International**
Morningstar Credit Ratings, LLC is affirming its BBB rating on Mondelez International, Inc. and maintaining a positive outlook. The rating reflects its leading market position across the biscuit and confectionery space, economies of scale, strong free cash flow, and slightly high leverage.

MCR's low Business Risk assessment reflects Mondelez's global presence with more than three fourths of the company's revenue derived outside of the North America market, its strong market positions across various categories, and its healthy operating margins. The company's entrenched retail relationships and local expertise drive $1 billion in annual sales for seven brands. These attributes and Mondelez's continued focus on driving efficiencies have resulted in a wide economic moat as assigned by Morningstar's Equity Research Group. With most of Mondelez's revenue coming from outside North America and about 40% from fast-growing emerging markets, the company's earnings and cash flows are, at times, subject to significant currency volatility.

We expect continued improvements in operating margins and cash flows through Mondelez's comprehensive supply chain productivity initiatives and its overhead cost-reduction program. Mondelez's moderate Solvency Score is supported by the company's cost-saving initiatives and rising ROICs that could improve this pillar sufficiently to upgrade our rating eventually, which is reflected in our positive outlook. High near- to mid-term debt maturities constrain the company's weak Cash Flow Cushion score. We forecast that Mondelez will increase its top line at a low-single-digit rate, expand adjusted operating margins to 17%, and generate free cash flow in excess of $1.4 billion. Leverage is projected to improve within the latter part of our five-year forecast to the low 3 times, while interest coverage remains in the low double digits. We expect the firm will use its free cash flow to repurchase shares and make bolt-on acquisitions.

Total reported debt as of Sept. 30, 2018, was $20.1 billion, composed of $14.8 billion of senior unsecured notes and $5.2 billion of short-term debt and current maturities, of which $4.6 billion was commercial paper. Over the next five years, approximately $12 billion or 59% of Mondelez's debt is scheduled to mature, which increases the company's dependency on capital markets. Approximately 40% of Mondelez's long-term debt is denominated in foreign currency, consistent with the large contribution to revenue and profits from outside of the U.S.; therefore, we expect a meaningful portion of the company's refinancing to be denominated in foreign currencies. Liquidity is supported by $1.3 billion of cash, a $4.5 billion multiyear credit facility, and a 364-day $1.5 billion senior unsecured revolving credit facility, which expire in October 2021 and February 2019, respectively.

Mondelez also maintains uncommitted credit lines of $1.9 billion utilized by its international subsidiaries for short-term working capital needs. The revolvers were undrawn at period-end, while $209 million was drawn on uncommitted lines. The company generated free cash flow (cash flow from operation less capital expenditures and dividends) of $1.3 billion for the latest 12 months ended Sept. 30, 2018, and spent $2 billion on share repurchases. As of Sept. 30, 2018, Mondelez, has $5.0 billion remaining under its share-repurchase program that expires in December 2020. Mondelez is committed to maintaining a dividend payout ratio of at least 30% but also stated that it remains committed to an investment-grade rating to maintain access to the Tier 2 commercial paper market. We anticipate that the company will maintain a capital structure consistent with its target and do not expect shareholder remunerations to result in higher leverage.

Maintaining operating margin improvement and meaningful top-line growth while improving either its Solvency Score or Cash Flow Cushion may result in a rating upgrade, which is reflected in our positive outlook. Additionally, a meaningful extension of its debt maturities could positively affect Mondelez's Business Risk pillar or Cash Flow Cushion enough to upgrade its rating. On the other hand, the inability to recoup commodity cost inflation, whereby operating margins deteriorate, could negatively affect the Cash Flow Cushion enough to downgrade the company's rating. A sizable debt-financed acquisition that weakens the Cash Flow Cushion and Solvency Score could also result in a negative rating action.

**Morningstar Credit Ratings Releases Updated Ratings for Highwoods Properties**

Morningstar Credit Ratings, LLC is affirming the corporate credit rating for Highwoods Properties, Inc. at BBB. The outlook is stable. Highwoods' rating is reinforced by moderate Business Risk, Cash Flow Cushion, and Solvency Score pillars.

Business Risk is supported by the company's Southeastern U.S.-based portfolio that is reasonably diverse across the region and significantly diversified by tenant. Highwoods also benefits from a conservative management team that applies a balanced view on its cash flow that it can invest in operating properties and its steady development pipeline or reduce debt to further bolster balance sheet flexibility. Highwoods takes a conservative view of the amount of cash applied to dividends, consistently coming in at less than 60% of funds from operations. While Highwoods regularly engages in development activities, we view the amounts to be prudent and new properties are often substantially preleased, in particular built-to-suit projects. As with most real estate investment trusts, competition in the commercial real estate markets, and the office sector in particular, limits opportunities to establish sustainable competitive advantages, and we therefore assign none to Highwoods.

