Morningstar Corporate Credit Research Highlights
Corporate Credit Spreads Snap Tighter

Morningstar Credit Ratings, LLC
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Credit Market Insights

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Credit Rating Actions

- Rating Affirmations

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Ford Motor **F**	BBB	BBB
Mylan **MYL**	BBB-	BBB-

Recent Notes Published by Credit Analysts

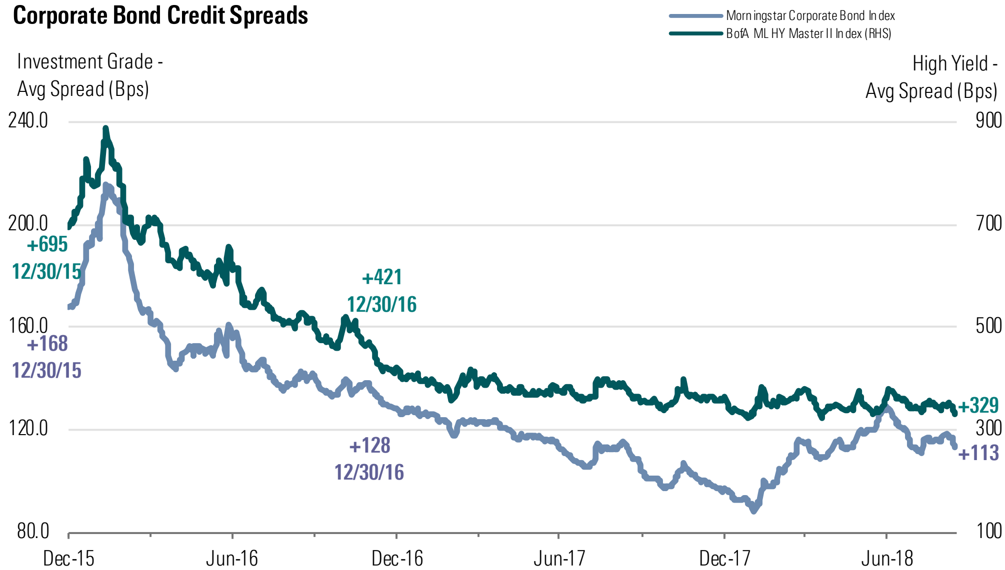
- **Roche** (AA-, Stable) Issued debt to Fund Purchase of Full Ownership of Foundation Medicine
- **CBS** (BBB, Stable) Settlement With Controlling Shareholder Does Not Alleviate Long-Term Conflict

Credit Market Insights

Corporate Credit Spreads Snap Tighter

Credit spreads in the corporate bond market snapped tighter last week as strong demand easily soaked up the deluge of new issue supply over the past two weeks. The average spread of the Morningstar Corporate Bond Index (our proxy for the investment-grade market) tightened 5 basis points to end the week at +113. In the high-yield market, the BofA Merrill Lynch High Yield Master Index tightened 19 basis points to end the week at +329. Across other asset markets, equities continued their upward march as the S&P 500 rose 1.16% and commodities generally strengthened, with oil rising $1.25 per barrel to $69.

Corporate Bond Credit Spreads



Source: Morningstar,Inc., BofA Merrill Lynch Global Indexes. Data as of 9/14/2018.

While the prevailing sentiment was "risk on" across most of the market, bond prices in the U.S. Treasury market were smacked down, sending yields higher across the curve. The yields on 2- and 5-year Treasury bonds rose 8 basis points to 2.78% and 2.90%, respectively. In the longer end of the curve, the yield on the 10-year rose 6 basis points to hit 3.00% and the 30-year rose 3 basis points to 3.13%. Year to date, the entire yield curve has surged higher as strong economic conditions and mounting inflation pressures have taken their toll on bond prices. With an increase of 90 basis points, the 2-year bond has risen the most. The next-greatest increase resides with the 5-year, which has risen 69 basis points. The 10-year has risen 59 basis points and the 30-year has risen 39 basis points. At their current levels, both the 2- and 5-year are at their highest yields since the fall of 2008.

