Morningstar Corporate Credit Research Highlights
Corporate Credit Spreads Unchanged

Morningstar Credit Ratings, LLC
21 May 2018

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Credit Rating Actions

- Rating Changes

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Mallinckrodt **MNK**	B+	BB-

- Rating Affirmations

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Rockwell Automation **ROK**	A	A
Roper Technologies **ROP**	BBB	BBB

Recent Notes Published by Credit Analysts

- **Canadian Pacific** (BBB+, Stable) Issuing New 10-Year Bonds
- **Zoetis** (BBB+, Positive) Acquiring Veterinary Diagnostics Developer Abaxis; Credit Rating Unaffected
- **Valeant** (B-, Negative) Issuing $750 Million of New Unsecured Notes to Refinance Existing Debt
- **Valero Energy** (BBB+, Stable) Issuing New Unsecured 10-Year Notes to Refinance Existing Debt

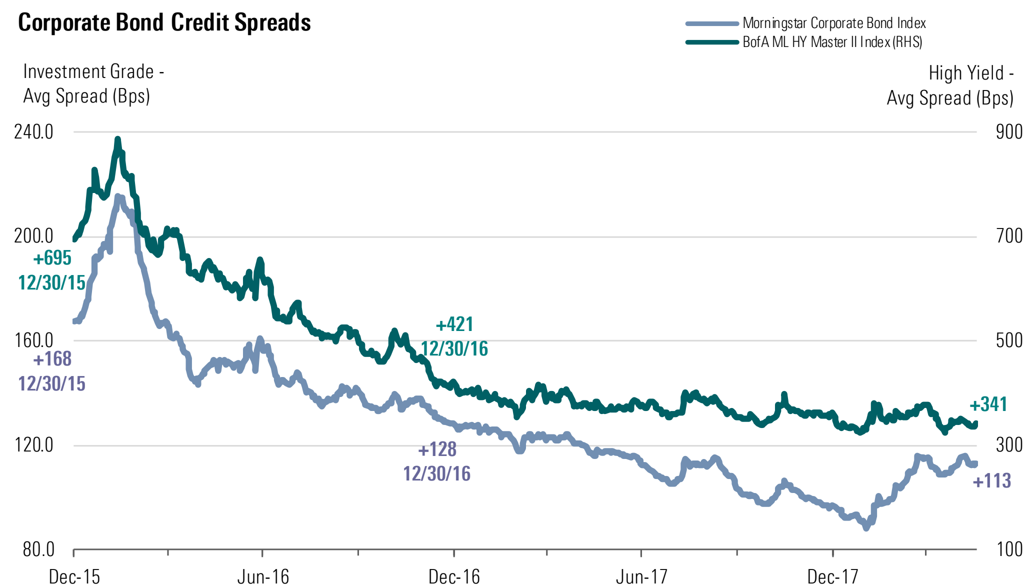
Credit Market Insights

Corporate Credit Spreads Unchanged

The corporate bond market tried to rebound two weeks ago but was unable to maintain positive momentum in the face of the persistent increase in interest rates and robust new issue supply. The average credit spread of the Morningstar Corporate Bond Index ended the week at +113, unchanged from the prior week. In the high-yield market, the average spread of the BofA Merrill Lynch High Yield Master Index widened only 1 basis point to +341. While institutional investors have continued to put money to work in the corporate bond market, the amount of new supply brought to market has been enough to satiate this demand. Although economic conditions remain steady, which typically provides a tailwind for corporate bond credit spreads, investors have been unwilling to pay up for corporate bonds in the face of rising interest rates.

Rising interest rates have pushed prices down on fixed-income securities thus far this year, and all of Morningstar's main fixed-income indexes are in the red. For example, through May 18, the Morningstar US Core Bond Index (our broadest measure of the fixed-income universe) has fallen 2.78% and the Morningstar US Government Bond Index has declined 2.50%. In the investment-grade corporate bond market, returns have been further pressured as corporate credit spreads have widened 17 basis points since the end of last year, resulting in a decline of 3.75% in the Morningstar Corporate Bond Index. However, with its shorter durations and greater sensitivity to economic conditions, the high-yield market has outperformed other fixed-income indexes to the downside as the BofA Merrill Lynch High Yield Master Index has fallen only 0.25%. Among other assets, the equity market pulled back slightly last week as the S&P 500 declined 0.54% but for the year has risen 1.47%.