In terms of size, Highwoods is midtier with projected EBITDA approaching $450 million in 2019, and we anticipate that the REIT will continue to approach $500 million over the next few years. The firm owns a 29.5 million-square-foot operating portfolio across 10 markets with another 1.7 million square feet of office space in its development pipeline as of the end of the third quarter of 2018. Highwoods' tenant list is highly diversified in terms of revenue exposure and size of lease, with the largest tenant being the federal government totaling 4.9% (and no other greater than 2.6%). Average in-place rents are a little less than $26 per square foot (up 4.9% from a year earlier) and Highwoods' local rents are in line with or above market averages. Finally, we anticipate Highwoods' leverage will range between debt of 4.5 and 5.0 times EBITDA.

Highwoods will use a combination of equity, senior unsecured debt, disposition proceeds, and cash flow to finance investments, more often development, with occasional acquisitions. Unsecured debt represented $2.0 billion and secured debt only $98 million of Highwoods' balance sheet liabilities at Sept. 30, 2018. The firm's $600 million credit facility is expandable to $1.0 billion and is due January 2022 (not including two six-month extension options) and had $184 million outstanding. Average maturities through 2022 are a manageable $277 million, with a maximum of $584 million in 2022. Finally, Highwoods was comfortably in compliance with its bond covenants at Sept. 30, 2018.

If Highwoods is able to make meaningful improvements in leverage and coverage from current levels while reducing its market concentrations (it currently receives 75% of revenue from five markets), we would consider an upgrade. Should Highwoods engage in large value-add acquisitions, especially leveraged, from which it is unable to achieve reasonable returns, we would consider lowering its rating. We could also lower the rating if the firm were to expand its development pipeline closer to 20% of total assets (10.3% as of Sept. 30) or if it were to reverse progress in lowering secured debt with increases into a low teens percentage of total assets.

**Morningstar Credit Ratings Releases Updated Ratings for EOG Resources**

Morningstar Credit Ratings, LLC is affirming the BBB+ corporate credit rating on EOG Resources and maintaining a stable rating outlook. MCR's rating and outlook incorporate our recently lowered oil and gas price forecasts, offset by our estimate for gradually improving company results over the next several quarters. The stable outlook also reflects EOG's ongoing progress in lowering its overall cost structure and its growth strategy, which centers on a large inventory of repeatable, low-risk, oil-weighted drilling opportunities in the Delaware segment of the Permian basin of Texas and New Mexico and the Eagle Ford shale of Texas.

The company's moderate Business Risk score reflects the inherent cyclicality for exploration and production (upstream) activity and EOG's concentrated product line, partly offset by an ever-improving cost structure and our forecast for positive free cash flow generation, which lessens the company's need to tap capital markets. Business Risk also reflects Morningstar Equity Research Group's narrow economic moat assessment, supported by a return on invested capital that is expected to remain above its weighted average cost of capital through the forecast period.

At the end of the September quarter, EOG reported $1.3 billion in cash and cash equivalents and full availability on its $2.0 billion senior unsecured credit facility (maturing in July 2020). Upcoming maturities of long-term borrowings are $900 million in 2019, $1.0 billion in 2020, and $750 million in 2021. Remaining senior note maturities are well distributed from 2023 through 2036. Considering cash and equivalents and our forecast for increasing free cash flow, we estimate EOG has adequate liquidity relative to scheduled near-term debt maturities. EOG's capital expenditure guidance range is $5.8 billion-$6.0 billion for full-year 2018, about 40% more than the previous year, and we estimate it will spend $6.3

billion in 2019. After capital expenditures plus proceeds from noncore asset sales, we estimate EOG will generate free cash flow of $1.2 billion in 2018, cycling higher to more than $5 billion in 2022. Combined with the company's cash position, we believe this will support a moderate Cash Flow Cushion score, near the midpoint of the scale. Further, a gradually increasing return on invested capital helps to drive a strong and improving Solvency Score through our forecast period.

Our base forecast incorporates EOG revenue of $17 billion in 2018, then cyclically rebounding to $28 billion in 2022, which represents an approximate 10% compound annual revenue growth rate from 2018. We estimate the company's adjusted EBITDAX margin gradually rising to about 54% by 2022 from 50% in 2018. Commensurate with this, we estimate the ratio of total debt/trailing 12-month adjusted EBITDAX gradually declining to nearly 0.5 times at 2022 from 0.8 times at the end of September. Our base operating forecast incorporates an average 2018 price assumption of $2.95 per million British thermal units for U.S. natural gas, $3.05 in 2019, and $2.70 per year thereafter. For oil (West Texas Intermediate basis), our yearly forecast is $65/barrel average for 2018, $55 for 2019, $60 for 2020, and $65 for 2021 and 2022. Our yearly natural gas price forecast is 4%-10% above the futures price curve (as of Jan. 25) through 2022. The annualized U.S. natural gas price futures curve is in modest backwardation as of Jan. 25. For oil, our updated annual forecast ranges from in line with to 20% above the futures price curve through 2022, at the top end of the range for the last two years of our forecast. At Jan. 25, the WTI oil futures price curve is in slight contango (upward sloping).

