Healthcare Industry: Quarterly Trends and Spread Chartbook
Legal threats rising for many healthcare companies.

Morningstar Credit Ratings, LLC
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Contents

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Executive Summary

During the fourth quarter, legal threats appeared to build for many healthcare players. Specifically, the Affordable Care Act was deemed unconstitutional by a federal judge in Texas. Also, the challenges and media coverage continued for opioid manufacturers, distributors, and outlets. Legal exposure and headline risk for Johnson & Johnson continued to grow, as well. While these factors have not affected our ratings or outlooks yet, we view the repercussions from efforts to stem opioid overuse and the increase of the talc liability caseload, in particular, as potentially material risks to credit quality at related entities over a longer time horizon.

Key Takeaways

- Since our last publication, we downgraded one rating, placed two under review, and affirmed six ratings. Our downgrade of Cardinal Health related to its weak profit prospects on top of its already-elevated leverage from a 2017 acquisition. Also, after their merger announcement, we placed Bristol-Myers Squibb and Celgene under review with negative implications for the former and positive implications for the latter.
- While new debt issuance from the healthcare companies we covered slowed a bit in the fourth quarter, new debt issuance doubled year over year to $148 billion in 2018. Acquisition funding was a key driver of issuance growth in 2018. The recently announced Bristol-Myers Squibb and Celgene merger provides the potential for another major acquisition-related issuance in 2019, as well.
- Since the end of the third quarter, healthcare bonds outperformed Morningstar Inc.'s Corporate Bond Index. During this period, concerns about a potential economic slowdown in the U.S. rose, and the healthcare industry's reputation for resisting economic cycles generally appeared to outweigh rising legal risks in the industry. In the pharmaceutical sector, bonds from biopharmaceutical developers Celgene, Biogen, and Amgen, specialty drug firm Mylan, and Johnson & Johnson recently traded among the widest relative to Morningstar Inc.'s Corporate Bond Index when adjusted for rating. On the flipside, bonds from Allergan and AstraZeneca traded the tightest. In medical technology, financial results can be negatively affected by economic downturns and a rising uninsured population, and this sector's bonds widened further than the index and healthcare industry in the quarter. Within the sector, Stryker's bonds continued to trade at the widest spread relative to the index in the sector, despite denying Boston Scientific merger rumors in mid-2018. In the supply chain, bond spreads at Cardinal Health, a firm we downgraded in the fourth quarter, widened the most during the quarter. Also, the pharmaceutical distributors face long-term legal threats related to the opioid crisis, and their bonds trade wider than the index.

Healthcare Headlines

Credit Rating Actions

Since our last publication, our rating actions and reviews in the healthcare industry were distributed as follows: one downgrade, two ratings placed under review, six affirmations, and seven withdrawals for business reasons.

Exhibit 1 Credit Rating Actions

Health Care Issuer	Ticker	Old Rating	Current Rating	Rating Action/ Review Status	Action Date
Cardinal Health Inc	CAH	A-	BBB+	Downgraded	12/12/2018
Bristol-Myers Squibb Co	BMY	AA-	AA-	UR-	1/3/2019
Celgene Corp	CELG	A-	A-	UR+	1/3/2019
Gilead Sciences Inc	GILD	A	A	Affirmed	10/29/2018
Roche Holding Ag	RHHBY	AA-	AA-	Affirmed	11/16/2018
Pfizer Inc	PFE	AA-	AA-	Affirmed	11/19/2018
AmerisourceBergen Corp	ABC	A	A	Affirmed	12/12/2018
Amgen Inc	AMGN	A	A	Affirmed	12/13/2018
McKesson Corp	MCK	A-	A-	Affirmed	12/14/2018

Source: Morningstar Credit Ratings, LLC as of Jan. 11, 2019

Credit Rating Changes and Reviews

Our lone downgrade in the quarter of Cardinal Health Inc (BBB+, stable) reflected the firm’s weaker profit prospects related to the repriced OptumRx contract and ongoing Cordis problems, which weighed on an already inflated leverage position after the acquisition of Medtronic products in July 2017. At the end of September 2018, Cardinal owed $9.0 billion in debt, and we estimate gross leverage stands in the high-2s. With ongoing pressure expected on the firm’s profitability, we estimate gross leverage will only wind down to the mid-2s in the next couple of years. This gross leverage compares with 1.6 times prior to the acquisition. That elevated leverage and recently reduced profit prospects cut into Cardinal's Cash Flow Cushion, Solvency Score, and Distance to Default pillars enough to downgrade.

We placed Bristol-Myers Squibb Co’s AA- credit rating under review with negative implications following the announcement of a formal offer to merge with A- rated Celgene Corp, which we also placed under review albeit with positive implications. Bristol-Myers Squibb expects to close the roughly $74 billion transaction in the third quarter of 2019 and fund the proposed purchase with equity funding of $38 billion, available cash, and $32 billion in incremental debt. After the deal is completed, we estimate that gross leverage will stand around 3 times at the combined entity, which is about 2 turns higher than Bristol’s stand-alone leverage but similar to Celgene’s stand-alone leverage. Even when considering the increasing product diversity, we expect the rising leverage to cut into Bristol’s credit rating potentially by multiple notches. On the other hand, considering the similar gross leverage and rising diversity relative to its stand-alone status, Celgene’s credit rating could rise if the merger is completed as planned.

