# Morningstar Corporate Credit Research Highlights

## Fed holds policy steady for now, but Bank of Japan modifies focus.

**Morningstar Credit Ratings, LLC**
**26 September 2016**



### Credit Market Insights

- Market data and update.

### Credit Rating Actions

- Rating Changes

| Issuer/Ticker | Current Issuer Credit Rating | Previous Issuer Credit Rating |
|---|---|---|
| Monsanto MON | A/UR- | A |
| Bayer BAYRY | A-/UR- | A- |
| Perrigo PRGO | BBB- | BBB |
| Janus Capital Group JNS | BBB | BBB- |

- Rating Affirmations

| Issuer/Ticker | Current Issuer Credit Rating | Previous Issuer Credit Rating |
|---|---|---|
| Viacom VIAB | BBB | BBB |
| Bristol-Myer Squibb BMY | AA- | AA- |
| Legg Mason LM | BBB | BBB |
| Invesco IVZ | A- | A- |
| Agilent Technologies A | A- | A- |
| Thermo Fisher Scientific TMO | BBB | BBB |

### Recent Notes Published by Credit Analysts

- **Shire** issuing new debt to permanently fund Baxalta acquisition.
- **Air Liquide** is offering a multitranche deal to repay its Airgas acquisition bridge loan.

## Credit Market Insights

### Market Data and Update

The tone across the fixed-income markets was subdued at the beginning of last week as investors waited for the U.S. Federal Reserve and Bank of Japan to release their monetary policy statements. Following those statements, the tone turned much more positive as investors were relieved that the central banks remained resolved to maintaining their easy money policies.

The Bank of Japan announced it was revising the emphasis of its monetary policy to focus on managing the shape of the yield curve and lessen the reliance on the size of its asset-purchase program. The BOJ held the size of its asset-purchase program steady at JPY 80 trillion (approximately $781 billion) for now, but will modify its purchases to target the yield on its 10-year bond at 0% as opposed to the negative yield the bond has been trading at over much of this year. The intent of this program is to steepen the yield curve in order to minimize the impact that the flat and negative yield curve has had on financial institutions and pension funds. In addition, the BOJ is looking to influence inflation expectations as it revised its goal to overshoot its 2% inflation target.

The Fed held its policy steady and did not make any changes to either the federal funds rate or its reinvestment program, but it seemed to telegraph that it is closer to raising interest rates in the near term. While it's highly unlikely the Fed would raise rates at the November meeting as the timing is right before the U.S. presidential election and the meeting does not include an update to the Federal Reserve's economic projections, it did make several revisions to its meeting statement that suggest it is much closer to contemplating a rate hike. In addition, three members of the Federal Open Market Committee voted against the policy action as they preferred to raise the federal funds target rate at this meeting. In the press release, the FOMC revised the statement to reflect that "the labor market continued to strengthen and growth of economic activity has picked up from the modest pace seen in the first half of this year." The statement also included a new statement, "The committee judges that the case for an increase in the federal funds rate has strengthened but decided, for the time being, to wait for further evidence of continued progress towards its objectives."

While the Fed appears to be telegraphing a higher probability of a rate hike, the market-implied probability that the Fed will hike the federal funds rate in December had not changed meaningfully after the FOMC meeting. Currently, the futures market is pricing in a 54% probability that the Fed will hike its federal funds rate after the December meeting; prior to last week's FOMC meeting, the market-implied probability of a December rate hike was 55%. The U.S. market is currently pricing in a high probability that the current ultraloose monetary policy will remain in place over the next year. According the futures market, there is only approximately a 7% probability the Fed will hike rates to over 1% in September 2017. This is a significant departure from the Fed's most current Summary of Economic Projections, in which FOMC participants' average projection for the federal funds rate at the end of 2017 is 1.30%.

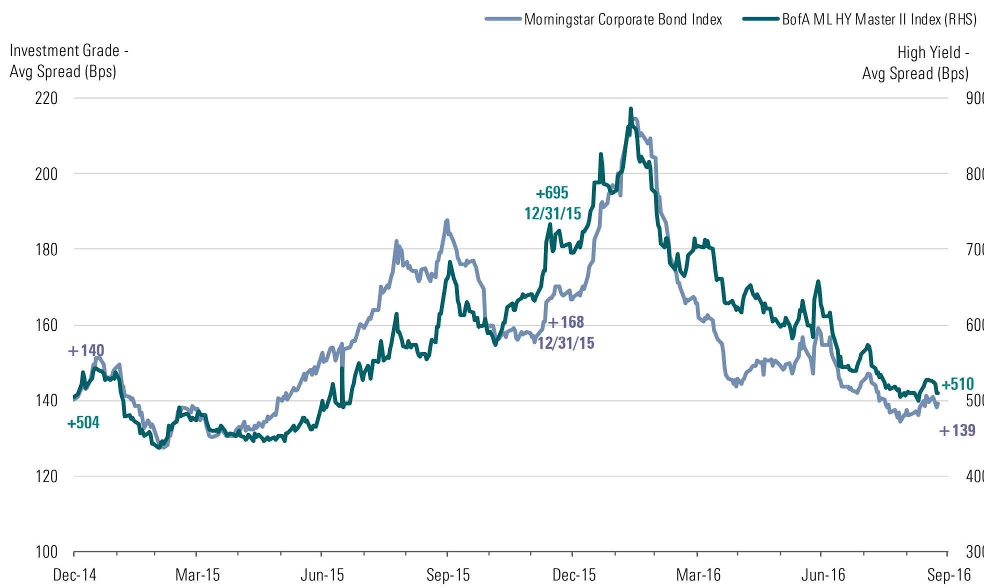
Following the central bank announcements, prices on fixed income traded higher, sending yields down toward the same levels seen earlier this month. Investors were especially attracted to the levels in the longer end of the curve. As long-dated bonds outperformed short-dated bonds, the yield curve flattened.

The yield on the 2-year and 5-year bonds declined 1 basis point and 4 basis points respectively, whereas long-dated bonds such as the 10-year and 30-year bonds dropped 7 basis points and 30 basis points.

In the global bond markets, after a brief foray into positive territory the prior week, the price on Germany's 10-year bond rose enough to push its yield back down to negative territory, ending the week at negative 0.08% after trading as high as 0.07%. Following the announcement of the Bank of Japan's change in policy, the yield on Japanese 10-year bonds rose, yet ended the week at negative 0.05%, below the central bank's new stated goal of 0%.

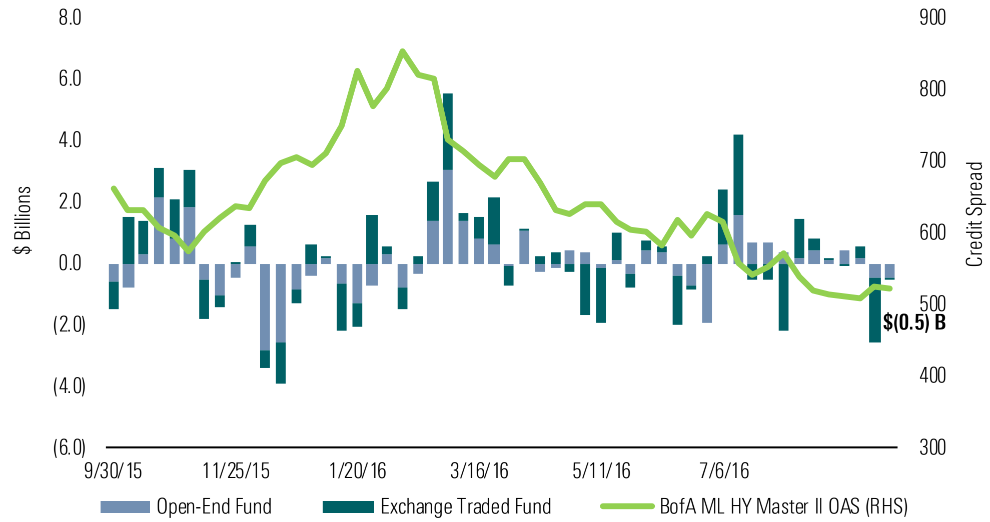
In the corporate bond market, traders reported that there was a strong bid for long-dated bonds in order to extend duration. For example, intermediate-term investors looked to swap out of 5- and 7-year bonds for 10-year bonds, and long-term investors looked to sell 10-year bonds in order to reinvest those proceeds in 30-year bonds. Investment-grade corporate credit spreads were generally unchanged as the average credit spread of the Morningstar Corporate Bond Index held steady at +139 bps. In the high-yield market, credit spreads continued to tighten as the Bank of America Merrill Lynch High Yield Master Index tightened 17 basis points to +510 bps.

