Morningstar Corporate Credit Research Highlights

Interest rates surge higher; curve steepens.

Morningstar Credit Ratings, LLC
21 November 2016

Credit Market Insights

- Market data and insights.

Credit Rating Actions

- Rating Changes

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Phillips 66 PSX	BBB+	A

- Rating Affirmations

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
Valero Energy VLO	BBB+	BBB+
Arconic ARNC	BB+	BB+/UR+
Pfizer PFE	AA-	AA-
Roche Holding RHHBY	AA-	AA-
Merck MRK	AA	AA
Sanofi SNY	AA-	AA-

Recent Notes Published by Credit Analysts

- **Pfizer** issuing new debt to refinance existing obligations.
- **Merck KGaA**'s third-quarter performance driven by Sigma-Aldrich; leverage unwinding.

Credit Market Insights

Market Data and Insights

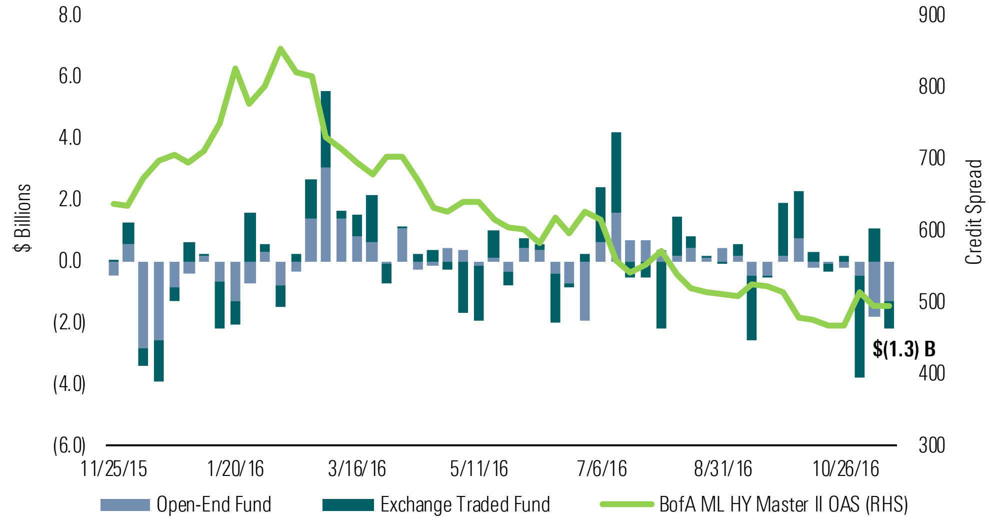
The bond and equity markets last week continued to follow the same trend since the election. U.S. Treasury bonds fell, pushing interest rates substantially higher, and the S&P 500 rose 0.81% to 2,181.90. After having fallen as low as 1,810 in February, the S&P 500 is now only about 12 points away from making a new all-time high. In the bond market, the entire yield curve rose and continued to steepen as long-term interest rates rose faster than short-term rates. For example, the yield on the 2-year Treasury rose 15 basis points to 1.07%, whereas the yield on the 10-year Treasury surged 20 basis points to 2.35%. These levels represent the highest level that interest rates have traded, as well as the steepest level that interest rates have been, thus far this year. With the stock market rising and inflation expectations at their highest levels since the fall of 2015, the markets are fully pricing in an interest rate hike by the Federal Reserve in December. According to data from CME Group, the market-implied probability that the Fed will increase the federal funds rate after the Dec. 14 Federal Open Market Committee meeting rose to over 95% at the end of last Friday.

Spread Between 2-Year and 10-Year Treasury Rates

Source: Federal Reserve Bank of St. Louis. Data as of 11/18/2016.

Through Nov. 17, the average spread of the Morningstar Corporate Bond Index widened 2 basis points to +136 while the Bank of America Merrill Lynch High Yield Master Index tightened 12 basis points to +485. Although corporate credit spreads tightened in the junk bond market, investors continued to pull money out of the high-yield space for the third consecutive week. Open-end mutual funds and exchange-traded funds suffered from withdrawals last week, with the total amount of redemptions equaling $1.3 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 Nov. 18, 2016
(000,000s $ unless otherwise noted)