Other Healthcare Events

- In mid-December, a federal judge in Texas deemed the Affordable Care Act unconstitutional. This ruling adds uncertainty to this important safety net in the U.S. health insurance landscape. According to the U.S. Census Bureau, the uninsured population declined by 13 million people from 2013 (the year before the ACA's implementation) through 2017, or about 4% of the U.S. population. This decline in the uninsured population does not fully account for individuals using Affordable Care Act programs, though, and the potential for insurance displacement would affect a much larger number of individuals if the ACA is unraveled. For example, the Kaiser Family Foundation estimates that 13 million of newly eligible recipients are currently enrolled in Medicaid, and 8 million people enrolled for coverage on healthcare.gov in 2019 (this does not include individual state exchanges, which could boost those totals to about 12 million people as they did in 2017 and 2018). Also, children under 26 that remain on their parents' insurance plans and people gaining coverage through expanded employer-sponsored insurance add to those insured under the ACA. While some of those individuals may be able to find other sources of coverage if the law is dismantled, uncertainty is rising for people covered through the ACA. However, the ACA remains the law of the land, for now, as the federal judge's ruling faces appeal, so nothing has changed yet. Longer term, given the predominance of other insurance sources in the U.S. (employer-sponsored and other government coverage) combined with the geographic diversity of most of the companies we cover, we currently do not expect the potential law change to significantly alter our credit views.
- In mid-December, a recently enacted New York state tax on opioid manufacturers and distributors was deemed unconstitutional by a federal judge. Initially, this ruling appears positive for several companies that we cover, including a manufacturer Mallinckrodt (B+, stable) and the pharmaceutical distributors AmerisourceBergen Corp (A, stable), Cardinal Health, and McKesson Corp (A-, stable.) However, with increasing concerns and legal disputes related to the U.S. opioid crisis, we believe creditors should recognize that the uncertainty around future free cash flow generation may continue to rise at these players. These events may even be severe enough to materially affect our ratings in the longer term, but we currently do not view them as material to our ratings or outlooks.
- Litigation exposure is rising for Johnson & Johnson (AAA, stable) from a rapidly growing number of product liability claims related to health concerns from the use of talcum powder found in brand names Shower to Shower and Johnson's Baby Powder. The caseload related to talcum powder increased to 11,700 as of Sept. 30, 2018, from 6,610 and 3,100 at year-end 2017 and 2016, respectively. Legal risk pertaining to talc jumped in July, when a jury awarded about $4.7 billion to 22 women claiming their ovarian cancer was caused by asbestos contained in the powder. This unfavorable decision will be appealed by the firm as is typical within the industry, but we keep a watchful eye on progress of this litigation and the potential of further negative legal outcomes. Of note, the firm has significantly reduced the number of claims related to product liability stemming from its pelvic mesh product over the past few years (37,400 cases as of Sept. 30, 2018, down from 54,800 at the end of 2016) without material impact to its cash flows.

Recent New Debt Issuance

The healthcare companies on our coverage list only issued about $9 billion of debt in the fourth quarter, compared with $14 billion during the same period in 2017. However, healthcare firms only appear to be taking a breather from a torrid issuance pace in early 2018. At the time of issuance, the healthcare companies we covered issued $148 billion of debt in 2018, representing about double of what industry participants issued in 2017 ($74 billion). About 70% of the 2018 issuance was related to acquisition funding ($103 billion). These included CVS's acquisition of Aetna ($40 billion of new bond issuance), Bayer's acquisition of Monsanto ($21 billion), and Cigna's purchase of Express Scripts ($20 billion). Similarly for 2019, the Bristol-Myers Squibb and Celgene merger represents a large potential new issuance, as Bristol plans to help fund that transaction, which is scheduled to close in the third quarter of 2019, with $32 billion in new debt.

Exhibit 2 Fourth Quarter Debt Issuance

Announcement Date	Healthcare Issuer	Ticker	M* rating	Size (mm)	Projected use of proceeds
11/8/2018	Allergan PLC	AGN	BBB	EUR 1,700	General corporate purposes including redeeming existing debt
11/27/2018	Stryker Corp	SYK	A+	EUR 2,250	General corporate purposes including redeeming existing debt
11/28/2018	McKesson Corp	MCK	A-	$1,100	General corporate purposes including redeeming existing debt
12/13/2018	UnitedHealth Group Inc	UNH	A-	$3,000	General corporate purposes
Total				$8,600	

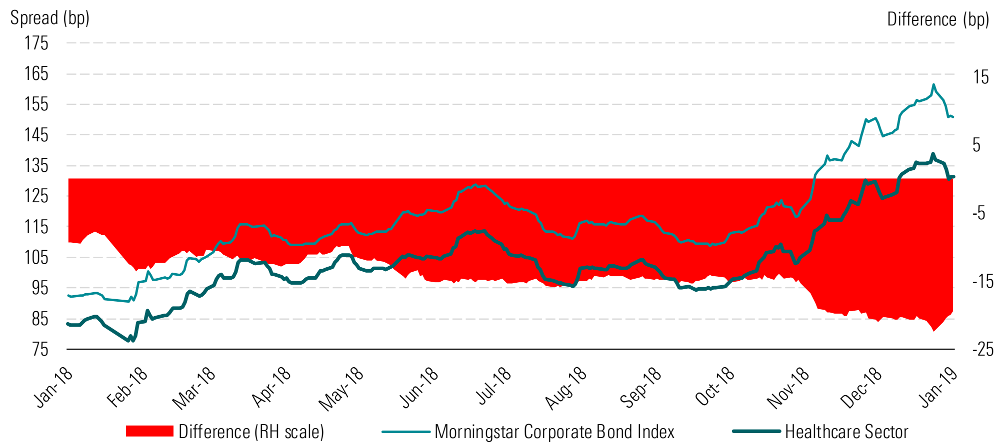
Source: Morningstar Credit Ratings, LLC and Company Reports as of Jan. 11, 2019

Healthcare Industry Spreads

Despite rising legal threats, the healthcare industry outperformed the broad corporate market during the past 12 months. Spreads in healthcare widened by 48 basis points, and Morningstar Inc.'s Corporate Bond Index widened by 58 basis points during the period.

Trailing 12 Months

Exhibit 3 Healthcare Industry Spreads vs. Morningstar Inc's Corporate Bond Index (Trailing 12 Months)

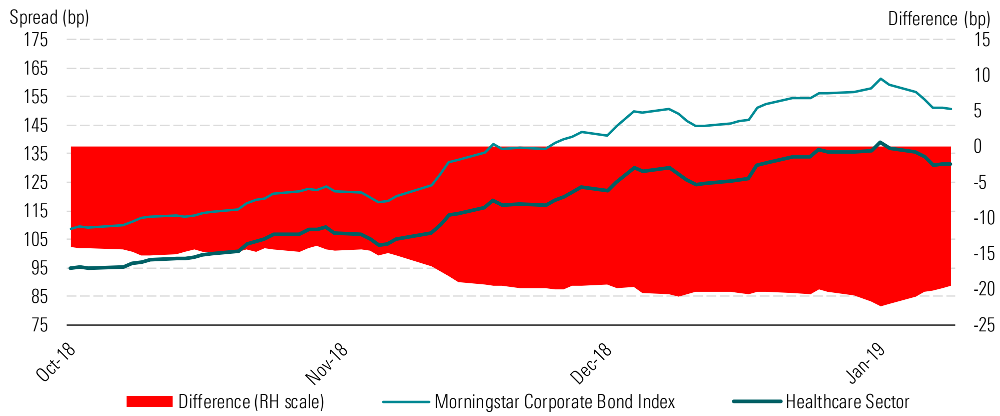


Source: Morningstar Credit Ratings, LLC and Morningstar, Inc as of Jan.11, 2019

Trailing Three Months

Much of the healthcare industry's trailing-12 month outperformance of the market came in the past three months. Specifically, spreads of Morningstar Inc.'s Corporate Bond Index (42 basis points of widening) widened more than the healthcare sector (36 basis points of widening). During this period, concerns about a potential economic slowdown in the U.S. rose, and the healthcare sector's reputation for resisting economic cycles appeared to outweigh the legal risk rising in the industry.

