Morningstar Corporate Credit Research Highlights
Asset volatility diminishing and approaching new lows.

Morningstar Credit Ratings, LLC
15 May 2017

Contents

3 Credit Market Insights
10 Credit Rating Actions
21 Recent Notes Published by Credit Analysts
22 Credit Contacts

Credit Market Insights

- Market Data and Insights

Credit Rating Actions

- Rating changes

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Pentair **PNR**	BBB/UR-	BBB
Mattel **MAT**	BBB	BBB+

- Rating affirmations

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Adobe Systems **ADBE**	A+	A+
Delphi **DLPH**	BBB+	BBB+
Anadarko Petroleum **APC**	BB+	BB+
Apache **APA**	BBB-	BBB-
Dover **DOV**	A-	A-
Illinois Tool Works **ITW**	A	A
ABB **ABB**	A	A
Rockwell Automation **ROK**	A	A
Roper Technologies **ROP**	BBB	BBB

Recent Notes Published by Credit Analysts

- **Amgen** Issuing New Debt to Refinance Nearing Maturities and Repurchase Shares
- **Verizon** Reportedly Makes Offer to Acquire Straight Path Communications
- **Bank of New York Mellon** Offering Multitranche New Issue of Senior Holding Company Notes
- **Costco**'s New Multitranche Debt Offering to Fund Special Dividend and Debt Refinancing
- **Allergan** Reports Solid Performance in 1Q; Easing Down Its Debt Burden
- **Anadarko** Posts 1Q Results Much Better Than Last Year's but Below Expectations
- **Valeant** Modestly Increases EBITDA Guidance; Debt Reduction Remains Top Priority
- **Endo** Maintains EBITDA Guidance for 2017; Net Leverage Remains Above Target
- Better Oil Pricing and Steadily Declining Costs Drive Much-Improved 1Q Results for **EOG Resources**
- **Marriott** Raises EBITDA Guidance for 2017 After Strong 1Q; Leverage Declines on Track
- **Mylan**'s Results Jump in 1Q Thanks to Meda; Net Leverage Stays Above Goal
- **Hologic** Faces Salesforce Disruption at Cynosure, but Net Leverage Trending Better Than Expected
- **Teva**'s Growth in 1Q Driven by Actavis; Debt Reduction Remains a Top Priority
- **Macy's** Posted a Continued EBITDA Decline in 1Q; Leverage Stable After Debt Repurchases

- **Anthem** Finally Agrees to Terminate Cigna Merger After Another Legal Setback
- **Kohl**'s Reports Solid Margin Improvement Despite Lower Revenue in 1Q
- **ArcelorMittal**'s 1Q EBITDA Increases 140% Year Over Year; Debt Higher Due to Working Capital

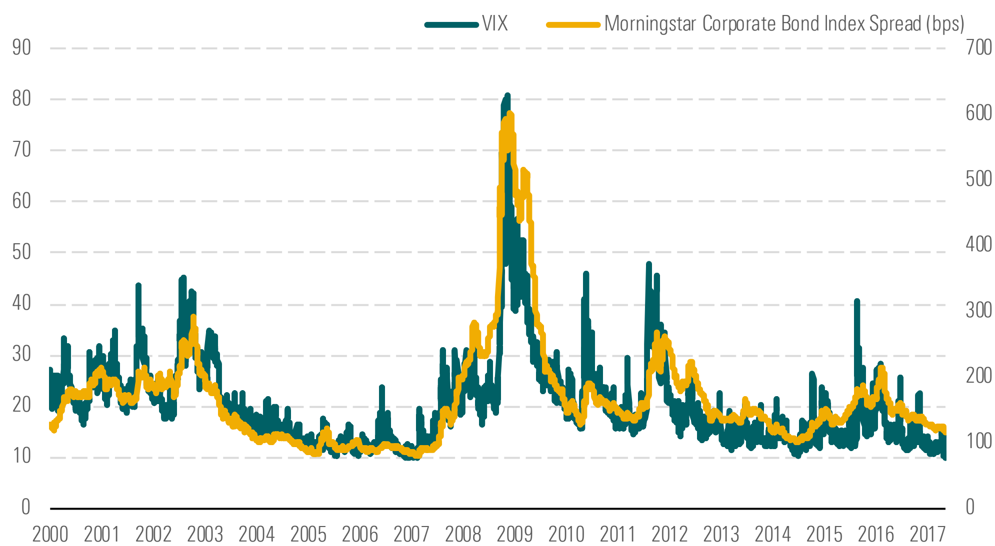
Credit Market Insights

Asset Volatility Diminishing and Approaching New Lows

Volatility in the asset markets has been steadily declining and is nearing new lows. One factor helping to suppress volatility is the lack of many surprises in the first-quarter earnings season, which passed with results generally within the range of expectations. From an economic point of view, while GDP was weak in the first quarter, it is expected to rebound in the second quarter. For example, the Atlanta Federal Reserve Bank's GDPNow forecasting tool projects a 3.6% expansion in the second quarter. Merger and acquisition activity has been generally quiet over the past few weeks, although we may see a rebound this summer. Even geopolitical risk has quieted down. As markets expected, Emmanuel Macron won the French election, Brexit negotiations have not begun, the European Central Bank is maintaining its quantitative easing policy, and the rhetoric surrounding North Korea has calmed.

Following the French presidential election and the general lessening of international tensions, corporate credit spreads have tightened and asset volatility has declined toward its lowest levels. For example, the average spread of the Morningstar Corporate Bond Index has been held to a 7-basis-point trading range over the past four weeks. In the equity market, the CBOE Volatility Index (which measures market expectations for near-term volatility as conveyed by S&P 500 stock index option prices) declined to as low as 9.8 on May 8. While this may not be a historical low, there have been only three instances since 1990 in which the index has registered lower. Market volatility and corporate credit spreads have been highly correlated over time. Based on the average spread of the Morningstar Corporate Bond Index since 1990, the VIX and investment-grade credit spreads have an r-squared of approximately 85%.