**Corporate Bond Credit Spreads**




Source: Morningstar, Inc., Bank of America Merrill Lynch Global Indexes. Data as of 9/23/2016.

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




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

**Exhibit 1** Morningstar Credit New Issue Monitor

Week ended Sept. 23, 2016

(000,000s $ unless otherwise noted)

| Issuer | | | Issue | | | | |
|---|---|---|---|---|---|---|---|
| Name | Ticker | Morningstar Corporate Rating | Size | Coupon | Description | Maturity | Approx Spread to US Treasuries |
| Air Liquid Finance | AI | BBB+[(1)] | $750 | 1.38% | Senior Notes | 2019 | +55 |
| Air Liquid Finance | AI | BBB+[(1)] | $1,000 | 1.75% | Senior Notes | 2021 | +70 |
| Air Liquid Finance | AI | BBB+[(1)] | $750 | 2.25% | Senior Notes | 2023 | +85 |
| Air Liquid Finance | AI | BBB+[(1)] | $1,250 | 2.50% | Senior Notes | 2026 | +93 |
| Air Liquid Finance | AI | BBB+[(1)] | $750 | 3.50% | Senior Notes | 2046 | +118 |
| Firth Third Bancorp. | FITB | BBB+ | $750 | 1.63% | Senior Notes | 2019 | +77 |
| Firth Third Bancorp. | FITB | BBB+ | $250 | FLT | Senior Notes | 2019 | NA |
| Goldman Sachs | GS | BBB+ | $2,250 | 2.35% | Senior Notes | 2021 | +120 |
| Goldman Sachs | GS | BBB+ | $1,250 | FLT | Senior Notes | 2021 | NA |
| Hess | HES | BBB | $1,000 | 4.30% | Senior Notes | 2027 | +263 |
| Hess | HES | BBB | $500 | 5.80% | Senior Notes | 2047 | +338 |
| JP Morgan Chase Bank NA | JPM | A-[(1)] | $500 | 1.45% | Senior Notes | 2018 | +70 |
| JP Morgan Chase Bank NA | JPM | A-[(1)] | $1,000 | FLT | Senior Notes | 2018 | NA |
| JP Morgan Chase Bank NA | JPM | A-[(1)] | $1,000 | 1.65% | Senior Notes | 2019 | +77 |
| JP Morgan Chase Bank NA | JPM | A-[(1)] | $500 | FLT | Senior Notes | 2019 | NA |
| Shire Acquisition Investments Ireland | SHP | BBB-[(1)] | $3,300 | 1.90% | Senior Notes | 2019 | +100 |
| Shire Acquisition Investments Ireland | SHP | BBB-[(1)] | $3,300 | 2.40% | Senior Notes | 2021 | +120 |
| Shire Acquisition Investments Ireland | SHP | BBB-[(1)] | $2,500 | 2.88% | Senior Notes | 2023 | +135 |
| Shire Acquisition Investments Ireland | SHP | BBB-[(1)] | $3,000 | 3.20% | Senior Notes | 2026 | +150 |

*(1) Morningstar's issuer credit rating is assigned at the holding company level.*

**Exhibit 2** Morningstar Corporate Index Spreads

The following exhibits depict spread and return data for bonds in the Morningstar Corporate Bond Index. Rating buckets are determined by each issue's NRSRO rating. Data as of Sept. 23, 2016.