Exhibit 4 Healthcare Industry Spreads vs. Morningstar Inc's Corporate Bond Index (Since Oct.3, 2018)

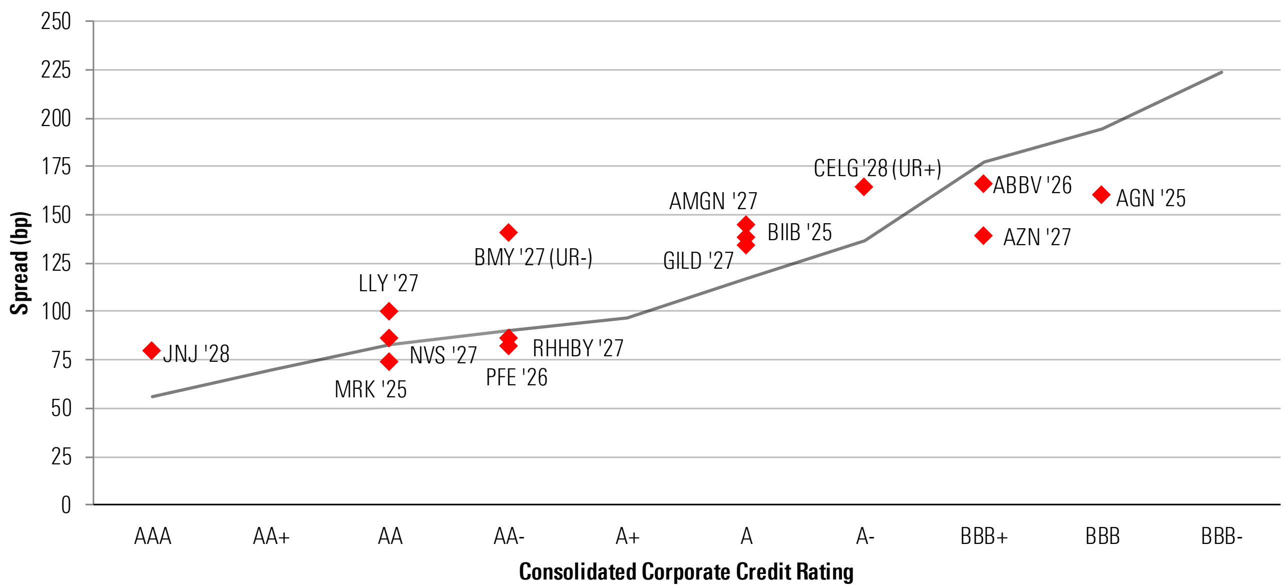


Source: Morningstar Credit Ratings, LLC and Morningstar Inc. as of Jan. 11, 2019

Spread Charts by Healthcare Sector

Pharmaceuticals

Exhibit 5 Pharmaceuticals vs. Morningstar Corporate Bond Index



Source: Morningstar Credit Ratings, LLC, Morningstar Inc., and Interactive Data as of Jan. 11, 2019
(UR) = rating under review / (p) = positive outlook / (n) = negative outlook.

Sector Trends

Average spreads in the pharmaceutical sector widened by 48 basis points since our previous publication in October, which is wider than the 36-basis-point widening for the healthcare sector and 42-basis-point widening in Morningstar Inc.'s Corporate Bond Index. Excluding the 129-basis-point widening of Mylan NV's (BBB-, negative) 2026 notes over this time, the average spread in the drug fell in lockstep with the overall healthcare sector at a 36-basis-point widening. Also, there are a number of bonds that recently traded more than 20 basis points wider than the index, including those from Mylan, Johnson & Johnson, and biopharmaceutical developers Celgene, Biogen Inc (A, stable), and Amgen Inc (A, stable). On the other hand, bonds from AstraZeneca PLC (BBB+, stable) and Allergan PLC (BBB, stable) recently traded tighter than the index by 30 basis points or more when adjusting for rating. The pace of pharmaceutical innovation in the U.S. reached a record level in 2018. Helped by 14 novel drug approvals by the U.S. Food and Drug Administration in the fourth quarter alone, total regulatory approvals of new molecular entities and biological drugs topped at 56 for the full year. This amount compares with 47 new pharmaceuticals, including cellular therapies Novartis' Kymriah and Gilead's Yescarta, approved for sale in the U.S. in 2017.

Issuer Highlights

- Mylan's BBB- rating reflects stubbornly inflated leverage exacerbated by operational pressure stemming from a challenging pricing dynamic in the U.S. generics market and dwindling performance of its bestselling EpiPen brand (severe allergic reactions). We are cautious of Mylan's ability to improve leverage after repeated delays in achieving its original leverage target (net leverage below 3 times) after its purchase of Meda in 2016, which supports our negative outlook. Mylan now targets average gross leverage over the long term of 3.0 times with the time frame yet defined. The firm stated an intention to repay at least $1.2 billion of maturing debt through 2019, which we see as necessary to offset operational pressures over the next few years. Poor strategic execution could stress the Cash Flow Cushion and Solvency Score pillar enough to push the rating below investment-grade eventually.

- In January, Bristol-Myers Squibb announced a formal offer to merge with Celgene at a cost of approximately $74 billion, funded with available cash, incremental debt amounting to $32 billion, and equity of $38 billion. As a result of the transaction, we placed Bristol-Myers Squibb's AA- credit rating under review with negative implications considering elevated debt leverage at the combined entity after completion of the merger. We see gross leverage rising to around 3 times, which is about 2 turns higher than the firm's stand-alone leverage. Given this leverage expectation, Bristol's credit rating could potentially fall multiple notches. At the same time, we placed Celgene's A- rating under review positive thanks to rising diversity relative to its stand-alone status and leverage that should remain close to the company's current leverage measure.