Issuer			Issue				
Name	Ticker	Morningstar Corporate Rating	Size	Coupon	Description	Maturity	Approx Spread to US Treasuries
Abbvie	ABBV	BBB+	€ 1,400	0.38%	Senior Notes	2019	+50(1)
Abbvie	ABBV	BBB+	€ 1,450	1.38%	Senior Notes	2024	+95(1)
Abbvie	ABBV	BBB+	€ 750	2.13%	Senior Notes	2028	+125(1)
Bombardier	BBD.B	B-	$1,400	8.75%	Senior Notes	2021	+726
Eastman Chemical	EMN	BBB	€ 750	1.50%	Senior Notes	2023	+135(1)
Morgan Stanley	MS	BBB	$3,250	2.63%	Senior Notes	2021	+110
Pfizer	PFE	AA-	$1,000	1.70%	Senior Notes	2019	+45
Pfizer	PFE	AA-	$1,000	2.20%	Senior Notes	2021	+55
Pfizer	PFE	AA-	$1,750	3.00%	Senior Notes	2026	+85
Pfizer	PFE	AA-	$1,000	4.00%	Senior Notes	2036	+100
Pfizer	PFE	AA-	$1,250	4.13%	Senior Notes	2046	+110
Plains All American Pipeline	PAA	BBB+	$750	4.50%	Senior Notes	2026	+230

Source: Advantage Data, Company SEC fillings.
(1) Spread over mid-swaps.

Credit Rating Actions

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► Rating Affirmations

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Valero Energy VLO	BBB+	BBB+
Arconic ARNC	BB+	BB+/UR+
Pfizer PFE	AA-	AA-
Roche Holding RHHBY	AA-	AA-
Merck MRK	AA	AA
Sanofi SNY	AA-	AA-

Downgrading Phillips 66 to Reflect Use of Free Cash Flow for Shareholder Returns, Not Debt Reduction

Morningstar Credit Ratings, LLC is downgrading the corporate credit rating on Phillips 66 by two notches to BBB+ and maintaining a stable outlook. The company's credit metrics have eroded, and we no longer view them as consistent with the A category. Our rating reflects Phillips 66's large scale and cost-advantaged refining position on the U.S. Gulf Coast; cyclicality of the petroleum refining industry; integrated interests in chemical and midstream assets that generate higher returns and add earnings stability to petroleum refining operations; premium-branded wholesale outlets; and low debt leverage. These attributes are all incorporated into the narrow economic moat rating assigned to Phillips 66 by Morningstar, Inc. We expect our credit rating to remain at the current level during the next few years, as any additional free cash flow is likely to be diverted toward shareholder returns rather than debt reduction.

Phillips 66 owns petroleum refineries, related infrastructure, and midstream and chemical manufacturing assets that are difficult to replicate. The high-complexity capacity of Phillips 66's refineries on the U.S. Gulf Coast and in California allows it to process cheaper, lower-quality crude imports as feedstock, increasing realized margins. With about 35% of its refining capacity located on the U.S. Gulf Coast, Phillips 66 is cost-effectively positioned to access light crude from the midcontinent or cheap, waterborne heavy crude. We forecast gradually expanding earnings, supporting free cash flow generation and the ability for Phillips 66 to generally stay within its targeted 20%-30% debt/cap ratio while funding growth in the midstream and chemical segments, which have planned expansions in logistics and manufacturing capacity. In particular, the company should begin to benefit from incremental free cash flow in 2017 generated by CPChem's (50% equity interest) new polyethylene facilities in Texas and several pipeline and terminal expansions nearing completion by Phillips 66 Partners (its sponsored master limited partnership) and DCP Midstream Partners (50% equity interest), for which most of the capital expenditures are paid. Neither Phillips 66 Partners nor DCP Midstream is rated by Morningstar Credit Ratings, LLC.

We regard Phillips 66's liquidity as excellent. At the end of September, the company reported $2.3 billion in cash and equivalents. Furthermore, it has $5.4 billion total borrowing capacity available on the $5.75 billion combined credit facility of Phillips 66 and Phillips 66 Partners (both mature in October 2021). Phillips 66 plans $3.0 billion in capital expenditures in 2016, about 50% less than the previous year, and on a preliminary basis, the company foresees capital expenditures of $2.5 billion-$2.9 billion in 2017. After capital expenditures, we estimate Phillips 66 has more than sufficient cash flow for $1.0 billion in stock buybacks and a 4% annual increase in the dividend through 2020.

In our base-case forecast, the company's adjusted EBITDA margin declines to 4.6% in 2016 from 7.4% in 2015, then gradually expands to about 7% in 2020. Commensurate with this, we estimate the ratio of total debt/trailing EBITDA will increase from 1 times in 2015 to nearly 2 times in 2016, then gradually decline to 1.2 times by 2019.