Corporate Bond Credit Spreads



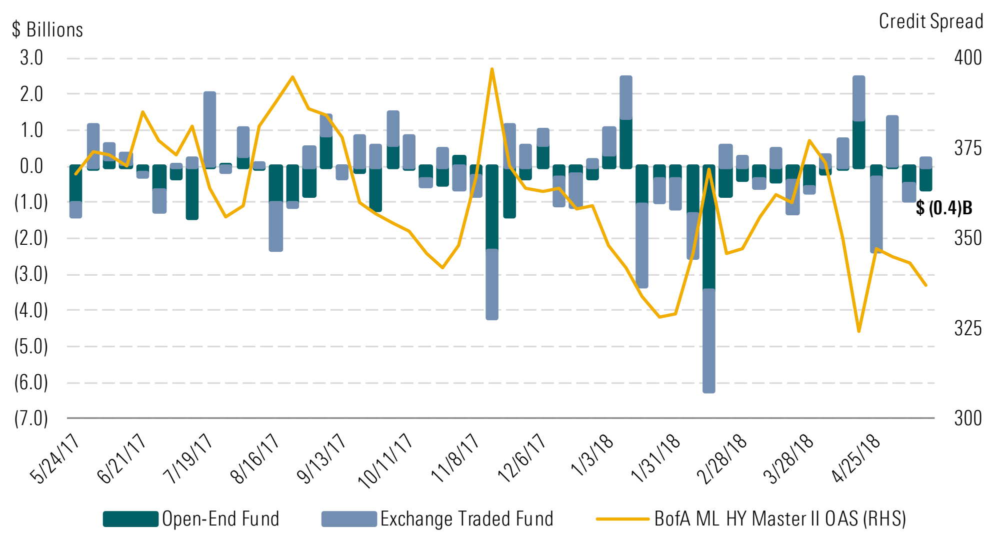
Source: Morningstar,Inc., BofA Merrill Lynch Global Indexes. Data as of 5/18/2018.

Interest rates continued their march higher as the entire yield curve rose and steepened last week. On the shorter end of the curve, the yield on the 2-year Treasury bond rose 2 basis points to 2.55%, and in the belly of the curve, the yield on the 5-year Treasury bond rose 5 basis points to 2.89%. Yields on the longer end of the curve rose much faster as economic and inflation data came in hotter than expected. After failing several times to break through the psychological hurdle rate of 3%, the yield on the 10-year rose 9 basis points to end the week at 3.06%. This is the highest yield the 10-year Treasury has traded at since September 2011. At the longest end of the curve, the yield on the 30-year bond increased 10 basis points to 3.20%. Since the end of the year, interest rates have risen significantly as the 2-year, 5-year, 10-year, and 30-year bonds have risen 67, 68, 65, and 46 basis points, respectively.

Weekly High-Yield Fund Flows

Fund flows in the high-yield sector experienced a net outflow of $0.4 billion last week. While there was net unit creation of $0.2 billion in high-yield exchange-traded funds, this was more than offset by an outflow of $0.6 billion across open-end high-yield mutual funds. Year to date through May 16, there has been a total of $12.6 billion of outflows across the high-yield sector, consisting of $8.2 billion of outflows in open-end high-yield mutual funds and $4.4 billion of net unit redemptions in high-yield ETFs.

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 May 18, 2018

(000,000s $ unless otherwise noted)

Issuer			Issue				
Name	Ticker	Morningstar Corporate Rating[1]	Size	Coupon	Description	Maturity	Approx Spread to US Treasuries
American Tower	AMT	BBB	€ 500	1.95%	Senior Unsecured	2026	+166[2]
Canadian Pacific Railway	CP	BBB+	$500	4.00%	Senior Unsecured	2028	+102
Charles Schwab	SCHW	A+	$600	L+32	Senior Unsecured	2021	NA
Charles Schwab	SCHW	A+	$600	3.25%	Senior Unsecured	2021	+50
Charles Schwab	SCHW	A+	$750	3.85%	Senior Unsecured	2025	+80
Diageo Finance PLC	DEO	A-[1]	$500	L+24	Senior Unsecured	2020	NA
Diageo Finance PLC	DEO	A-[1]	$500	3.00%	Senior Unsecured	2020	+45
Diageo Finance PLC	DEO	A-[1]	$500	3.50%	Senior Unsecured	2023	+63
Diageo Finance PLC	DEO	A-[1]	$500	3.875%	Senior Unsecured	2028	+85
Fidelity National Information Services	FIS	BBB	$400	4.25%	Senior Unsecured	2028	+130
Fidelity National Information Services	FIS	BBB	$600	4.75%	Senior Unsecured	2048	+175
GlaxoSmithKline	GSK	A	€ 750	Euribor+20	Senior Unsecured	2020	NA
GlaxoSmithKline	GSK	A	€ 1,000	1.25%	Senior Unsecured	2026	+45[2]
GlaxoSmithKline	GSK	A	€ 750	1.75%	Senior Unsecured	2030	+57[2]
Valeant Pharmaceuticals	VRX	B-	$750	8.50%	Senior Unsecured	2027	+538
Valero Energy	VLO	BBB+	$750	4.35%	Senior Unsecured	2028	+125

Source: Bloomberg, company Securities and Exchange Commission filings.

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

(2) Spread over midswaps.