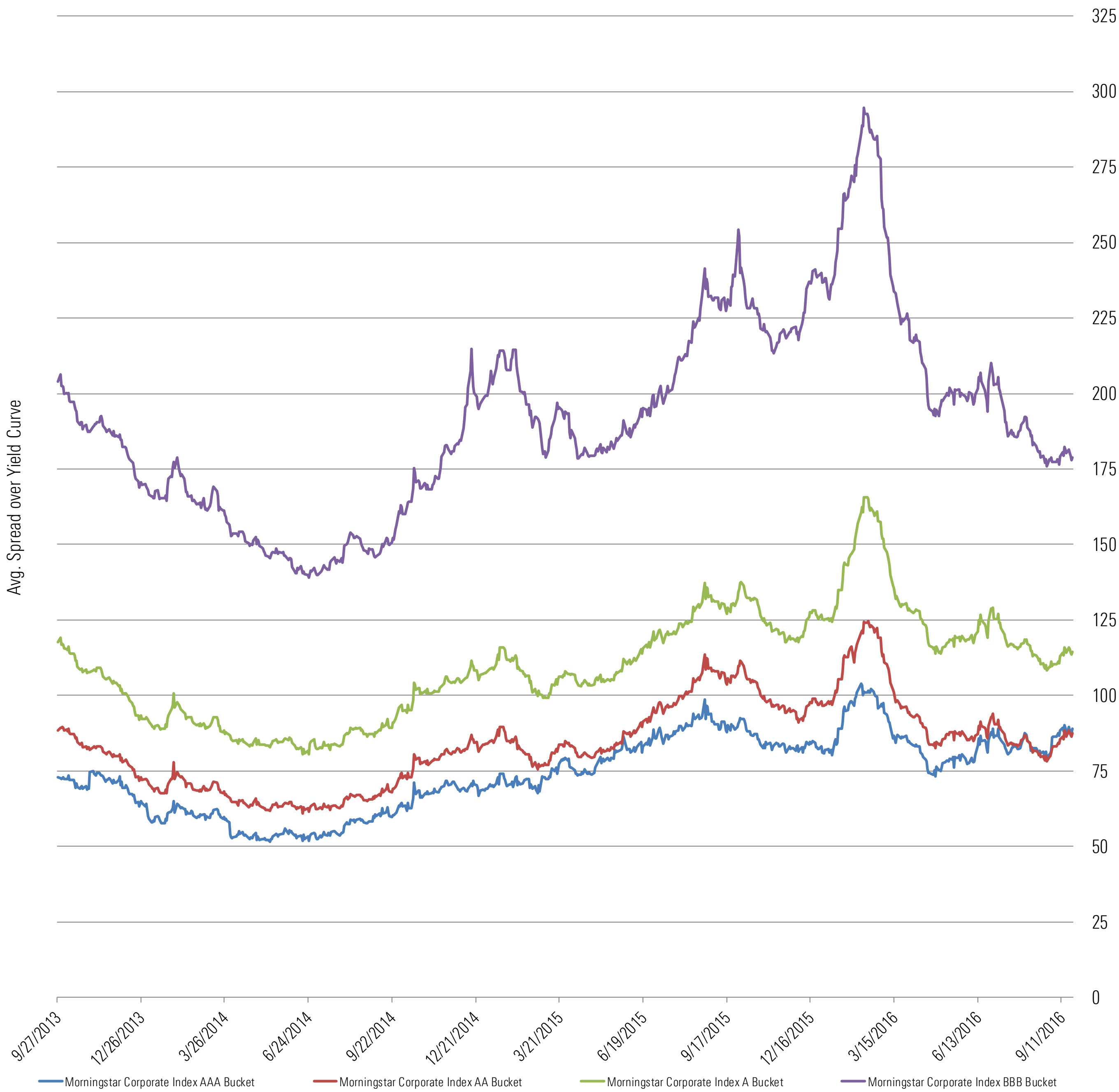


**Exhibit 3** Morningstar, Inc. Corporate Bond Index Sector Summary

| Sector | Average Rating | Number of Issues | Modified Duration | OAS (bps) | WTD OAS Spread Chg (bps) | MTD OAS Spread Chg (bps) | YTD OAS Spread Chg (bps) | MTD Excess Return (%) | YTD Excess Return (%) | MTD Total Return (%) | YTD Total Return (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TOTAL** | **A-** | **4,031** | **7.0** | **144** | **(0)** | **2** | **(27)** | **0.06** | **3.30** | **(0.32)** | **8.80** |
| **FINANCIAL** | **A-** | **1,252** | **5.7** | **137** | **(1)** | **3** | **0** | **0.08** | **1.71** | **(0.12)** | **6.04** |
| Bank | A- | 776 | 5.2 | 136 | (1) | 3 | 2 | 0.10 | 1.66 | (0.03) | 5.57 |
| Finance | A | 219 | 6.0 | 128 | (1) | 7 | (5) | (0.04) | 1.97 | (0.29) | 6.63 |
| Insurance | A | 194 | 8.0 | 153 | 1 | (0) | (2) | 0.16 | 1.44 | (0.37) | 7.94 |
| REITs | BBB+ | 58 | 6.3 | 151 | 0 | 6 | (4) | (0.01) | 2.20 | (0.22) | 7.24 |
| **INDUSTRIAL** | **A-** | **2,345** | **7.6** | **144** | **(0)** | **2** | **(39)** | **0.04** | **3.82** | **(0.41)** | **9.87** |
| Basic Industries | BBB+ | 192 | 7.5 | 201 | (4) | (1) | (170) | 0.39 | 10.68 | (0.06) | 16.90 |
| Consumer Products | A- | 267 | 7.9 | 116 | (1) | 2 | (18) | 0.17 | 3.25 | (0.30) | 9.37 |
| Energy | A- | 352 | 7.1 | 179 | (1) | 6 | (69) | (0.27) | 4.69 | (0.68) | 10.34 |
| Healthcare | A- | 368 | 7.9 | 124 | 1 | 5 | (10) | (0.07) | 2.35 | (0.55) | 8.62 |
| Manufacturing | A- | 333 | 6.1 | 115 | 0 | 2 | (19) | 0.04 | 2.63 | (0.23) | 7.33 |
| Media | BBB+ | 168 | 8.8 | 175 | 1 | (1) | (39) | 0.06 | 4.93 | (0.58) | 12.08 |
| Retail | A- | 147 | 8.3 | 122 | 1 | 2 | (18) | 0.14 | 3.00 | (0.41) | 9.83 |
| Technology | A+ | 252 | 7.3 | 131 | (1) | 3 | (5) | 0.08 | 2.55 | (0.31) | 8.06 |
| Telecom | BBB+ | 128 | 8.6 | 163 | (1) | (3) | (31) | 0.26 | 4.74 | (0.35) | 11.90 |
| Transportation | BBB+ | 96 | 9.1 | 141 | (0) | 0 | (25) | 0.11 | 3.92 | (0.55) | 11.29 |
| **UTILITY** | **BBB+** | **431** | **8.6** | **183** | **1** | **0** | **(69)** | **0.02** | **6.94** | **(0.60)** | **14.06** |
| Electric Utilities | A- | 260 | 9.0 | 152 | 1 | 3 | (22) | (0.04) | 2.99 | (0.73) | 10.24 |
| Gas Pipelines | BBB+ | 162 | 7.9 | 236 | (0) | (2) | (146) | 0.13 | 13.46 | (0.37) | 20.35 |
| **Rating Bucket** | | | | | | | | | | | |
| AAA Bucket | | 76 | 9.7 | 93 | 2 | 8 | 9 | 0.02 | 1.23 | (0.71) | 7.73 |
| AA Bucket | | 449 | 6.3 | 91 | 1 | 7 | (8) | (0.05) | 1.53 | (0.36) | 6.11 |
| A Bucket | | 1,587 | 6.9 | 119 | 0 | 4 | (9) | 0.00 | 2.24 | (0.36) | 7.59 |
| BBB Bucket | | 1,919 | 7.2 | 185 | (2) | 0 | (58) | 0.14 | 4.94 | (0.27) | 10.80 |
| **Term Bucket** | | | | | | | | | | | |
| 1-4 | A- | 1,254 | 2.3 | 90 | 1 | 4 | (22) | (0.00) | 1.53 | 0.10 | 3.11 |
| 4-7 | A- | 1,004 | 4.7 | 120 | (1) | 2 | (36) | 0.05 | 3.03 | 0.15 | 6.89 |
| 7-10 | A- | 740 | 7.3 | 158 | (2) | 1 | (29) | 0.09 | 3.86 | (0.17) | 9.79 |
| 10PLUS | A- | 1,033 | 13.9 | 214 | (1) | 0 | (30) | 0.10 | 5.12 | (1.27) | 16.88 |

