Morningstar Corporate Credit Research Highlights
Stocks Regain Lost Ground,
but Corporate Bond Market Fails to Follow

Morningstar Credit Ratings, LLC
3 December 2018

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- Weekly Corporate Bond Market Highlights
- Weekly High-Yield Fund Flows

Credit Rating Actions

- Rating Actions

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
United States Steel **X**	BB-	B
ArcelorMittal **AMS:MT**	BBB-	BB+
Advanced Micro Devices **AMD**	B+	B-
Barrick Gold **ABX**	BBB	BBB-/UR+

- Rating Affirmation

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Pfizer **PFE**	AA-	AA-
Boeing **BA**	A	A
Lockheed Martin **LMT**	A-	A-
Marathon Petroleum **MPC**	BBB	BBB
CF Industries Holdings **CF**	BB	BB
Valero Energy **VLO**	BBB+	BBB+
Baker Hughes **BHGE**	BBB+	BBB+
Newmont Mining **NEM**	BBB	BBB
Arconic **ARNC**	BB+	BB+
Regency Centers **REG**	BBB+	BBB+
Phillips 66 **PSX**	BBB+	BBB+
Federal Realty Investment Trust **FRT**	A-	A-
Altria Group **MO**	A-	A-

Recent Notes Published by Credit Analysts

- **Boston Scientific** (BBB+, Stable) Plans to Acquire BTG, Increasing Leverage Temporarily

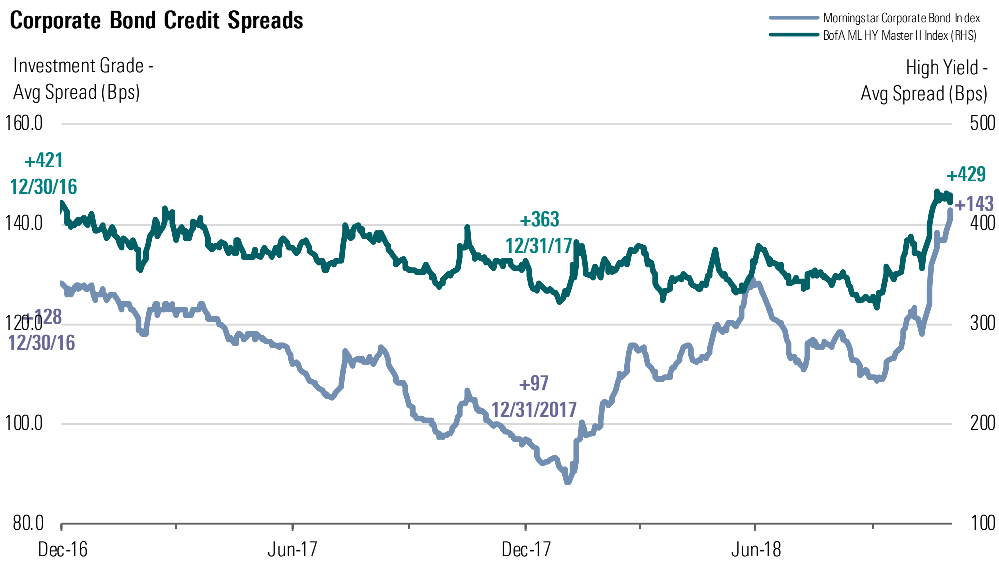
Credit Market Insights

Stocks Regain Lost Ground, but Corporate Bond Market Fails to Follow

Last week, the markets were mainly focused on commentary from Federal Reserve Chairman Jerome Powell and the public back and forth between the Trump administration and the Chinese government. The stock market soared higher midweek following Powell's intimation that the federal-funds rate is closing in on what the Fed considers to be a neutral rate. The neutral rate is the theoretical interest rate at which short-term rates are neither stimulative nor restrictive to future economic growth and inflation. Later in the week, the positive momentum continued to propel the stock market higher as investors became more confident that the United States and China will be able to negotiate reasonable trade terms and tariffs, despite the ongoing posturing. The preponderance of the stock market's gains occurred Wednesday following Powell's public commentary, leading the market to a 4.85% increase over the course of the week.

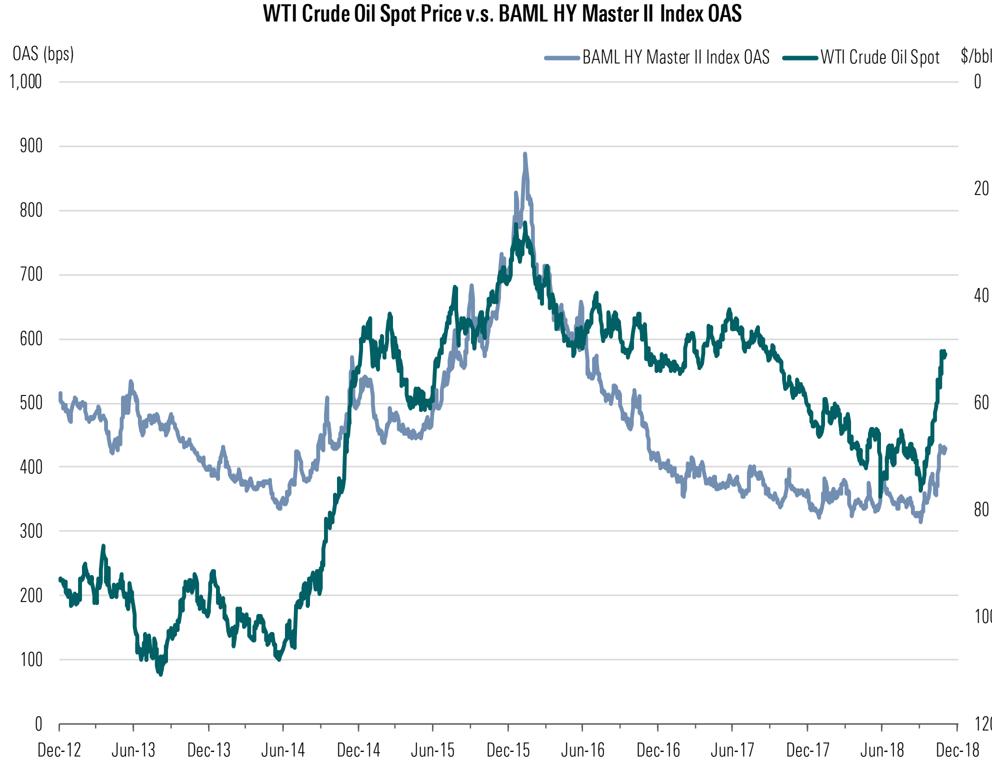
While the equity markets rose, the corporate bond market continued to operate in a risk-off mode. The average spread of the Morningstar Corporate Bond Index (our proxy for the investment-grade market) widened 6 basis points to end the week at +143. In the high-yield market, the BofA Merrill Lynch High Yield Master Index ended the week unchanged at +429. While the equity market has generated gains thus far this year, the average spread of the investment-grade index has widened 47 basis points and the credit spread of the high-yield index has risen 66 basis points year to date. The decline in oil prices has weighed heavily on the energy sector, whose bond prices have plunged lower across the board and have had an outsize impact on the overall corporate bond indexes.

Corporate Bond Credit Spreads



Source: Morningstar,Inc., BofA Merrill Lynch Global Indexes. Data as of 11/30/2018.

From their recent highs in early October, oil prices have fallen about 30% to $50.93 per barrel at the market close last Friday. Over that same period, the average spread of the energy sector in the Morningstar Corporate Bond Index widened 50 basis points to +184, and the energy component of the high-yield index widened 200 basis points to +557.



Sources: Bank of America Merrill Lynch, Federal Reserve Bank of St. Louis, Bloomberg. Data as of 11/30/2018.

Economic metrics released last week reflected ongoing economic growth. For example, consumption increased 0.4% in October on a month-over-month basis, which indicates that consumption growth in the fourth quarter may be in excess of 3.0% on an annualized basis. According to the Atlanta Fed's GDPNow model, fourth-quarter GDP growth is on track to be 2.6% on an annualized basis. While this is a decrease from the economic growth rate posted in the third quarter, according to the CME's FedWatch Tool, the market-implied probability that the Federal Reserve will hike the federal-funds rate following the Federal Open Market Committee meeting this month by another quarter point rose to 83% from 76% at the end of the prior week. The market is more confident about this rate hike occurring, but following Powell's commentary, the market-implied probabilities of additional rate hikes in 2019 have declined. The market-implied probability that the federal-funds rate would end 2019 at 2.50% or higher declined to 77% from 88% at the beginning of November, and the probability that the fed-funds rate would be 2.75% or higher fell to 38% from as high as 59% at the beginning of November.

In the U.S. Treasury bond market, the yield on the 2-year U.S. Treasury bond declined 2 basis points to 2.79%, and the yield on the 5-year fell 6 basis points to 2.81%. In the longer end of the curve, the 10-year declined 5 basis points to slip just below 3.00%, and the 30-year decreased 1 basis point to 3.29%. The spread between the 2-year and the 10-year decreased to 6 basis points to +20. While interest rates have compressed slightly over the past few weeks, interest rates remain much higher year to date across the entire yield curve. The interest rates on the 2-, 5-, 10-, and 30-year Treasuries have risen 91, 60, 58, and 55 basis points, respectively.