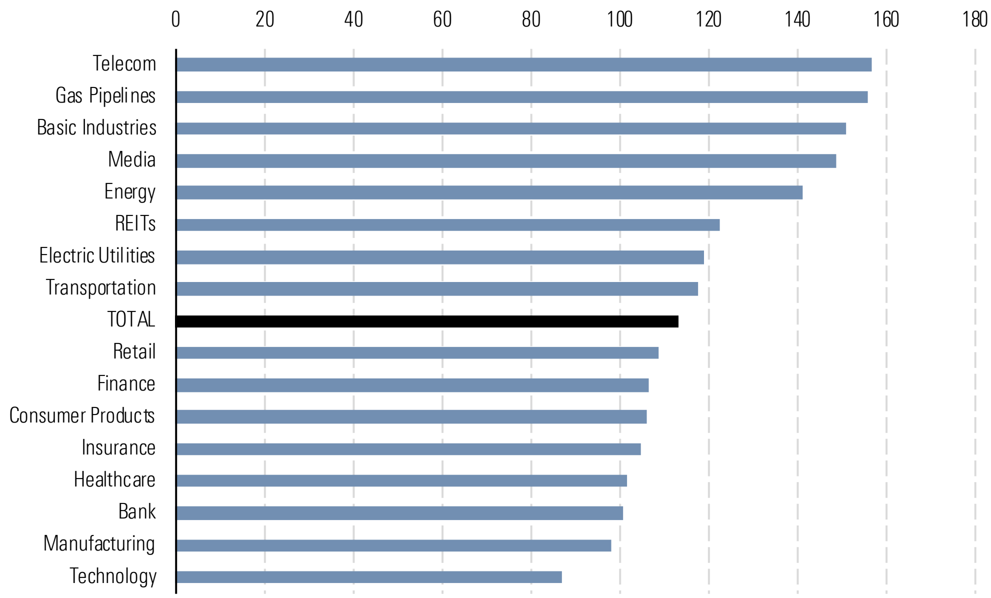
Exhibit 2 Morningstar Corporate Bond Index Sector Summary

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-**	**5,016**	**6.8**	**113**	**1**	**17**	**(0.55)**	**(3.75)**
FINANCIAL	**A-**	**1,482**	**5.3**	**103**	**(0)**	**19**	**(0.30)**	**(3.06)**
Bank	A-	901	4.8	101	(1)	20	(0.25)	(2.77)
Finance	A	265	5.6	106	(1)	19	(0.22)	(3.34)
Insurance	A	221	7.8	105	1	19	(0.66)	(4.33)
REITs	BBB+	86	5.9	122	2	18	(0.49)	(3.56)
INDUSTRIAL	**A-**	**2,916**	**7.5**	**117**	**1**	**16**	**(0.65)**	**(4.06)**
Basic Industries	BBB	236	7.6	151	5	22	(0.90)	(4.45)
Consumer Products	A-	337	7.5	106	3	22	(0.67)	(4.64)
Energy	A-	409	7.3	141	4	19	(0.63)	(3.64)
Healthcare	A-	406	7.6	101	(1)	13	(0.52)	(4.45)
Manufacturing	A-	459	5.9	98	0	17	(0.48)	(3.43)
Media	BBB+	188	8.3	149	9	19	(1.29)	(4.95)
Retail	A-	161	7.7	109	0	22	(0.60)	(4.40)
Technology	A+	357	7.2	87	(2)	10	(0.28)	(3.51)
Telecom	BBB+	151	8.9	157	(1)	14	(1.06)	(3.62)
Transportation	BBB+	158	8.8	118	4	20	(0.99)	(5.17)
UTILITY	**BBB+**	**579**	**8.5**	**135**	**2**	**15**	**(0.88)**	**(4.46)**
Electric Utilities	A-	335	9.0	119	3	16	(1.03)	(4.91)
Gas Pipelines	BBB	231	7.8	156	1	12	(0.67)	(3.73)
Rating Bucket								
AAA Bucket		114	7.9	53	(3)	5	(0.32)	(3.81)
AA Bucket		464	5.6	66	(2)	8	(0.28)	(2.68)
A Bucket		1,974	6.8	91	(0)	18	(0.48)	(3.83)
BBB Bucket		2,464	7.1	146	3	19	(0.68)	(3.89)
Term Bucket								
1-4	A-	1,610	2.3	70	(1)	12	0.02	(0.60)
4-7	A-	1,160	4.7	101	1	22	(0.29)	(2.58)
7-10	A-	924	7.0	128	1	22	(0.65)	(4.42)
10PLUS	A-	1,322	13.6	163	2	18	(1.34)	(7.55)