Our rating outlook is stable and assumes that EOG Resources incrementally reduces leverage from higher price realizations that should arise from the gradual improvement in oil and gas supply/demand fundamentals. However, if oil and gas supply/demand fundamentals and the pricing outlook improve more quickly than we currently expect, we would consider raising the credit rating, to the extent that it leads to material improvement in EOG's Cash Flow Cushion and Solvency Score. Alternatively, if pricing were to languish, squeezing margins and pressuring the Solvency Score, we may consider a downgrade of the credit rating.

**Morningstar Credit Ratings Releases Updated Ratings for Kilroy Realty**

Morningstar Credit Ratings, LLC is affirming our BBB corporate credit rating on Kilroy Realty Corporation with a stable outlook. The rating reflects Kilroy's moderate Business Risk, supported by a high-quality, well-located portfolio of office properties in the major Pacific Coast markets. The average age of Kilroy's properties is roughly 10 years, making it among the newest office portfolios of any large owner. Also considered are adequate interest coverage and leverage metrics and a highly innovative and experienced management team. The rating also considers Kilroy's moderate Cash Flow Cushion and Solvency Score, which are both likely to remain fairly steady between now and 2020. We expect leverage to stabilize in a range of 5.4-5.6 times and interest coverage to average about 6.5 times through 2022. Since 2014, overall debt levels are a little higher, with less secured debt and more unsecured debt.

Kilroy owns gross real estate assets of nearly $9.0 billion, placing it among the larger half of office REIT portfolios. Despite the recent trend for office-using companies to increase efficiency by leasing less space per employee, office occupancy has held up well. Kilroy's portfolio was reported to be 93.5%

occupied and 96.6% leased in the third quarter of 2018, relatively high when compared with peers. For comparison, average office occupancy reached 90.2% as of the fourth quarter of 2018, its highest level since 2001, based on data from CoStar. In 2019 and 2020, CoStar projects about 140 million square feet of new office space deliveries, a two-year inventory increase of 1.8%, while a roughly equal amount should be absorbed. That would create a slight increase in overall U.S. occupancy to 90.4% by the end of 2020, and we anticipate a more significant improvement to occur in Kilroy's high-demand markets.

We view the company's credit metrics as slightly better than peers, with forecast year-end 2019 debt/EBITDA at 5.5 times and EBITDA interest coverage of 6.4 times. We anticipate that the company will selectively raise new debt and equity to fund debt maturities averaging $205 million over the next four years, an ambitious development pipeline and other obligations based on our operating forecast of average adjusted funds from operations of $344 million per year from 2019 through 2022. This, along with a meaningful unencumbered portfolio and a revolving credit facility with a $750 million capacity, supports the company's moderate Cash Flow Cushion. We expect Kilroy to maintain high occupancy rates, attract top-tier tenants, and focus on development of high-quality, LEED-certified properties in the largest markets on the Pacific Coast, along with selective property acquisitions. MCR believes that Kilroy has no clear sustainable competitive advantages to support material returns on investment above the cost of capital over the long term, given that there are numerous well-capitalized owner-developers, including REITs and other types of property firms, with the capability to construct similar buildings despite the barriers to entry.

Our rating assumes that Kilroy will maintain leverage at current levels over time with a transparent and flexible capital structure. We may consider an upgrade if Kilroy can make a meaningful reduction in leverage and improve its interest coverage, while continuing to increase rents and diversify the portfolio's geographic footprint. These developments would help to improve its Cash Flow Cushion and Solvency Score. On the other hand, we may consider a downgrade of the rating if market forces change the landscape such that Kilroy can no longer command the high quality of tenants and solid occupancy in its properties, or if the positive trends in demand for office space in Pacific Coast markets change dramatically for the worse and interest coverage suffers as a result. That would have a negative impact on Kilroy's Cash Flow Cushion and Solvency Score.