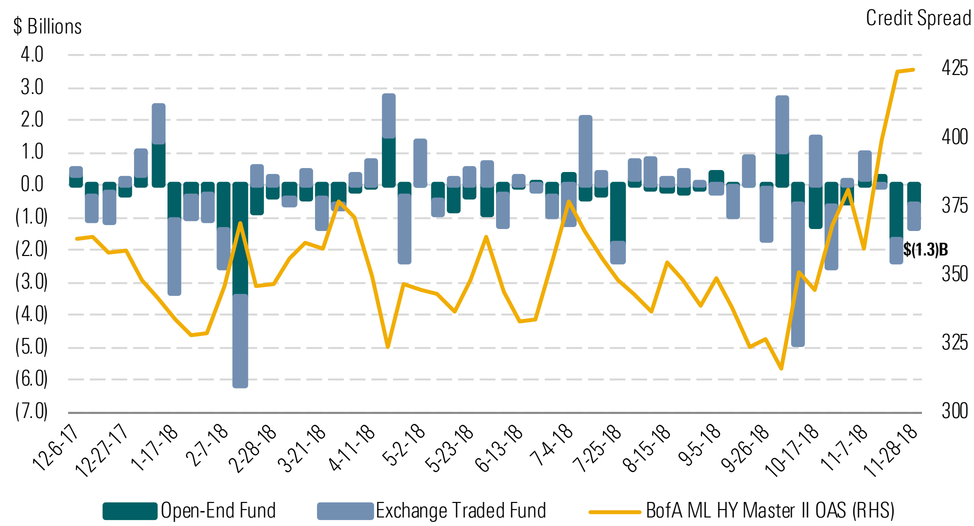
In the European sovereign bond markets, Italian bond prices soared as investors were comforted after the Italian government changed its stance on its 2019 budget deficit target and said it was ready to compromise with the European Union. The yield on Italy's 10-year ended the week at 3.21% after peaking at 3.70% in mid-October when investors were concerned that the disputes regarding Italy's forecast budget deficit for 2019 could prompt a resurgence in the European sovereign crisis.

For greater detail regarding our credit ratings as well as for access to our corporate credit research and notes, please visit www.morningstarcreditratings.com.

Weekly High-Yield Fund Flows

Net fund outflows were $1.3 billion last week. Among open-end high-yield funds, investors withdrew $0.6 billion, and across high-yield exchange-traded funds, net unit redemptions totaled $0.7 billion.

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



Source: Morningstar, Inc. and BofA Merrill Lynch Global Indexes.

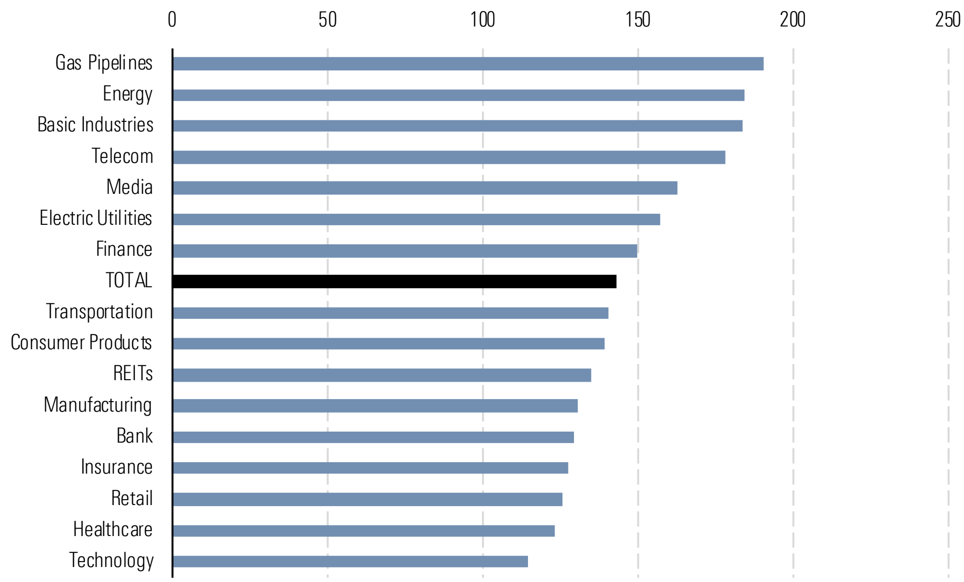
Exhibit 1 Morningstar Corporate Bond Index Sector Summary

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-**	**5,157**	**6.6**	**143**	**21**	**47**	**(0.16)**	**(3.69)**
FINANCIAL	**A-**	**1,481**	**5.1**	**132**	**22**	**49**	**(0.15)**	**(2.66)**
Bank	A-	909	4.6	129	21	48	(0.07)	(2.11)
Finance	A	256	5.3	150	31	62	(0.76)	(4.24)
Insurance	A	218	8.0	128	17	42	0.07	(4.11)
REITs	BBB+	89	5.9	135	18	30	0.13	(1.83)
INDUSTRIAL	**A-**	**2,998**	**7.3**	**146**	**19**	**45**	**(0.08)**	**(4.06)**
Basic Industries	BBB	248	7.1	184	24	55	(0.29)	(4.52)
Consumer Products	BBB+	362	7.3	139	21	55	(0.15)	(5.16)
Energy	A-	401	7.0	184	29	62	(0.83)	(4.74)
Healthcare	A-	427	7.5	123	15	35	0.32	(4.04)
Manufacturing	A-	460	5.8	131	21	50	(0.06)	(3.21)
Media	BBB+	178	8.3	163	11	33	0.16	(4.13)
Retail	A-	168	7.5	126	15	39	0.18	(3.92)
Technology	A+	348	7.0	115	17	37	0.07	(3.33)
Telecom	BBB+	164	8.8	179	17	35	(0.01)	(3.29)
Transportation	BBB+	176	8.6	141	16	43	0.08	(5.02)
UTILITY	**BBB+**	**627**	**8.3**	**171**	**26**	**51**	**(0.80)**	**(5.36)**
Electric Utilities	A-	363	8.8	157	24	54	(0.65)	(6.20)
Gas Pipelines	BBB	246	7.5	190	31	47	(1.08)	(4.17)
Rating Bucket								
AAA Bucket		122	7.3	57	5	9	0.72	(2.81)
AA Bucket		501	5.6	79	11	21	0.35	(1.77)
A Bucket		1,939	6.6	116	18	43	0.03	(3.63)
BBB Bucket		2,595	6.9	184	26	56	(0.47)	(4.18)
Term Bucket								
1-4	A-	1,676	2.2	91	19	34	0.10	0.53
4-7	A-	1,179	4.6	139	24	59	(0.04)	(1.60)
7-10	A-	897	6.9	162	22	56	(0.03)	(3.78)
10PLUS	A-	1,405	13.2	194	19	49	(0.63)	(9.63)

Data as of 11/30/2018

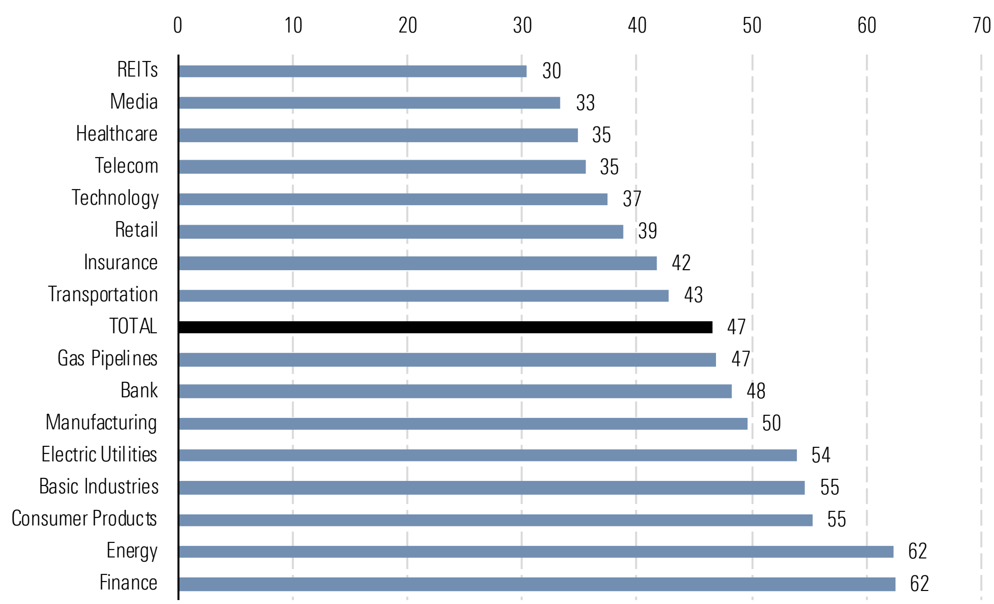
Source: Morningstar, Inc.