Data as of 05/18/2018

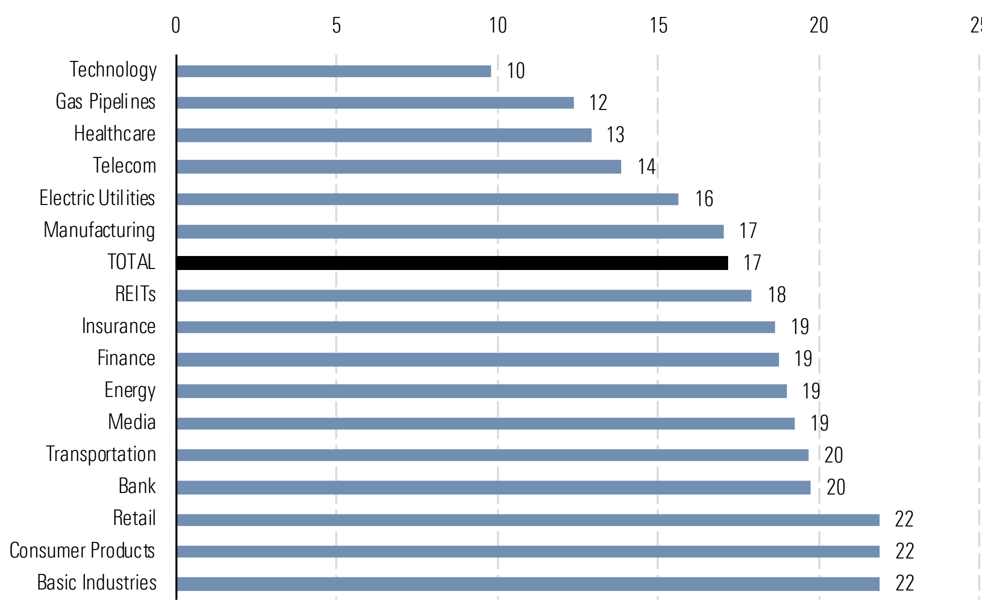
Source: Morningstar, Inc.

Exhibit 3 Morningstar Corporate Bond Index Spread by Sector



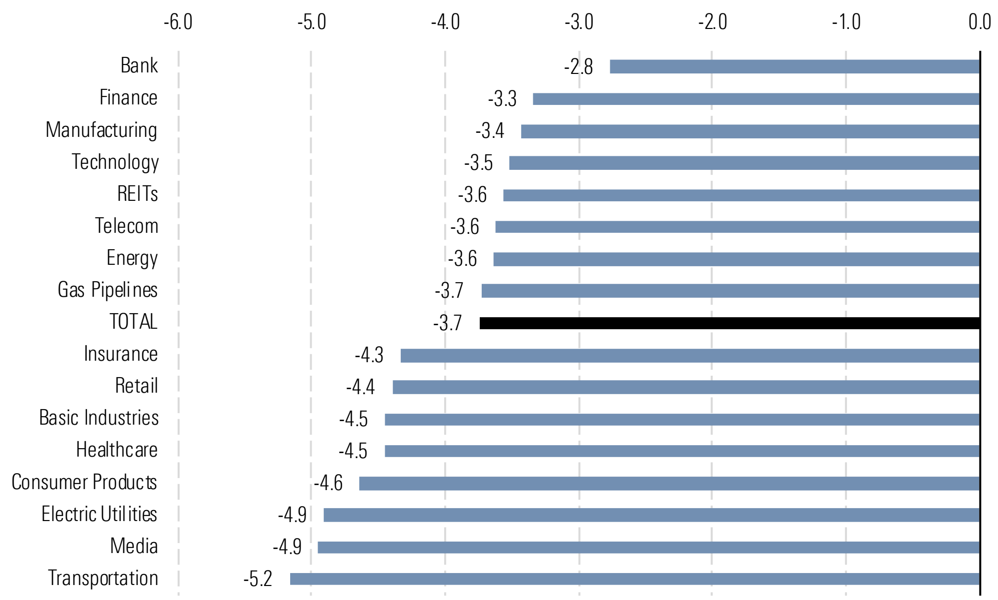
Source: Morningstar, Inc.

Exhibit 4 Morningstar Corporate Bond Index YTD Spread Change



Source: Morningstar, Inc.

Exhibit 5 Morningstar Corporate Bond Index YTD Return



Source: Morningstar, Inc.

Credit Rating Actions

Rating Changes

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Mallinckrodt **MNK**	B+	BB-

Rating Affirmations

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Rockwell Automation **ROK**	A	A
Roper Technologies **ROP**	BBB	BBB

Mallinckrodt's Rating Downgraded One Notch to B+; Outlook Stable

Morningstar Credit Ratings, LLC is downgrading Mallinckrodt's credit rating to B+ from BB- to reflect significant operational pressure from the company's transformation into an innovative specialty medicine firm, heavy reliance on its best-seller Acthar Gel, and high financial leverage from an inflated debt load coupled with earnings compression.

Mallinckrodt's transformation efforts have included sizable corporate pruning over the past two years, culminating with the discontinuation of the specialty generics business in 2018. This has resulted in specialty drugs as the only source of profitability, including substantial reliance on Acthar (about 43% of total revenue). Underperformance of this medicine led to a dramatic fall in the firm's equity cushion over the last year, pushing the Distance to Default pillar into very weak territory. Acthar (19 disease states) and top-selling medicines, Inomax (respiratory failure) and Ofirmev (acute pain) together represent 81% of overall revenue. This concentration and the firm's smaller size after divestitures contribute to very high Business Risk. Mallinckrodt is actively establishing evidence of clinical efficacy via post-marketing studies to bolster growth prospects for Acthar, while building research expertise in core therapeutic areas. A recent setback for the firm's most advanced drug project, stannsoporfin (neonatal hyperbilirubinemia), has left VTS-270 (from Sucampo, Niemann-Pick disease type C) as the closest candidate with an expected launch in 2019. The firm has additional late-stage projects that are estimated to launch in 2020: terlipressin (hepatorenal syndrome), StrataGraft (severe burns), inhaled xenon gas (post-cardiac arrest), and CPP-1x/sulindac (also from Sucampo, familial adenomatous polyposis). With commercial and research portfolios from Sucampo, we still forecast revenue and EBITDA to fall double digits compounded annually in 2017-22. Given limited near-term internal opportunities, the firm may seek further debt-funded acquisitions to expand its drug portfolio and offset potential U.S. patent losses of Amitiza (irritable bowel syndrome) in 2020 and Ofirmev in 2021. If substantial, these activities could stretch the balance sheet and degrade currently moderate Cash Flow Cushion and weak Solvency Score pillars.