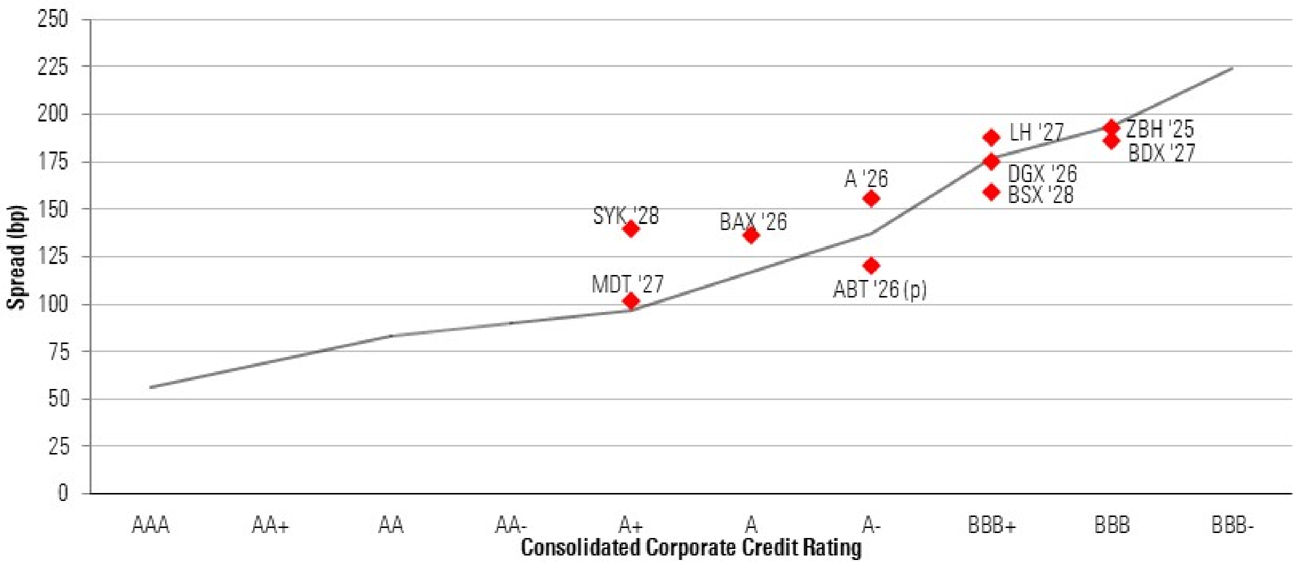
Exhibit 6 Investment-Grade Pharmaceutical Spreads

Health Care Issuer	Rating	Rating Outlook/ Review Status	Coupon	Maturity	Yield	Spread	Difference From Index	Average Difference
Mylan NV	BBB-	Negative	3.95%	6/15/2026	4.83%	+298	74	
Bristol-Myers Squibb Company	AA-	UR-	3.25%	2/27/2027	3.66%	+141	51	
Biogen Inc	A	Stable	4.05%	9/15/2025	4.06%	+145	28	
Celgene Corp	A-	UR+	3.90%	2/20/2028	4.48%	+164	27	
Johnson & Johnson	AAA	Stable	2.90%	1/15/2028	3.61%	+80	24	
Amgen Inc	A	Stable	3.20%	11/2/2027	4.10%	+138	21	
Eli Lilly and Co	AA	Stable	3.10%	5/15/2027	3.69%	+100	17	
Gilead Sciences Inc	A	Stable	2.95%	3/1/2027	4.00%	+134	17	11
Novartis AG	AA	Stable	3.10%	5/17/2027	3.75%	+86	3	
Pfizer Inc	AA-	Stable	3.00%	12/15/2026	3.66%	+86	-4	
Roche Holding AG	AA-	Stable	2.38%	1/28/2027	3.76%	+82	-8	
Merck & Co Inc	AA	Stable	2.75%	2/10/2025	3.56%	+74	-9	
AbbVie Inc	BBB+	Stable	3.20%	5/14/2026	4.31%	+166	-11	
Allergan PLC	BBB	Stable	3.80%	3/15/2025	4.30%	+160	-34	
AstraZeneca PLC	BBB+	Stable	3.13%	6/12/2027	4.16%	+139	-38	

Source: Morningstar Credit Ratings, LLC, Morningstar, Inc., and Interactive Data as of Jan. 11, 2019

Medical Technology

Exhibit 7 Medical Technology vs. Morningstar Corporate Bond Index



Source: Morningstar Credit Ratings, LLC, Morningstar Inc., and Interactive Data as of Jan. 11, 2019
(UR) = rating under review / (p) = positive outlook / (n) = negative outlook.

Sector Trends

During the quarter, the average spread in bonds of covered medical technology firms widened by 55 basis points, performing worse than Morningstar's Corporate Bond Index (42 basis points of widening) and the broad healthcare sector (36 basis points of tightening). Relative to the rest of the healthcare industry, financial results at medical technology firms can be somewhat sensitive to economic slowdowns and weaker hospital spending budgets. In the past quarter, concerns around a potential economic slowdown have risen, which can weigh on financial results of medical technology firms if elective surgeries slow or capital spending budgets tighten. Also, after a federal judge in Texas ruled that the Affordable Care Act is unconstitutional in December, the uncertainty surrounding insurance coverage through the ACA's various programs has risen as well, despite the fact that the ACA remains law during the appeals process. If the uninsured population rises, surgical volumes may fall and profits may contract at hospitals as bad debt rises, which could pressure results of medical technology firms somewhat as well. While we view these factors as risks for the sector's financial results in the near term, we currently do not expect potential changes to be significant enough to adjust our credit ratings.

Issuer Highlights

- Abbott's A- rating and positive outlook reflect its low Business Risk and declining leverage. After the leverage-increasing St. Jude and Alere acquisitions were completed during 2017, Abbott owed $28 billion of debt at the end of 2017, or gross debt/EBITDA over 4 times. Since then, Abbott's management highlighted a plan to reduce debt by about $8 billion by the end of 2018 primarily with newly accessible cash from U.S. tax reform. Abbott paid down $4 billion of debt in January 2018, positively influencing the firm's Cash Flow Cushion and Solvency Score pillars enough to cause our one-notch upgrade in February 2018. As of September, the firm's debt stood at $24 billion, or gross leverage in the low-3s and net leverage of 2.3 times by our estimates. If the firm continues to deleverage, we see the potential for the firm's Cash Flow Cushion and Solvency Score pillars to continue improving, which influences our positive rating outlook.