*Data as of 09/23/2016*

**Exhibit 4** Morningstar, Inc. Corporate Bond Index Option-Adjusted Spread by Sector

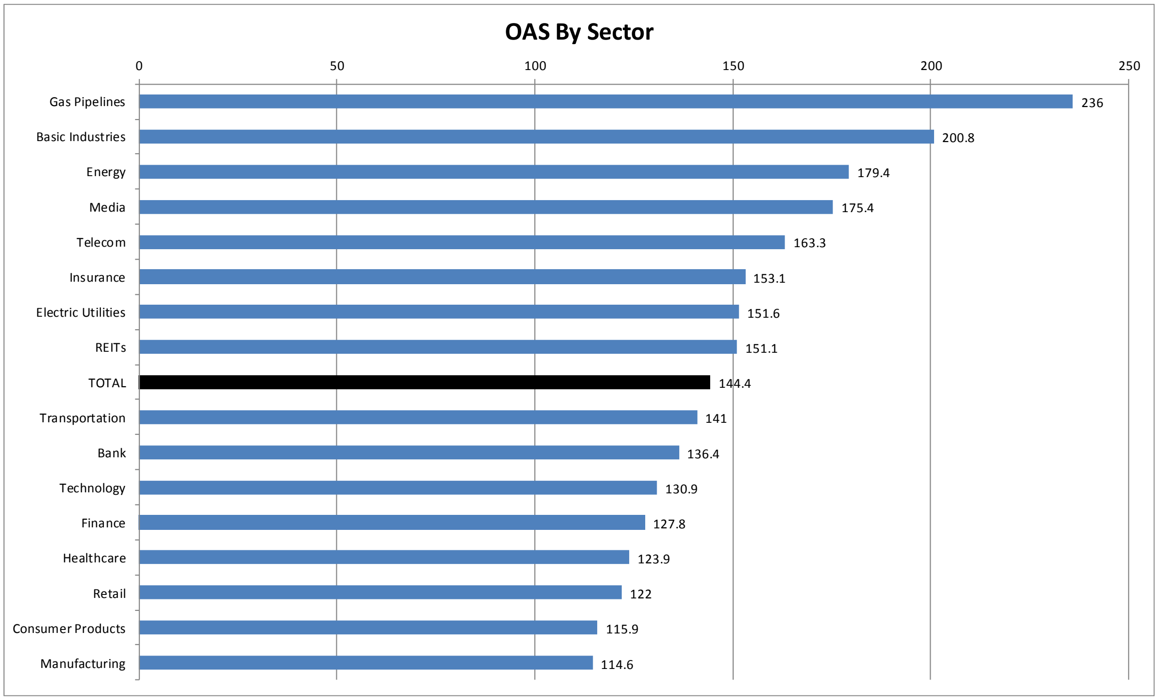



**Exhibit 5** Morningstar, Inc. Corporate Bond Index 1-Week OAS Change

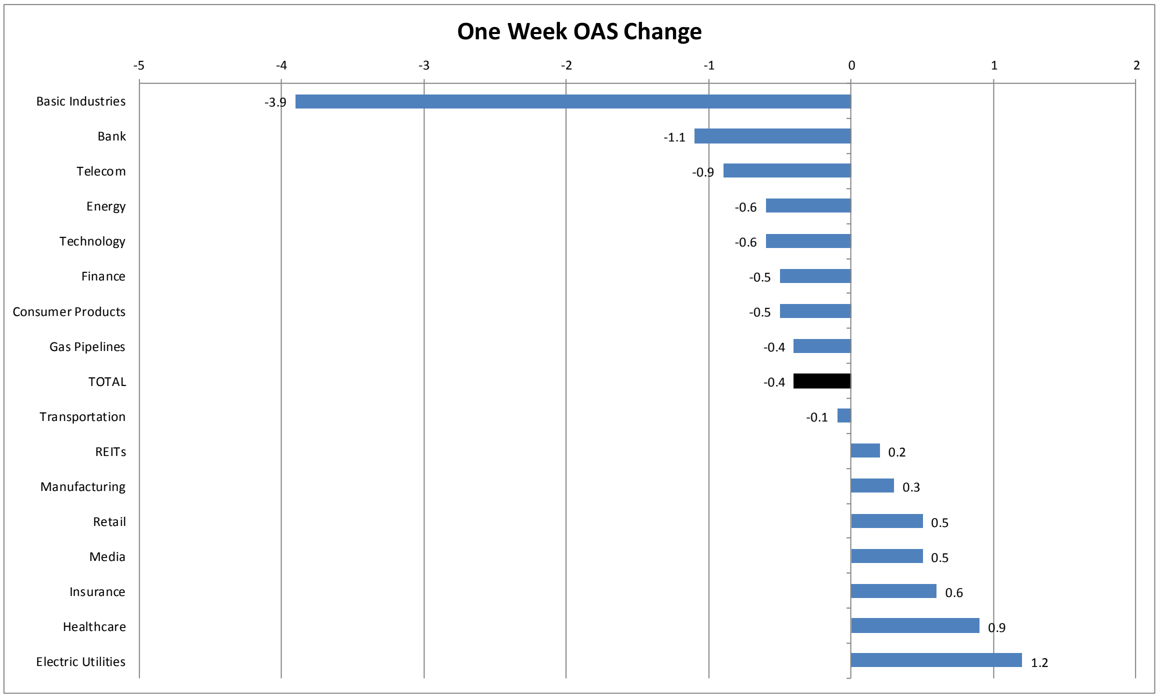


**Exhibit 6** Morningstar, Inc. Corporate Bond Index Year-to-Date OAS Change

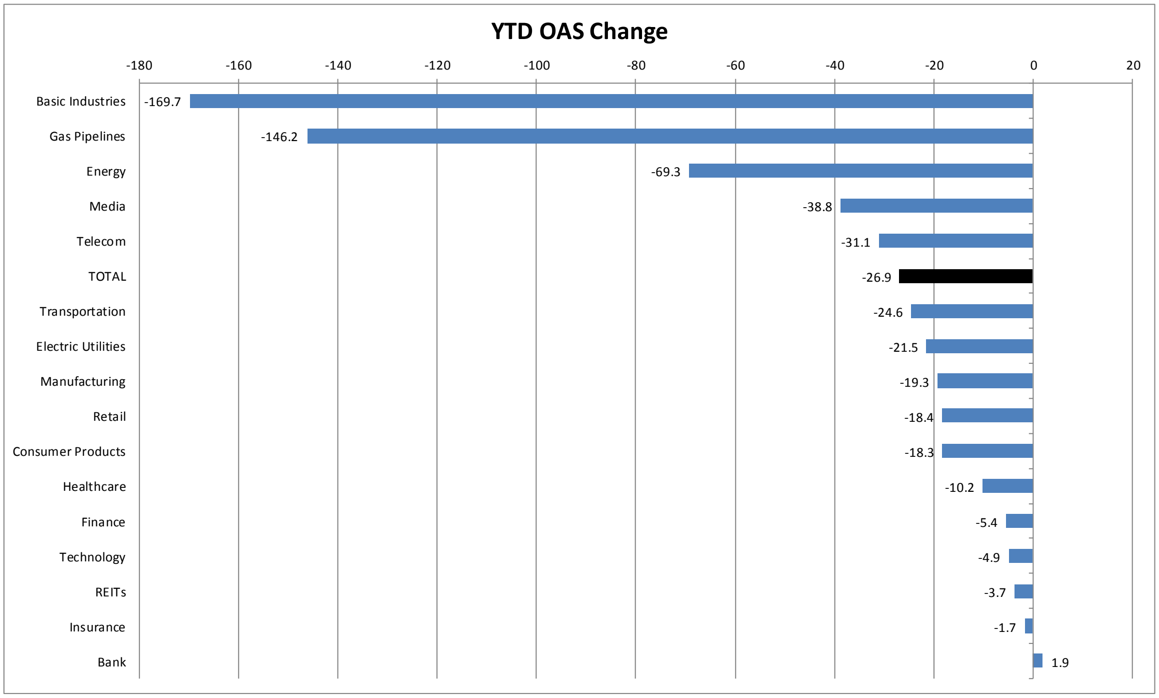
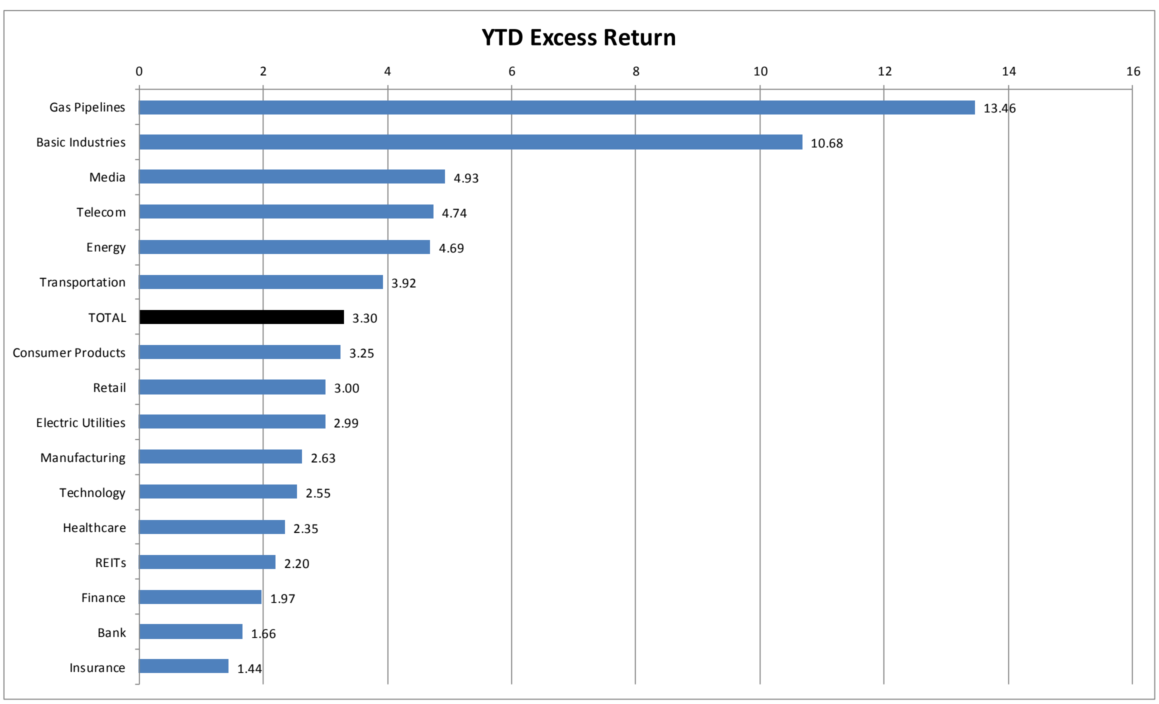



**Exhibit 7** Morningstar, Inc. Corporate Bond Index YTD Excess Return



## Credit Rating Actions

► Rating Changes

| Issuer/Ticker | Current Issuer Credit Rating | Previous Issuer Credit Rating |
|---|---|---|
| Monsanto MON | A/UR- | A |
| Bayer BAYRY | A-/UR- | A- |
| Perrigo PRGO | BBB- | BBB |
| Janus Capital Group JNS | BBB | BBB- |