Mallinckrodt has built its presence in the specialty drug market mainly through active business development since its spinout from Covidien in 2013, as shown by its recent acquisition of Sucampo for $1.2 billion. We expect the firm to rapidly reduce new debt used for this purchase, given its record of quickly repairing its balance sheet after leveraging transactions. As of March 31, total debt was $6.8 billion ($2.2 billion of secured term loans due in 2024-25, $625 million of secured revolver borrowings,

$220 million of receivables securitization, and about $3.8 billion of unsecured notes), up from $5.8 billion on Sept. 30, 2017, due to Sucampo financing. Total debt leverage was 5.5 times EBITDA for the trailing 12 months ended March 31 compared with 4.3 times for the trailing 12 months ended Sept. 30, 2017. With $512 million of cash on hand, net leverage was 5.1 times for the latest 12 months ended March 31. The firm repaid maturing unsecured notes in April ($300 million), leaving the next significant debt maturities as $700 million of 4.88% unsecured notes due in April 2020 and $900 million of unsecured notes due in August 2022. Mallinckrodt can easily manage this well-laddered maturity schedule through 2022 with free cash flow that we see averaging more than $500 million over this time. Additional liquidity is provided by partial availability of a $900 million five-year revolving credit facility maturing February 2022 and a $250 million receivables securitization program due July 2020. The lone financial covenant in the bank agreements are a maximum net leverage metric (5 times or below) applicable to its revolver only.

Despite debt reduction as its highest priority for capital deployment in 2018, Mallinckrodt repurchased about $47 million of shares in the first quarter. We think the firm will need to direct most of its free cash flow to easing its debt load to improve its credit position over the next two years. But these efforts may be jeopardized by the firm's intentions to supplement its product offering and research pipeline with external assets while repurchasing shares.

If Mallinckrodt can successfully execute its operating strategy of building strength as a specialty drug innovator while maintaining strong margins, such that our Cash Flow Cushion strengthens, then a rating upgrade may be warranted. At the same time, the firm will need to better its financial position, which would ease present strain on our Solvency Score and Distance to Default pillars. Significant underperformance from key specialty drugs—Acthar Gel, Inomax, Amitiza, and Ofirmev—such that our Cash Flow Cushion erodes could lead to a downgrade. Also, sizable debt-funded business development that places stress on an already-stretched balance sheet may pressure our Cash Flow Cushion and Solvency Score pillars such that a downgrade may be appropriate.

Rockwell Automation's A Rating Affirmed With Stable Outlook

Morningstar Credit Ratings, LLC is affirming its A corporate credit rating on Rockwell Automation Inc. Our rating incorporates Rockwell's superior business quality and strong credit profile, offset slightly by its capital-allocation priorities. Rockwell will redeploy the majority of its excess cash over the next 18-24 months in the form of increased share repurchases and mergers and acquisitions as a result of U.S. tax reform. Although we think these moves are likely to leave Rockwell in a net debt position versus its net cash position today, we think they will have overall negligible impact on its credit profile. As a result, we expect our rating to remain at the current level and are affirming our stable outlook.

Our A credit rating balances Rockwell Automation's strong competitive position and enviable financial returns with its desire to pursue acquisitions and return cash to shareholders. Rockwell is a leading automation solutions provider with its Logix platform that controls both discrete and process manufacturing. Automation systems have long useful lives, and the potential opportunity cost of factory downtime makes customers reluctant to change vendors. This dynamic has helped Rockwell Automation earn a wide economic moat from Morningstar's Equity Research Group that supports its Business Risk. Rockwell sells to myriad customers, but it is engaged primarily in industrial end markets; this limited scope hurts its customer concentration and cyclicality scores. Rockwell Automation has monetized its competitive advantage into enviable returns on invested capital. Although its retirement benefits liability hurts its total liabilities/total assets ratio, its low cost of debt funding boosts the interest coverage ratio and produces a strong Solvency Score. Rockwell's Cash Flow Cushion is constrained by management's plans to use acquisitions to boost growth by at least 1 percentage point, along with its intention to repurchase $1.2 billion in shares in 2018 and increase its $420 million annual dividend with earnings. The company faces one meaningful maturity of $300 million due over the next five years.

We assign Rockwell a stable outlook. Rockwell is already targeting to boost inorganic growth by around 1 percentage point per year, but noted its pipeline includes larger deals that could require incremental leverage. Still, gross leverage of 1.2 times and its net cash position indicate the company has meaningful capacity. Should Rockwell permanently reduce leverage, then we would expect a possible ratings upgrade. The reduction in debt would help the interest coverage and total liabilities/total assets metrics that could cause a boost in its possible boost in its forward-looking Solvency Score. However, our rating could come under pressure if Rockwell pursues a transformative acquisition that requires it to incur a material amount of incremental debt. In this situation, we would expect a deterioration in every pillar except for Business Risk, which could lead to a downgrade.