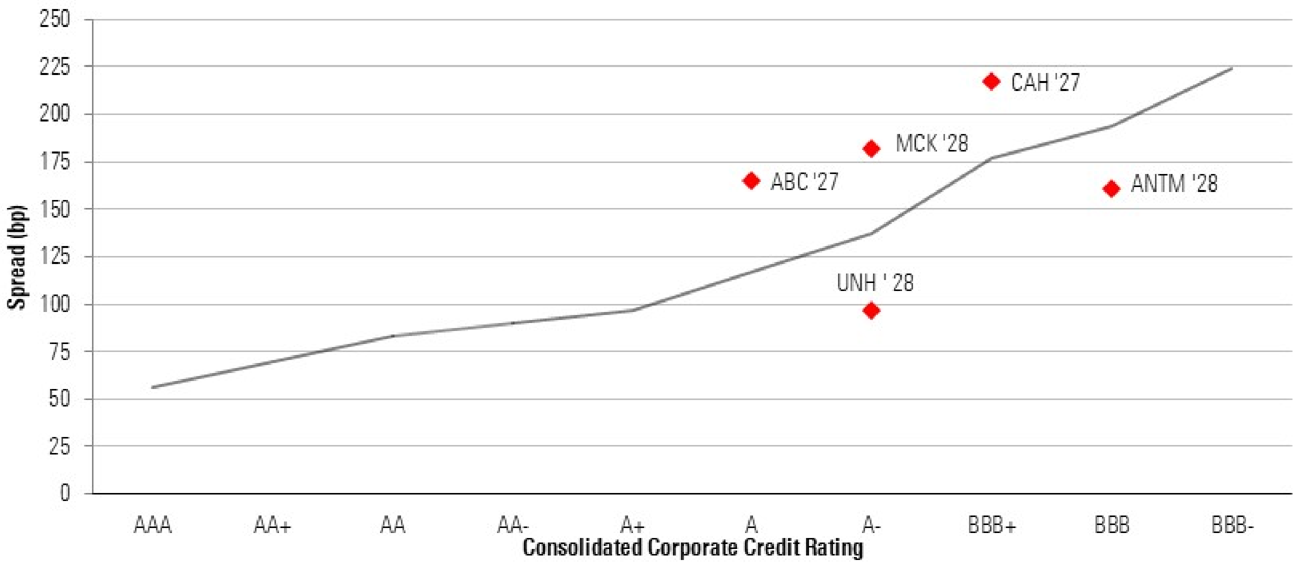
Exhibit 8 Medical Technology Spreads

Health Care Issuer	Rating	Rating Outlook/ Review Status	Coupon	Maturity	Yield	Spread	Difference From Index	Average Difference
Stryker Corp	A+	Stable	3.65%	3/7/2028	4.09%	+140	43	
Baxter International Inc	A	Stable	2.60%	8/15/2026	3.95%	+136	19	
Agilent Technologies	A-	Stable	3.05%	9/22/2026	4.15%	+155	18	
Laboratory Corp of America Holdings	BBB+	Stable	3.60%	9/9/2027	4.51%	+188	11	
Medtronic PLC	A+	Stable	3.35%	4/1/2027	3.64%	+102	5	5
Zimmer Biomet Holdings Inc	BBB	Stable	3.55%	4/1/2025	4.48%	+193	-1	
Quest Diagnostics Inc	BBB+	Stable	3.45%	6/1/2026	4.34%	+175	-2	
Becton, Dickinson and Co	BBB	Stable	3.70%	6/6/2027	4.49%	+186	-8	
Abbott Laboratories	A-	Positive	3.75%	11/30/2026	3.81%	+120	-17	
Boston Scientific Corp	BBB+	Stable	4.00%	3/1/2028	4.25%	+159	-18	

Source: Morningstar Credit Ratings, LLC, Morningstar, Inc., and Interactive Data as of Jan. 11, 2019

Pharmaceutical and Medical Care Supply Chain

Exhibit 9 Pharmaceutical and Medical Care Supply Chain vs. Morningstar Corporate Bond Index



Source: Morningstar Credit Ratings, LLC, Morningstar Inc., and Interactive Data as of Jan. 11, 2019
(UR) = rating under review / (p) = positive outlook / (n) = negative outlook.

Sector Trends

Spreads in the pharmaceutical and medical care supply chain widened 44 basis points since our last healthcare quarterly report in October. This sector change compares with the broad healthcare industry that widened 36 basis points and Morningstar's Corporate Bond Index that widened 42 basis points. The sector's performance was weighed down by bond spreads widening 70 basis points at Cardinal Health, which is a firm we downgraded in the quarter on operational problems that are delaying deleveraging after an acquisition. Also of note, bonds from the pharmaceutical distributors continue to trade significantly wider than the index and similarly rated managed care firms. With increasing concerns about distributors' roles in the U.S. opioid crisis, we recognize that the uncertainty around future free cash flow generation is rising for AmerisourceBergen, Cardinal Health, and McKesson. Specifically, potential opioid-related taxes or legal fines do not currently weigh on our ratings or outlooks, but if those factors rise, they could eventually present material credit risks to these organizations.

Issuer Highlights

- In December, we downgraded Cardinal's rating by a notch to BBB+, reflecting the firm's weaker profit prospects related to the repriced OptumRx contract and ongoing Cordis problems. At the end of September 2018, Cardinal owed $9.0 billion in debt, and we estimate gross leverage stands in the high-2s. With ongoing pressure expected on the firm's profitability, we estimate gross leverage will only wind down to the mid-2s in the next couple of years. This gross leverage compares with 1.6 times prior to the Medtronic PLC (A+, stable) product acquisition. Cardinal's elevated leverage and recently reduced profit prospects cut into Cardinal's Cash Flow Cushion, Solvency Score, and Distance to Default pillars enough to downgrade. Considering that new rating, our outlook is stable, and we see few catalysts that could change our rating in the near term.