► Rating Affirmations

| Issuer/Ticker | Current Issuer Credit Rating | Previous Issuer Credit Rating |
|---|---|---|
| Viacom VIAB | BBB | BBB |
| Bristol-Myer Squibb BMY | AA- | AA- |
| Legg Mason LM | BBB | BBB |
| Invesco IVZ | A- | A- |
| Agilent Technologies A | A- | A- |
| Thermo Fisher Scientific TMO | BBB | BBB |

### Monsanto's Credit Rating Under Review (Negative) on Planned Bayer Merger

On Sept. 14, Bayer (rating: A-) and Monsanto (rating: A) announced a definitive agreement to merge. Bayer will acquire Monsanto for $128 per share, representing an enterprise value of $66 billion. Bayer hopes to close the transaction by the end of 2017 and plans to fund the transaction through a combination of $19 billion in equity and the balance in debt, which will push gross debt leverage (total debt/EBITDA) to the low 4s, in our estimation. While we are affirming our stand-alone rating for Monsanto, we are placing our credit rating under review with negative implications as we consider the pending merger. As we stated in our previous credit assessment of Bayer, management's willingness to boost leverage to this level would probably be enough to push Bayer's credit quality lower by multiple notches. As we gain further insight into the deleveraging plan for the combined entity and more comfort in the potential for this merger to close, we may adjust our credit rating for Monsanto.

The under review status reflects the increased credit risk for Monsanto debt if the deal closes. We estimate the combined debt of the proposed entity would probably be roughly $70 billion immediately after closing. While the deal makes sense from a strategic perspective in that it would combine Bayer's strong position in crop protection with Monsanto's strong position in seeds and genomics, the acquisition would entail more financial risk due to the very large debt component in the acquisition plan. Also, to ease antitrust concerns with regulators, Bayer may need to sell its smaller seed portfolio, which includes soybeans, cotton, and vegetables.

For Monsanto on a stand-alone basis, our A rating reflects the strong competitive position the firm has in the seeds and genomics markets globally and its conservative financial policies. Morningstar, Inc. has assigned Monsanto a wide economic moat due to its competitive position. We believe that this as well as the firm's crop chemical business will help it to continue to generate stable and growing cash flow whether or not it remains an independent entity. We expect Monsanto to finish its fiscal year (ending Aug. 31) with net debt/EBITDA at slightly over 2.0 times and a gross debt balance of approximately $9 billion. Additionally, our forecast reflects continued free cash flow generation, albeit below the robust levels of previous years. Over the past three fiscal years, Monsanto has generated at least $1 billion in free cash flow after capital expenditures and dividends each year. We believe the company will produce $500 million in free cash flow after capital expenditures and dividends in each of the next two years. In addition to its cash on hand and free cash flow, Monsanto has a $3 billion revolving credit facility that expires in 2020 and can provide additional liquidity if needed.

### Bayer's Credit Rating Under Review (Negative) on Monsanto Merger

On Sept. 14, Bayer (rating: A-) and Monsanto (rating: A) announced a definitive agreement to merge. Bayer will acquire Monsanto for $128 per share, representing an enterprise value of $66 billion. Bayer hopes to close the transaction by the end of 2017 and plans to fund the transaction through a combination of $19 billion in equity and the balance in debt, which will push gross debt leverage (total debt/EBITDA) to the low to mid-4s, in our estimation. While we are affirming our stand-alone rating for Bayer, we are placing our credit rating under review with negative implications as we assess the pending merger. As we stated in our previous credit rating assessment of Bayer, management's willingness to boost leverage to this level would probably be enough to push Bayer's credit quality lower by multiple notches. As we gain more comfort in the potential for this merger to close and further insight into Bayer's deleveraging plan after the transaction closes, we will adjust our credit rating.

The combination with Monsanto would transform Bayer's crop science division into the global leader in the agriculture industry with a product offering spanning the full length of growers' needs. We see minimal overlap between the businesses as Monsanto is focused on seeds and traits as well as digital farming compared with Bayer's strong expertise in chemistry. We think Bayer may need to sell its smaller seed portfolio, which includes soybeans, cotton, and vegetables, which should ease antitrust concerns with regulators. Overall, we see each company bringing strong competitive advantages to the combination that solidifies a leadership position in the agriculture industry in terms of breadth and depth of product portfolio and technological capabilities. Enhanced scale of the research program of the new entity could offer integrated solutions that could bring novel solutions to address farmers' needs. However, we think this is a longer-term proposition that could take years to come to fruition.

Bayer continues to operate with higher adjusted debt leverage than most of its large pharmaceutical peers, and the pending Monsanto merger suggests that it may be comfortable with even higher leverage in the near to intermediate term. At the end of June, Bayer's debt stood at EUR 19 billion (or an estimated gross debt/adjusted EBITDA of 1.8 times on a trailing 12-month pro forma basis) while cash totaled EUR 2 billion (leading to an estimated net debt/adjusted EBITDA of 1.7 times on a pro forma basis). Taking into account Bayer's underfunded pension and lease obligations, gross leverage metrics jump by one full turn. These leverage metrics are higher than those of most of its large, wide-moat pharmaceutical peers. Bayer's acquisition of Monsanto would push leverage even higher, too. Based on the terms of the definitive agreement, Bayer's gross debt/EBITDA looks set to rise to the low to mid-4s on a pro forma basis, if the deal closes.

**Perrigo Downgraded to BBB-; Negative Outlook Assigned**

We have downgraded Perrigo's credit rating to BBB- from BBB due to ongoing elevated leverage and pressure on its operations. We have also initiated a negative outlook. Our new rating reflects an expectation that gross and net debt leverage may remain elevated while Perrigo executes its business strategy to nurse ailing businesses back to health over the next few years. Our negative outlook considers the uncertainty of the credit profile, as increased internal investment and corporate pruning to reinvigorate flagging performance are likely to create volatility of earnings and cash flows as the company carries out its strategic initiatives.

Incorporating a greater degree of uncertainty around its cash flow already has pressured our Business Risk pillar and contributed to the rating downgrade. Problems integrating Omega operations and greater-than-historical generic drug pricing pressures have damped growth prospects and depressed our view of the earnings potential of the firm. Therefore, Perrigo appears weakly positioned in the narrow moat rating assigned by Morningstar, Inc. Nonetheless, we still expect revenue and earnings to grow in the midsingle digits compounded annually through 2020, although we recognize that Perrigo's strategy to repair struggling segments could create variability in earnings and cash flows over the length of its efforts. Perrigo's top capital priority has been business development, including the debt-funded purchases of Elan ($9.5 billion) in 2013 and Omega ($4.4 billion) in 2015, which pushed gross leverage and net leverage above 3.5 times and 3 times, respectively, for the 12 months ended in June. More than one year after the Omega acquisition, gross leverage remains around a full turn from management's expectation to return gross leverage to the mid-2s within 24 months after the closure of the transaction. We are encouraged by the firm's commitment to an investment-grade rating, but we see a delay in Perrigo's deleveraging to its target that we expect will require a combination of EBITDA improvement and debt redemption. We now anticipate gross leverage and net leverage over the next few years hovering around 3 times and 2.5 times, respectively, which stresses our Solvency and Distance to Default pillars and are consistent with a BBB- credit, in our opinion. Despite weaker-than-expected earnings growth, we see decent free cash flow generation of around $1 billion per year on average through 2020, which can effectively manage moderate debt maturities over the next five years. But in the long run, we are concerned that the firm may continue to feed a hearty appetite for asset purchasing, which may divert capital from debt reduction.

Our negative outlook reflects potential deterioration of Perrigo's credit profile. If the company fails to execute its turnaround strategy within the next few years, returns to aggressive share repurchasing, and maintains leverage (net debt/EBITDA) above 3 times; a one-notch downgrade could follow. However, the firm may reverse the negative trend through a positive earnings and cash flow trajectory related to recovering business segments along with moderate debt reduction, such that leverage falls closer to its gross debt leverage target of the mid-2s. While we anticipate balance sheet stress over the next few years, leverage that improves to Perrigo's goal on a consistent basis could return the rating to BBB.