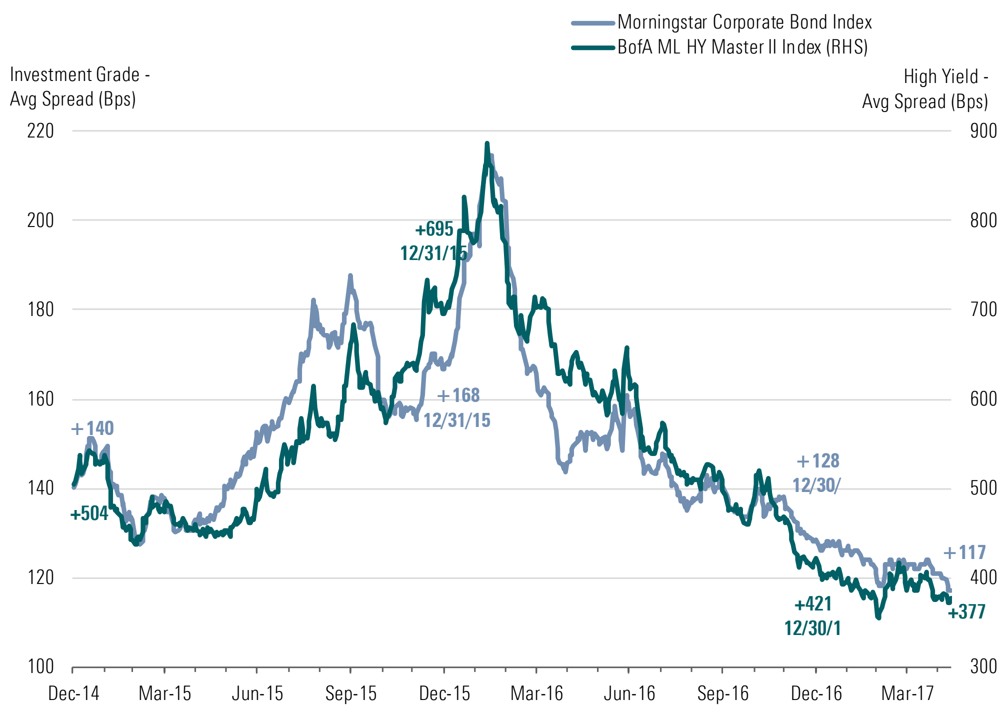
VIX Index vs. Morningstar Corporate Bond Index Spread



Source: CBOE, Morningstar Inc. Data as of 5/12/2017.

The average corporate credit spread of the Morningstar Corporate Bond Index (our proxy for the investment-grade bond market) tightened 3 basis points last week to +117, a new low for the year. The last time the index was at this level was September 2014. From a longer-term perspective, the average spread of the Morningstar Corporate Bond Index has been lower less than one fourth of the time since the end of 1999. In the high-yield market, the Bank of America Merrill Lynch High Yield Master Index tightened 5 basis points to +377. The tightening was led by the energy sector, which declined 10 basis points as oil prices continued to rise. Since the end of 1999, the average spread of the high-yield index has been tighter only 17% of the time.

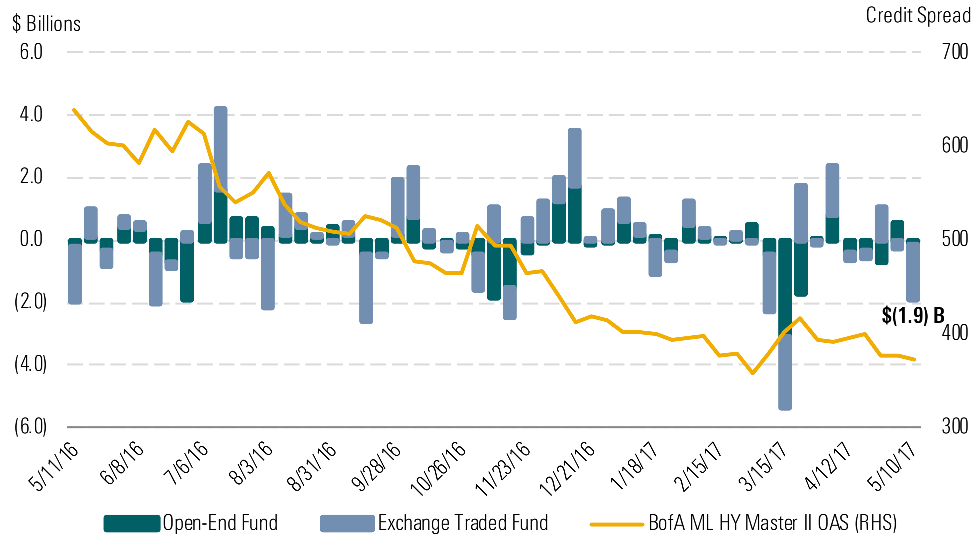
Corporate Bond Credit Spreads



Source: Morningstar,Inc., BofA Merrill Lynch Global Indexes. Data as of 05/12/2017.

Although corporate credit spreads tightened and volatility remained near its historical lows, fund flows for high-yield open-end mutual funds and exchange-traded funds suffered net withdrawals last week. According to our data, a total of $1.9 billion was withdrawn from the sector. The withdrawals were predominantly in the ETF sector, which experienced an outflow of $1.8 billion, whereas the open-end mutual fund sector recorded withdrawals of only $0.1 billion.

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



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

Exhibit 1 Morningstar Credit New Issue Monitor
Week ended May 12, 2017
(000,000s $ unless otherwise noted)

Issuer			Issue				
Name	Ticker	Morningstar Corporate Rating	Size	Coupon	Description	Maturity	Approx Spread to US Treasuries
ABB Finance	ABB	A(1)	€ 750	0.75%	Senior Unsecured	2024	+30(2)
Amgen	AMGN	A	$700	1.90%	Senior Unsecured	2019	+60
Amgen	AMGN	A	$300	L+32	Senior Unsecured	2019	NA
Amgen	AMGN	A	$700	2.20%	Senior Unsecured	2020	+70
Amgen	AMGN	A	$300	L+45	Senior Unsecured	2020	NA
Amgen	AMGN	A	$1,500	2.65%	Senior Unsecured	2022	+80
Bank of New York Mellon	BK	A	$1,000	2.66%	Senior Unsecured	2023	+73
Bank of New York Mellon	BK	A	$750	3.25%	Senior Unsecured	2027	+85
Citi Group	C	A-	$1,500	L+110	Senior Unsecured	2024	NA
Citi Group	C	A-	CHF 275	0.50%	Senior Unsecured	2024	+50(2)
Costco Wholesale	COST	AA-	$1,000	2.15%	Senior Unsecured	2021	+65
Costco Wholesale	COST	AA-	$800	2.30%	Senior Unsecured	2022	+45
Costco Wholesale	COST	AA-	$1,000	2.75%	Senior Unsecured	2024	+60
Costco Wholesale	COST	AA-	$1,000	3.00%	Senior Unsecured	2027	+70
Goldman Sachs	GS	BBB+	€ 2,000	1.38%	Senior Unsecured	2024	+90(2)
Intel	INTC	AA-	$1,000	1.85%	Senior Unsecured	2020	+33
Intel	INTC	AA-	$700	L+8	Senior Unsecured	2020	NA
Intel	INTC	AA-	$750	2.35%	Senior Unsecured	2022	+45
Intel	INTC	AA-	$800	L+35	Senior Unsecured	2022	NA
Intel	INTC	AA-	$1,250	2.88%	Senior Unsecured	2024	+68
Intel	INTC	AA-	$1,000	3.15%	Senior Unsecured	2027	+80
Intel	INTC	AA-	$1,000	4.10%	Senior Unsecured	2047	+110
JPMorgan Chase	JPM	A-	€ 2,000	1.64%	Senior Unsecured	2028	+80(2)
LafargeHolcim Sterling Finance	LHN	BBB-(1)	GBP 300	3.00%	Senior Unsecured	2032	+150(3)
State Street	STT	A	$750	2.65%	Senior Unsecured	2023	+72
United Parcel Services	UPS	A+	$600	2.35%	Senior Unsecured	2022	+45
United Parcel Services	UPS	A+	$400	L+38	Senior Unsecured	2022	NA

Source: Advantage Data, company SEC filings
(1) Morningstar's issuer credit rating is assigned at the holding company level.
(2) Spread over mid-swaps.
(3) Spread over UK Treasuries.