Exhibit 10 Pharmaceutical and Medical Care Supply Chain Spreads

Health Care Issuer	Rating	Rating Outlook/ Review Status	Coupon	Maturity	Yield	Spread	Difference From Index	Average Difference
AmerisourceBergen Corp	A	Stable	3.45%	12/15/2027	4.31%	+165	48	
McKesson Corp	A-	Stable	3.95%	2/16/2028	4.48%	+182	45	
Cardinal Health Inc	BBB+	Stable	3.41%	6/15/2027	4.80%	+217	40	12
Anthem Inc	*BBB*	Stable	4.10%	3/1/2028	4.27%	+161	-33	
UnitedHealth Group Inc	*A-*	Stable	3.85%	6/15/2028	3.63%	+96	-41	

Source: Morningstar Credit Ratings, LLC, Morningstar, Inc., and Interactive Data as of Jan. 11, 2019
*Morningstar's insurance company ratings are not NRSRO ratings.

High-Yield Healthcare

Sector Trends

Each high-yield pharmaceutical firm that Morningstar covers—Bausch Health Companies Inc's (B-, negative), Mallinckrodt PLC (B+, stable), and Teva Pharmaceutical Industries Ltd (BB, stable)—have made strides this year toward shoring up their precarious financial positions. Teva leads the pack in debt reduction having repaid nearly $3 billion with help from proceeds from asset sales. The firm hoped to decrease gross debt by a total of $3.5 billion in 2018, which we see as only partially offsetting current operational deterioration. With debt totaling $29.5 billion and cash and investments of $1.9 billion on Sept. 30, 2018, net leverage was 5.7 times for the latest 12 months, remaining far from the firm's target of net leverage below 4 times EBITDA by 2020. Bausch Health eased its debt load by a more modest $713 million in the first nine months of 2018 to $24.7 billion (or 7.4 times gross debt/EBITDA for the trailing 12 months). But during 2018, the firm addressed a tower of nearing debt maturities in 2018-21 through refinancing transactions and amending its bank agreements to effectively extend most of these maturities into 2023 and beyond. With the recent refinancing of $1.5 billion in 7.5% notes due in 2021 in the fourth quarter, now about $3.0 billion in debt matures through 2022, which affords Bausch Health some time to reverse current operational distress. Mallinckrodt also made strides in lowering its debt load during the first nine months of 2018 having repaid about $540 million of debt. As a result, gross leverage stood at 5.5 times for the latest 12 months as of Sept. 30, 2018. The firm's pending spin-off of its specialty generics unit (planned in the second half of 2019) could provide incremental proceeds to further improve its financial standing.

Issuer Highlights

- Our outlook for Bausch Health's B- rating is negative since we view the firm’s operational recovery as highly uncertain given that its operations will only potentially bottom in the next year or so. Bausch has strengthened its balance sheet, though, by achieving its goal of decreasing debt by more than $5 billion by February 2018 while it extended nearing debt maturities through a series of refinancing activities. We expect that incremental marketing and research expenses needed to foster growth of new dermatology, gastrointestinal, and eye care products may hold EBITDA generation flat on a compounded annual basis through 2022 based on modestly increasing revenue, in our estimation. As such, we think that free cash flow averaging around $1.4 billion per year over the next five years tied to relatively steady operations may be the primary vehicle for leverage improvement. M

Exhibit 11 High-Yield Healthcare Senior Unsecured Bonds

Health Care Issuer	Rating	Rating Outlook/ Review Status	Coupon	Maturity	Worst Date	Price	YTW	STW
Teva Pharmaceutical Industries Ltd	BB	Stable	3.15%	10/1/2026	10/1/2026	82.25	6.07%	+346
Mallinckrodt PLC	B+	Stable	5.50%	4/15/2025	4/15/2025	76.88	10.66%	+811
Bausch Health Companies Inc	B-	Negative	6.13%	4/15/2025	4/15/2025	92.75	7.60%	+505
						Average	8.11%	+554

Source: Morningstar Credit Ratings, LLC, Morningstar, Inc., and Interactive Data as of Jan. 11, 2019

Appendix

IG Pharmaceutical Tickers	**JNJ**	**MRK**	**NVS**	**LLY**	**BMY**	**PFE**	**Roche**
Morningstar LLC Rating	AAA	AA	AA	AA	AA-/UR-	AA-	AA-
Outlook	Stable	Stable	Stable	Stable		Stable	Stable
Information from Morningstar's Equity Research Group:							
Moat	Wide	Wide	Wide	Wide	Wide	Wide	Wide
Moat Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable
Uncertainty	Low	Low	Low	Medium	Medium	Low	Low
TTM as of Date ($s in millions)	9/30/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018
Revenues	$81,382	$41,729	$52,666	$24,278	$22,037	$53,373	CHF 58,066
Adj'd EBITDA	$27,312	$14,449	$15,978	$7,576	$6,372	$20,573	CHF 23,062
Adj'd EBITDA %	34%	35%	30%	31%	29%	39%	40%
Total Debt	$31,253	$23,592	$31,782	$12,677	$7,307	$41,037	CHF 20,719
Cash & Investments	$19,364	$17,891	$14,710	$11,042	$8,847	$17,239	CHF 8,983
Net Total Debt/(Cash)	$11,889	$5,701	$17,072	$1,635	($1,540)	$23,798	CHF 11,736
Market Capitalization	$344,581	$191,388	$200,571	$112,461	$78,276	$244,629	$221,724
Enterprise Value	$356,470	$197,089	$217,643	$114,096	$76,736	$268,427	$233,885
Debt % of EV	9%	12%	15%	11%	10%	15%	9%
TD/EBITDA	1.1x	1.6x	2.0x	1.7x	1.1x	2.0x	0.9x
Net TD/EBITDA	0.4x	0.4x	1.1x	0.2x	-0.2x	1.2x	0.5x
Adj TD/EBITDAR*	1.4x	1.8x	2.3x	2.3x	1.3x	2.2x	1.3x
Interest Expense	$1,029	$758	$897	$257	$186	$1,275	CHF 693
EBITDA/Interest	26.5x	19.1x	17.8x	29.5x	34.3x	16.1x	33.3x
(EBITDA-CapX)/Int	23.1x	16.4x	15.8x	25.7x	29.3x	14.5x	28.2x
OCF	$22,062	$7,616	$13,914	$4,416	$4,628	$17,831	CHF 16,999
CapX	($3,592)	($2,025)	($1,761)	($985)	($915)	($2,057)	(CHF 3,517)
FCF	$18,470	$5,591	$12,153	$3,431	$3,713	$15,774	CHF 13,483
FCF/Debt	59%	24%	38%	27%	51%	38%	65%
Share Repurchases	($2,875)	($4,177)	($2,694)	($3,251)	($569)	($7,168)	(CHF 395)
Dividends	($9,339)	($5,189)	($6,966)	($2,286)	($2,599)	($7,924)	(CHF 7,213)
Net FCF	$6,256	($3,775)	$2,493	($2,106)	$545	$682	CHF 5,875