Exhibit 2 Morningstar Corporate Bond Index Spread by Sector



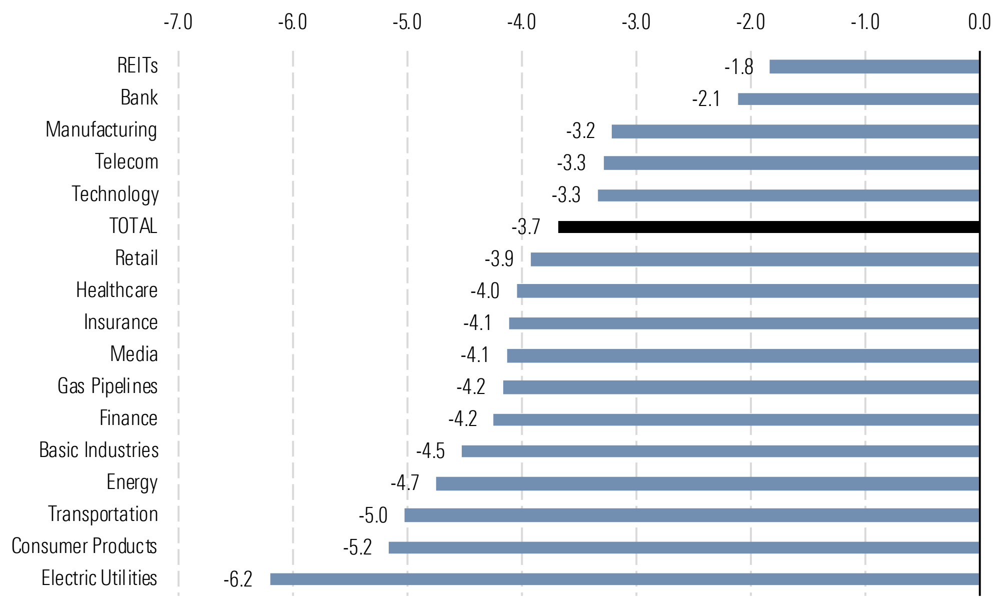
Source: Morningstar, Inc.

Exhibit 3 Morningstar Corporate Bond Index YTD Spread Change



Source: Morningstar, Inc.

Exhibit 4 Morningstar Corporate Bond Index YTD Return



Source: Morningstar, Inc.

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Boeing **BA**	A	A
Lockheed Martin **LMT**	A-	A-
Marathon Petroleum **MPC**	BBB	BBB
CF Industries Holdings **CF**	BB	BB
Valero Energy **VLO**	BBB+	BBB+
Baker Hughes **BHGE**	BBB+	BBB+
Newmont Mining **NEM**	BBB	BBB
Arconic **ARNC**	BB+	BB+
Regency Centers **REG**	BBB+	BBB+
Phillips 66 **PSX**	BBB+	BBB+
Federal Realty Investment Trust **FRT**	A-	A-
Altria Group **MO**	A-	A-

Morningstar Credit Ratings Releases Updated Ratings for U.S. Steel

Morningstar Credit Ratings, LLC is upgrading its corporate credit rating of United States Steel Corporation to BB- from B and revising the outlook to stable from positive.

The upgrade stems from efforts that the company has made to strengthen its credit profile combined with relatively strong industry conditions that should endure into the near to intermediate term. As of the end of September, U.S. Steel had approximately $2.5 billion in balance sheet debt and its LTM adjusted EBITDA was $1.5 billion, resulting in debt/EBITDA of 1.6 times (0.8 net). Earlier this year, the company successfully refinanced its 8.375% secured notes due 2021 with unsecured notes due 2026, replaced its European revolving credit facility with an upsized (EUR 460 million) five-year revolving credit facility, and will be redeeming its 2020 notes early next month—all of which improves the company's credit profile. The BB rating reflects the company's high Business Risk, weak Cash Flow Cushion, and moderate Solvency Score and Distance to Default credit pillars. The company's Business Risk score remains high primarily due to industry cyclicality, the lack of an economic moat as assigned by Morningstar's Equity Research Group, and volatility in its cash flows. The company's Cash Flow Cushion reflects an elevated capital expenditure program for its asset revitalization program as well as other cash outflows such as interest and lease payments, dividends, share repurchases, pension contributions, and so on. U.S. Steel's Solvency Score reflects the company's somewhat leveraged capital structure, strong internal liquidity, and good interest coverage, while its Distance to Default reflects its market capitalization relative to its debt balance.

Given strong industry conditions, we forecast EBITDA to be approximately $1.8 billion this year with adjusted EBITDA margins near 12% and expect total debt/adjusted EBITDA to end 2018 at approximately 1.5 times. After 2018, our forecast assumes slight declines in revenue annually due to less robust steel market conditions and adjusted EBITDA margins that revert to 6%-7% after 2019. Liquidity is strong, supported by $1.3 billion of cash and equivalents as of Sept. 30, approximately $1.5 billion in availability on its main secured credit facility due 2023, and approximately EUR 260 million (pro forma for its October draw) of availability on its unsecured credit facility due 2023 for USSK (Europe). Underfunded pension and other postretirement liabilities are approximately $700 million, and we estimate operating leases are approximately $130 million annually. Other than the amount drawn on the unsecured European revolving credit facility due 2023, near-term maturities are light after the early redemption of the 2020 notes with no significant maturities due until 2025 ($750 million).

Our stable outlook reflects no expected near-term movement in the rating. However, we may consider an upgrade of the rating if the company's Cash Flow Cushion or Solvency Score improves. This could happen if market conditions continue to be sustainably robust or as a result of additional actions the company may take to further improve its credit profile. We would consider a downgrade if the Cash Flow Cushion Score deteriorates or if liquidity materially declines from present levels.

Morningstar Credit Ratings Releases Updated Ratings for ArcelorMittal

Morningstar Credit Ratings, LLC is upgrading the corporate credit rating of ArcelorMittal SA to BBB- from BB+ with a stable outlook.

The upgrade stems from strong industry conditions allowing ArcelorMittal to continue to reduce debt and build cash along with its stated priority to deleverage to a net debt target of $6 billion. The company's BBB- rating reflects high Business Risk and moderate risk profiles for its Cash Flow Cushion, Solvency Score, and Distance to Default. The high Business Risk results from the industry in which it operates in that is characterized by overcapacity, cyclicality, and a lack of product diversification. The firm's Cash Flow Cushion reflects good operating cash flows offset by capital spending requirements and a heavy nearer-term maturity schedule while its Solvency Score is supported by a moderately leveraged capital structure along with robust interest coverages. Notwithstanding industry factors, ArcelorMittal's management has done a solid job of deleveraging since the end of 2015 when gross debt totaled approximately $20 billion as compared with $13 billion as of Sept. 30. Net debt/EBITDA as of this date was $10.5 billion after accounting for $2.5 billion of cash and equivalents. Better industry conditions have enabled EBITDA to increase for the latest 12 months to approximately $10.5 billion, the highest level since 2011, resulting in gross leverage of approximately 1.2 times EBITDA (1.0 net).

The company is further burdened by approximately $9 billion of underfunded pension and other postretirement obligations, which raises its adjusted leverage nearly another turn of EBITDA. Free cash flow for the LTM has been $2 billion despite a working capital usage so far this year of nearly $5 billion.

Liquidity is provided by the aforementioned cash and equivalents and $5.5 billion in undrawn credit facilities as of Sept. 30. As of the end of the third quarter, we estimate maturities were $2.6 billion in 2018, $2.2 billion in 2019, $2.1 billion in 2020, $1.7 billion in 2021, and $1.7 billion in 2022.

In terms of capital allocation, the company maintains deleveraging as its priority with a net debt target of $6 billion. After that, priorities are to invest in its assets and growth and third, shareholder returns. ArcelorMittal aims to increase shareholder returns only once its net debt target is achieved. Our forecast has slightly declining revenue due to a modest retracement in steel prices with adjusted EBITDA margins declining to slightly above 10% from current levels of approximately 14%. This results in net debt/adjusted EBITDA of approximately 1 times longer term. We note that the acquisition of Essar Steel India, if completed, by ArcelorMittal's joint venture with Nippon Steel & Sumitomo Metal would only slightly raise the company's effective level of net debt/adjusted EBITDA.

Given our stable outlook, we see little likelihood for near-term movement in the rating. Longer term, however, we could consider an upgrade if Business Risk or Cash Flow Cushion were to improve, which would likely be the result of strong steel margins sustained for a long period. We would consider a downgrade if the firm's net debt target isn't achieved and sustained, which would pressure the company's Solvency Score, or if there is a decrease in the company's Cash Flow Cushion.

Morningstar Credit Ratings Releases Updated Ratings for Advanced Micro Devices

Morningstar Credit Ratings, LLC is upgrading its corporate credit rating on Advanced Micro Devices Inc. two notches to B+. The outlook on the rating is stable. The rating reflects the company's progress over the past year toward rebuilding liquidity and reducing debt maturities. We believe this has produced sustainable improvement in the Cash Flow Cushion. The reduction in debt has also contributed to improvement in the Solvency Score, though meaningful further improvement in that pillar will likely be limited without material improvement in returns on invested capital.

Business Risk remains at the high end of the range due to revenue concentration, uncertainty around future operating performance, and our view that the company still lacks material competitive advantages over its larger rivals. Though the firm has begun to make inroads into the highly competitive cloud server market with its EPYC platform, it still derives the bulk of its revenue from consumer-oriented PC-related products and computer gaming. Reception to the company's recent product introductions has been positive, and we believe AMD has opportunities over the next year or two to gain market share from Intel Corp. (AA-, stable) in data center, particularly during Intel's platform transition from 14 nanometer to 10 nanometer in mid- to late 2019. However, we continue to expect Intel to exert considerable competitive pressure on Advanced Micro Devices over the long term. Customer concentration also remains high, with two customers each accounting for more than 10% of 2017 revenue.