### Morningstar Credit Ratings Releases Updated Ratings for Occidental Petroleum

Morningstar Credit Ratings, LLC is affirming the A credit rating of Occidental Petroleum and revising the rating outlook to negative from stable. The negative outlook incorporates our updated oil and gas price forecasts—recently revised lower—and reflects the possibility of weaker-than-expected cash flows over the next several quarters. The outlook also incorporates Occidental's ongoing progress in lowering its overall cost structure and its growth strategy, which centers on a multidecade inventory of repeatable, low-risk oil-weighted drilling opportunities in the Permian basin of Texas and New Mexico; steady contribution from legacy oil and gas projects in Oman, Qatar, and the United Arab Emirates; and a gradual increase in U.S. basic chemical production.

The company ended the September quarter with about $3 billion in cash and equivalents and full availability on a $3.0 billion unsecured revolving credit facility (matures August 2023). We view Occidental's liquidity relative to scheduled near-term debt maturities as excellent. Upcoming maturities of long-term borrowings include $116 million in 2019 and $1.2 billion in each of 2021 and 2022. Remaining senior note maturities are well distributed from 2023 through 2048. We estimate capital expenditures to be $5.0 billion in 2019, about the same as in 2018. After capital expenditures, plus proceeds from asset sales, we forecast free cash flow of $3.7 billion in 2018, increasing to $4.0 billion in 2022. We include $2.6 billion received for the sale of midstream assets in 2018 and $300 million per year in asset sales after 2018. Combined with the company's current large cash position, this drives a moderate Cash Flow Cushion score. We forecast the return on invested capital to be mostly above our estimate for Occidental's weighted average cost of capital, which contributes to a strong Solvency Score.

Our base forecast incorporates our expectation of a cyclical rebound in revenue to more than $19 billion by year-end 2022, compared with $17 billion in 2018. We expect the company's adjusted EBITDAX margin to increase to 56% by 2022 from about 55% in 2018. Commensurate with this, we estimate total debt/trailing adjusted EBITDAX gradually declining to less than 1 times by 2021 from 1 times in 2018. Our base operating forecast incorporates an average 2018 price assumption of $2.95 per million British thermal units for U.S. natural gas and $3.00 per year thereafter. Our forecast for natural gas pricing is nearly in line (as of Jan. 25) with the futures price curve through 2022. For oil (West Texas Intermediate basis), our yearly forecast is $59.40/barrel average for 2018, $55 for 2019, $60 for 2020, and $65 for 2021 and 2022. For the oil price, our forecast ranges from in line with to 10%-20% above the futures price curve (as of Jan. 25) through 2022, at the top end of the range for the last two years of our forecast.

Given our negative outlook, we do not anticipate upgrading our rating over the next year or two. However, if operational improvements, oil and gas supply/demand fundamentals, and the pricing outlook improve more quickly than we currently expect, we will consider a stable outlook, given our expectation for improvement in our Cash Flow Cushion and Solvency Scores under that scenario. We may consider a downgrade of the rating if the company is not able to meet our forecast trajectory for margins and debt reduction.

**Morningstar Credit Ratings Releases Updated Ratings for Boston Properties**

Morningstar Credit Ratings, LLC is affirming the A- corporate credit rating for Boston Properties, Inc. The outlook remains stable. The rating is supported, in our view, by one of the lowest risk profiles in the REIT sector, with low Business Risk and moderate Cash Flow Cushion and Solvency Score pillar ranks.

Boston Properties is a large bellwether REIT and has a premiere management team, which has a long-established record of market leadership and value creation and seeks to mitigate risk by substantially preleasing new development projects. Boston Properties owns and operates a top-quality and mostly unencumbered Class A portfolio of office assets that is very well diversified in terms of tenants and tenant types. Furthermore, its properties are located in the most desirable high-barrier markets, such as Boston, New York, and San Francisco, where potential competition is limited due to high land costs and a lengthy permitting process. As is the case with most REITs, competition in the commercial real estate markets, in particular the office sector, limits opportunities to establish sustainable competitive advantages

With a projected $1.7 billion in EBITDA in 2019, Boston Properties is the largest office REIT and one of the largest members of the REIT universe. The company's office portfolio consists of 45.1 million square feet in 186 operating properties (plus 14 more under development with an additional 7.6 million square feet) concentrated in five top tier markets: Boston, Los Angeles, New York City, San Francisco, and Washington, D.C. The firm has been improving its credit profile over the last few years, with secured debt at 13.8% of gross assets, down from 23.3% at year-end 2014. We project debt will total approximately 6.5 times EBITDA over the next 12-24 months, which is down from 7.0 times, higher than just a few years ago and somewhat higher than the peer group average.