Roper Technologies' BBB Rating Affirmed With Stable Outlook

Morningstar Credit Ratings, LLC is affirming its BBB corporate credit rating on Roper Technologies, Inc. Our rating incorporates Roper's impressive business model and financial returns, offset by its acquisitive nature. Since our previous update, Roper has delivered strong operating performance and cash flow generation that has enabled management to repay $1.2 billion in outstanding debt. This has helped gross leverage contract 1.0 turn to 2.8 times; it is now within the company's targeted range. Still, we are assigning the company a stable outlook, as we think management's commentary on an abundance of M&A opportunities is likely to result in higher leverage.

Our BBB rating balances Roper's strong competitive position and impressive financial results with its proclivity for acquisitions. Roper has grown by acquiring companies with leading positions in niche markets, including devices for reading water meters and radio frequency identification tags for highway toll systems. Roper homes in on businesses with high cash returns on investment, low capital expenditures, and minimal working capital. This stringent focus has enabled it to garner a narrow economic moat from Morningstar's Equity Research Group. Roper generates more than 50% of its business from recurring revenue sources—subscription, consumables, and replacement parts—helping to alleviate its cyclicality, despite energy representing around 10% of the portfolio. These factors support its moderate Business Risk pillar. Roper has monetized its competitive position into strong returns on invested capital, along with its low working-capital requirements, leading to its strong Solvency Score. Roper grows via debt-funded acquisitions, and that ongoing event risk detracts slightly from its overall rating. Debt maturities are sizable over the next five years, totaling $4.2 billion; combined with its $142 million annual dividend, we expect it to consume more in acquisitions and shareholder returns than its free cash flow, which constrains its Cash Flow Cushion.

We expect that our rating will stay at the current level. Roper has delivered on its plan to reduce leverage following its Deltek acquisition, and the company's stand-alone creditworthiness is arguably stronger than its current rating suggests. However, management is now targeting to spend at least $7 billion on deals over the next four years on deals and noted the pipeline remains active. Thus, our rating takes into account future unannounced M&A spending. Should we gain more comfort in management's acquisition-heavy stance and see a sustainable improvement in financial returns then we could envision an upgrade, as this would benefit the Solvency score. Conversely, we think a rating downgrade is possible if management instead increases leverage for a sustainable period, possibly as a consequence of a bad acquisition. We'd expect the added leverage to hurt the Cash Flow Cushion score, while the subpar returns would also constrain the Solvency Score.

Recent Notes Published by Credit Analysts

Canadian Pacific (BBB+, Stable) Issuing New 10-Year Bonds

Market Data

Canadian Pacific Railway Ltd (BBB+, stable) is reportedly in the market with a new $500 million, 10-year offering. The preliminary prospectus indicates that the company will use the proceeds to refinance its outstanding debt; it had a $345 million bond maturing in May and a CAD 375 million one maturing in June.

According to pricing service Interactive Data, bonds with similar maturities for Canadian Pacific and key comparables are indicated over the nearest Treasury as follows:

The Canadian Pacific 3.70% notes due 2026 are indicated at +116 basis points.
The CSX (BBB+, stable) 3.80% notes due 2028 are indicated at +116 basis points.
The Norfolk Southern (BBB+, stable) 3.15% notes due 2027 are indicated at +100 basis points.
The Kansas City Southern (BBB, stable) 3.125% notes due 2026 are indicated at +137 basis points.
The BBB rated tranche of the Morningstar Corporate Bond Index is currently at +145 basis points.

MCR Credit Risk Assessment

Our BBB+ credit rating on Canadian Pacific Railway reflects the company's favorable Business Risk score, offset by elevated but improving leverage and substantial capital expenditure requirements. Canadian Pacific owns assets that are difficult to reproduce and have enabled it to earn a wide economic moat assessment from Morningstar's Equity Research Group, which supports our Business Risk score. Canadian Pacific has substantially improved its profitability over the years, helping to increase its returns on invested capital. However, leverage remains elevated from activist prodding in its recent past due to a failed acquisition attempt and debt-financed repurchases, and this affects its near-term total liabilities/total assets and interest coverage ratios.

We compare Canadian Pacific with rails CSX, Norfolk Southern, and Kansas City Southern. Canadian Pacific's rent-adjusted leverage of 2.6 times is roughly in line with its peers' leverage. Canadian Pacific's operating ratio has historically averaged at least 500 percentage points better than the aforementioned firms', but Canadian Pacific's weak first-quarter results saw this advantage disappear.

Canadian Pacific reported mixed first-quarter results last month, as difficult weather was in part to blame for the dent in profitability. Overall, revenue grew 4% versus the same period last year, driven by a 4% increase in carloads. However, profitability suffered, with the adjusted operating ratio worsening 190 basis points to 67.5%. Still, free cash flow generation improved year over year, and the company ended the quarter with gross leverage of 2.6 times, mostly unchanged from the end of 2017.