Total debt ended the third quarter at $1.6 billion (reflecting the $805 million of convertible notes at full par value) supported by $1.1 billion of cash on hand. Debt is $155 million lower from a year ago, while cash on hand has increased $177 million over the same period. We calculate net debt at 0.4 times trailing 12 months EBITDA. For the 12 months ending Sept. 30, the company has produced $601 million of free cash flow, and management has guided to positive free cash flow for the full year. Liquidity is also supported by its $500 million secured credit facility, of which $430 million was available at the end of the quarter.

Our rating assumes revenue growth will average between 3% and 4% over the next five years with GAAP operating margin improving from 5% to 11% by the end of 2023. Further upward rating momentum will depend on the company's ability to improve its revenue diversity, including its ability to increase market share in data center. We may downgrade the rating if progress on rebuilding revenue growth stalls and liquidity declines materially.

Morningstar Credit Ratings Releases Updated Ratings for Barrick Gold

Morningstar Credit Ratings, LLC is upgrading its credit rating of Barrick Gold Corporation to BBB from BBB- with a stable outlook.

The upgrade stems from the company's expected completion of its share-for-share merger with Randgold Resources. The merger, which is expected to be completed early next year, will bring additional production and reserves to Barrick but no incremental debt. Both Barrick and Randgold shareholders have approved the merger. At the end of the third quarter, Barrick's debt was $5.7 billion and cash on hand was $1.7 billion. We estimate Barrick's latest 12 months EBITDA was $3.2 billion, resulting in debt/adjusted EBITDA of 1.8 times (1.2 net), and LTM free cash flow was approximately $500 million. We estimate Randgold's LTM EBITDA to be nearly $600 million, which would bring Barrick's gross debt/adjusted EBITDA down to approximately 1.5 times on a pro forma basis.

Barrick's BBB rating reflects its high Business Risk offset by strong Cash Flow Cushion, Solvency Score, and Distance to Default credit pillars. Its Business Risk affected by country risk for countries in which its mines are located, product concentration, industry cyclicality, and a lack of an economic moat as assigned by Morningstar's Equity Research Group. The company's Cash Flow Cushion benefits from good internally generated cash flow, a light near and intermediate term debt maturity schedule, reasonable interest costs, disciplined capital spending, and light dividend requirements. Its Solvency Score is supported by moderate balance sheet leverage, a solid working capital position, and good interest coverage, while its Distance to Default reflects Barrick's large equity market capitalization relative to its debt balance.

Going forward, we assume gold prices range from $1,270 to 1,360 per ounce and debt remains flat. Free cash flow should remain positive, and we forecast debt/adjusted EBITDA remains at approximately 1.5 times. External liquidity is provided by an undrawn $3 billion revolving credit facility that expires January 2024. We estimate nearer-term public debt maturities to be approximately $330 million in 2020 and $450 million in 2022.

Given that the rating outlook is stable, we do not envision changing the rating in the near term. However, we could consider raising the rating if Barrick's Business Risk or Cash Flow Cushion would significantly improve. This would likely be a result of a sustained increase in gold prices coupled with current debt levels. We could consider lowering the rating if the company's Business Risk or Cash Flow Cushion were to deteriorate, which would likely be a result of a significant decline in gold prices.

Morningstar Credit Ratings Releases Updated Ratings for Pfizer

Morningstar Credit Ratings, LLC is affirming Pfizer's AA- rating, reflecting the firm's successful efforts to overcome key drug patent expirations thanks to aggressive business development in 2015-16 and solid productivity from its internal research engine. We think that the firm can navigate its dwindling patent cliff to generate sales and earnings growth, which is the primary means to ease leverage throughout the next few years and informs our stable outlook on Pfizer's credit rating.

We anticipate that Pfizer may navigate its dwindling patent cliff to generate sales growth in the low single digits on a compound annual basis over the next five years despite the loss of U.S. market exclusivity for pain treatment Lyrica (9% of global revenue) in 2019. Our assumption considers sustained uptake of novel medicines, notably prostate cancer treatment Xtandi, breast cancer therapy Ibrance, and partnered-medicines—blood thinner Eliquis and immuno-oncology agent Bavencio. In addition, our forecast is supported by the firm's productive research program that saw regulatory approval over the last three months of three cancer medicines—Vizimpro (first-line non-small-cell lung cancer), Lorbrena (ALK+ NSCLC), and Talzenna (advanced breast cancer). Pfizer's solid ability to trim operating expenses as sales of best-selling medicines have eroded due to generic competition may boost EBITDA in the midsingle digits through 2022, in our estimation. We see this steady operating performance backstopping a strong Cash Flow Cushion, which has also benefited from a pause in major business development activities over the past two years. While we expect less product diversification from a possible divestment of its consumer health business in 2018, Pfizer's minimal Business Risk pillar would stay intact.

One of our top concerns is Pfizer's penchant for transformational deals that would stress both its Cash Flow Cushion and Solvency Score pillars in light of the firm's shareholder-friendly stance. Pfizer's debt load remains historically high at $41.0 billion as of Sept. 30, or 2.0 times EBITDA for the trailing 12 months after debt funding for $34 billion worth of acquisitions in 2015-16. The resulting higher leverage limits any improvement to the firm's strong Solvency Score and very strong Distance to Default pillars. The firm had a cash and short-term investment balance of $17.2 billion at the end of the third quarter despite $7.2 billion of share repurchases and $6.0 billion in dividend distributions in the first nine months of the year. Accordingly, net debt leverage was 1.2 times for the latest 12 months, consistent with the level at the end of 2017. Pfizer's capital structure is composed of unsecured notes denominated in various currencies, specifically the U.S. dollar, euro, and British pound. Pfizer has substantial internal liquidity arising from its cash and investments and free cash flow that we see averaging more than $18 billion annually through 2022. The firm routinely utilizes commercial paper borrowings, backstopped by $7.6 billion in unused lines of credit (as of Sept. 30), to supplement its liquidity needs. These sources are more than enough to satisfy $14.7 billion in debt maturing in 2019 to 2022, including $2.6 billion of commercial paper outstanding as of Sept. 30. However, we think that the firm may devote most cash flows to shareholder rewards and business development as it seeks to deepen therapeutic strengths in its innovative health unit and build scale and reach of its essential health division. These activities moderate any uplift to our Cash Flow Cushion pillar. Over our five-year forecast horizon, we expect slight improvement to debt leverage to primarily stem from EBITDA growth along with a relatively modest reduction in the debt load. Pfizer may continue to greatly reward its shareholders for the remainder of 2018 as its plans to buy a total of $12 billion of shares in the year. The firm had about $9.2 billion of share repurchase authorization on Sept. 30.

In the context of our stable outlook on Pfizer's rating, we see no immediate catalyst that could alter the rating over the next few years. We have considered the potential divestment of the firm's consumer health division within the next year or so in the stable outlook as well as its successful mitigation of sales and earnings erosion arising from patent lapses. Our expectations are based on sustained demand for its innovative medicines, specifically Xtandi, Eliquis, Bavencio, and Ibrance, and solid uptake of newly launched medicines. As the firm's patent expiration exposure lightens at the end of the decade, continued uptake of a refreshed drug product portfolio could bolster our Cash Flow Cushion pillar enough for positive rating action. But if operational performance or research successes fall substantially below our expectations and negatively influence our Cash Flow Cushion pillar, downward rating action may be warranted. In addition, large leveraging transactions, such as heavy business development or aggressive share repurchases that significantly stress leverage over a long period, such that our Cash Flow Cushion and Solvency Score pillars deteriorate, may also support a downgrade.

Morningstar Credit Ratings Releases Updated Ratings for Boeing

Morningstar Credit Ratings, LLC is affirming its A corporate credit rating on The Boeing Company with a stable outlook. The rating reflects Boeing's leading position in the large commercial aircraft business balanced with a healthy defense business. Strong liquidity and a solid balance sheet also support the rating.

In evaluating Boeing's credit, we focus on the manufacturing operations as well as the strength of its finance subsidiary, Boeing Capital, whose bonds directly benefit from guarantees from Boeing. Our Business Risk pillar considers Boeing's wide economic moat as assigned by Morningstar's Equity Research Group, which is derived in part from the ability to share technologies among business units and the firm's entrenched positions in commercial airline fleets and legacy defense platforms. Boeing's moat also reflects the company's long record of commercial and military aircraft development, a strong intangible asset base, and high costs to customers for switching to alternative providers. Our high uncertainty score reflects the vagaries of the company's use of program accounting, challenges within the supply chain relating to production changes, and execution risks related to new program launches. With respect to cyclicality, we note that Boeing's defense and commercial businesses have historically run on different cycles, which we believe mitigates the impact on operating performance.

Boeing continues to have excellent liquidity, with manufacturing cash and investments of $8.8 billion at Sept. 30, slightly below manufacturing debt of $9.4 billion. An additional $5 billion is available on revolvers. Boeing's recent pivot toward the aftermarket and services businesses led to the $4.3 billion acquisition of KLX in October. This cash deal put a dent in the balance sheet and impacted our Cash

Flow Cushion, as Boeing assumed $1 billion of debt and paid cash for the balance. We expect similar acquisitions to continue over the next several years. Including this deal and a $700 million debt issuance in October, pro forma manufacturing debt is about $11 billion. That said, Boeing's Cash Flow Cushion remains strong and is supported by our forecast of free cash flow averaging over $10 billion annually in the next five years. Modest upcoming debt maturities and manageable expected pension contributions over our forecast horizon also contribute to the score. Annual dividends averaging nearly $4 billion offset this to some degree. We also note that when adding in share repurchases, cash returned to shareholders has exceeded free cash flow since 2014. Should Boeing decide to move forward with a new aircraft platform, which would consume meaningful cash, we would expect share repurchases to moderate.