Boston Properties relies on disposition proceeds and modest amounts of new debt to fund investment activities, which is primarily focused on development of new properties along with the occasional acquisition. At Sept. 30, 2018, unsecured debt represented $7.9 billion and secured debt $3.0 billion of its balance sheet, with maturities averaging $892 million per year from 2019 through 2022 and a maximum maturity of $1.27 billion in 2022 representing only 11.7% of total debt. Also, the company benefits from a $1.5 billion unsecured revolving credit facility with an outstanding balance of $170 million at Sept. 30 and an almost fully drawn $500 million term loan, both of which expire in April 2022. Boston Properties was comfortably in compliance with its senior unsecured debt covenants at Sept. 30, 2018.

We would upgrade Boston Properties if the company were able to achieve substantial increases in size approaching $2.5 billion in EBITDA while achieving improvements in market diversity and lowering secured debt levels to the low-single-digit percentage range. Alternatively, should the firm reverse its path in unencumbering its portfolio and sacrifice financial flexibility, or demonstrate a weaker acumen in the management of its portfolio, such as the loss of major tenants or poor execution of its development platform, we would likely downgrade its corporate credit rating.

## Recent Notes Published by Credit Analysts

### Schlumberger (A, Stable) Announces New 5- and 10-Year Senior Notes to Repay Existing Debt

*Market News and Data*

Schlumberger Ltd. (A, stable) is reportedly in the market with an issuance of new senior notes, including 5- and 10-year maturities. Proceeds from the proposed notes will be used to repay outstanding debt.

For market comparables, we reference Halliburton Co. (BBB+, positive), a large, diversified oilfield services peer. We source the following market pricing data from pricing service Interactive Data as of Jan. 28.

In the 5-year area, comparable issues are indicated as follows:
- Schlumberger 3.65% notes due 2023 at +49 basis points.
- Halliburton 3.50% notes due 2023 at +90 basis points

In the 10-year area, comparable issues are indicated as follows:
- Schlumberger 4.00% notes due 2025 at +126 basis points.
- Halliburton 3.80% notes due 2025 at +117 basis points.

*MCR Credit Risk Assessment*

Our A credit rating for Schlumberger reflects the company's leading position as the world's largest exploration and production technology developer in oilfield services. The company's large size and narrow moat rating (as assigned by Morningstar's Equity Research Group) help offset product concentration and end-market cyclicality, resulting in a moderate Business Risk score. Our forecast of free cash flow indicates a steady expansion through the forecast period, which we expect to support a moderate Cash Flow Cushion score. Further, we view the company's moderate debt leverage, low equity volatility, and an expanding ROIC as supportive of strong Distance to Default and Solvency Scores.

On Jan. 18, Schlumberger reported mainly in-line fourth-quarter results. Revenue was unchanged and operating cash flow increased slightly versus the year-ago period, as weakening demand and pricing for completion services in the North American land sector negatively affected fourth-quarter results. The company reported $1.4 billion in free cash flow, including $920 million in capital expenditures plus SPM investments and seismic expenditures, but before $693 million paid in dividends. As of Dec. 31, Schlumberger reported total debt of $16.1 billion and $2.8 billion in cash and equivalents. Gross and net leverage at the end of December was 2.3 times and 1.9 times, respectively, declining from 2.7 times and 2.0 times at year-end 2017, resulting from increasing cash flow and short-term debt reduction. We forecast about $4.5 billion free cash flow in 2019 after capital expenditures, SPM investments, and seismic expenditures but before $2.8 billion in dividends.

On Jan. 22, Halliburton reported fourth-quarter results broadly in line with expectations. Revenue was nearly unchanged, but operating cash flow increased 36% versus the year-ago period (before adding back other sources). Similar to Schlumberger and other oilfield service peers, softening demand and pricing for the North American land sector negatively affected fourth-quarter results. As of Dec. 31, gross and net leverage were 2.5 times and 2.0 times, respectively, having declined by 0.7 turn and 0.5 turn since the end of 2017, resulting from rebounding cash flow and the repayment of $400 million debt that matured in August.

**Boston Properties (A-, Stable) Reports Robust Leasing Activity and Tightens 2019 Guidance Higher**
Boston Properties, Inc. (A-, stable) printed modest growth in funds from operations for 2018 over 2017 and raised its guidance for 2019 in a tighter range. We believe the REIT's Class A portfolio with significant exposure to high-barrier employment centers in gateway markets enables it to offer among the highest and most predictable rents in the office sector. This, combined with a premier management team, supports low Business Risk and strong Cash Flow Cushion pillars.

Boston Properties reported a 1.6% increase in full-year FFO over 2017 to $975 million on a 3.7% increase in total revenue to $2.6 billion. The office REIT also tightened the midpoint of 2019 FFO guidance 1.5% higher as a result of better-than-expected portfolio performance and fee income and lower interest expense. Fourth-quarter highlights include an agreement to develop 1.1 million square feet near the largest multimodal transportation hub in the San Francisco Bay, which is expected to be completed as early as 2021. In addition, 399 Park Avenue was brought to 93% leased (99% subsequent to year-end), and the REIT issued $1 billion in green bonds, the proceeds of which were used to retire higher-cost notes maturing this year.