Based on the current market-implied probabilities for additional hikes to the federal-funds rate, it appears that the yield on the 2-year may have further to rise. According to the CME FedWatch Tool, following the next Federal Open Market Committee meeting, which concludes Sept. 26, the market is pricing in a 25-basis-point increase to the federal-funds rate to 2.00%-2.25% from its current range of 1.75%-2.00%. Following this hike, the market is pricing in an 80% probability of an additional increase following the December FOMC meeting to over 2.25%. According to market pricing, the Federal Reserve will have at least one more rate hike in store for 2019 and possibly two. The futures market is pricing in an 80% probability that the federal-funds rate will end 2019 at 2.50% or higher and a 46% probability that it will be 2.75% or higher.

The prospect for further hikes is founded on the expectation that the economy will continue to run full steam ahead and inflation will continue to average near the Fed's target. Among economic projections, the Atlanta Fed's GDPNow forecast for third-quarter GDP growth is currently 4.4%, which would be an acceleration from the already strong 4.1% rate in the second quarter. Although the August report of the Consumer Price Index revealed a slight deceleration in inflation from the July report, inflation remains above the Fed's 2% target. The overall annual inflation rate rose 2.7%, and inflation excluding food and energy rose at an annual 2.2% rate. However, the pullback in the rate of inflation growth from July will probably be short-lived as pressures from wage inflation, due to the low unemployment rate, will course through the economy and recently enacted tariffs will begin to affect prices over the next few months.

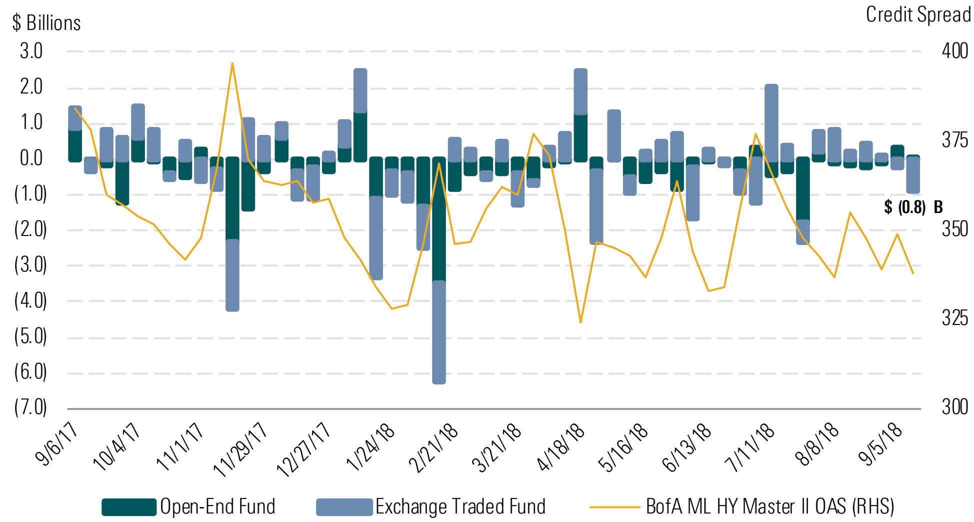
Although economic growth in the United States remains robust, economic activity remains sluggish in Europe and may be starting to soften. Following its September meeting, the European Central Bank lowered its forecast for GDP in the euro area. Its 2018 projection fell to 2.0% from 2.1% and its expectation for 2019 declined to 1.8% from 1.9%. However, ECB president Mario Draghi continues to expect that the underlying inflation rate in the euro area will pick up toward the end of the year and will rise toward the ECB's targeted rate over the medium term. As such, the ECB will continue to move forward with its plan to taper its asset-purchase program to EUR 15 billion and will end the purchase program at the end of the year. But we don't expect the ECB to follow the Fed anytime soon by raising short-term rates. The ECB intends to maintain its current short-term rates at least until mid-2019.

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

Weekly High-Yield Fund Flows

Net fund flows into the high-yield asset class turned negative last week as a total of $0.8 billion was redeemed out of the asset class. The outflows were driven by $0.9 billion of net unit redemptions across high-yield exchange-traded funds, which were only partially offset by $0.1 billion of inflows among the open-end high-yield mutual funds. This net weekly outflow is the first hint of volatility in this asset class that we have seen over the prior six weeks, as the average weekly fund flow was only $0.3 billion of inflows over that period. Year to date, fund flows have registered a total outflow of $15.7 billion, consisting of $3.4 billion of net unit redemptions across ETFs and $12.3 billion of redemptions among open-end funds.