We expect commercial aircraft deliveries to steadily increase during the next few years as monthly build rates increase on programs such as the 737. Combined with modest defense revenue growth, we forecast mid-single-digit revenue growth with margin expansion leading to high-single-digit EBITDA growth. We expect gross leverage to remain well below 1 times. Still, with balance sheet pension liabilities of almost $16 billion at Sept. 30, pension-adjusted leverage exceeds 2 times and is a rating constraint.

Our stable outlook is driven by the strong backlog in the commercial aircraft segment and disciplined capital allocation policy. The rating allows for further similar acquisitions as KLX, or the launch of a new aircraft program, to the extent that share repurchases are appropriately tempered. Should the firm experience a sharp downturn in orders and deliveries that leads to meaningfully increased leverage, which we view as unlikely, we may downgrade our rating. A change in capital allocation policy to use debt to fund share buybacks or large acquisitions could also pressure the rating. Conversely, a steady increase in operating margins that drives EBITDA and cash flow higher combined with flat or declining debt levels or underfunded pensions may result in a positive rating action.

Morningstar Credit Ratings Releases Updated Ratings for Lockheed Martin

Morningstar Credit Ratings, LLC is affirming the A- rating on Lockheed but shifting the outlook to positive from stable. The outlook change reflects a sizable decline in underfunded pensions, potential further debt paydown, and healthy support of defense spending from the U.S. government.
Our A- rating reflects Lockheed Martin's strong position as one of the world's biggest defense contractors. Lockheed's low Business Risk is driven by its superior competitive advantages. Morningstar's Equity Research Group assigns a wide economic moat based on the firm's long history of supplying the U.S. Department of Defense and the firm's proprietary technologies and fighter jet capabilities. Lockheed's F35 fighter jet continues to ramp up as the U.S. Department of Defense's most expensive program. This is a multidecade program in which Lockheed will sell to both the U.S. DOD and foreign governments. The Business Risk is enhanced by the significant size of the company, its medium uncertainty regarding predictability of cash flows, and mild cyclicality. However, given that the F-35 represents over 25% of sales and growing and the U.S. government accounts for about 70% of sales, there is some product and customer concentration.

Lockheed appears poised to deleverage after adding substantial debt related to its 2015 acquisition of Sikorsky. In 2018, the firm made a $5 billion contribution to lower its balance sheet pension liabilities to just over $10 billion. The company's debt load of $14.7 billion at the end of the third quarter may begin to come down as it includes $750 million due in the fourth quarter, $490 million of commercial paper, and a $900 million bond due in 2019. With free cash flow in 2018 tempered by the pension contribution, we expect free cash to resume at a pace of over $5 billion annually. Our moderate Cash Flow Cushion pillar factors this in, but the dividends of over $2 billion annually also absorb some of it. Debt maturities over our five-year forecast horizon are manageable, and required pension contributions are nil through 2020. Lockheed's strong Solvency Score is supported by double-digit interest coverage and ROICs north of 20%. With a strong backlog and healthy governmental support for defense spending, we forecast mid-single-digit top-line and EBITDA growth over our forecast horizon. With debt stable to moderately lower, gross leverage may trend down to the mid-1 times range, although layering in underfunded pensions adds about a turn to this

Our positive outlook suggests a potential one notch rating upgrade in the next one to two years. This would be driven by additional debt paydown, which, along with EBITDA growth, could push gross leverage lower. This could support an improved Business Risk in addition to a potentially strong Cash Flow Cushion. A rating downgrade could occur if the firm does another large debt-financed acquisition that would push both the Solvency Score and Cash Flow Cushion lower.

Morningstar Credit Ratings Releases Updated Ratings for Marathon Petroleum

Morningstar Credit Ratings, LLC is affirming the corporate credit rating of Marathon Petroleum Corp. at BBB and maintaining a stable outlook. Our rating reflects Marathon's large scale and cost-advantaged refining position enhanced by synergies that will result from the recent acquisition of Andeavor, the inherent cyclicality of the petroleum refining industry, integrated interests in midstream assets that generate higher returns and add earnings stability to petroleum refining operations, extensive retail network of Marathon-brand outlets and Speedway convenience stores, and the company's debt leverage. These attributes are all incorporated in the narrow economic moat assessment assigned to Marathon by Morningstar Equity Research Group, which supports a moderate Business Risk score. We expect the upward migration in the rating to be limited during the next few years, as any additional free cash flow is likely to be diverted toward shareholder returns rather than significant debt reduction. Marathon Petroleum's $23 billion stock and cash acquisition of Andeavor (not rated) closed Oct. 1. On a pro forma basis, we believe Marathon is now the largest U.S. refiner by crude throughput capacity. The company continues to estimate that the combination will achieve over $1 billion of annual run-rate synergies within the first three years. This is in addition to expected synergies resulting from Andeavor's previous acquisition of Western Refining, which closed in June 2017. Further, the integration of Andeavor company-owned and -operated stores to the Speedway brand is underway.

Marathon owns 16 petroleum refineries located throughout the United States, related infrastructure, midstream assets, and a convenience store chain that are difficult to replicate. The high-complexity capacity of the company's refineries on the U.S. Gulf Coast allows it to process cheaper, lower-quality crude imports as feedstock, increasing realized margins. With about 43% of its refining capacity located on the U.S. Gulf Coast, Marathon is cost-effectively positioned to access light crude from the midcontinent or cheap, waterborne heavy crude. We forecast gradually expanding earnings, supporting free cash flow generation and the ability for Marathon to fund refining optimization projects and growth in the midstream and Speedway segments, which have planned expansions in logistics capacity and convenience store locations and offerings, respectively, while minimizing the need to tap capital markets. Marathon is assessing all options for MPLX and Andeavor Logistics (neither rated), publicly traded master limited partnerships both controlled by the company, including combining the two MLPs.

Pro forma for the acquisition of Andeavor, we estimate Marathon ended the September quarter with about $1.9 billion in cash and equivalents, including cash and equivalents from MLPs. Furthermore, based on most recent disclosures, Marathon has an estimated aggregate $8.9 billion total borrowing capacity available on unsecured revolving credit facilities and a trade receivables securitization facility. After capital expenditures of $5.4 billion, we estimate pro forma free cash flow of $3.2 billion in 2018. We forecast free cash flow gradually expanding to $4.1 billion in 2022, which is more than enough to pay out a 10% annual increase in the dividend through 2022. The next significant debt maturities include $500 million in 2019, $650 million in 2020, $1.0 billion in 2021, and $2.3 billion in 2022. We expect Marathon's liquidity relative to scheduled debt maturities throughout our forecast period to remain well covered by liquidity.

In our base forecast, we estimate the company's adjusted EBITDA margin to increase to 10.5% in 2022 from 9.5% in 2018. Further, we forecast last 12 months consolidated debt/EBITDA to decline to about 2 times in 2020 from 2.7 times in 2018, as the company realizes merger-related synergies and pays back maturing debt. Commensurate with this, we forecast interest coverage to increase to about 12 times by 2022 from 9 times in 2018.

Our rating outlook is stable and assumes Marathon can incrementally reduce its financial leverage as refined product supply and demand fundamentals and pricing gradually improve and as merger-related synergies are realized. However, if the refined product pricing outlook improves more quickly and merger synergies are better than we currently expect, so that the company accelerates its pace of debt reduction faster than estimated, we would consider raising the credit rating as we would expect improvement in our moderate Cash Flow Cushion and Solvency scores. Alternatively, if refined product pricing languishes, squeezing margins, or merger synergies are less than expected, we may consider a downgrade of the credit rating.

Morningstar Credit Ratings Releases Updated Ratings for CF Industries Holdings
Morningstar Credit Ratings, LLC is affirming the corporate credit rating of CF Industries Holdings Inc. at BB and revising its outlook to positive from stable.

The BB rating on CF considers the firm's market position in the nitrogen industry, its leverage coupled with industry cyclicality and its capital allocation policy. CF is the largest nitrogen producer in North America and has a low-cost position compared with other global industry players. It currently has approximately $4.7 billion in balance sheet debt with $1.25 billion of that being secured notes. CF's latest 12 months adjusted EBITDA has improved to approximately $1.5 billion from approximately $1.0 billion a year ago due to better industry margins. The company's capital allocation policy has been focused on growth and returning cash to shareholders through dividends and share repurchases. CF's annual dividend to common shareholders was approximately $280 million annually prior to the start of the $500 million share-repurchase program in early August. It has repurchased $150 million of its stock as of Oct. 31. Debt/adjusted LTM EBITDA is now 3.1 times, down from 5.0 times a year ago. The company's rating reflects its high Business Risk and moderate risk profiles for its Cash Flow Cushion, Solvency Score, and Distance to Default credit pillars.

Scheduled debt maturities are $500 million due in 2020, $500 million due in 2021, $750 million due in 2023, $750 million due in 2026, $750 million due in 2034, $750 million due in 2043, and $750 million due in 2044. The debt due in 2021 and 2026 are secured notes. Also, CF has publicly stated that it will be redeeming its 2020 unsecured notes either before or at maturity. Additionally, the company has stated it gross debt target is $4.0 billion-4.5 billion. Liquidity is provided by an undrawn $750 million secured revolving credit facility due September 2020 and approximately $1 billion in cash and equivalents as of the end of September.