For full-year 2018, Boston Properties placed in-service 2.3 million square feet of new developments for which the commercial portion is 100% leased, and the remaining pipeline is 78% preleased. In addition, the company signed leases for 7.2 million square feet during the year, the second-highest volume in its history. Boston Properties earned a seventh consecutive Green Star recognition and the highest Global Real Estate Sustainability Benchmark 5-star rating. It also signed a renewable energy agreement that will reduce its carbon emissions in Massachusetts by 78%.

On the earning call, management noted the macroeconomic inflection point in the fourth quarter and the onset of "slowbalization." While it lowered Boston Properties' expectations for U.S. economic growth, it is not expecting a recession and is not seeing any slowing in leasing as a result. As well, evidence that interest rates are less likely to rise, given the lower 10-year U.S. Treasury yield and positioning by the Federal Reserve, bodes well for commercial real estate valuations.

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*Market Data*
Boston Properties' office REIT peers are Alexandria Real Estate Equities, Inc. (BBB+, stable), Highwoods Properties, Inc. (BBB, stable), and Kilroy Realty Corporation (BBB, stable). The following pricing data is from Interactive Data as of Jan. 28.

In the 10-year area, spreads over the nearest Treasury from these issuers are as follows:

- Boston Properties $1.0 billion 4.50% bonds due 2028 at +155 basis points.
- Alexandria $425 million 3.95% bonds due 2028 at +176 basis points.
- Highwoods $350 million 4.125% bonds due 2028 at +173 basis points.
- Kilroy $400 million 4.75% bonds due 2028 at +167 basis points.

The A- Morningstar Corporate Bond Index is currently priced at +118 basis points.

**Equity Residential (A-, Stable) Reports Solid 2018 FFO Uptick With Demand Momentum Building Into 2019**

*MCR Credit Risk Assessment*

Equity Residential (A-, stable) reported year-over-year growth funds from operations as same-store revenue picked up in the fourth quarter, which the REIT expects to continue into 2019. Along with continued demand growth in its markets, the multifamily REIT expects the resulting demand to absorb the elevated levels of supply in certain markets. 2019 FFO came in 2.8% above 2018 on total revenue that was up 4.3%. Growth drivers included higher same-store net operating income as well as lease-up NOI and other non-same-store NOI. FFO guidance for 2019 indicates a solid 5.4% increase at the midpoint from 2018, primarily on increasing NOI and lower debt extinguishment charges.

In the Washington, D.C., market, the REIT did waive an insignificant number of late fees as a result of the government shutdown and is prepared to assist tenants who may be temporarily without paychecks should further stoppages occur. While performance in that market was tepid on the year as a whole relative to other markets, activity did pick up in the fourth quarter with high occupancies and strong demand for upscale properties.

Physical occupancy across the portfolio was 96.2% for the full year and the fourth quarter, with Equity Residential reporting a record year for resident retention. Full-year acquisitions totaled $707 million at a cap rate of 4.4%, funded by a nearly equal amount of disposition proceeds. Pursuant to year-end, the REIT bought three assets, including one in Denver, a market in which it is determined to build a meaningful presence. Finally, in the fourth quarter, it issued the first ever green bond from an apartment REIT.

Our A- rating for Equity Residential reflects its low Business Risk and moderate Cash Flow Cushion as well as a weak Solvency Score. After essentially completing its strategy to sell most of its noncore exposure, Equity Residential maintains holdings primarily concentrated in densely populated, high-rent markets on the coasts. In our view, the resulting portfolio has substantial barriers to entry and is better positioned to take advantage of strong rental demand in markets with high-priced homes that are out of the reach of many households and command institutional premiums. The company's low Business Risk is reflective of mostly positive competitive characteristics.

Equity Residential's rating could improve if the company is able grow significantly, approaching $2.5 billion of EBITDA while maintaining leverage at current levels and while keeping the debt structure predominantly senior unsecured. The REIT would also need to achieve meaningfully more diversity while successfully navigating through moderating market conditions. We may consider a downgrade if the REIT pursues development or acquisitions that are financed with a greater percentage of debt on a permanent basis than is currently on the balance sheet and interest coverage is significantly reduced.

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*Market Data*

Equity Residential's apartment REIT peers are AvalonBay Communities, Inc. (A-, stable), Camden Property Trust (A-, stable), and Essex Property Trust (BBB+, stable). The following pricing data is from Interactive Data as of Jan. 29.