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



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

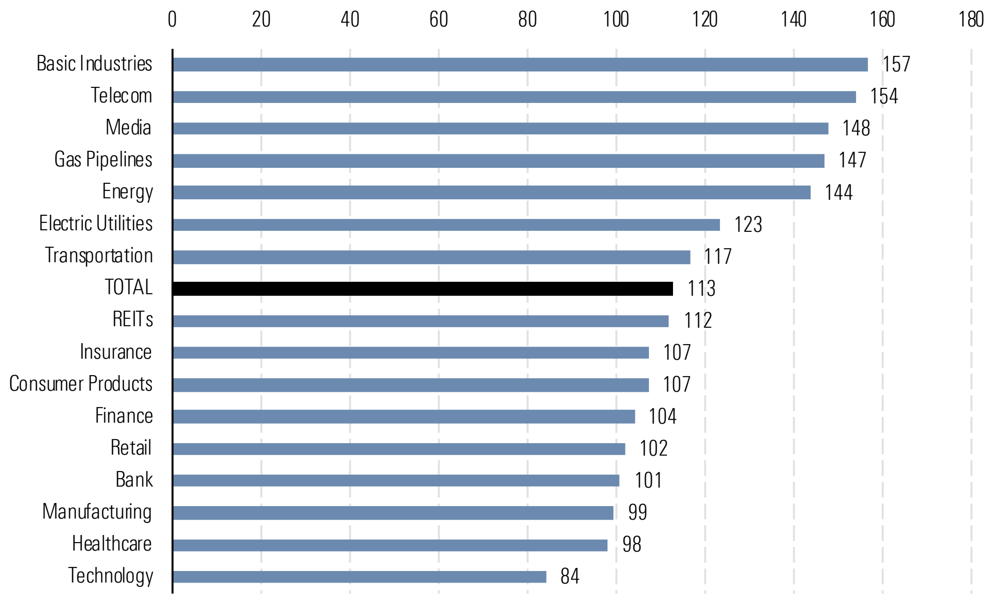
Exhibit 1 Morningstar Corporate Bond Index Sector Summary

Sector	Average Rating	Number of Issues	Modified Duration	Spread (bps)	MTD Spread Chg (bps)	YTD Spread Chg (bps)	MTD Total Return (%)	YTD Total Return (%)
TOTAL	**A-**	**5,101**	**6.9**	**113**	**(5)**	**17**	**(0.26)**	**(2.21)**
FINANCIAL	**A-**	**1,476**	**5.3**	**102**	**(3)**	**19**	**(0.32)**	**(1.77)**
Bank	A-	900	4.8	101	(3)	20	(0.25)	(1.54)
Finance	A	261	5.6	104	(5)	17	(0.33)	(2.02)
Insurance	A	217	8.1	107	(3)	21	(0.67)	(2.92)
REITs	BBB+	89	5.8	112	(1)	8	(0.55)	(1.45)
INDUSTRIAL	**A-**	**2,967**	**7.5**	**117**	**(5)**	**16**	**(0.21)**	**(2.42)**
Basic Industries	BBB	246	7.4	157	(4)	28	(0.36)	(3.16)
Consumer Products	BBB+	354	7.4	107	(4)	23	(0.36)	(3.30)
Energy	A-	397	7.3	144	(5)	22	(0.24)	(2.18)
Healthcare	A-	417	7.7	98	(5)	10	(0.32)	(2.72)
Manufacturing	A-	461	5.9	99	(4)	18	(0.26)	(2.17)
Media	BBB+	166	8.5	148	(7)	18	0.01	(2.75)
Retail	A-	171	7.7	102	(6)	15	(0.16)	(2.53)
Technology	A+	351	7.3	84	(7)	7	(0.04)	(1.70)
Telecom	BBB+	167	9.1	154	(11)	11	0.13	(1.57)
Transportation	BBB+	172	8.9	117	(4)	19	(0.31)	(3.36)
UTILITY	**BBB+**	**608**	**8.6**	**133**	**(5)**	**14**	**(0.38)**	**(2.68)**
Electric Utilities	A-	349	9.2	123	(4)	20	(0.58)	(3.66)
Gas Pipelines	BBB	242	7.8	147	(8)	3	(0.08)	(1.21)
Rating Bucket								
AAA Bucket		122	7.7	47	(5)	(1)	(0.16)	(2.02)
AA Bucket		501	5.7	63	(3)	5	(0.30)	(1.28)
A Bucket		1,914	6.8	90	(4)	16	(0.35)	(2.40)
BBB Bucket		2,564	7.1	146	(7)	19	(0.18)	(2.26)
Term Bucket								
1-4	A-	1,655	2.3	65	(2)	8	(0.15)	0.32
4-7	A-	1,183	4.7	104	(4)	24	(0.36)	(1.18)
7-10	A-	890	7.0	128	(5)	22	(0.40)	(2.57)
10PLUS	A-	1,373	13.6	164	(9)	20	(0.21)	(5.48)