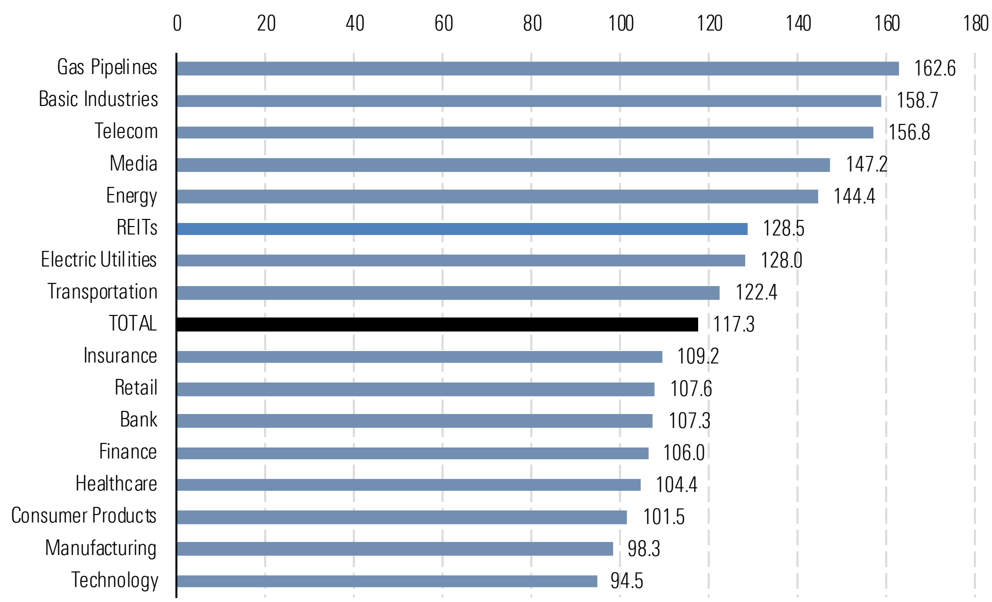
Exhibit 2 Morningstar, Inc. Corporate Bond Index Sector Summary

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-**	**4,717**	**6.9**	**117**	**(3)**	**(11)**	**0.22**	**2.64**
FINANCIAL	**A-**	**1,447**	**5.5**	**108**	**(4)**	**(14)**	**0.25**	**2.50**
Bank	A-	886	5.1	107	(5)	(15)	0.30	2.41
Finance	A	267	5.7	106	(2)	(15)	0.14	2.55
Insurance	A	211	7.7	109	(3)	(13)	0.21	3.07
REITs	BBB+	74	5.9	129	(1)	(7)	0.07	2.41
INDUSTRIAL	**A-**	**2,706**	**7.5**	**120**	**(3)**	**(10)**	**0.22**	**2.70**
Basic Industries	BBB+	224	7.5	159	(3)	(21)	0.11	4.32
Consumer Products	A-	296	7.6	102	(4)	(6)	0.19	2.25
Energy	A-	406	7.2	144	(1)	(11)	0.19	3.18
Healthcare	A-	390	7.8	104	(4)	(11)	0.33	2.74
Manufacturing	A-	410	6.3	98	(2)	(11)	(0.00)	2.03
Media	BBB+	190	8.3	147	(4)	(11)	0.33	3.01
Retail	A-	163	8.1	108	(1)	(0)	0.02	1.97
Technology	A+	290	7.2	95	(3)	(11)	0.21	2.57
Telecom	BBB+	156	8.6	157	(6)	(1)	0.55	2.26
Transportation	BBB+	135	9.0	122	(6)	(11)	0.21	2.89
UTILITY	**BBB+**	**521**	**8.3**	**143**	**(3)**	**(9)**	**0.15**	**2.99**
Electric Utilities	A-	303	8.8	128	(2)	(8)	0.06	2.66
Gas Pipelines	BBB+	209	7.7	163	(4)	(14)	0.26	3.48
Rating Bucket								
AAA Bucket		115	8.0	62	(3)	(4)	0.23	2.03
AA Bucket		554	5.8	75	(1)	(8)	0.04	1.94
A Bucket		1,743	6.9	96	(4)	(9)	0.15	2.27
BBB Bucket		2,305	7.1	149	(4)	(15)	0.32	3.18
Term Bucket								
1-4	A-	1,485	2.4	75	(3)	(18)	0.12	1.38
4-7	A-	1,153	4.7	100	(4)	(16)	0.20	2.63
7-10	A-	884	7.1	131	(3)	(6)	0.14	3.07
10PLUS	A-	1,195	13.7	170	(4)	(4)	0.42	3.80

Data as of 05/12/2017

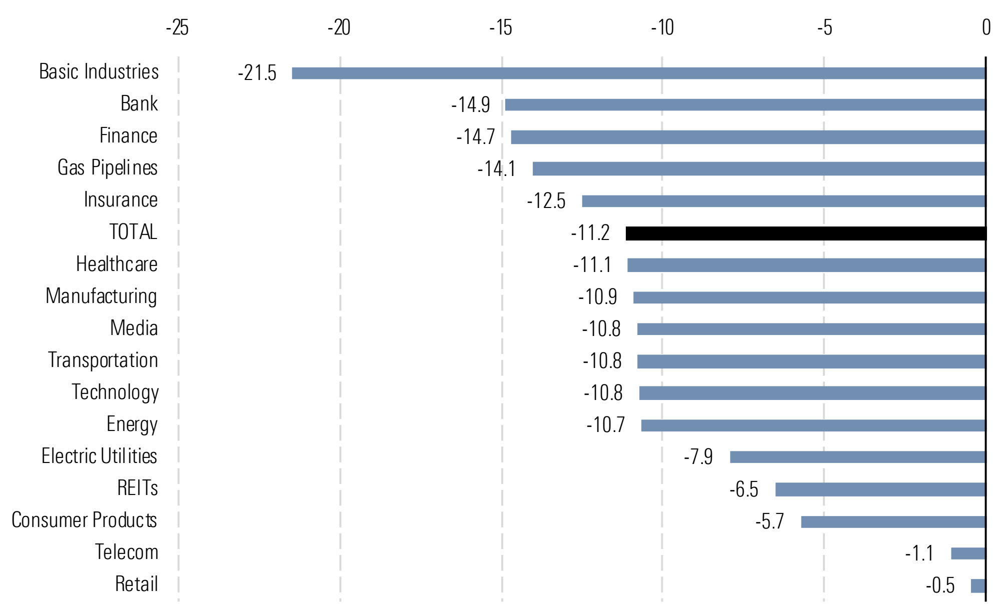
Source: Morningstar, Inc.