In the 10-year area, spreads over the nearest Treasury from these issuers are as follows:

- Equity Residential $400 million 4.15% bonds due 2028 at +109 basis points.
- AvalonBay $450 million 3.20% bonds due 2028 at +118 basis points.
- Camden $400 million 4.10% bonds due 2028 at +132 basis points.
- Essex $350 million 3.625% bonds due 2027 at +150 basis points.

The A- Morningstar Corporate Bond Index is currently priced at +118 basis points.

**Kimco Realty (BBB+, Stable) Reports 4Q With Smaller Portfolio, Slowing Rent Growth**

*MCR Credit Risk Assessment*

Kimco Realty Corporation (BBB+, stable) reported 2018 earnings that reflect slowing rent growth, some impact from tenant bankruptcies, and a smaller portfolio following a repositioning program that prompted the sale of 68 properties. Kimco's decades of experience through several economic cycles and good-quality remaining property portfolio support its moderate Business Risk position. Its substantial liquidity, bolstered by a credit facility with a $2.25 billion capacity, underpins its moderate Cash Flow Cushion.

Kimco's funds from operations for the fourth-quarter and full-year 2018 decreased 11.4% to $147 million and 4.8% to $613 million, respectively. Same-store net operating income rose year over year by 2.6% in the fourth quarter and 2.9% for the full year. In 2017, fourth-quarter same-store NOI growth was negatively affected by 120 basis points because of the effects of Hurricane Maria in Puerto Rico (2.5% of base rent) in September, which contributed to Kimco's growth lagging that of peers Federal Realty Investment Trust and Regency Centers Corporation. Kimco's occupancy ended 2018 at 95.8%, down 20 basis points from a year earlier. For the 6.9 million square feet of same-space new and renewed leases signed during 2018, the blended average increase was 8.3%, less than the 11.5% reported in 2017, while the pace slowed to 7.0% in the fourth quarter of 2018. The company is guiding to modest 2019 same-store NOI growth of 1.5%-2.5%. The expectation is for stronger results in the later part of the year, as rental income from new replacement tenants will have a greater impact.

Though Kimco acknowledges the impact of tenant bankruptcies in its guidance for 2019, Toys 'R' Us and Sears/Kmart in particular, it has made good progress in taking advantage of opportunities to replace failed tenants with better retailers paying higher rents. Kimco accomplished its 2018 goal for property sales, exceeding $900 million, while purchasing only a small land parcel for $3 million. Far fewer property sales are expected in 2019 as repositioning goals have been largely met. Planned development and redevelopment for 2019 is $275 million-$350 million, scaled back considerably from 2018. We expect Kimco to generate rent growth at an annual rate of about 2.0%-2.5% over the next 12-24 months while maintaining debt at around 6.5 times EBITDA and 35% to 40% of gross assets. We project interest coverage from EBITDA to be around 4.5 times. The company has extended its weighted average maturity to 10.5 years from 5.3 years since 2015, having issued $1.25 billion in lower-cost debt in 2017.

*Market Data*

Kimco's shopping center REIT peers are Federal Realty Investment Trust (A-, stable), Regency Centers Corporation (BBB+, stable), and Weingarten Realty Investors (BBB, positive). The following pricing data is from Interactive Data as of Jan. 29.

In the 10-year area, spreads over the nearest Treasury from these issuers are:

- Kimco $400 million 3.80% bonds due 2027 at +160 basis points.
- Federal Realty $475 million 3.25% bonds due 2027 at +134 basis points.
- Regency $300 million 4.13% bonds due 2028 at +164 basis points.
- Weingarten $250 million 3.25% bonds due 2026 at +191 basis points

The BBB+ Morningstar Corporate Bond Index is currently at a spread of +160 basis points.

**Duke Realty (BBB+, Stable) Puts Solid 2018 in the Books, Sees Warehouse Strength Continuing**

*MCR Credit Risk Assessment*

Duke Realty (BBB+, stable) reported another large increase in funds from operations for the 2018 fourth quarter and full year versus the respective 2017 periods, much of which was attributed to both strong market fundamentals as well as newly developed warehouses coming on line. The increases in FFO were 16.7% and 7.3%, respectively. In our view, the industrial REIT's modern portfolio of warehouses that are on average among the largest of its peers is uniquely positioned to benefit from strong e-commerce growth.

Further emphasizing the strength of the market, Duke set a record for annual leasing with 28 million square feet. Total stabilized occupancy at year-end remained high, similar to recent periods, at 98.0%; in fact, the only region that reported stabilized occupancy below 95% was South Florida with 92.2%. Five regions reported 100%, which suggests that Duke may be turning away business and makes us more comfortable with the notion that new construction is warranted. Same-property net operating income was solid both for the quarter and year relative to 2017, registering increases of 3.5% and 4.3%, respectively. Cash rents were up a whopping 25.4% on renewal leases for the year. Duke is expecting the strong conditions to continue as evidenced by its introduction of core FFO guidance for 2019, the midpoint of which is 5.3% above 2018's results.