Data as of 09/14/2018

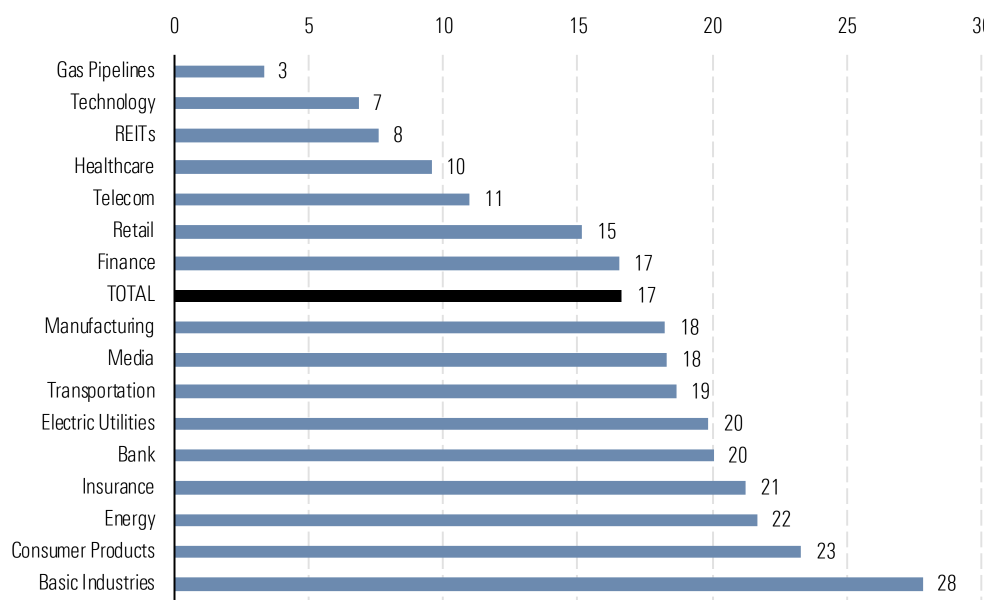
Source: Morningstar, Inc.

Exhibit 2 Morningstar Corporate Bond Index Spread by Sector



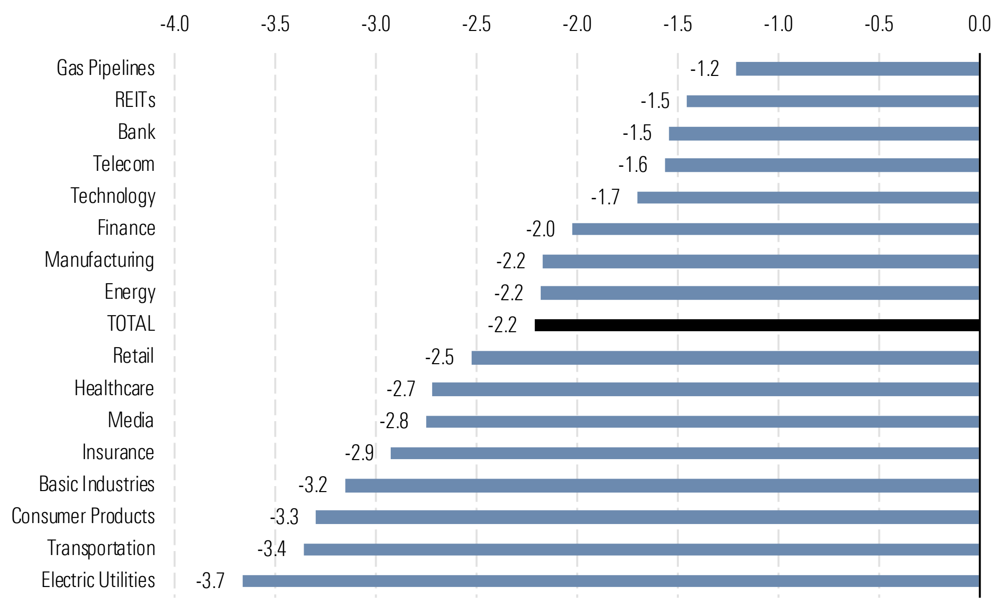
Source: Morningstar, Inc.