Exhibit 3 Morningstar, Inc. Corporate Bond Index Spread by Sector



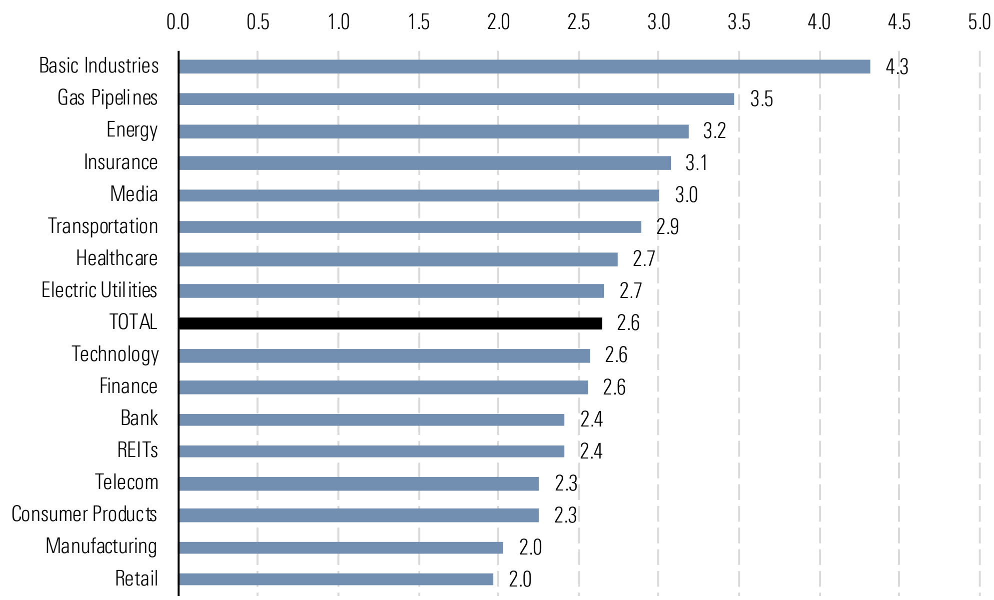
Source: Morningstar, Inc.

Exhibit 4 Morningstar, Inc. Corporate Bond Index YTD Spread Change



Source: Morningstar, Inc.

Exhibit 5 Morningstar, Inc. Corporate Bond Index YTD Return



Source: Morningstar, Inc.

Credit Rating Actions

Rating changes

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Pentair **PNR**	BBB/UR-	BBB
Mattel **MAT**	BBB	BBB+

Rating affirmations

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Adobe Systems **ADBE**	A+	A+
Delphi **DLPH**	BBB+	BBB+
Anadarko Petroleum **APC**	BB+	BB+
Apache **APA**	BBB-	BBB-
Dover **DOV**	A-	A-
Illinois Tool Works **ITW**	A	A
ABB Ltd **ABB**	A	A
Rockwell Automation **ROK**	A	A
Roper Technologies **ROP**	BBB	BBB

Pentair's BBB Rating Under Review Negative on Announced Separation

Morningstar Credit Ratings, LLC is placing Pentair PLC's BBB corporate credit rating under review negative because of the firm's intention to separate into two publicly traded companies. The firm expects the deal to close by the second quarter of 2018.

With the separation, we expect that the water business, which will retain the Pentair name, will primarily see a deterioration in its Business Risk pillar, as the stand-alone entity's $2.8 billion in revenue is roughly 60% of the combined business. Moreover, we believe acquisition spending will flow more freely than it would have under the same umbrella as the electrical business. Before this split, management indicated it would use roughly half of the $3 billion in net proceeds from the sale of its valves and controls business, which closed April 28, to retire a portion of its $4.5 billion in outstanding debt as of March 31, leaving it with around $1.5 billion to pursue deals before assuming incremental debt. Now, we believe the electrical business will provide a dividend to Pentair, which we estimate could amount to around $1.5 billion, assuming gross leverage of 3.0 times. We believe that Pentair could use these funds to tender for existing debt, including maturities during the next five years of $500 million due in 2018, $2.1 billion due in 2019, $400 million due in 2020, and $500 million due in 2021, to help reduce gross leverage closer to 3.0 times. Management also intends to maintain an investment-grade rating, which we will consider in our review.

As a combined entity, Pentair is a leading player in the water and electrical businesses. The firm's engineering equipment creates high switching costs, resulting in a narrow economic moat as assigned by Morningstar's Equity Research Group, which benefits its Business Risk score pillar. However, Pentair sells mostly in the general manufacturing sector, thus hurting the customer concentration and cyclicality components of that pillar. Pentair has had mixed success monetizing its competitive position into strong returns on invested capital including goodwill, in part because the decline in energy prices hurt its valves and controls segment. Still, the sale of valves and controls should result in improving profitability, which could help maintain its fair Solvency Score despite the moving parts on its balance sheet. We forecast Pentair will generate free cash flow of close to 18% of sales, but we expect it to pay annual dividends of nearly 33% of free cash flow and look to expand via acquisitions. These factors weigh on the firm's Cash Flow Cushion score.

At this point, we believe that the potential worsening of the Business Risk and Cash Flow Cushion pillars based on the planned split could cause a possible downgrade to our Pentair corporate rating. Alternatively, if Pentair decides that it is likely to operate with meaningfully lower leverage than it targets now and it opts against a likely material acquisition policy, then we could foresee our rating remaining at the same level.

Mattel's Rating Downgraded to BBB; Outlook Revised to Stable

Morningstar Credit Ratings, LLC is downgrading Mattel Inc.'s rating to BBB and revising the outlook to stable from negative. MCR's downgrade is based on materially lower profitability and cash flow, resulting in weakened credit protection measures. Over the past several years, Mattel's revenue and EBITDA have declined from the loss of a key license agreement, intensified competition due to shorter product lifecycles, the increasing use of technology in toys, the growth of online retailers, and heightened competition from its largest retail customers that promote their own private-label toys. Mattel's adjusted leverage has steadily increased over the last three years to 3.8 times in the last reported quarter.