**Upgrading Janus to BBB on Lower Leverage, Better Operating Results; Initiating Stable Outlook**

Morningstar Credit Ratings is upgrading its credit rating on Janus to BBB from BBB- with a stable outlook. Our action reflects a stronger Solvency Score since our previous review. While Janus has improved its operating results and reported lower financial leverage, our upgrade is limited to one notch because Janus' product offerings remain more narrowly focused in active equity distributed through direct retail or intermediary channels. These factors contribute to Morningstar, Inc.'s narrow moat and negative trend ratings, which influence Janus' weak Business Risk score. Our rating also takes into account the company's Cash Flow Cushion, which is in line with similar-rated peers.

Janus is a midsize asset manager, reporting nearly $195 billion in assets under management as of June. Year-over-year AUM growth around 1% was on par with that of peers, though the asset base remains somewhat concentrated. The company's products are centered on active strategies, leaving the firm underexposed to industry fund flows favoring passive strategies. In addition, equity strategies represent over 70% of AUM, which leaves Janus' operating performance highly correlated with the stock market and more variable than peers with a more diverse asset base. We also view Janus' asset base as less sticky, given its heavy reliance on retail distribution channels. Only 35% of its product sales are to institutional clients, with the balance delivered through direct retail channels (29%) or intermediary (37%). Geographic diversification is also limited, with U.S.-domiciled clients contributing about 80% of AUM.

Despite these challenges to Janus' business model and competitive position, net fund outflows have moderated around 1%, a level consistent with peers, following sharp outflows during the 2008-09 financial crisis. The company has been successful at reducing leverage and improving operating performance during recent years, which has had a positive impact on our Solvency Score. At the end of June, total debt/total capital represented 20.2%, while net debt was 3.4% of capital, less than half the peak level reached in 2009. Similarly, debt/trailing 12-month EBITDA finished the June period at 1.2 times, representing a significant improvement from a peak of 3.6 times EBITDA in 2009. Operating measures have also improved. In the three years ended December, return on common equity was 9.0%, versus 6.6% reported in the three years ended 2009. Operating margin for the three years ended December was 29.2%, versus 27.8% in the three years ended 2010. Interest coverage improved to an average of 9.6 times EBITDA in the three years ended 2015, from an average of 6.6 times in the three years ended 2008. Coverage has improved further to 14.1 times in the trailing 12-month period ended June, and we expect further improvement to 29.5 times by the end of our 2020 forecast period. We may consider an upgrade if Janus achieves further progress in diversifying its strategies and delivery channels while maintaining or improving leverage and profit measures. Conversely, we may consider a downgrade if AUM outflows contribute to diminished scale and lower operating profits, or if returns leverage to 2 times EBITDA or above 25% of total capital. A lower Business Risk score resulting from diminished scale or loss of sustainable competitive advantages could also contribute to a lower credit rating.

### Affirming Viacom's Corporate Rating at BBB; Initiating Negative Outlook

Morningstar Credit Ratings is affirming our BBB corporate credit rating on Viacom and initiating a negative outlook. Our rating on Viacom is supported by the firm's globally positioned portfolio of widely known network TV brands, which produce solid affiliate fees and free cash flow generation. Morningstar, Inc. continues to assign Viacom a narrow moat, which it views as supported by high barriers to entry as well as Viacom's scale efficiencies in investing in new content. Media networks contribute over 80% of Viacom's revenue, with half of that sourced from advertising. Viacom operates two channels with extremely strong brands, Nickelodeon and MTV, as well as VH1, Comedy Central, and BET. The company also owns Paramount Studios.

In recent years, Viacom's operating performance has struggled as ratings for its major networks have declined. This has slowed growth in advertising, which still contributes a significant amount to Viacom's total revenue. Meanwhile, its balance sheet has become more leveraged as profitability has declined, with net debt ending the June quarter at 3.5 times EBITDA. Viacom's credit picture is also clouded by the recent management shakeup, which resulted in the firing of CEO Philippe Dauman by Viacom's largest shareholder, Sumner Redstone. Given disappointing operating performance and the recent management transition, we believe these factors are likely to remain an overhang on the credit for the foreseeable future and are reflected in our negative outlook. To address the company's challenges, the board of directors is formally exploring strategic alternatives, which ultimately may include a potential sale of an interest in Paramount, which has struggled to produce hits in recent years, or a remerger with former parent CBS (rating: BBB).

Viacom ended its June quarter with total debt of $12.4 billion, supported by cash and investments of $192 million. Cash has declined 54% from a year ago as a result of a 24% decline in free cash flow as well as elevated share-repurchase activity early last year. With net debt now at 3.5 times trailing EBITDA, management continued to hold off on its share-repurchase program in the latest quarter. Over the next 12 months, the company faces $1.4 billion of debt maturities, increasing the likelihood it will look to refinance a good portion of this amount. Longer term, Viacom's credit strength will probably depend on management's ability to stem ratings declines and reinvigorate its network brands to stabilize cash flow and pay down debt.

We project average annual revenue growth under 1% over the next five years and operating margins recovering to around 28% by 2020. However, without a concrete strategic plan to improve operations, we do not anticipate a scenario where we would upgrade the rating in the near future. We would probably downgrade the rating if operating conditions worsen from recent trends and management is not able to meaningfully reverse the recent upward trend in leverage or if a significant restructuring transaction is announced that we believe might increase long-term credit risk.

### Bristol-Myers Squibb's AA- Credit Rating Affirmed

We have affirmed Bristol-Myers Squibb's AA- rating based on the strong growth prospects of the firm's refreshed drug product portfolio and longstanding financial discipline. We have also assigned a stable outlook on the firm.

Bristol-Myers Squibb's wide moat, as assigned by Morningstar, Inc., is based in part on the company's patent-protected drug portfolio, which includes the highly promising cancer treatment Opdivo introduced in 2015. The immuno-oncology drug has demonstrated efficacy in a range of tumor types, alone or in combination with other pharmaceuticals, which has driven rapid uptake of the medicine and propelled sales to blockbuster status earlier this year. This solid growth plus strong demand for the firm's cardiovascular drug Eliquis may easily offset expected patent lapses of Baraclude, Reyataz, and Sustiva (collectively represented 22% of total revenue in 2015), leading us to estimate an acceleration of sales growth to around 9% compounded annually through 2020. Supported by the positive revenue trend, we anticipate that EBITDA will increase at one of the highest rates in the large pharmaceutical industry over the next five years. Operational success is very reliant on sustained growth of Opdivo and Eliquis after the company pared its corporate portfolio over the past few years to focus solely on specialty pharmaceuticals, which has increased concentration risk in our Business Pillar. However, our expectations are tempered by the recent disappointing study data on Opdivo in first-line lung cancer that showed lack of improvement in progression-free survival, which could damp growth prospects as Merck establishes Keytruda as the first mover in the large marketplace.

Bristol-Myers Squibb has demonstrated financial discipline over the past few years by reducing its debt load to maintain relatively steady leverage in light of compressed earnings generation during its patent cliff that included the firm's bestseller Abilify in 2014. The company had outstanding borrowings of $6.7 billion at the end of June compared with $8.3 billion in 2013, with yielded total debt leverage of 1.6 times and 2.2 times, respectively, in our estimation. Leverage improvement this year resulted mainly from accelerating EBITDA growth, which we expect to drive leverage further down over the next few years. Considering cash and investments of $7.9 billion at the end of June, the firm has remained in a net cash position since 2014. Bristol-Myers Squibb's light debt maturity schedule over the coming five years--consisting of $750 million due in 2017 and $500 million in 2019--can easily be managed by the current cash balance along with estimated annual free cash flow of more than $5 billion on average through 2020. Manageable debt and free cash flow strength favorably influences our Cash Flow Cushion, Solvency Score, and Distance to Default rating pillars. Priorities for cash are a healthy dividend stream ($2.5 billion for the 12 months ended in June) and small-scale asset purchasing that fill research portfolio gaps across the firm's six core therapeutic areas: immuno-oncology, cardiovascular conditions, fibrotic diseases, immunoscience, oncology, and genetic disorders. As cash flow strengthens through the medium term, we would not be surprised to see the company return to share repurchasing, given that $1.4 billion of share repurchases remained authorized by the board at the end of June.