Our base-case forecast incorporates an average 2016 price assumption of $2.50/mmBtu for U.S. natural gas and $42.00/barrel for West Texas Intermediate oil. Our forecast incorporates natural gas pricing 2%-4% above the futures price curve (as of Nov. 12) through 2020. For oil (WTI basis), our yearly forecast is 6%-10% above the futures price curve through 2020, at the top end of the range for the last two years of our forecast.

Although we think our revenue projections are conservative, if refined product pricing continues to languish, further squeezing margins, we may consider a downgrade of the credit rating. If refined product supply/demand fundamentals and the pricing outlook significantly improve, we would consider raising the credit rating.

Valero Energy's BBB+ Rating Affirmed With Stable Outlook

Morningstar Credit Ratings, LLC is affirming its BBB+ corporate credit rating on Valero Energy and maintaining a stable outlook. Our rating reflects Valero's large scale and cost-advantaged position on the U.S. Gulf Coast; premium-branded wholesale outlets; cyclicality of the petroleum refining industry; the integration of midstream assets of majority-owned Valero Energy Partners (not rated) with Valero refineries; and the company's low debt leverage. We expect our rating to remain at the current level during the next few years, as any additional free cash flow is likely to be diverted toward shareholder returns rather than debt reduction.

Valero owns petroleum refineries and related infrastructure assets that are difficult to replicate. The high-complexity capacity of Valero's refineries allows it to process cheaper, lower-quality crude imports as feedstock, increasing realized margins. With 8 of its 15 refineries located on the U.S. Gulf Coast, Valero is cost-effectively positioned to access light crude from the midcontinent or cheap, waterborne heavy crude, enabling it to earn a narrow economic moat, as assigned by Morningstar, Inc., which supports our Business Risk score. We forecast gradually expanding earnings, supporting free cash flow generation and the ability for Valero to stay within its targeted 20%-30% debt/cap ratio while funding asset optimization and strategic growth projects, including feedstock flexibility, cogeneration, and octane enhancement. Furthermore, Valero continues to pursue investments in logistics assets, such as the purchase of the remaining 50% interest in the Parkway Pipeline in July, which enhance refined product supply options and, simultaneously, are eligible for future drop down to Valero Energy Partners, its sponsored master limited partnership.

We regard Valero's liquidity as excellent. At the end of September, the company reported $5.9 billion in cash and equivalents and near-full availability on its $3.0 billion unsecured credit facility, which matures in November 2020. Valero plans $2.6 billion in capital expenditures in 2016, about 7% more than the previous year, which includes a major five-year turnaround at its Port Arthur refinery, the company's largest. On a preliminary basis, the company foresees capital expenditures of $2.4 billion-$2.6 billion in 2017. After capital expenditures, we estimate Valero has sufficient cash flow to pay out its targeted 75% of net income (dividends plus stock buybacks) through 2018.

In our base-case forecast, we estimate the company's adjusted EBITDA margin declining to 7.6% in 2016 from 9.3% in 2015, then gradually expanding back to about 8% in 2020. Commensurate with this, we estimate the ratio of total debt/trailing EBITDA will increase from 0.9 times in 2015 to about 1.5 times in 2016, then gradually decline to 1.2 times by 2018.

Our base-case forecast incorporates an average 2016 price assumption of $2.50/mmBtu for U.S. natural gas and $42.00/barrel for West Texas Intermediate oil. Our forecast incorporates natural gas pricing 2%-4% above the futures price curve (as of Nov. 12) through 2020. For oil (WTI basis), our yearly forecast is 6%-10% above the futures price curve through 2020, at the top end of the range for the past two years of our forecast.

Although we think our revenue projections are conservative, if refined product pricing continues to languish, further squeezing margins, we may consider a downgrade of the credit rating. Alternatively, if refined product supply/demand fundamentals and the pricing outlook significantly improve, we would consider raising the credit rating.

Arconic Affirmed at BB+ With Stable Outlook After Spinout

Morningstar Credit Ratings, LLC is affirming its BB+ credit rating on Arconic now that the company has spun off its upstream operations into a separate company. The affirmation reflects Arconic's somewhat leveraged balance sheet, its underfunded pension and other postretirement liabilities, and the business risk profile of its three downstream business segments. Our rating outlook on Arconic is stable.