Source: Company Filings and Morningstar Credit Ratings, LLC as of January 11, 2019

*Adj TD includes total debt plus underfunded pension liabilities plus 8 times rents

IG Pharmaceutical Tickers	**GILD**	**GSK**	**AMGN**	**BIIB**	**CELG**	**ABBV**	**AZN**	**AGN**	**MYL**
Morningstar LLC Rating	A	A	A	A	A-/UR+	BBB+	BBB+	BBB	BBB-
Outlook	Stable	Stable	Stable	Stable		Stable	Stable	Stable	Negative
Information from Morningstar's Equity Research Group:									
Moat	Wide	Wide	Wide	Wide	Narrow	Narrow	Wide	Wide	None
Moat Trend	Stable	Stable	Stable	Stable	Positive	Negative	Negative	Stable	Negative
Uncertainty	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Very High
TTM as of Date ($s in millions)	9/30/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018
Revenues	$22,281	£30,263	$23,319	$13,234	$14,732	$32,187	$21,450	$16,034	$11,594
Adj'd EBITDA	$11,040	£8,567	$12,377	$6,879	$6,929	$13,873	$3,821	$7,908	$3,082
Adj'd EBITDA %	50%	28%	53%	52%	47%	43%	18%	49%	27%
Total Debt	$27,317	£26,900	$34,427	$5,931	$20,244	$40,508	$20,913	$23,583	$14,468
Cash & Investments	$28,466	£3,873	$29,921	$5,673	$4,378	$8,785	$4,228	$1,209	$449
Net Total Debt/(Cash)	($1,149)	£23,027	$4,506	$258	$15,866	$31,723	$16,685	$22,374	$14,019
Market Capitalization	$87,326	$95,236	$125,857	$66,780	$61,180	$127,979	$89,713	$50,293	$15,221
Enterprise Value	$86,177	$127,942	$130,363	$67,038	$77,046	$159,702	$106,398	$72,667	$29,240
Debt % of EV	32%	30%	26%	9%	26%	25%	20%	32%	49%
TD/EBITDA	2.5x	3.1x	2.8x	0.9x	2.9x	2.9x	5.5x	3.0x	4.7x
Net TD/EBITDA	-0.1x	2.7x	0.4x	0.0x	2.3x	2.3x	4.4x	2.8x	4.5x
Adj TD/EBITDAR*	2.5x	3.5x	2.8x	0.9x	3.0x	3.1x	6.1x	3.0x	4.8x
Interest Expense	$1,117	£743	$1,372	$213	$693	$1,166	$614	$964	$535
EBITDA/Interest	9.9x	11.5x	9.0x	32.3x	10.0x	11.9x	6.2x	8.2x	5.8x
(EBITDA-CapX)/Int	9.2x	9.7x	8.5x	28.7x	9.5x	11.3x	4.3x	7.9x	5.3x
OCF	$8,749	£7,171	$11,114	$5,810	$5,642	$12,619	$1,391	$6,190	$2,202
CapX	($805)	-£1,376	($666)	($776)	($335)	($697)	($1,205)	($281)	($257)
FCF	$7,944	£5,795	$10,448	$5,035	$5,307	$11,922	$186	$5,909	$1,944
FCF/Debt	29%	22%	30%	85%	26%	29%	1%	25%	13%
Share Repurchases	($2,054)	-£4	($16,459)	($3,000)	($9,004)	($10,461)	$0	($2,480)	($932)
Dividends to Shareholders	($2,917)	-£3,922	($3,501)	$0	$0	($5,159)	($3,484)	($1,109)	$0
Net FCF	$2,973	£1,869	($9,512)	$2,035	($3,697)	($3,698)	($3,298)	$2,320	$1,012

Source: Company Filings and Morningstar Credit Ratings, LLC as of January 11, 2019

*Adj TD includes total debt plus underfunded pension liabilities plus 8 times rents

Medical Technology Tickers	**MDT**	**SYK**	**BAX**	**ABT**	**A**	**BSX**	**DGX**	**LH**	**ZBH**	**BDX**
Morningstar LLC Rating	A+	A+	A	A-	A-	BBB+	BBB+	BBB+	BBB	BBB
Outlook	Stable	Stable	Stable	Positive	Stable	Stable	Stable	Stable	Stable	Stable
Information from Morningstar's Equity Research Group:										
Economic Moat	Wide	Wide	Narrow	Narrow	Wide	Narrow	Narrow	Narrow	Wide	Narrow
Moat Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	Positive	Stable	Stable
Uncertainty	Medium	Medium	Medium	Medium	Medium	High	Medium	Medium	Medium	Medium
Pro Forma Credit Metrics ($s in millions)										
TTM as of Date ($s in millions)	10/26/2018	9/30/2018	9/30/2018	9/30/2018	10/31/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018
Revenues	$30,378	$13,276	$11,060	$30,402	$4,914	$9,670	$7,628	$11,342	$7,936	$16,973
Adj'd EBITDA	$9,287	$3,704	$2,429	$7,093	$1,138	$2,545	$1,551	$2,083	$2,589	$5,337
Adj'd EBITDA %	31%	28%	22%	23%	23%	26%	20%	18%	33%	31%
Total Debt	$25,016	$7,203	$3,498	$23,558	$1,799	$6,626	$3,698	$6,462	$9,197	$21,495
Cash and Investments	$10,133	$2,210	$2,860	$7,550	$2,247	$980	$263	$893	$525	$1,236
Net Total Debt/(Cash)	$14,883	$4,993	$638	$16,008	($448)	$5,646	$3,435	$5,570	$8,673	$20,259
Market Capitalization	$113,940	$59,680	$35,550	$121,770	$22,420	$49,210	$11,570	$13,310	$21,270	$61,670
Enterprise Value	$128,823	$64,673	$36,188	$137,778	$21,972	$54,856	$15,005	$18,880	$29,943	$81,929
Debt % of EV	19%	11%	10%	17%	8%	12%	25%	34%	31%	26%
TD/EBITDA	2.7x	1.9x	1.4x	3.3x	1.6x	2.6x	2.4x	3.1x	3.6x	4.0x
Net TD/EBITDA	1.6x	1.3x	0.3x	2.3x	-0.4x	2.2x	2.2x	2.7x	3.3x	3.8x
Adj TD/EBITDAR*	2.9x	2.2x	2.2x	3.5x	2.0x	2.8x	3.0x	3.5x	3.7x	4.2x
Interest Expense	$1,070	$248	$92	$886	$75	$237	$163	$254	$303	$728
EBITDA/Interest	8.7x	15.0x	26.4x	8.0x	15.2x	10.7x	9.5x	8.2x	8.5x	7.3x
(EBITDA-CapX)/Int	7.7x	12.5x	18.9x	6.6x	12.8x	9.5x	7.6x	6.8x	7.1x	6.1x
OCF	$5,905	$2,243	$1,871	$6,175	$1,087	$1,163	$1,228	$1,383	$1,771	$3,075
CapX	($1,041)	($604)	($692)	($1,272)	($177)	($289)	($314)	($354)	($446)	($918)
FCF	$4,864	$1,639	$1,179	$4,903	$910	$874	$914	$1,029	$1,324	$2,156
FCF/Debt	19%	23%	34%	21%	51%	13%	25%	16%	14%	10%
Share Repurchases	($2,330)	($300)	($1,317)	($145)	($422)	$0	($265)	($340)	$0	$0
Dividends	($2,598)	($687)	($360)	($1,943)	($191)	$0	($259)	$0	($195)	($927)
Net FCF	($64)	$652	($498)	$2,815	$297	$874	$390	$689	$1,130	$1,229