We expect revenue to average mid-single-digit growth over the next few years with adjusted EBITDA margins averaging nearly 40%. Free cash flow could average approximately $1 billion per year due to rebounded nitrogen margins and restrained capital spending. Dividends, distributions to minority partners, and share repurchases are expected to consume most of the free cash flow generated.

Given our positive outlook, we could consider an upgrade if the company reduces debt and industry margins and free cash flow stay within our expectations. Conversely, a decline in nitrogen volume or margins that would cause a deterioration in the firm's Business Risk, Cash Flow Cushion, or Solvency Score that may result in downward rating pressure.

Morningstar Credit Ratings Releases Updated Ratings for Valero Energy

Morningstar Credit Ratings, LLC is affirming its BBB+ corporate credit rating on Valero Energy Corp. and maintaining a stable outlook. Our rating reflects Valero's large scale and its cost-advantaged position on the U.S. Gulf Coast, premium branded wholesale outlets, the integration of midstream assets of majority owned Valero Energy Partners LP or VLP (not rated) with Valero refineries, and the company's low debt leverage. On Oct. 18, Valero announced a $950 million all-cash purchase of the remaining 32% of VLP held by public unitholders, which we believe should close before year-end. We expect our rating to remain at the current level during the next few years, as any additional free cash flow is likely to be diverted toward shareholder returns rather than to significant debt reduction.

Valero owns petroleum refineries and related infrastructure assets that are difficult to replicate. The high complexity capacity of Valero's refineries allows it to process cheaper, lower-quality crude imports as feedstock, increasing realized margins. With eight of its 15 refineries located on the U.S. Gulf Coast, Valero is cost-effectively positioned to access light crude from the midcontinent or cheap, waterborne heavy crude. This enables the company to earn a narrow economic moat, as assigned by Morningstar

Equity Research Group, which supports our moderate Business Risk score. Business Risk also reflects Valero's large size, partially offset by the cyclicality of the petroleum refining industry and the company's concentrated product line. We forecast gradually expanding earnings, supporting free cash flow generation and the ability for Valero to stay within its targeted 20%-30% debt/capitalization ratio while funding asset optimization and strategic growth projects, including feedstock flexibility, cogeneration, and octane enhancement. Furthermore, Valero continues to pursue investments in logistics assets, including pipelines and terminals, to increase export and wholesale volume to Mexico and Peru.

We regard Valero's liquidity as excellent. At the end of September, the company reported $3.6 billion in cash and equivalents, $2.9 billion available on its $3.0 billion unsecured credit facility, full availability on Valero Energy Partners LP's $750 million credit facility (both of which mature in November 2020), and $1.2 billion available on its $1.3 billion July 2019 accounts receivable sales facility. Valero plans to spend $2.7 billion on capital expenditures in 2018, with approximately 60% allocated for sustaining the business and 40% for growth projects. After capital expenditures, we estimate $2.6 billion of free cash flow in 2018, gradually increasing to $3.8 billion in 2022. We view this level of cash flow as sufficient to cover a targeted payout of 40%-50% of adjusted net operating cash flow to shareholders (dividends plus stock buybacks) through 2022. The next significant maturity of long-term debt is $850 million due in 2020. Remaining senior note maturities are spaced out from 2025 through 2045, with the company's $300 million of revenue bonds due in 2040. Therefore, we view Valero's liquidity relative to near-term bond maturities as excellent.

In our base forecast, we estimate the company's adjusted EBITDA margin gradually increasing to about 6% in 2022 from 5.4% in 2018. Further, the ratio of total debt/trailing 12 months EBITDA is forecast to decline to about 1 times in 2020 from 1.4 times in 2018, as the company pays back maturing debt. Commensurate with this, we forecast interest coverage to increase to about 19 times in 2022 from 14 times in 2018.

Our rating outlook assumes the company is capable of incrementally reducing leverage as refined product supply and demand fundamentals and pricing gradually improve. However, if refined product fundamentals and the pricing outlook improve more quickly than our current expectation and drive improvement in our Cash Flow Cushion and Solvency Scores, we would consider raising the credit rating. Alternatively, if refined product pricing languishes, squeezing margins, we may consider a downgrade of the credit rating.

Morningstar Credit Ratings Releases Updated Ratings for Baker Hughes

Morningstar Credit Ratings, LLC is affirming the corporate credit rating of Baker Hughes, a GE company, at BBB+ and maintaining a stable outlook.

The BBB+ corporate credit rating on Baker Hughes is supported by the company's large size, leading market segment positions, and geographical diversification coupled with its conservative financial strategy. The company's market position is supported by Baker Hughes' global standing as a leading, integrated supplier of oilfield product and service offerings, downstream equipment, and digital technology. With many decades of experience, the company's long-standing reputation as an innovator and technology leader engenders strong customer relationships and ensures a steady stream of business. As of Sept. 30, balance sheet debt totaled approximately $7.3 billion with cash and equivalents ending the quarter at approximately $4.7 billion. As of this date, we estimate latest 12 months adjusted EBITDA was approximately $2.3 billion resulting in debt/LTM adjusted EBITDA of 3.2 times or 1.1 times on a net basis. Pro forma for recently repurchased stock from General Electric, we estimate the net leverage number rises to approximately 1.7 times.

Baker Hughes' rating reflects its moderate Business Risk, Cash Flow Cushion, and Solvency Score credit pillars combined with a low risk Distance to Default credit pillar. Baker Hughes' moderate Business Risk is supported by the company's size, management's commitment to an investment-grade rating, and its free cash flow generating capability offset by industry cyclicality. The company's Cash Flow Cushion reflects a reasonable debt maturity schedule over the next five years, modest capital spending requirements, and sizable annual distributions to equityholders, while its Solvency Score is supported by its low leveraged capital structure and strong internal liquidity. Baker's Hughes' strong Distance to Default credit pillar primarily stems from the company's large market capitalization relative to its debt balance.

Our base-case expectation is that Baker Hughes' adjusted EBITDA will grow robustly on margins returning to the midteens in percentage terms from approximately 10% currently. Our forecast for 2019 adjusted EBITDA is approximately $3.6 billion, which would result in debt/adjusted EBITDA of approximately 2.0 times. Our expectation for free cash flow for next year is over $1 billion.

Given our stable outlook, we don't envision moving the rating in the near term. However, significant improvement in the company's Cash Flow Cushion could cause us to consider raising the rating. This would likely be due to sustained higher oil prices causing increased demand for Baker Hughes products and services. On the other hand, the rating could be pressured if the company's Business Risk, Cash Flow Cushion, or Solvency Score were to deteriorate, which would likely be due to the company substantially missing our expectations.

Morningstar Credit Ratings Releases Updated Ratings for Newmont Mining

Morningstar Credit Ratings, LLC is affirming the corporate credit rating of Newmont Mining Corporation at BBB and maintaining a stable outlook.

The company's BBB rating is supported by its size as the world's second-largest gold producer and a conservative balance sheet as well as having most of its production come from mine-friendly jurisdictions in North America and Australia. Its conservative balance sheet is evidenced by its $4.1 billion in unsecured debt offset by cash and cash equivalents on hand of $3.1 billion as of Sept. 30. In terms of production, approximately 70% of the company's gold production comes from mines in North America and Australia with the balance from South America and Africa. The rating reflects Newmont's high Business Risk combined with its low risk Cash Flow Cushion, Solvency Score, and Distance to Default credit pillars. The company's Business Risk reflects its product concentration, the cyclicality of the gold mining industry, and a lack of an economic moat as assigned by Morningstar's Equity Research Group. Newmont's strong Cash Flow Cushion is helped by minimal maturities over the next few years and a reasonable dividend policy, while its strong Solvency Score is supported by modest balance sheet leverage, strong internal liquidity, and robust interest coverage. Its strong Distance to Default reflects its large equity market capitalization relative to its debt balance.

We estimate latest 12 months adjusted EBITDA at approximately $2.3 billion, resulting in debt/adjusted EBITDA of 1.8 times (0.4 net). Free cash flow for the LTM was $766 million. External liquidity is provided by the firm's undrawn $3 billion revolving credit facility that expires in May 2022. Newmont's scheduled debt maturities are $626 million in 2019, $992 million in 2022, and $2.5 billion thereafter.

Our expectations are for stable EBITDA levels based on gold price assumptions ranging from $1,260 per ounce to $1,360 per ounce later in our forecast horizon in 2022. Free cash flow is expected to remain robust. Debt levels remain roughly flat in our forecast, and resulting debt/EBITDA metrics should remain at approximately 2.0 times or less.

Given our stable outlook, we do not envision moving the rating in the near term. However, if Newmont's Cash Flow Cushion credit pillar would improve we could consider an upgrade of the rating. This would likely result from a substantial and sustained increase in gold prices. On the other hand, the current rating could be pressured to the downside if its Cash Flow Cushion pillar were to decrease significantly, which would likely be caused by a significant decrease in the price of gold.

Morningstar Credit Ratings Releases Updated Ratings for Arconic

Morningstar Credit Ratings, LLC is affirming the corporate credit rating of Arconic Inc. at BB+ and maintaining a stable outlook.

The rating reflects the company's moderate Business Risk combined with moderate Solvency Score and Distance to Default credit pillars and a weak Cash Flow Cushion credit pillar. The company's Business Risk is supported by its size and competitive position in its market segments somewhat offset by a lack of an economic moat as assigned by Morningstar's Equity Research Group. Its Solvency Score reflects a leveraged balance sheet as measured by total liabilities divided by total assets, a solid working capital position and good interest coverage. Arconic's Distance to Default credit pillar is supported by the company's equity market capitalization relative to its debt balance. Arconic's Cash Flow Cushion is affected by its debt maturity schedule through 2022 when approximately half of its debt is due, capital spending, interest and lease payments, and pension contributions.