After the spinout, Arconic now holds the legacy Alcoa debt that approximates $8.8 billion. Pro forma debt/EBITDA is estimated to initially be over 4 times and is expected to come down over time from debt repayment and EBITDA growth. Additionally, Arconic still has an estimated $3.1 billion in underfunded pension and other postretirement liabilities that weighs on its credit profile. The company's three downstream segments are forecast to produce approximately $1.9 billion in EBITDA in 2017 with the engineered products and solutions segment leading the way with an expected $1.1 billion, followed by the global rolled products segment with estimated EBITDA of approximately $500 million and the transportation and construction solutions segment with EBITDA of nearly $300 million. Although we believe the company has good growth prospects longer term and will be profitable, it does not possess an economic moat as assigned by Morningstar, Inc.

Our forecast indicates Arconic should be free cash flow positive. We estimate maintenance capital spending at approximately $400 million per year. After 2017, we expect that debt/EBITDA will be under 4 times. We note that Arconic still retains a 19.9% interest in Alcoa, which it intends to monetize in the future in its deleveraging efforts. Arconic's capital-allocation priorities will be to first invest in organic growth opportunities, then to pursue tuck-in acquisitions, and finally to deleverage and/or return cash to shareholders.

We could consider a downgrade of Arconic's credit rating if its Cash Flow Cushion Score deteriorates from weak operating results in it segments, potentially as a result of a cyclical downturn in its aero business. Also, we would consider a downgrade if the company does not deleverage as expected. We could consider an upgrade of the rating if the company's Cash Flow Cushion score exceeds our expectations due to stronger operating results in its aero business or other segments or if the company deleverages substantially.

Pfizer's AA- Corporate Credit Rating Affirmed With Stable Outlook

Morningstar Credit Ratings, LLC is affirming Pfizer's AA- credit rating to reflect the firm's proven ability to weather a significant patent cliff by boosting growth prospects through heavy acquisition activity and research productivity while generally maintaining a conservative balance sheet. We are also assigning a stable outlook to the firm's rating given a respite from patent expiration over the intermediate term that allows Pfizer time to advance its late-stage research pipeline.

Pfizer has dug a wide moat, according to Morningstar Inc., as it has restocked its stable of patent-protected medicines while contending with key drug patent expirations for over a decade. In addition, Pfizer's recent decision to forgo a split of its businesses has alleviated the significant uncertainty typically associated with corporate spin-offs. Presently, Pfizer has a brief respite from its patent challenges, giving it some breathing room to gain midterm approval of its late-stage research pipeline, including crisaborole (eczema), ertugliflozin (diabetes), or avelumab (cancer). We see the firm's patent cliff reappearing in 2018-19 after generic drug competition arises in the United States to Lyrica (10% of sales) and Viagra (4% of revenue). Nonetheless, we see revenue from promising new therapies, notably Xeljanz (diabetes) and Ibrance (cancer), helping stem expected erosion and contributing to compound annual sales growth in the midsingle digits through 2020. We also anticipate Pfizer's revenue from alliances to get a boost from its partnerships with Bristol-Myers Squibb for Eliquis (cardiovascular disease) and with Astellas (due to the recent Medivation acquisition) for Xtandi (cancer). Our main concern centers on growth beyond the next patent cliff, which we expect may be reliant on successful commercialization of potential blockbuster pipeline drugs, including avelumab as a cornerstone immuno-oncology medicine. We believe that Pfizer can increase EBITDA slightly ahead of revenue growth through 2020, given its prowess in extracting operating costs in the face of generic competition to its best-selling medicines. This level of operational performance bodes well for our Business Risk assessment, which remains Pfizer's strongest pillar.

Pfizer's improved growth prospects partially result from active business development that balances broadening the firm's therapeutic strengths in its Innovative Health segment with increasing scale and reach of its Essential Health division. With this strategy, the firm purchased Anacor Pharmaceuticals in

June to add a late-stage dermatology drug project to its research program, Hospira in September 2015 to expand its capabilities in parenteral medicines, and Medivation in September to obtain commercial and research portfolios of cancer drugs. After Pfizer paid more than $34 billion for the three acquisitions, total debt rose to $44 billion at the end of September (including $8 billion in commercial paper borrowings) compared with $37 billion in 2014. While the company was recently in the market to refinance some of its debt due as of September, total debt and net debt leverage was elevated at 2.1 times and 1.0 times, respectively, for the latest 12 months as of the end of the third quarter. Pfizer enjoys substantial liquidity, provided by cash and investments of $24 billion at the end of September and free cash flow of $13 billion for the latest 12 months ended in September. However, we see Pfizer only easing down gross debt leverage mainly from EBITDA growth, as it typically directs significant free cash flow toward shareholder returns. For example, during the latest 12 months ended in September, the firm paid dividends of $7 billion and repurchased $5 billion in equity. Pfizer's shareholder-friendly stance limits improvement to our Cash Flow Cushion pillar, while the firm's higher leverage somewhat stresses our Solvency Score and Distance to Default.