Should Duke approach $1 billion in EBITDA (currently near $500 million on our calculations) while making meaningful strides in terms of portfolio quality, such as higher average rents and a relatively smaller noncore portfolio, we may consider upgrading the credit rating. Conversely, in the case of a reversal in its commitment to unsecured borrowing and an unencumbered portfolio, or excessive development risk, which we would view as its development pipeline at around 20% of total assets, neither of which we currently expect, we would likely downgrade the credit rating.

*Market Data*
Duke Realty's industrial REIT peers are Prologis, Inc. (A-, stable) and Liberty Property Trust (BBB, stable). The following pricing data is from Interactive Data as of Jan. 31.

In the 10-year area, spreads of the nearest Treasury from these issuers are:
- Duke Realty $450 million 4.00% bonds due 2028 at +131 basis points.
- Prologis $400 million 3.875% bonds due 2028 at +93 basis points.
- Liberty $350 million 4.375% bonds due 2029 at +153 basis points.

The BBB+ Morningstar Corporate Bond Index is currently priced at +157 basis points.

**Camden Property Trust (A-, stable) Reports Solid 4Q With No Sign of Weakening Fundamentals**
*MCR Credit Risk Assessment*
Camden Property Trust (A-, stable) reported solid fourth-quarter and full-year 2018 operating results, though performance across markets was uneven. In the quarter, same-store net operating income increased 2.6%, while the increase for the year was 3.4%. The quarter's 3.0% increase in same-store revenue was a good result, given the number of markets experiencing slow rent growth because of new apartment supply. Camden's properties in Dallas, Houston, and Southeast Florida had less than 2% rent growth on average. By market, the NOI growth leaders were Los Angeles at 9.6%, San Diego/Inland Empire at 7.9%, and Orlando at 6.9%. The growth laggards were Houston at minus 7.8% (16.6% increase in expenses), Corpus Christi at minus 5.3% (13.2% increase in expenses), and Dallas at minus 1.8%. Houston fared poorly in the quarterly comparison despite numbers that were constrained by hurricane damage that shut down apartment units and caused clean up expenses in 2017.

Camden's fourth-quarter FFO increased 4.3% compared with a year earlier, while the full year reported a 9.4% increase to $464 million. Management is guiding 2019 FFO growth to 6.3% at the midrange, based on its assessment of its markets and general economic conditions. Given its greater diversity of markets, we view Camden as less exposed to the prospect of increased competition from new apartment supply in comparison with some of its more regionally focused peers, such as Equity Residential and AvalonBay Communities. Based on comments from Camden's management during the fourth-quarter earnings call, expectations for additional supply for 2019 are very similar to the actual increases experienced in 2018. Generally, Camden's markets should see 3-5 times more jobs added during 2019 than new apartment completions, supporting similar rent and NOI growth in the forecast for 2019. We believe the company should remain among the better credits in the apartment REIT sector, given its moderate- to high-quality portfolio in a variety of markets.

For the same-store portfolio in full-year 2018, the companywide increase was 3.2% for revenue and 3.4% for NOI, while occupancy of 95.8% was slightly higher at year-end 2018 and effective rents averaged 2.8% higher through 2018. The strongest rent growth in the portfolio was seen in Orlando, Denver, and San Diego, while the Texas markets all had rent increases of less than 2%. In 2017, full-year NOI growth was negatively affected by the effects of hurricane damage, most significantly in fourth-quarter results, though Hurricane Harvey struck in August and Hurricane Irma in September.

For 2019, we expect that a few markets will continue to experience relatively high levels of new supply that 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. Based on this view, we make a conservative projection for rent growth of 2.5% for 2019, lower than the portfolio's 3.2% growth in 2018. Management guidance for 2019 indicates expectations for same-store revenue growth of 2.8%-3.8% and NOI growth of 2.3%-4.3%.

*Market Data*

Camden Property Trust apartment REIT peers are AvalonBay Communities, Inc. (A-, stable), Equity Residential (A-, stable), and Essex Property Trust (BBB+, stable). The following pricing data is from Interactive Data as of Jan. 31.

In the 10-year area, spreads over the nearest Treasury from these issuers are:

- Camden $400 million 4.10% bonds due 2028 at +119 basis points.
- AvalonBay $450 million 3.20% bonds due 2028 at +109 basis points.
- Equity Residential $500 million 3.50% bonds due 2028 at +103 basis points.
- Essex $350 million 3.625% bonds due 2027 at +147 basis points.

The A- Morningstar Corporate Bond Index is currently priced at +115 basis points.

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