Zoetis (BBB+, Positive) Acquiring Veterinary Diagnostics Developer Abaxis; Credit Rating Unaffected

MCR Credit Risk Assessment

On May 16, Zoetis (BBB+, positive) announced its intention to acquire point-of-care veterinary diagnostics firm Abaxis (not rated) for $83 per share, or approximately $2.0 billion. The transaction is expected to be finalized by the end of 2018 and will be financed with a combination of cash and incremental debt. Given its solid financial position, with cash of $1.7 billion on March 31, and gross leverage below its target of 2.5-3.0 times, we see Zoetis having ample flexibility to consummate the deal without detrimental impact to the current BBB+ rating and positive outlook.

The acquisition of Abaxis brings in an established product portfolio of point-of-care diagnostic instruments and associated consumables catering to the animal health industry, including the VetScan franchise of benchtop and handheld analyzers. This portfolio generated around $245 million in sales for Abaxis' fiscal year ended March 31, of which 78% were derived from an annuity stream of consumables. Before the announcement, Zoetis had already dropped gross leverage to 2.4 times for the latest 12 months ending March 31, which fell below its preferred leverage range. So, Zoetis' credit profile may remain strong even if the firm uses debt to fully fund the acquisition, which we think would drive gross leverage to the top of its target. Nonetheless, our leverage-based pillars—Cash Flow Cushion and Solvency Score—would stay consistent, at the least, despite the increased debt balance.

We suspect that after gross debt rises to consummate the transaction, the level may hold steady over the next couple of years as the next long-term debt maturity arises in November 2020 ($500 million of 3.45% senior notes). As such, rising EBITDA should be the primary driver of leverage improvement back to the current level in the intermediate term, in our estimation, which informs our positive outlook. We think that Zoetis' portfolio alone may drive revenue that parallels industry growth in the midsingle digits compounded annually through 2022 via sustained demand for newer companion animal treatments—canine atopic dermatitis medicines Apoquel (oral) and Cytopoint (injection), flea and tick preventer Simparica, and canine calming drug Sileo. This growth rate is modestly bolstered by the addition of Abaxis' diagnostic instrument and services offering. We see this long-term revenue growth along with the firm's proven ability to contain costs boosting EBITDA in the high single digits compounded annually through 2022, in our estimation. Financial flexibility is provided by expected free cash flow generation averaging more than $1.2 billion annually during the next five years, its cash and investments, and full availability under a $1 billion revolving credit agreement due in December 2022.

Market Data

For best comparisons with Zoetis' notes, we look to similar-rated Merck KGaA (BBB+, positive) and AbbVie Inc. (BBB+, negative). Within this comparable group and adjusted for bond maturities, Zoetis' bonds due in 2025 recently traded tighter to those at AbbVie and closest to those at Merck KGaA. Zoetis' bonds also traded much tighter than the level of the BBB+ Morningstar Corporate Bond Index. All the following bond data is sourced from Interactive Data.

In the approximate 5-year maturity bucket, bonds from these issuers recently traded over the nearest Treasury as follows:
Zoetis' 3.25% notes due 2023 at +77 basis points.
Merck KGaA's 2.95% notes due 2022 at +84 basis points.
AbbVie's 2.90% notes due 2022 at +83 basis points.

In the approximate 7-year area, bonds from these issuers recently traded over the nearest Treasury as follows:
Zoetis' 4.50% notes due 2025 at +98 basis points.
Merck KGaA's 3.25% notes due 2025 at +96 basis points.
AbbVie's 3.20% notes due 2026 at +122 basis points.
For comparison to the intermediate maturities, the Morningstar Corporate Bond Index is at +137 basis points in the BBB+ category.

Valeant (B-, Negative) Issuing $750 Million of New Unsecured Notes to Refinance Existing Debt
Market Data
Valeant Pharmaceuticals International, Inc. (B-, negative) is in the market with a proposed offering of $750 million in unsecured senior notes maturing in 2027. According to the May 10 press release, net proceeds will be used to refinance outstanding Term B loans and redeem 5.375% senior notes due 2020, 6.375% senior notes due 2020, 6.75% senior notes due 2021, and 7.25% senior notes due 2022.

We compare Valeant's unsecured bonds with key peers that are also rated in the general B category in the healthcare industry, which includes specialty pharmaceutical firm Endo International PLC (B-, negative) and healthcare provider Tenet Healthcare Corp (B-, stable). Valeant's unsecured bonds were recently trading tighter than Endo's bonds by more than 500 basis points and wider than those at Tenet by around 180 basis points. All bond data is sourced from Interactive Data, which can be seen as follows.

Valeant's 6.13% notes due in 2025 at 93.13, yield to maturity of 7.41%, and spread to maturity of +437 basis points.
Endo's 6.00% notes due in 2025 at 71.25, yield to maturity of 12.45%, and spread to maturity of +942 basis points.
Tenet's 5.13% notes due in 2025 at 97.25, yield to maturity of 5.61%, and spread to maturity of +256 basis points.