Exhibit 3 Morningstar Corporate Bond Index YTD Spread Change



Source: Morningstar, Inc.

Exhibit 4 Morningstar Corporate Bond Index YTD Return



Source: Morningstar, Inc.

Credit Rating Actions

Rating Affirmations

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Ford Motor **F**	BBB	BBB
Mylan **MYL**	BBB-	BBB-

Morningstar Credit Ratings Releases Updated Rating for Ford Motor

Morningstar Credit Ratings, LLC is affirming its BBB corporate credit rating on Ford Motor Co. but lowering the outlook to negative. The outlook captures what we see as elevated execution risk and thinner liquidity after management announced $11 billion of restructuring charges and lowered guidance in late July.

On its second-quarter earnings call July 26, Ford reported much weaker-than-expected operating results, driven by weakness in most of its international markets along with a large restructuring charge. Management guided to $11 billion in restructuring charges over the next three to five years, of which about $7 billion would be cash charges. We have incorporated this into our updated model, and the lower cash flow has pushed our Cash Flow Cushion to 6 from 5 at the time of our last credit review in June, when we affirmed our BBB rating and stable outlook. This was shortly after management affirmed its guidance for the year. That said, on the second-quarter call Ford reported significant international weakness, including a loss in Europe versus a gain last year, another loss in South America, and a nearly $500 million loss out of China versus a slight gain last year. We have revised our 2018 forecast to capture the weaker results, and this has resulted in a one-decile weakening in our Solvency Score to 7 from 6. The combined weaker Cash Flow Cushion and Solvency Score drive our outlook to negative.

Beyond 2018, we have lowered our operating margin assumptions to capture what we see as elevated risk in management achieving its goals, which continue to be its own defined adjusted EBIT margins of 8.0% and high teens returns on invested capital in 2020. We believe significant challenges exist to achieve these metrics, considering that management highlighted that South America lacks a strong competitive position and requires a significant redesign, Europe has a strong core product portfolio but requires a major redesign, and performance in China has been very weak recently. China, the world's largest automobile market, is described as "hypercompetitive," and while Ford has a major flurry of new product hitting the market beginning in the second half of 2018, there is clearly a lot of work to be completed for the company to compete successfully. Meanwhile, Ford now also has two emerging business units, the previously established Ford Smart Mobility and now the new Ford Autonomous Vehicles unit. Both will require investment and management focus.

Considering the cash restructuring charges and our weaker operating margin forecast, we believe Ford's cash hoard will be depleted somewhat. The manufacturing cash balance of $25.1 billion at the end of June may drift closer to $20 billion over our forecast horizon. This even factors in assumed annual distributions of $1.5 billion from Ford Motor Credit but no change in dividends, which consume over $2.5 billion in cash flow annually and affect our Cash Flow Cushion. We believe there is a fair amount of risk to our cash forecast, considering the many moving parts to the business. With debt at $16.2 billion at June 30, the net cash balance could be much lower than in the recent past and result in a lower rating. Management targets average cash balances of around $20 billion in order to maintain enough liquidity throughout the cycle and retain investment-grade ratings.

Our negative outlook reflects the potential of our rating to be lowered should the restructuring plans fail to yield the expected benefits of driving margins higher. Further, if there is a sharp cyclical downturn that causes Ford's cash position to decline below its targets and keeps operating margins at depressed levels, we could downgrade the rating. This would negatively affect the Cash Flow Cushion and Solvency Score. The implementation of global tariffs on autos and automotive products also has the potential to be disruptive and negatively affect the rating. Should Ford prove successful in making significant progress toward its 2020 financial goals and expanding beyond its core automotive business and into a significant provider of mobility products and services, we could maintain our rating and stabilize our outlook. We do not envision a rating increase for the foreseeable future.