As the end of September, Arconic had approximately $6.4 billion in balance sheet debt and cash and equivalents on hand of $1.5 billion. We estimate latest 12 months adjusted EBITDA of approximately $1.9 billion, resulting in debt/adjusted EBITDA of 3.3 times (2.5 net). In addition, the company is still burdened by approximately $2.9 billion in underfunded pension and other postretirement liabilities that makes the pension adjusted debt/adjusted EBITDA metric rise to above 4 times. External liquidity is primarily provided by a $3 billion committed revolving credit facility due in 2023, and we estimate maturities to be approximately $403 million in 2019, $1 billion in 2020, $1.25 billion in 2021, and $627 million in 2022.

Going forward, we assume low-single-digit revenue growth, adjusted EBITDA margins improving to 15% from approximately 13% currently, and flat debt levels. Debt/adjusted EBITDA is expected to be approximately 3 times after 2018, and the company be should consistently be free cash flow positive.

Given our stable outlook, we do not envision changing the rating in the near term. However, we could consider an upgrade of the rating if the company's Business Risk or Cash Flow Cushion credit pillars were to improve, which would likely be due to stronger operating results in its aero business or other segments or if the company deleverages substantially. Conversely, we could consider a downgrade of Arconic's rating if its Business Risk or Cash Flow Cushion deteriorates significantly from weak operating results in its segments or if the company leverages its capital structure.

Morningstar Credit Ratings Releases Updated Ratings for Regency Centers

Morningstar Credit Ratings, LLC is affirming the corporate rating of BBB+ for Regency Centers Corporation and maintaining a stable outlook. The rating is reinforced by the real estate investment trust's history owning and operating one of the highest-performing shopping center portfolios in the industry while maintaining a conservative balance sheet relative to its peers. We believe its 2017 acquisition of Equity One should add to Regency's already strong market position.

Regency's Business Risk benefits from its centers, which are primarily located in areas with favorable demographics and limited opportunity for competing development. Many of its properties are anchored by large grocers. The Cash Flow Cushion is supported by the company's large pool of unencumbered assets, contributing to robust liquidity. As with most REITs, however, competition in the commercial real estate markets, including among landlords of retail shopping centers, limits opportunities to establish sustainable competitive advantages sufficient to allow Regency to reliably generate returns meaningfully in excess of its cost of capital over the long term.

We anticipate that Regency will have $3.7 billion of debt outstanding on its balance sheet at the end of 2018. The bulk of this is represented by $3.2 billion in unsecured notes and term loans at the end of the third quarter, with the remaining $496 million in primarily fixed-rate mortgage loans from banks and insurance companies. Regency has been steadily lowering secured debt levels since the 2009 recession. Since the Equity One acquisition last year, secured debt has dropped to 5.5% of gross assets, down from over 10% in 2012; which has improved balance sheet flexibility. The company faces average debt maturities of $296 million per year over the next five years, including $728 million in 2022, which we view as manageable based on Regency's base of liquidity. In March, Regency expanded its unsecured revolver to $1.25 billion from $1.0 billion and extended the maturity date to March 2022, with options for two six-month extensions. We believe Regency maintains ample cushion with respect to its unsecured debt covenants.

Given management's historically conservative balance sheet maintenance, we anticipate that Regency will maintain credit metrics similar to current levels or better over our forecast horizon. We forecast debt at around 5.5 times EBITDA and at approximately 36% of total assets (or 34% of gross assets). We project interest coverage to range between 3.5 and 4.0 times EBITDA. In our view, Business Risk has improved with the addition of the Equity One portfolio, which removed a key Regency competitor across its footprint and provides more portfolio depth to the combined company. Furthermore, we believe Regency will grow assets and EBITDA at a faster rate than its shopping center REIT peers, given the relative strength of its Internet-resistant portfolio, which will also improve Business Risk.

We may upgrade Regency's rating if the REIT is able to grow to near $1.0 billion of annual EBITDA while maintaining its conservative balance sheet and focus on grocery-anchored centers, all of which should further strengthen the Business Risk profile. We may lower Regency's rating if the firm increases its pace of acquisitions leading to higher debt levels or those that entail significant exposure to at-risk tenants. We would also view as unfavorable efforts to meaningfully expand its development pipeline or increase secured debt on a sustained basis, in either case moving to the mid- to high-teens percentage of total assets range, which would signal a higher risk appetite and thereby increase Business Risk.

Morningstar Credit Ratings Releases Updated Ratings for Phillips 66

Morningstar Credit Ratings, LLC is affirming its BBB+ corporate credit rating on Phillips 66 and maintaining a stable outlook. Our rating reflects Phillips 66's large scale and cost-advantaged refining position on the U.S. Gulf Coast, the inherent cyclicality of the petroleum refining industry, integrated interests in chemical and midstream assets that generate higher returns and add earnings stability to petroleum refining operations, premium-branded wholesale outlets, and low debt leverage. These attributes are all incorporated into the narrow economic moat rating assigned to Phillips 66 by Morningstar's Equity Research Group, which supports our moderate Business Risk score. We do not expect to see material improvement in credit fundamentals during the next few years, based on our expectation that incremental free cash flow is likely to be allocated toward shareholder returns rather than significant debt reduction.

Phillips 66 owns petroleum refineries, related infrastructure, and midstream and chemical manufacturing assets that are difficult to replicate. The high-complexity capacity of Phillips 66's refineries on the U.S. Gulf Coast and in California allows it to process cheaper, lower-quality crude imports as feedstock, increasing realized margins. With about 35% of its refining capacity located on the U.S. Gulf Coast, Phillips 66 is cost-effectively positioned to access light crude from the midcontinent or cheap, waterborne heavy crude. We forecast gradually expanding earnings, supporting free cash flow generation and the ability for Phillips 66 to generally stay within a gross debt/capitalization ratio range of 20%-30% while funding growth in the midstream and chemical segments, which have expansions in logistics and manufacturing capacity underway. In particular, we believe the company should continue to benefit from incremental free cash flow in 2019 generated by optimization of CPChem's (50% equity interest) new ethylene and polyethylene facilities in Texas and several pipeline, terminal, and NGL fractionation expansions recently completed or now underway by Phillips 66 Partners (its sponsored master limited partnership) and DCP Midstream (Phillips 66 holds a 50% equity interest). Neither Phillips 66 Partners nor DCP Midstream is rated by Morningstar Credit Ratings, LLC.

At the end of September, the company reported $924 million in cash and equivalents. Furthermore, it had full availability on the aggregate $5.75 billion credit facilities of Phillips 66 and Phillips 66 Partners (both credit facilities mature in October 2021). Phillips 66 plans $2.3 billion in consolidated capital expenditures in 2018, with approximately 40% allocated for sustaining the business and 60% for growth projects. We estimate total company capital expenditures of $2.4 billion for 2019. After capital expenditures, we estimate $3.8 billion of free cash flow in 2018, gradually increasing to $5.4 billion in 2022. Therefore, we believe Phillips 66 has more than sufficient cash flow to pay out its targeted capital allocation of 40% to shareholders (dividends plus stock buybacks) through 2022. The next significant debt maturities include $800 million in 2020 (includes $300 million for Phillips 66 Partners, consolidated), $500 million in 2021, and $2.0 billion in 2022. Remaining senior note maturities are spaced out from 2025 through 2046. We expect Phillips 66's scheduled bond maturities throughout our forecast period to remain well covered by liquidity.

In our base forecast, we estimate the company's adjusted EBITDA margin gradually increasing to about 8% in 2022 from 7% in 2018. Further, the ratio of total debt/trailing 12 months EBITDA is forecast to decline to about 1 time in 2021 from 1.4 times in 2018, as the company pays back maturing debt. Commensurate with this, we forecast interest coverage to increase to about 20 times in 2022 from 15 times in 2018.

Our rating outlook assumes the company is capable of incrementally reducing leverage as refined product supply and demand fundamentals and pricing gradually improve. However, if refined product fundamentals and the pricing outlook improve more quickly than our current expectation, we would consider raising the credit rating as we would expect improvement in our Cash Flow Cushion and Solvency Scores. Alternatively, if refined product pricing languishes, squeezing margins, we may consider a downgrade of the credit rating.

Morningstar Credit Ratings Releases Updated Ratings for Federal Realty Investment Trust
Morningstar Credit Ratings, LLC is affirming the corporate rating of A- for Federal Realty Investment Trust and maintaining a stable outlook. The rating is supported by a strong portfolio of grocery-anchored shopping centers located in the most highly dense and affluent locations in the country run by an experienced and conservative management team. These attributes contribute to a lower Business Risk than its shopping center peers as well as most other REITs, an assessment upheld by Federal Realty's stable cash flow performance through the real estate cycle. We do not believe that the company currently benefits from a sustainable competitive advantage sufficient to produce investment returns meaningfully in excess of its cost of capital despite the high rents and outsized demand from tenants for its properties. The rating is further supported by a solid Cash Flow Cushion, which benefits from a large unencumbered portfolio of high-quality assets. Federal Realty has a modestly weaker Solvency Score, given relatively higher leverage and lower interest coverage at a given rating when compared across all corporate issuers. However, we find this to be common to many REITs.