Source: Company Filings and Morningstar Credit Ratings, LLC as of January 11, 2019

*Adj TD includes total debt plus underfunded pension liabilities plus 8 times rents

Supply Chain Tickers	**ABC**	**MCK**	**UNH**	**CAH**	**ANTM**
Morningstar LLC Rating	A	A-	A-**	BBB+	BBB**
Outlook	Stable	Stable	Stable**	Stable	Stable**
Information from Morningstar's Equity Research Group:					
Economic Moat	Wide	Wide	Narrow	Wide	Narrow
Moat Trend	Stable	Stable	Negative	Stable	Negative
Uncertainty	Medium	Medium	Medium	Medium	Medium
Pro Forma Credit Metrics ($s in millions)					
TTM as of Date ($s in millions)	9/30/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018
Revenues	$167,940	$211,557	$219,891	$139,381	$91,105
Adj'd EBITDA	$2,333	$3,907	$19,193	$3,126	$6,487
Adj'd EBITDA %	1%	2%	9%	2%	7%
Total Debt	$4,310	$9,088	$33,553	$9,001	$19,286
Cash	$2,493	$2,118	$10,263	$2,045	$4,682
Net Total Debt/(Cash)	$1,818	$6,970	$23,290	$6,956	$14,604
Market Capitalization	$16,230	$23,870	$238,270	$14,180	$66,380
Enterprise Value	$18,048	$30,840	$261,560	$21,136	$80,984
Debt % of EV	24%	29%	13%	43%	24%
TD/EBITDA	1.8x	2.3x	1.7x	2.9x	3.0x
Net TD/EBITDA	0.8x	1.8x	1.2x	2.2x	2.3x
Adj TD/EBITDAR*	2.0x	2.8x	1.9x	3.1x	3.1x
Interest Expense	$182	$273	$1,334	$325	$731
EBITDA/Interest	12.8x	14.3x	14.4x	9.6x	8.9x
(EBITDA-CapX)/Int	11.0x	12.2x	12.8x	8.5x	7.3x
EBITDAR/(Interest+Rent)	9.8x	6.8x	11.6x	7.6x	6.3x
OCF	$1,411	$3,324	$10,740	$1,952	$1,998
CapX	($336)	($573)	($2,137)	($375)	($1,130)
FCF	$1,075	$2,751	$8,603	$1,577	$868
FCF/Debt	25%	30%	26%	18%	5%
Share Repurchases	($639)	($1,896)	($3,977)	($1,000)	($1,558)
Dividends	($333)	($280)	($3,181)	($581)	($764)
Net FCF	$103	$575	$1,445	($4)	($1,454)

Source: Company Filings and Morningstar Credit Ratings, LLC as of January 11, 2019

*Adj TD includes total debt plus underfunded pension liabilities plus 8 times rents

**Managed care (ANTM and UNH) ratings are not NRSRO.

HY Healthcare Tickers	**TEVA**	**MNK**	**BHC**
Morningstar LLC Rating	BB	B+	B-
Outlook	Stable	Stable	Negative
Information from Morningstar's Equity Research Group:			
Moat	None	None	None
Moat Trend	Negative	Negative	Negative
Uncertainty	Extreme	Extreme	Extreme
TTM as of Date ($s in millions)	9/30/2018	9/30/2018	9/30/2018
Revenues	$19,754	$2,637	$8,422
Adj'd EBITDA	$5,147	$1,121	$3,332
Adj'd EBITDA %	26%	43%	40%
EBITDAR	$5,347	$1,145	$3,409
EBITDAR %	27%	43%	40%
Total Debt	$29,489	$6,191	$24,731
Cash & Investments	$1,875	$291	$973
Net Total Debt/(Cash)	$27,614	$5,900	$23,758
Market Capitalization	$19,946	$1,668	$7,761
Enterprise Value	$47,560	$7,568	$31,519
Debt % of EV	62%	82%	78%
TD/EBITDA	5.7x	5.5x	7.4x
Net TD/EBITDA	5.4x	5.3x	7.1x
Adj TD/EBITDAR*	5.8x	5.6x	7.4x
Interest Expense	$907	$370	$1,722
EBITDA/Interest	5.7x	3.0x	1.9x
(EBITDA-CapX)/Int	4.9x	2.7x	1.9x
EBITDAR/(Interest+Rent)	4.8x	2.9x	1.9x
OCF	$3,258	$760	$1,760
CapX	($724)	($128)	($138)
FCF	$2,534	$632	$1,622
FCF/Debt	9%	10%	7%
Share Repurchases	$0	($271)	$0
Dividends	($137)	$0	$0
Distributions to non-controlling interests	($19)	$0	$0
Net FCF	$2,378	$360	$1,622

Source: Company Filings and Morningstar Credit Ratings, LLC as of January 11, 2019

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Morningstar® Credit Research

For More Information

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