Morningstar Credit Ratings Releases Updated Rating for Mylan

Morningstar Credit Ratings, LLC is affirming Mylan's BBB- rating to reflect heightened leverage exacerbated by operational pressure stemming from a challenging pricing environment in the U.S. generics market and dwindling performance of its best-selling 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 remains committed to an investment-grade rating and currently targets reaching average gross debt/EBITDA of 3 times over the longer term, which we see requiring significant debt reduction while it tries to reverse organic operational declines. We are concerned that debt-reduction efforts may be hindered by the firm's historically aggressive capital deployment, including opportunistic share repurchasing and heavy business development. Over the past year, the firm dedicated $930 million to share repurchases instead of applying these cash flows to accelerate debt reduction, which damped our view of Mylan's management from a credit perspective and pushed Business Risk to high. Positively, Mylan's acquisitions over the past few years (despite increasing leverage) have expanded geographic reach and increased concentration on international markets to represent around 60% of total sales, which eases pressure on the Business Risk pillar. Mylan's expertise lies in introducing complex generic drug formulations, including potential copycats of GlaxoSmithKline's Advair and Allergan's Restasis in the near term. Supported by an expanding biosimilar portfolio, we think sales may rise in the low single digits through 2022 compounded annually. However, we expect EBITDA to modestly compress over the next five years due to increased funding to launch new biosimilar medicines. High Business Risk and a moderate Solvency Score pillar weakly position Mylan in the BBB- rating category.

Mylan's debt structure mainly comprises U.S. dollar- and euro-based unsecured notes that represented more than 98% of the firm's total debt load of $14.7 billion as of June 30. The rest of the debt balance includes borrowings against a receivables securitization facility maturing in January 2019 ($86 million outstanding) and an unsecured term loan facility due in November 2019 ($100 million). For additional liquidity, the firm established a $1.65 billion unsecured commercial paper program in July backstopped by its $2 billion revolving credit agreement due in 2023. During 2018, Mylan actively addressed nearing debt maturities through 2019 by issuing new securities: $750 million in 4.55% senior notes due in 2028, $750 million in 5.2% senior notes due in 2048, and EUR 500 million in senior notes due in 2025. Using debt proceeds, the firm repaid (or will repay) all notes maturing in 2018 ($1.75 billion) and reduced a tower of debt maturities in 2019 to $650 million from $1.6 billion. Nonetheless, gross leverage remains elevated since the $10 billion acquisition of Meda in 2016 and was 4.9 times EBITDA for the latest 12 months ended June 30, per our calculation. Considering a modest cash balance of $330 million on June 30, net leverage was 4.7 times for the trailing 12 months. Mylan amended its revolving credit agreement in November 2017 that relaxed its lone financial covenant, maximum leverage (gross debt/EBITDA) to 4.25 times until the end of 2018 (from 3.75 times previously). This credit metric reverts to 3.75 times after Dec. 31, which we see the firm meeting with repayment of the remaining 2019 maturities even by our calculations. Mylan targets average gross leverage over the long term of 3.0 times with the time frame yet defined. Mylan does have the financial flexibility to utilize average free cash flow of $2.0 billion annually through 2022, in our estimation, to nearly meet its long-term debt maturities of $2.0 billion due in 2020 and $2.3 billion due in 2021.

Considering the negative outlook, retention of the current rating depends on the firm easing elevated leverage, but operational missteps could degrade the Cash Flow Cushion and Solvency Score pillar enough to push the rating below investment grade. Alternatively, leverage improvement to the firm's target for a sustained period that maintains or strengthens our leveraged-based pillars could result in positive rating action, including a return to a stable outlook.

Recent Notes Published by Credit Analysts

Roche (AA-, Stable) Issues Debt to Fund Purchase of Full Ownership of Foundation Medicine

Market News and Data

Roche Holdings AG (AA-, stable) is in the market with a proposed offering of 5- and 10-year bonds. The firm intends to use the proceeds for general corporate purposes, which may include debt refinancing and financing the purchase of full ownership of Foundation Medicine. Roche has owned a majority interest in Foundation Medicine since 2015; its stake stood at around 57% and 77% as of June 30 and July 31, respectively. The firm launched a tender offer for all remaining outstanding shares (valued around $2.4 billion) on July 2 and intends to obtain these shares in the second half of 2018.