Mattel's Solvency Score has declined due to lower returns, weaker interest coverage, and higher leverage. For the last 12 months ended with the first quarter of 2017, revenue fell nearly 6% to $5.3 billion while adjusted EBITDA declined 16% to $793 million. Recent profit declines have been part of a multiyear trend. Compared with Mattel's peak in 2013, revenue, adjusted EBITDA, and margins are lower by 18%, 45%, and 770 basis points, respectively. Over this same period, adjusted debt/EBITDA increased over 2 turns to 3.8 times. Mattel's debt/capitalization ratio is 51%, well above management's targeted 35% level. Mattel's below-average Cash Flow Cushion score reflects, in part, the maintenance of its dividend despite lower free cash flow.

Mattel's rating still reflects a leading market position in the domestic toy industry. Mattel's solid Business Risk Score is based its large scale, brand strength, and a narrow economic moat as assigned by Morningstar's Equity Research Group. Mattel holds a market-leading share in excess of 15% in the domestic toy industry along with licensing and entertainment relationships that provide substantial barriers to entry. Still, competition is intensifying with shorter product cycles and an increasing use of high technology in electronics and video games. Mattel's three largest customers—Wal-Mart, Toys 'R' Us, and Target—account for over one third of sales and are increasingly selling their own private-label toys. Also, online retailers such as Amazon.com increasingly offer a wide variety of toys at low prices.

A stable outlook reflects MCR's expectation that Mattel will be successful in stabilization and a modest recovery in revenue, EBITDA, and margins. The rating incorporates progress toward leverage reduction.

The rating could be lowered if Mattel is unsuccessful in reversing revenue declines and margin erosion which could negatively affect its Business Risk score and Solvency Score. The rating could be raised if Mattel returns profitability and credit metrics to historical levels.

Adobe Systems' Rating Affirmed at A+ and Stable Outlook Maintained

Morningstar Credit Ratings, LLC is affirming its corporate credit rating on Adobe Systems Inc. at A+ and maintaining a stable outlook. Our rating incorporates Adobe's low Business Risk and stable Solvency Score, supported by high returns on invested capital and modest leverage. Its conservative financial policy also contributes to a very strong Cash Flow Cushion, supported by ample cash flow generation. Morningstar's Equity Research Group assigns Adobe a wide economic moat rating, based on its high customer switching costs and its dominant market share in digital media and marketing.

For the past two years, Adobe's revenue growth and margin have been steadily accelerating since its transition to a subscription-based cloud delivery model. Recently, Adobe has been actively expanding its cloud marketing capacity, including the acquisition of video ad company TubeMogul, the launch of the Adobe Experience Cloud, and an agreement to offer marketing applications through Microsoft's Office 365 cloud platform. We believe these efforts should eventually contribute to Adobe's cloud marketing leadership position and support its existing competitive advantage in this market. However, the firm's product focus remains concentrated relative to more diversified enterprise software peers, which we believe constrains upward momentum in Business Risk.

Adobe has supported credit quality by managing its balance sheet conservatively, providing the company with ample flexibility to withstand unexpected shifts in its operating environment. At the end of the first quarter, the company reported total debt of $1.9 billion, supported by $4.6 billion in cash and short-term investments, of which we estimate about 15%-20% is held in domestic entities, based on Adobe's disclosures as of its fourth quarter. Total debt represented just under 1.0 turn of EBITDA at the most recent quarter-end, an improvement from a year ago as a result of EBITDA expansion. Cash in excess of debt was at 1.4 times EBITDA, slightly narrower from last year as EBITDA growth diluted the impact of expansion in excess cash.

The company does not currently pay a dividend, and share repurchases remain the primary use of free cash flow. Historically, shareholder returns have been managed conservatively, with no debt financing or significant drawdown of existing cash. Over the past four quarters, shareholder payout represented just 44% of free cash flow. The board recently approved a new $2.5 billion share-repurchase program to run through the end of 2019, bringing the remaining share-repurchase authorization to $2.8 billion. We believe Adobe will continue to explore strategic acquisitions to further its already-broad product portfolio, particularly as it builds out its digital marketing platform, though we expect management to remain focused on small to midsize targets along the lines of its $540 million acquisition of video advertising platform TubeMogul, which closed in December 2016.

Our rating assumes annual revenue growth to gradually slow from over 20% to around 10% over the next five years and a continued expansion in operating margin. We may consider an upgrade of the rating if Adobe can expand its product base while maintaining the same level of historical performance. We may consider a downgrade of the rating if management shifts to a more aggressive capital policy, particularly if the operating environment deteriorates.

Delphi's BBB+ Rating Affirmed but Outlook Changed to Negative on Powertrain Spin-Off

Morningstar Credit Ratings, LLC is affirming its BBB+ rating on Delphi Automotive PLC but changing the outlook to negative after Delphi announced its intent to spin off its powertrain unit in early 2018. The transaction could push leverage modestly higher while also reducing the diversity of Delphi's operations, albeit by leaving a business with higher margins and improved growth prospects.

Delphi's powertrain segment contributed $4.5 billion of the firm's $16.6 billion in 2016 sales. We estimate that powertrain EBITDA amounted to about $0.7 billion of the firm's $2.9 billion total, with margins about 200 basis points below those of the remaining businesses. Delphi ended the first quarter with total debt of $4 billion and gross leverage of 1.3 times. On a pro forma basis, excluding powertrain and leaving debt unchanged would push gross leverage to 1.9 times, which could pressure the rating and contributes to our negative outlook. However, management indicated that powertrain would pay a dividend to Delphi and the ultimate capital structures of both entities was not yet determined. Further, management indicated that it expects to retain its investment-grade rating. Should Delphi use a dividend to pay down its $400 million term loan, leverage would fall to 1.7 times and be more supportive of the rating. Delphi's remaining debt begins maturing in 2020, so we don't expect any of this to get paid down in advance. Management indicated it expects to have more detail around the capital structure at the time of the next earnings call.

Our rating reflects Delphi's proven sustainable business model and steady free cash flow. Delphi's leaner cost structure and focus on healthier parts of the auto-supply industry since exiting bankruptcy in 2009 have led to higher profitability. The firm redeployed much of its cost base out of the U.S. to lower-cost countries. We view Delphi as being well positioned in the auto-supply chain as demand increases for electrical architectural systems supporting electronic devices, electronic controls, and safety systems. The firm provides products that are in high customer demand and supported by government legislation. As such, we believe Delphi is positioned to enjoy growth in excess of global vehicle production. Our Business Risk score considers Morningstar Equity Research Group's narrow economic moat assessment and the deep cyclicality of the industry and historically cutthroat nature of the business. The company's portfolio continues to evolve around electronic content supporting connectivity, infotainment, and safety.