Our stable outlook on Bristol-Myers Squibb's rating considers the potential of sustained strong sales growth bolstered by solid demand for Eliquis and Opdivo, balanced by recent disappointing study results on Opdivo in first-line lung cancer that showed lack of improvement in progression-free survival. This data gives an opportunity to the firm's current main competitor Merck's Keytruda to gain a considerable first mover advantage in the indication and may damp our expectations for Bristol-Myers Squibb's immuno-oncology franchise in the long run. If the indication could be addressed by other Opdivo combinations in development or if further supporting data is elucidated, we could gain more assurance of our estimates and potentially upgrade the rating by one notch. Conversely, a deviation from our operational performance estimates, most likely resulting from demand pressure on Opdivo or Eliquis, would stress our current rating. The AA- rating could also be pressured by large leveraging transactions, such as heavy business development or aggressive share repurchases that significantly stretch leverage for a sustained period.

**Affirming Legg Mason's Credit Rating at BBB; Higher Leverage Contributes to Negative Outlook**
Morningstar Credit Ratings is affirming its BBB credit rating on Legg Mason with a negative outlook. Legg Mason's credit rating is based on the firm's reasonably diverse asset mix and client base and

decent core profitability, offset by debt levels that have historically run higher than peers. Legg Mason's strong Business Risk score reflects the firm's above-average size and narrow economic moat as assigned by Morningstar, Inc., the positive effects of which are partially offset by cyclical operations. Legg Mason's Cash Flow Cushion score reflects the effect of higher interest payments and contingent obligations associated with recent acquisitions relative to available cash flow from operations and other liquidity sources. The negative outlook reflects additional debt incurred in early 2016 to fund acquisitions as well as declining profits during recent quarters.

At June 30, Legg Mason reported approximately $742 billion in assets under management, which gives it a scale advantage relative to most of its asset management peers. The company's product mix is fairly diverse, with 52% of AUM dedicated to fixed-income strategies, 22% in equities, 16% in liquidity strategies, and 10% in alternative strategies. Product distribution is weighted toward institutional investors (approximately 80% of AUM), which are stickier than retail clients. Legg Mason is also one of the more domestically focused asset managers, with 65% of its managed assets sourced from U.S.-domiciled clients with the remainder residing outside the United States. Recent acquisitions have increased AUM and product diversity but have contributed to higher debt levels and our negative outlook. Leverage has also risen significantly in the past year as a result of acquisition activity. By our calculations, debt/total capital ended the June quarter at over 35%, a substantial increase from 19% reported in the fiscal year ending March 2015. Similarly, gross debt/EBITDA finished June at over 5 times (4 times net debt) compared with 1.9 times during the year ending March 2015. Meanwhile, interest coverage was 7 times EBITDA over the past 12 months, compared with 10 times in the prior year. We expect the company to reduce this ratio to below 3 times by 2019 and also expect interest coverage to increase toward 9 times.

Our negative outlook implies that we are more likely to downgrade the company's credit rating than to upgrade during the next 12 months. Our current rating assumes steady improvement in leverage and coverage from here. We may consider a downgrade of our rating if management is unsuccessful at improving its credit metrics. We may also consider a downgrade if operating performance deteriorates meaningfully as a result of declines in AUM. In addition, a lower Business Risk score resulting from diminished scale or loss of sustainable competitive advantages could also contribute to a lower credit rating.

### Invesco's Credit Rating Affirmed; Initiating Stable Outlook

Morningstar Credit Ratings is affirming our A- credit rating on Invesco and initiating a stable outlook. Our rating reflects solid operating performance and greater product diversification since our previous review. These changes are reflected in good Business Risk and Solvency Score assessments. The company also maintains a solid Cash Flow Cushion, which is supported by no near-term debt maturities and solid cash flow generation. However, these positive attributes are partially offset by a history of relatively generous capital returns to shareholders.

Morningstar, Inc. assigns Invesco a narrow moat rating, supported by the firm's size and scale. With nearly $780 billion in assets under management at the end of June, Invesco has the size and scale necessary to remain competitive in the asset management industry. Invesco's assets under management remain well diversified across equity (45% of AUM), fixed-income (25%), balanced (6%), alternative (15%), and money market (9%) strategies. Product distribution is also fairly diverse, with 65% of AUM coming from retail investors and 35% from institutional clients. The company maintains a meaningful presence outside North America, with about 31% of AUM from Europe and Asia. Actively managed assignments represent 83% of AUM, while passive strategies constitute the remainder. In our opinion, Invesco's diversification by asset class, distribution channel, and geography leaves the firm with less revenue volatility and execution risk than its peers, a positive factor in our Business Risk assessment.

Sound competitive positioning and solid investment performance have contributed to good operating performance. In the three years ending in 2015, Invesco's average return on common equity was 11.7%, approximately 400 basis points higher than its average for the three years ended 2009. Meanwhile, operating margin has averaged 25.4% over the past three years, an improvement of 300 basis points compared with the three-year period ended 2009. Similarly, EBITDA interest coverage improved to an average of 21.2 times in the three years ended 2015 from an average of 11.4 times in the prior period. Meanwhile, leverage has remained modest, with debt/total capital representing 21.3% on a gross basis and 6.4% on a net basis as of June. Debt/trailing 12-month EBITDA finished the June period at 1.6 times, versus 1.9 times reported in 2010.

We may consider an upgrade to our rating if Invesco makes further progress diversifying its product and strategy mixes, particularly into institutional channels and passive strategies, while maintaining or improving leverage and profit measures. We may also consider a higher rating if management reduces capital returns to shareholders below 50% of free cash flow by the end of our forecast horizon. We may consider a downgrade if AUM outflows contribute to diminished scale and lower operating profits or return leverage to 2 times EBITDA or above 25% of total capital. We may also consider a lower rating if Invesco's Cash Flow Cushion comes under pressure from a significant and sustained increase in its shareholder payout ratio beyond recent levels or from a decline in cash balances.

### Agilent's Rating Affirmed at A- and Stable Outlook Initiated

We are affirming our A- credit rating for Agilent, which reflects the firm's attractive position in the life sciences business and light debt leverage. We are also initiating a stable outlook.

While we recognize its moderate size, Agilent earns a narrow economic moat assessment from Morningstar, Inc., which reinforces its solid Business Risk pillar along with its broad range of measurement technology and extensive geographic reach. We believe Agilent's sustainable competitive advantages relate primarily to its intangible assets and high customer switching costs. Agilent's tools are used by skilled scientists who face a significant learning curve to become proficient with its technology, which creates some resistance to switching once that curve is climbed. Also, users often utilize the same instruments to ensure sample protection and standardization while minimizing workflow disruptions. Additionally, extensive validation requirements in scientific research and regulatory guidelines among pharmaceutical customers help reinforce switching costs among technologies.

Agilent still operates with more cash on its balance sheet than it owes in debt, and that light leverage contributes to strong Cash Flow Cushion, Solvency Score, and Distance to Default pillars. At the end of

July, Agilent held $2.2 billion in cash compared with $1.9 billion in debt (2.0 times gross debt/adjusted EBITDA). With shareholders clamoring to get their hands on some of that cash, Agilent made plans in mid-2015 to boost returns to shareholders with proceeds from debt issuance. The firm aims to return at least 85% of its annual free cash flow ($682 million in the 12 months ended in July) to shareholders from fiscal 2016 to fiscal 2018. To fund these returns during this multiyear period, external financing appears necessary, and management expects to increase total debt by about $250 million annually through fiscal 2018. That expected increase in debt could boost gross debt/EBITDA by about one quarter of a turn, by our estimates.