For closest comparison to Roche's bonds, we look to similar-rated Pfizer Inc (AA-, stable) and Bristol-Myers Squibb Co (AA-, stable). Adjusted for bond maturities, Roche's 10-year bonds trade tighter than those of Bristol-Myers Squibb and close to the level of the Morningstar Corporate Bond Index in the AA category. All 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:

- Roche's 1.75% notes due 2022 at +44 basis points.
- Pfizer's 3.00% notes due 2023 at +40 basis points.
- Bristol-Myers Squibb's 2.00% notes due 2022 at +46 basis points.

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

- Roche's 2.38% notes due 2027 at +63 basis points.
- Pfizer's 3.00% notes due 2026 at +66 basis points.
- Bristol-Myers Squibb's 3.25% notes due 2027 at +72 basis points.

For comparison with the approximate 10-year maturities, the Morningstar Corporate Bond Index is at +66 basis points in the AA category.

Roche's rating and stable outlook reflect the firm's exceptional research productivity over the past few years, which we think may fully mitigate erosion arising from eventual biological generic competition to its bestselling cancer medicines. Solid portfolio diversity with offerings across human pharmaceuticals and clinical diagnostic testing supports minimal Business Risk. The company is presently tasked with overcoming sales and earnings erosion stemming from imminent or existing biosimilar competition to its aging cancer pharmaceutical portfolio, Rituxan, Avastin, and Herceptin, which collectively represent around 37% of overall sales. Roche management believes that it can offset pressure from biosimilar competition to these key drugs and sees sales growing in the midsingle digits in 2018. Sustained demand for new medicines, Alecensa (non-small-cell lung cancer), immuno-oncology cornerstone Tecentriq (bladder cancer and metastatic NSCLC), and Ocrevus (multiple sclerosis) may more than offset pressure from present biosimilar competition to Rituxan and Herceptin in Europe. While we expect revenue growth to reach a floor in 2018-19, we think the firm can maintain increases in revenue and EBITDA in the midsingle digits compounded annually through 2022.

Roche has maintained considerable financial discipline since its purchase of Genentech in 2009, opting for small asset purchasing and in-licensing to bolster its research program in order to restock its aging medicine bag, which reinforces our stable outlook. Roche's conservatism has yielded a strong credit profile supported by a solid balance sheet containing CHF 9.0 billion of cash and marketable securities compared with CHF 20.7 billion of outstanding debt as of June 30. This represents gross debt leverage and net leverage of 0.9 times and 0.5 times, respectively, for the trailing 12-month period. Roche will see long-term debt representing around one third of total borrowings mature over the next five years, which may be easily managed by annual free cash flow averaging more than $15 billion through 2022, in our estimation. But Roche's top priority for capital deployment is increasing its already healthy dividend, which amounted to CHF 7.2 billion for the latest 12 months ended June 30. While we expect the firm to remain disciplined with capital deployment, we would not be surprised by a series of tuck-in asset purchases like Foundation Medicine, which could modestly move leverage higher than current levels.

CBS (BBB, Stable) Settlement With Controlling Shareholder Does Not Alleviate Long-Term Conflict
In contrast, Viacom's media portfolio is built around well-known but aging network TV media brands, including Nickelodeon, Comedy Central, and MTV, which have all faced ratings declines in recent years as cable subscribers have looked to reduce their cost of service. We believe that streaming video providers consider Viacom content as "nice to have" but not "must have," which inherently reduces the company's ability to increase its revenue as distributors become more selective in the content they license. This has pressured advertising revenue and affiliate fees. Compounding the issue for Viacom has been its reticence to widely license its content to streaming video providers, as CBS has done, preferring to maintain the option to bundle its media properties into a proprietary subscription streaming service. Though management expects to launch the streaming service before the end of 2018, we consider it late to the game and we expect it will take time and meaningful investment in fresh branding and original content to attract a significant number of subscribers.

Market Data
According to pricing data provided by Interactive Data, CBS' 3.38% notes due 2028 are indicated at +161 basis points over the nearest Treasury as of Sept. 8, while Viacom's 3.45% notes due 2026 are indicated at +150 basis points. For comparison, CBS' and Viacom's notes are 31 and 16 basis points wider, respectively, since Feb. 28, before market news that the two companies were discussing a merger. From a year ago, the CBS notes are 15 basis points wider while the Viacom notes are 32 basis points tighter. Over the same period, the BBB category of the Morningstar Corporate Bond Index is 8 basis points wider to end Sept. 8 at +146 basis points over Treasuries.

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