Our forecast for the firm, beginning after the spin-off in 2018, includes top-line growth averaging over 7% annually, driven by increasing electrical content in vehicles, including growth in autonomous driving and advanced driver assist systems. We also expect additional expansion of operating margins and free cash flow of about $1 billion annually. We will monitor management's capital-allocation plan, which currently consists of a disciplined approach to capital investment, dividends, acquisitions, and share repurchases.

Our negative outlook suggests the possibility of a downgrade in the next year or two if the company becomes more aggressive with its capital allocation policies. The deal should negatively affect the Cash Flow Cushion and Solvency Scores, putting pressure on the model-driven rating. We do not envision an increase to the rating at this point. However if management decides to aggressively pay down debt and reduce leverage in the capital structure to improve overall financial flexibility, the rating could move higher.

Anadarko Petroleum's Rating Affirmed at BB+, Outlook Revised to Positive

Morningstar Credit Ratings, LLC is affirming the BB+ corporate credit rating of Anadarko Petroleum Corp. and revising the outlook to positive from negative. MCR's affirmation incorporates an estimate for company results breaking even in the near term and renewed oil and gas price forecasts. The positive outlook reflects Anadarko's recent streamlining of oil and gas holdings, focusing on higher-margin domestic oil production, and ongoing, overall cost-reduction progress.

Our rating reflects estimated companywide, organic oil equivalent production growth at a low-double digit percentage rate per year for the next few years. The most influential projects incorporated in our forecast are Anadarko-operated developments, including the Delaware segment of the Permian Basin (Texas), DJ Basin (Colorado), and deep-water Gulf of Mexico. We include steady oil production forecast from the company's assets in Algeria and offshore Ghana. Our rating reflects the inherent cyclicality for exploration and production (upstream) activity. Further, our rating reflects the view that Anadarko does not benefit from a long-term sustainable competitive advantage, given the historical volatility of the company's return on invested capital. The rating outlook incorporates our expectation for break-even company results near term, with operating margins gradually expanding in light of cyclically rebounding oil and natural gas price realizations over the next several quarters.

Since the sharp decline in oil and gas prices began in the fall of 2014, Anadarko has refocused its resources on the best prospects and undertaken aggressive cost-reduction measures on the remaining portfolio. These actions include ongoing field and capital efficiency gains, capture of deflation in exploration and production supply chain inputs, and reduced head count. Anadarko's tactical acquisition of producing assets in the deep-water Gulf of Mexico in September, which significantly added to its position there, and recent agreements to sell its Marcellus shale gas (Pennsylvania) and Eagleford shale oil and gas (Texas) assets are major steps taken by the company to reshape its portfolio of oil and gas holdings, enhancing margins.

We regard Anadarko's liquidity as very good. The company ended 2016 with approximately $3.2 billion in cash and cash equivalents and full availability on $5.0 billion five-year and 364-day senior unsecured revolving credit facilities, collectively. Excluding capital investment guidance of $900 million-$1.0 billion by Western Gas Partners, LP (not rated), Anadarko has guided for a range of $4.5 billion-$4.7 billion in capital expenditures for 2017, about 60% higher than the prior year. After adjusting for capital expenditures, dividends, and divestments, we estimate positive free cash flow for Anadarko in 2017 of $2.2 billion (equivalent to 15% of year-end 2016 total debt of $15.3 billion), which benefits from our assumption of $3.5 billion in noncore asset sales. After 2017, we assume $350 million of asset sales per year, which is conservative relative to recent company history. After adjusting for the large, one-time benefit from asset sales in 2017, our estimate of free cash flow gradually cycles higher to $2.6 billion in 2021. This results in an average Cash Flow Cushion score. However, an increasing return on invested capital drives an improving Solvency Score through our forecast period.

In our base-case forecast, we estimate the company's EBITDAX margin gradually rising to 64% by 2021, after bottoming at 52% in 2016. Commensurate with this, we estimate the ratio of total debt/trailing EBITDAX to have peaked at 3.8 times in 2016, declining back to around 2 times by the end of 2019. Our base operating forecast incorporates an average 2017 price assumption of $3.50 per million British thermal units for U.S. natural gas and $3.00 per year thereafter. For oil (West Texas Intermediate basis), our yearly forecast is $55/barrel average for 2017, $60/barrel for 2018 and 2019, and $65/barrel for 2020 and 2021. Our natural gas price forecast is 2%-4% above the futures price curve (as of April 20) through 2021. For oil, our annual forecast is 10%-15% above the futures price curve through 2021, at the top end of the range for the last two years of our forecast.

Our positive outlook indicates a possible upgrade in Anadarko's credit rating given the company's recent streamlining of oil and gas holdings, focusing on higher-margin domestic oil production, and its ongoing, companywide cost-reduction progress. The company's credit trend should benefit from a gradual improvement in oil and gas supply/demand fundamentals and therefore higher price realizations. Collectively, this would allow company operating margins and cash flow to expand commensurate with our forecast. Given the positive outlook, a rating downgrade is not anticipated over the next year or so.

Apache's Credit Rating Affirmed at BBB-, Outlook Revised to Positive

Morningstar Credit Ratings, LLC is affirming the BBB- corporate credit rating of Apache Corp. and revising the outlook to positive. MCR's affirmation incorporates our renewed oil and gas price forecasts and our estimate for gradually improving company results over the next several quarters. The positive outlook reflects Apache's excellent progress in lowering its overall cost structure and its growth strategy, which focuses on higher-margin, domestic oil-weighted production.

Our rating reflects estimated companywide, organic oil equivalent production growth at a high-single-digit percentage rate per year for the next few years. The most influential projects incorporated in our forecast are Apache-operated developments, including growing production from holdings in the Delaware and Midland segments of the Permian basin (Texas and New Mexico), funded by steady production from high-margin, cash-flow generating assets in Egypt (onshore) and in the U.K. North Sea. Our rating also reflects the inherent cyclicality for exploration and production (upstream) activity. Further, our rating reflects the view that Apache does not benefit from a long-term sustainable competitive advantage, given the historical volatility of its return on invested capital. However, the sharp reduction in the company's cost structure should help temper this volatility. The rating outlook incorporates our expectation that operating margins will gradually expand in light of cyclically rebounding oil and natural gas price realizations over the next several quarters.

Before the steep decline in oil and gas prices in the fall of 2014, Apache had begun to streamline its portfolio of global oil and gas holdings. When pricing tanked, Apache accelerated divestitures of nonstrategic assets and undertook aggressive cost-reduction measures on the remaining portfolio. These actions include ongoing field and capital efficiency gains, capture of deflation in exploration and production supply chain inputs, reduced head count, and tactical trades, sales, and new acreage leasing, helping the company to block up acreage in key plays, in particular the Permian Basin.