MCR Credit Risk Assessment
Our B- credit rating on Valeant reflects greater-than-expected operational deterioration while the firm repairs its organization from a prior rollup strategy in 2010-15. The firm may see continued operational pressure during 2018 as it annualizes significant divestments in 2017, including Dendreon, iNova, its skin-care brands, and Obagi, and faces patent lapses of key medicines. The loss of diversification from divestitures negatively influences our Business Risk pillar. With a handful of new dermatology treatments possibly launching in 2018, Valeant expects to increase investment to ensure success of

these new medicines, which may push adjusted EBITDA down to $3.15 billion-$3.30 billion (generated from revenue of $8.15 billion-$8.35 billion) from $3.4 billion (on revenue of $8.7 billion) in 2017. With a focus on internal innovation and supporting product introductions, we see these incremental operating costs holding EBITDA generation relatively flat over the next five years. Our negative outlook reflects our view that the firm has yet to hit a floor in weakening performance that may further stress elevated debt leverage in the next year or so. Valeant's success in reversing operational distress and strengthening the balance sheet is vital to improving currently poor Cash Flow Cushion and Solvency Score pillars. Our Distance to Default pillar is Valeant's weakest as market capitalization represents only 20% of its enterprise value.

As a result of its once-aggressive M&A stance in 2010-15, Valeant's debt load and gross debt leverage (total debt/adjusted EBITDA) ballooned from below 1 times in 2009. Valeant's leverage has remained high even after the firm successfully reduced its debt load by more than $5 billion by February 2018, having repaid $969 million in the second half of 2016 and $4.4 billion during 2017. In the first quarter of 2018, the firm repaid around $280 million of debt, resulting in a total debt balance at $25.3 billion on March 31, or gross debt leverage of 7.5 times. Considering Valeant's unrestricted cash and investments of $909 million, net debt leverage was slightly lower at 7.3 times. We favorably view Valeant's commitment to deleveraging, but operational pressure through 2018 may overwhelm debt repayment such that leverage stays elevated, which informs our negative outlook. However, the firm has plenty of breathing room to repair its businesses, given that has satisfied all its mandatory term loan amortization and has no significant debt maturities through 2020. We see the firm continuing to chip away at its debt burden using free cash flow that we expect to average around $1.3 billion over the next five years.

Valero Energy (BBB+, Stable) Issuing New Unsecured 10-Year Notes to Refinance Existing Debt
Market Data
Valero Energy (BBB+, stable) is in the market May 17 issuing 10-year unsecured senior notes. The company intends to use the net proceeds from the offering for general corporate purposes, including the repayment of $750 million of 9.375% senior notes due March 15, 2019. At the end of the March quarter, Valero had $4.7 billion in cash and equivalents, $9.0 billion of total debt, and reported trailing 12-month adjusted EBITDA of $5.2 billion.

From a credit perspective, Valero's closest comparable is Phillips 66 (BBB+, stable), also a U.S.-based petroleum refiner. Phillips 66's 3.90% 2028 senior notes recently traded slightly wider than Valero Energy's 3.40% 2026 bonds. All of the following bond data is sourced from Interactive Data.

In the approximate 10-year maturity bucket, bonds from these issuers recently traded over the nearest Treasury as follows:
Valero Energy's 3.40% notes due 2026 at +114 basis points.
Phillips 66's 3.90% notes due 2028 at +117 basis points.
For comparison with the approximate 10-year maturities, the Morningstar Corporate Bond Index was recently at +137 basis points in the BBB+ category.

MCR Credit Risk Assessment

Our BBB+ rating on Valero Energy, the world's largest independent petroleum refiner, is based on its competitive advantages, large scale, and throughput capacity, including 15 operated refineries, eight of which are on the cost-advantaged U.S. Gulf Coast, its low debt leverage, and a low debt/complexity barrel of throughput capacity. In addition to its refining assets and premium-brand wholesale outlets, Valero operates 11 U.S. ethanol plants and is the general partner of Valero Energy Partners LP (not rated), a midstream master limited partnership. The midstream assets are all integrated with Valero's refineries. Total company operating income is derived approximately 90% from the refining segment, 4% from ethanol, and 6% from Valero Energy Partners.

Valero upgraded its portfolio during the past few years by selling two East Coast refineries and interests in pipeline assets, redeploying proceeds to help purchase two higher-quality refineries in the United Kingdom and the Gulf Coast, which can service export markets. Valero continues to invest to enhance supply flexibility for its refineries in the U.K. and the U.S. midcontinent region and to expand distribution of its U.S.-manufactured refined products in Latin America, to Mexico in particular.

Valero maintains very good credit metrics, with gross leverage of 1.7 times and net leverage of 0.8 times at the end of the March quarter. The debt/complexity barrel ratio is approximately $240, which is well below average relative to the company's North American refining peers. We forecast revenue growth of 6% per annum and net margins to expand to about 3% in 2021 from 2% in 2017 as the company benefits from capacity expansions and economies of scale. After capital expenditures, we estimate Valero has sufficient cash flow to pay out its targeted 40%-50% of adjusted net operating cash flow to shareholders (dividends plus stock buybacks) through 2021.

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