Despite the relatively low number of locations represented in Federal Realty's portfolio compared with more geographically diversified peers, these affluent and densely populated metro markets represent between one third and two fifths of all retail spending in the in United States. We believe that portfolio performance pursuant to the last recession demonstrates the validity of Federal Realty's strategy, which reported the lowest duration and magnitude of property cash flow declines among its peers in the shopping center REIT sector. We project debt to be at 5.5 times EBITDA at year-end 2018, reflecting the company's recent spending on large projects, including Assembly Row and Pike & Rose. We expect leverage to decline as property cash flows increase, with leverage declining toward 5.0 times by year-end 2019.

As of Sept. 30, the balance sheet had $2.7 billion of unsecured debt and $476 million of secured debt, including over $2.4 billion of long-term senior notes. The company reported $27 million outstanding against its unsecured revolving credit facility, which has a capacity of $800 million and expires in April 2020 with options to extend for an additional year. Federal Realty has reduced secured debt levels from 9.4% in 2014 to less than a projected 5.8% of gross assets at year-end 2018, increasing balance sheet flexibility, which we view as supportive of credit. We view debt maturities as more than manageable, with an average $209 million over the next five years, including $368 million in 2022.

The rating assumes some improvement in capital structure and interest coverage as development tails off, which should strengthen the Solvency Score, but we do not foresee material improvement in Federal Realty's rating in the near term. We would consider a higher rating if the company is able to produce significant increases in size and diversity to achieve meaningful improvement in what is already among the strongest Business Risk scores among its peers. We may consider a downgrade of the rating if Business Risk and Solvency weaken due to operating performance shortfalls from its high-profile mixed-use developments.

Morningstar Credit Ratings Releases Updated Ratings for Altria Group

Morningstar Credit Ratings, LLC is affirming Altria Group's Inc. A- corporate credit rating and maintaining a positive outlook. Altria's rating reflects our Low Business Risk assessment, driven by the company's leading market position in the U.S. tobacco industry in cigarettes, moist smokeless tobacco, and machine-made cigars. It is further supported by strength of Altria's intangible brand assets, which provide pricing power and generate industry leading profit margins. This is demonstrated by the 40%-plus market share of Marlboro, which is owned by Philip Morris USA, Altria's wholly owned subsidiary. Given the tobacco industry's high barriers to entry including substantial regulation, Altria's leading market position is expected to support excess ROICs over the next 20 years and will continue to support its strong Solvency Score. Altria's portfolio of noncombustible products that have the potential for reducing harm, positions the company well for long-term growth. The Food and Drug Administration's recent proposal to ban menthol in cigarettes and flavored cigars will not have a material impact on Altria's credit profile as menthol cigarettes contribute less than 20% of the smokable segment volume, and we believe many menthol smokers are likely to migrate to a similar nonmentholated cigarette brand within the company's portfolio.

Altria's adjusted leverage for the latest 12 months ended Sept. 30, was 1.4 times, which is strong for the rating category. We expect cigarette volume to decline by the low to mid-single digits over the forecast period and Altria to offset this with price increases, considering its commanding market position. We also believe the company's strong position in the smokeless segment will continue to support overall low-single-digit revenue growth. We expect that steady margin expansion will continue to promote healthy free cash flow generation, most of which the company will use toward dividends (80% payout) and share buybacks. Our credit rating incorporates the legal and regulatory risks inherent to the tobacco sector as litigation remains unpredictable but currently manageable. Industry volume could also be adversely affected by rising excise taxes as governments struggle to raise revenue.

Altria Group's total debt at Sept. 30, was $13.9 billion, with current maturities of $2.0 billion and $11.9 billion maturing thereafter. With almost 40% of company's debt maturing within MCR's five-year forecast period, it necessitates the company having access to capital markets. The company's cash balance was $2.3 billion at quarter-end. An additional financial resource is provided by Altria's 10.1% equity ownership of Anheuser-Busch InBev, for which we estimate a value of approximately $15 billion. Financial flexibility is afforded by full availability of Altria's $3.0 billion senior unsecured five-year revolving credit agreement, which the company amended in August 2018 to extend the maturity to August 2023. The credit facility also supports its commercial paper issuances, with no amount outstanding as of Sept. 30. The credit agreement has financial covenants that require Altria to maintain an EBITDA/interest expense of not less than 4.0 to 1.0. Altria was in compliance with its financial covenants at Sept. 30, and there were no outstanding borrowings at the quarter-end.

Altria's senior notes have a rating trigger and a change-of-control provision. Altria will be required to make an offer to purchase the notes upon both a change of control and the notes ceasing to be rated investment-grade by the rating agencies. Altria has approximately a $1.6 billion aggregate principal amount outstanding under its senior unsecured long-term notes, which were issued in 2008 and 2009

(9.25% due 2019, 9.95% due 2038, and 10.20% due 2039) and have an interest rate adjustment provision based upon the company's credit rating. Although Altria maintains a high dividend payout ratio of approximately 80%, we do not expect shareholder payouts to result in a weakening of its credit profile. In July 2015, the board of directors authorized a $1.0 billion share-repurchase program, which Altria expanded multiple times to $4.0 billion by July 2017. As of Sept. 30, Altria had $700 million remaining under the share-repurchase program, which it expects to complete by the end of the second quarter of 2019.

We have maintained our positive outlook reflecting the strength of Altria's credit pillars. Preserving moderate leverage, a strong Solvency Score, and high returns on invested capital would likely result in an upgrade. Meaningful diversification (generating 20% or more of operating income from sources other than cigarettes) or successfully developing and marketing lower-risk products would also be positive for the rating. A negative rating action is likely if the company loses the ability to offset cigarette consumption declines through higher pricing or if unanticipated volume declines pressure its operating earnings and cash flow, resulting in total debt/EBITDA sustained above 2.0 times or a significant weakening of the company Cash Flow Cushion or Solvency Score. A ratings downgrade could also result if the heightened regulatory environment accelerates volume declines or management adopts an aggressive capital allocation policy that materially weakens the company's credit profile.

Recent Notes Published by Credit Analysts

Boston Scientific (BBB+, Stable) Plans to Acquire BTG, Increasing Leverage Temporarily

MCR Credit Risk Assessment

On Nov. 20, Boston Scientific Corp (BBB+, stable) announced plans to acquire BTG for $4.2 billion in cash. This deal is expected to close in the first half of 2019, and the company plans to use existing cash on hand and new debt proceeds to fund the transaction. At first glance, we think Boston Scientific has the capacity within our current rating to make the acquisition when considering its subsequent deleveraging plans. However, if the firm delays deleveraging for any reason, our current rating and outlook could prove too optimistic.

Strategically, this acquisition will add peripheral intervention products and acute-care pharmaceuticals to Boston's product set. While the addition of acute-care pharmaceuticals does not naturally fit into Boston's wheelhouse, the interventional devices to treat various cancers and vascular conditions, including a pulmonary embolism product, are compelling. Boston expects to funnel these devices into its existing sales channels and sees large international opportunities for growth of BTG's products, especially since less than 10% of the target's sales are generated outside of the U.S. currently. With Boston's extensive reach around the world, BTG's products should be able to grow at a high trajectory if Boston can successfully expand its reach into new countries. Specifically, Boston expects $175 million of revenue and cost synergies from this acquisition within three years of its closure.

Leverage will rise substantially at least temporarily to fund this acquisition, though. By our calculations, Boston's gross leverage will rise to the high 3s after the acquisition from about 2.6 times as of September. However, Boston has suspended its share-repurchase program, and within two years of the transaction, it plans to repay $1 billion of debt and deleverage to gross debt/EBITDA of 2.5 times. While that gross leverage goal is slightly higher than its long-term target in the low 2s, we think the firm has enough capacity in its BBB+ rating to manage this acquisition. Our rating assumes that the company will repay its other, primarily legal, obligations ($1.2 billion as of September, which is nearly funded by $0.8 billion of restricted cash in a qualified settlement fund) in the near future, as well. Maintaining a BBB+ rating will likely depend on the firm repaying those other obligations and deleveraging after the BTG acquisition as planned.

Market News and Data

From a credit perspective, Boston Scientific's closest comparables are similar-rated firms in the medical technology sector: Abbott Laboratories (A-, positive), Becton, Dickinson and Co. (BBB, stable), and Zimmer Biomet Holdings Inc. (BBB, stable). Prior to this acquisition's announcement, Boston Scientific's bonds traded between higher-rated Abbott's bonds and lower-rated Zimmer's and Becton Dickinson's bonds. Boston's bonds also traded between the A- and the BBB+ categories of the Morningstar Corporate Bond Index. However in early trading, we have seen about 15 basis points of widening in Boston's bonds highlighted below, pushing the spreads closer to the BBB+ category. All the following bond data is sourced from Interactive Data as of Nov. 19.

In the 10-year area, bonds from these issuers recently traded over the nearest Treasury as follows:

- Boston Scientific's 4.00% notes due 2028 at +138 basis points.
- Abbott's 3.75% notes due 2026 at +99 basis points.
- Zimmer Biomet's 3.55% notes due 2025 at +163 basis points.
- Becton Dickinson's 3.70% notes due 2027 at +152 basis points.

For comparison with the approximate 10-year maturities, the Morningstar Corporate Bond Index was recently at +125 basis points in the A- category, +163 basis points in the BBB+ category, and +174 basis points in the BBB category.

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