Apache's liquidity relative to debt maturities through our forecast period is excellent. The company ended 2016 with approximately $1.4 billion in cash and cash equivalents and full availability on its $3.5 billion five-year senior unsecured revolving credit facility. Apache has guided for $3.1 billion in capital expenditures for 2017, more than 60% higher than the prior year. Further, on a preliminary basis, the company estimates capital expenditures to be $3.2 billion in 2018. Capital expenditures in both years are planned to be heavily weighted toward the Permian basin. After adjusting for capital expenditures, dividends, and divestments, we estimate positive free cash flow for Apache in 2017 of about $900 million (equivalent to 11% of year-end 2016 total debt of $8.5 billion), which benefits from our assumption of $750 million in noncore asset sales. After 2017, we assume $250 million of asset sales per year, which is conservative relative to recent company history. After adjusting for the large, one-time benefit from asset sales in 2017, our estimate of free cash flow cycles higher to $2.2 billion in 2021. This results in an average Cash Flow Cushion score. However, an increasing return on invested capital drives an improving Solvency Score through our forecast period.

In our base-case forecast, we estimate the company's EBITDAX margin gradually rising to 71% by 2021, after bottoming at 58% in 2016. Commensurate with this, we estimate the ratio of total debt/trailing EBITDAX to have peaked at 2.7 times in 2016, declining to nearly 1 time by the end of 2020. Our base operating forecast incorporates an average 2017 price assumption of $3.50 per million British thermal units for U.S. natural gas and $3.00 per year thereafter. For oil (WTI basis), our yearly forecast is $55/barrel average for 2017, $60/barrel for 2018 and 2019, and $65/barrel for 2020 and 2021. Our natural gas price forecast is 2%-4% above the futures price curve (as of April 20) through 2021. For oil, our annual forecast is 10%-15% above the futures price curve through 2021, at the top end of the range for the last two years of our forecast.

Our positive outlook indicates a possible upgrade in Apache's credit rating, given excellent progress made by the company in lowering its overall cost structure and its growth strategy, which focuses on higher margin, domestic oil-weighted production. The company's credit trend should benefit from a gradual improvement in oil and gas supply/demand fundamentals and therefore higher price realizations. Collectively, this would allow company operating margins and cash flow to expand commensurate with our forecast. Given the positive outlook, a rating downgrade is not anticipated over the next year or so.

Dover's Credit Rating Affirmed at A-, but Negative Outlook Maintained

Morningstar Credit Ratings, LLC is affirming our corporate credit rating on Dover Corp at A-. The affirmation reflects an improving outlook in Dover's businesses, including its energy segment.

Management now expects its energy segment will deliver at least 20% organic growth in 2017 versus last year, while the overall stronger outlook recently prompted the firm to raise its 2017 guidance. Nevertheless, we are maintaining our negative outlook because we still believe that the firm's creditworthiness could deteriorate further, as we are not yet certain that the current improvement in its energy business will translate into long-run deleveraging. Moreover, we are concerned about the potential for further debt-funded acquisitions.

Our rating for Dover reflects its elevated leverage due to falling earnings and debt-financed acquisitions, along with its solid competitive position. The firm's energy business was 25% of revenue and 35% of segment earnings in 2014 but fell to 16% and 6%, respectively, in 2016. As a result of that deterioration, EBITDA fell from $1.9 billion in 2014 to $1.1 billion in 2016, and leverage rose to 3.0 times from 1.6 times on that profitability trend and recent acquisition outflows, including $1.6 billion of acquisition spending in 2016 that was financed with cash and incremental debt. Even with this elevated leverage, Dover's credit rating continues to reflect its solid competitive position. Dover's Business Risk pillar benefits from its narrow moat assessment from Morningstar's Equity Research Group, although that positive attribute is offset by its average customer concentration and dependence on capital markets scores. Dover generates solid operating cash flow and has minimal reinvestment needs, but meaningful debt maturities, shareholder-friendly capital-allocation policies, and likely M&A spending hurt its Cash Flow Cushion score.

While an improving earnings outlook is a positive sign, we still expect that our rating could come under pressure if recent trends in the energy segment prove unsustainable. As a result, we'd suspect that permanently lower profitability would cause a potential degradation in Dover's Solvency Score through lower returns on invested capital while also hurting the Cash Flow Cushion score. Dover has historically grown via acquisitions, and another debt-funded deal could also pressure our rating. Alternatively, we could revise our rating upward if the nascent recovery in Dover's energy business catches fire, as the likely EBITDA growth will enable Dover to reduce debt faster than our we currently expect, helping both the Solvency and Cash Flow Cushion scores.

Illinois Tool Works' Rating Affirmed at A With Stable Outlook

We are affirming our A corporate credit rating on Illinois Tool Works Inc. Our rating balances the firm's strong competitive positioning and record returns with moderate leverage levels. We expect the firm's credit profile to be mostly unchanged over the next few years and are maintaining our stable outlook.

Our A issuer rating for Illinois Tool Works reflects the firm's competitive position and solid credit metrics offset by meaningful cash obligations. ITW has created switching costs through its position on customers' platforms and its specialized product offerings, enabling it to earn a narrow economic moat from Morningstar's Equity Research Group, which supports its solid Business Risk score. ITW has evolved over the last few years by selling noncore, commodified businesses that have detracted from margins and were likely to depress organic growth. The company completed 32 divestitures from 2013 to 2014, shedding $4.9 billion in low-margin revenue. Robust operating margin expansion has boosted returns on invested capital to record levels and supports a strong Solvency Score, although that pillar is constrained somewhat by ITW's decision to operate with leverage of 2.2-2.3 times. For the Cash Flow Cushion, we expect ITW to generate roughly $3.2 billion of operating cash flow annually over the next few years. The firm will reinvest around 30% into the business, pay out nearly 35% in dividends, and spend the balance on repurchases and acquisitions. As of Dec. 31, 2016, the firm faces debt maturities of $650 million, $1.35 billion, and $348 million due in 2017, 2019, and 2021, respectively. Combined, these factors contribute to a fair Cash Flow Cushion score.

We maintain a stable outlook on our rating. ITW has stated it is less willing to engage in a large debt-funded acquisition and prefers to find smaller bolt-on deals—it alluded to forgoing M&A altogether—and is comfortable operating at its current 2.2-2.3 times leverage target. However, our rating could come under pressure should ITW opt against targeting smaller acquisitions for a large deal, as the incremental leverage would hurt its Solvency and Cash Flow Cushion scores. Conversely, we could foresee a potential upgrade should ITW decide to revert to operating with lower leverage, which would help boost the Solvency Score.

ABB's Rating Affirmed at A With Stable Outlook

Morningstar Credit Ratings, LLC is affirming our corporate credit rating on ABB Ltd at A. Our rating blends the firm's strong position in the power transmission and distribution market and its improved financial results, offset by meaningful cash obligations and promised returns to shareholders. We expect our rating to remain at the current level over the next few years and maintain a stable outlook.