Our stable outlook reflects that Agilent's credit profile probably will not change if leverage rises by that moderate level in the next couple of years. We would consider downgrading Agilent's credit rating if the firm's capital-allocation priorities change, though. For example, if the company decides to significantly reduce its cashlike assets relative to debt to return cash to shareholders or make acquisitions, our credit rating could fall. Our rating could fall if the firm's debt leverage rises to fund investment activities, such as acquisitions, too. If the company remains within its current capital-allocation plans, though, we do not expect to change our rating in the foreseeable future. Given the company's already very light leverage, we think Agilent's credit rating could be upgraded if its Business Risk pillar improves, which would probably require an increase in size or moat. We see the potential for Agilent to grow enough to deserve an upgrade in the next five years, but that is too long of a time frame to be reflected in a positive outlook. A moat rating improvement may take even longer. Therefore, we think an upgrade is unlikely in the next couple of years.

### We Are Affirming Thermo Fisher's Rating at BBB and Initiating a Stable Outlook

We are affirming our BBB credit rating for Thermo Fisher Scientific, which reflects the firm's advantages in life sciences and relatively high debt leverage. We are also initiating a stable outlook.

Thermo Fisher's aggressive capital-allocation strategy constrains its credit rating and affects all of the firm's pillars. The company scores moderately on our Business Risk pillar. The positive factors of its large size, relatively diverse operations, and narrow moat assessment from Morningstar, Inc. are muted by its aggressive merger and acquisition strategy, which creates substantial event risk for creditors, in our opinion. As the firm is the largest supplier of research instruments and consumables, we still view Thermo's business as attractive, owing largely to scale advantages. The company provides a wide breadth of life science products, including scientific instruments, lab equipment, software, and services through large manufacturing, sales, and distribution operations. Thermo assembled its advantages and broad product set through the merger of Thermo and Fisher, followed by the Phadia, Dionex, Life, Affymetrix, and FEI acquisitions, among others. While we recognize that the firm's M&A strategy has contributed to its market-leading position in life sciences, this strategy has also led to elevated debt leverage, which contributes to its relatively weak Cash Flow Cushion pillar and constrained Solvency Score and Distance to Default pillars. At the beginning of July, the company owed $14 billion of debt, or debt/EBITDA of about 3.2 times on a trailing 12-month basis, and held only $663 million of cash on its balance sheet, leading to net leverage of 3.1 times. However, the recent financing of the $4.2 billion FEI acquisition has increased leverage by about half a turn by our estimates. While the firm is still below its leverage ceiling of 4.5 times, we believe Thermo's debt-funded acquisition strategy creates risk for creditors. Given this, although the company should be able to easily deleverage to its long-term gross debt/EBITDA target of 3.0 times, we wouldn't expect it to stay at that target leverage for long, especially if acquisition opportunities arise or shareholder returns are prioritized.

While our outlook for Thermo Fisher is stable, we would consider upgrading our rating for the firm if it adopts a more conservative capital-allocation strategy that allows for sustainable deleveraging below its current target of 3.0 times. Deleveraging could boost our Cash Flow Cushion, Solvency Score, and Distance to Default pillars in the long run. Our rating could fall in a variety of scenarios. If debt rises or profitability erodes to push leverage toward about 4 times for an extended period, Thermo's Cash Flow Cushion and Solvency Scores could weaken enough for us to downgrade our rating. A downgrade is also possible if the firm's advantages in the life sciences business decline enough to cut into our Business Risk pillar.

## Recent Notes Published by Credit Analysts

### Shire Issuing New Debt to Permanently Fund Baxalta Acquisition

Market News and Data

Shire (rating: BBB-) is in the market with a new benchmark-size multitranche debt offering consisting of 3-, 5-, 7-, and 10-year bonds. Proceeds will be used for general corporate purposes, including paying down $12 billion in borrowings against a bridge facility used for the Baxalta (not rated) acquisition that was completed on June 3. Given Shire's sole reliance on bank financing so far, we look at Baxalta's bonds as a proxy for Shire's new debt. Baxalta's existing bonds recently traded as follows over the nearest Treasury: 3.6% senior notes due in 2022 at +140 basis points and 4.0% senior notes due in 2025 at +164 basis points. For comparison, Mylan's (rating: BBB-) bonds recently traded wider than Baxalta's bonds as follows over the nearest Treasury: 2020s at +146 basis points and 2026s at +215 basis points. Allergan's (rating: BBB-) bonds traded tighter than Baxalta's bonds as follows over the nearest Treasury: 2020s at +105 basis points, 2022s at +125 basis points, and 2025s at +158 basis points. For comparison for the 10-year issues, the Morningstar BBB- Index is currently at a spread of +224 basis points.

MCR Credit Risk Assessment

On June 16, we initiated a credit rating of BBB- for Shire that reflects the aggressive use of its balance sheet to transform into a top-tier developer of rare-disease treatments, most recently evident with the $32 billion purchase of Baxalta. Evolving from historical strength in specialty medicines, most notably in ADHD that represented approximately one third of revenue in 2015, Shire has established a leading position in rare diseases, with around 65% of combined pro forma sales from the treatment area, propelled by aggressive acquisitions that totaled nearly $48 billion since 2014. Resulting from these activities, Shire's current debt level and net leverage (net debt/EBITDA) rocketed to about $25 billion and nearly 5 times, respectively, from nothing in 2013. We are skeptical that Shire management will reach its net leverage goal of 2 to 3 times over the next 12-18 months considering the company keeps an open eye toward purchasing niche treatments to fill its medicine chest. We anticipate net leverage at the high end or above the company's target at the end of 2017, which is reflected in our BBB- rating. Like Shire, Mylan and Allergan undertake aggressive business development strategies and have consummated leveraging transactions in the past year or so that have driven leverage over internal targets. Allergan operates as a strong BBB- credit.

### Air Liquide Is Offering a Multitranche Deal to Repay Its Airgas Acquisition Bridge Loan

Market News and Data

Air Liquide (rating: BBB+) is reportedly in the market this morning, Sept. 22, offering $4.5 billion of 3-, 5-, 7-, 10-, and 30-year senior unsecured notes. The firm is using the proceeds to help repay the bridge loan associated with its May 2016 purchase of Airgas, from which Air Liquide has assumed all of Airgas' EUR 2.1 billion of outstanding debt.

In the short-term area, the following spreads are over the nearest Treasury and provided by pricing service Advantage Data:

Airgas' (not rated) 3.05% notes due 2020 are indicated at +118 basis points.

Praxair's (rating: A-) 4.05% notes due 2021 are indicated at +54 basis points.

Air Products' (rating: A-) 3.0% note due 2021 recently traded at +35 basis points.

In the intermediate-term area, the following spreads are over the nearest Treasury and provided by pricing service Advantage Data:
Airgas' (not rated) 3.65% notes due 2024 are indicated at +140 basis points.
Praxair's (rating: A-) 3.20% notes due 2026 recently traded at +78 basis points.
Air Products' (rating: A-) 3.35% notes due 2024 recently traded at +72 basis points.
Morningstar Industrials A- Corporate Bond Index +117 basis points.
Morningstar Industrials BBB+ Corporate Bond Index +143 basis points.

MCR Credit Risk Assessment
We downgraded Air Liquide in July one notch to BBB+ as a result of the Airgas acquisition. The acquisition increased total debt to EUR 19.2 billion from EUR 8.2 billion, boosting leverage to 3.5 times from 1.9 times, by our estimates. We think the strategic merits of creating a fully integrated industrial gas company in the United States make sense and suspect that Air Liquide can achieve EUR 300 million in annual synergies. As such, we foresee stable deleveraging to 2.2 times over our forecast period. We view Air Products as the closest competitor, as Morningstar, Inc. assigns both Air Products and Air Liquide narrow economic moat ratings whereas it assigns Praxair a wide moat rating. Still, Air Products has improved profitability meaningfully over the past few years, which has helped leverage contract to 1.9 times as of June 30, 2016, compared with 2.4 times as of Sept. 30, 2014. Although Praxair benefits from its stronger Business Risk, its leverage has trended in the opposite direction and is up to 2.9 times as of June 30, 2016.

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