Our issuer rating of A reflects ABB's large size, market entrenchment, and strong financial position. ABB is a leader in power transmission, distribution, and robotics, holding a number-one or -two position in all its markets. Its products introduce switching costs, and its technical expertise in power transmission makes ABB the preferred vendor among many utilities as well as engineering and construction firms. This position earns a wide economic moat from Morningstar's Equity Research Group, helping ABB's Business Risk pillar. However, ABB receives weak product concentration and cyclicality scores since it primarily serves industrial companies and utilities. ABB has monetized its competitive advantage into strong returns on invested capital and high interest coverage ratios, leading to a solid Solvency Score. We forecast that ABB will generate around $3 billion annually in free cash flow during the next five years. However, it faces a meaningful debt maturity schedule during that period too, including $843 million due in 2017, $379 million due in 2018, $1.3 billion due in 2019, and $1.25 billion due in 2021. ABB also expects to increase its $1.6 billion dividend each year and recently announced a three-year, $3 billion repurchase program slated to begin in 2017. Additionally, ABB plans to grow via bolt-on acquisitions and has stated a readiness for a large-scale deal, although its objective is to maintain its A rating from the agencies. These factors constrain the firm's Cash Flow Cushion score.

We expect our rating to remain at the current level over the next few years, which is reflected in our stable outlook. However, should the firm reconsider its acquisitive nature and instead focus on debt reduction, we could foresee a potential upgrade from an improvement in the Solvency and Cash Flow Cushion scores. Should ABB land its sought-after large-scale acquisition, then we would expect to downgrade our rating, as the firm would probably raise debt to fund the deal.

Rockwell Automation's Rating Affirmed at A With Stable Outlook

Morningstar Credit Ratings, LLC is affirming the A corporate credit rating on Rockwell Automation Inc. Our rating incorporates the firm's superior business quality and strong financial results offset by its capital-allocation priorities. We expect that the firm's credit profile will remain similar for the foreseeable future, and we are affirming our stable outlook.

Our A credit rating balances Rockwell Automation's strong competitive position and enviable financial returns with its cash outlays, including its desire to pursue acquisitions. 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, which supports its Business Risk pillar. Rockwell sells to myriad customers but 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 the firm's meaningful retirement benefits liability hurts its total liabilities/total assets, the low cost of debt funding helps its interest coverage ratio, resulting in an impressive 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. We project the firm will allocate the remaining cash flow to dividends and repurchases; it also faces two maturities and its commercial paper borrowings totaling $1 billion over the next five years.

We expect that our credit rating will remain at the current level over the next few years. We expect that gross leverage will hover around 2.0 times and Rockwell will deploy its remaining cash flow for repurchases and tuck-in acquisitions. Should Rockwell decide to permanently reduce leverage, then we would expect a potential upgrade from an improvement in the Cash Flow Cushion. Our rating could come under pressure if Rockwell were to pursue a large-scale acquisition funded with incremental debt, especially if there is tax reform regarding repatriation of overseas cash, since almost all of Rockwell's cash resides outside the U.S. In that scenario, 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

We are affirming our BBB corporate credit rating on Roper Technologies, Inc. Our rating incorporates Roper's impressive business model and financial returns offset by its acquisitive nature. Although the Deltek acquisition initially raised leverage to 3.9 times from 2.4 times, the firm is already starting to deliver on our expectation that it could reduce leverage to predeal levels within 18 months. As a result, we are maintaining our stable outlook.

Our BBB rating balances Roper's strong competitive position and impressive financial results with its acquisitive proclivity. 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 business with high cash returns on investment, low capital expenditures, and minimal working capital. This stringent focus has enabled the firm to garner a narrow economic moat from Morningstar's Equity Research Group. Roper generates more than 50% of its business from recurring service sources—subscription, consumables, and replacement parts—helping alleviate its cyclicality, despite energy representing around 10% of the portfolio. These factors help support its 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. Despite these qualitative credit enhancements, Roper is an aggressive serial acquirer, and this detracts from its Business Risk score. For example, Roper acquired Deltek for $2.8 billion in December 2016 and aims to spend another $5 billion on deals over the next five years. It also faces sizable maturities over the next five years. With the addition of its dividend, we expect the firm to consume more in acquisitions and shareholder returns than its free cash flow, which constrains its Cash Flow Cushion.

We expect our rating will remain at the current level in the near future, as debt reduction remains a top priority after the Deltek acquisition. We believe the firm will reduce debt by an incremental $700 million by the end of 2017. However, should management permanently increase leverage following an acquisition, this could pressure its Solvency Score and result in a downgrade. Should management abandon its acquisition-heavy stance and focus on maintaining leverage around or below 2.5 times, then we could envision a potential upgrade, as we eliminate the additional penalty in the firm's Business Risk pillar associated with its acquisitive DNA.

Recent Notes Published by Credit Analysts

To review analysts' notes from the previous week, subscribers can visit https://select.morningstar.com.

Credit Contacts

Basic Materials
Sean Sexton, CFA
sean.sexton@morningstar.com
+1 312 348-3077

Consumer
Dave Sekera, CFA
david.sekera@morningstar.com
+1 312 696-6293

Consumer Defensive
Wesley Moultrie, CPA, CGMA
wesley.moultrie@morningstar.com
+1 312 384-5405

Consumer Cyclical
Wayne Stefurak, CFA
wayne.stefurak@morningstar.com
+1 312 696-6114

Energy
Andrew O'Conor
andrew.oconor@morningstar.com
+1 312 348-3021

Financials – Banks
Chris Baker, CFA
christopher.baker@morningstar.com
+1 312 244-7533

Financials – European Banks
Erin Davis
erin.davis@morningstar.com
+1 312 384-4810

Financials – Insurance, Non-Bank Financials
Jeremy Graczyk, CFA
jeremy.graczyk@morningstar.com
+1 312 244-7491

Healthcare
Julie Utterback, CFA
julie.utterback@morningstar.com
+ 1 312 696-6278

Healthcare
Michael Zbinovec
michael.zbinovec@morningstar.com
+ 1 312 348-3136

Industrials
Rick Tauber, CFA, CPA
rick.tauber@morningstar.com
+1 312 384-5431

Industrials
Basili Alukos, CFA, CPA
basili.alukos@morningstar.com
+1 312 384-4984

REIT
Chris Wimmer, CFA
chris.wimmer@morningstar.com
+1 646 560 4585

REIT
Mike Magerman
mike.magerman@morningstar.com
+1 267 960 6022

Technology, Media, and Telecom
Michael Dimler, CFA
michael.dimler@morningstar.com
+1 312 696-6339

For More Information

Gregg Novek
+1 646 560-4529
gregg.novek@morningstar.com

22 West Washington Street
Chicago, IL 60602 USA