Our stable outlook on Pfizer's rating considers that the nearing patent cliff may be fully offset by sustained uptake of new medicines, importantly Ibrance and Xeljanz, as well as commercialization of the firm's late-stage research pipeline. Pfizer currently has a break from significant patent expirations to bolster its growth prospects over the next few years through research productivity, namely gaining approval of potential blockbusters ertugliflozin and avelumab, and by supplementing its product portfolio via business development. If actual operational performance or research successes fall below our expectations, our AA- rating for Pfizer may be in jeopardy. Downward pressure on the current rating may also arise from large leveraging transactions, such as heavy business development or aggressive share repurchases that significantly stress leverage over a long period.

Roche's AA- Corporate Credit Rating Affirmed With Stable Outlook

Morningstar Credit Ratings, LLC is affirming Roche's AA- credit rating to reflect the firm's leadership in cancer pharmaceuticals and diagnostic testing and its financial strength. We are also assigning a stable outlook, given our confidence that a refreshed oncology portfolio may offset eventual biosimilar competition to older cancer medicines Rituxan, Avastin, and Herceptin.

After years of notable failures, Roche's research program in pharmaceuticals and diagnostic testing has recently been productive. This diversity supports the firm's solid Business Risk pillar. Over the past year, the company introduced four new cancer therapies: Alecensa for ALK+ non-small-cell lung cancer, Cotellic for combination use with Zelboraf in skin cancer, Venclexta for chronic lymphocytic lymphoma, and immuno-oncology cornerstone Tecentriq for its first indications in bladder cancer and metastatic NSCLC. These new treatments are part of the firm's plan to launch five new medicines within a year or so. As such, we are gaining confidence that Roche can overcome eventual biosimilar competition in the coming years to its best-selling cancer drugs Rituxan, Avastin, and Herceptin, which represent roughly 40% of total revenue. We include biosimilars in our estimation with Rituxan and Herceptin competition arising in Europe by 2017 and Avastin under pressure after patent protection is lost in Europe in 2019. In the U.S., biosimilars may emerge for these drugs after key patents expire during 2019. Nonetheless, with sustained growth of next-generation oncology medicines Gazyva, and Perjeta, we see top-line growth of

6% through 2020 compounded annually. Roche's solid ability to control operating costs may keep EBITDA growth at a pace slightly ahead of sales growth during that time frame.

Generally, Roche has been financially conservative by opting for small acquisitions to fill research gaps and limiting shareholder returns to a dividend alone. As a result, the firm's credit profile is strong with CHF 7 billion in cash and investments compared with CHF 23 billion in total debt at the end of the first half for gross debt and net debt leverage of 1.2 times and 0.8 times, respectively, for the trailing 12 months ended in June. Free cash flow that we estimate at almost CHF 14 billion annually on average through 2020 is more than enough to satisfy coming debt maturities and to pay a healthy dividend. Strong free cash flow, manageable debt maturities, solid growth prospects, and a strong balance sheet positively influence our Solvency Score and Distance to Default pillars. However, Roche commits significant cash flow to its dividend by targeting a payout ratio of 60%, which constrains our Cash Flow Cushion.

Our stable outlook captures our expectations that Roche may maintain its conservative financial posture as it proactively restocks its maturing medicine bag. Uplift to the current rating could arise if Roche successfully launches new products while sustaining growth of maturing pharmaceuticals either through viable line extensions or later-than-anticipated biosimilar competition to Rituxan, Herceptin, or Avastin. On the other hand, delays introducing new products, earlier-than-expected biosimilar entrants for its top products, or the inability to offset increased product launch expenses through efficiencies could cause operational performance to significantly lag our estimates and negatively affect our rating. While we currently expect the firm to remain disciplined with capital deployment, our rating could come under pressure if Roche pursues a large debt-funded acquisition or makes larger returns to shareholders.

Merck's AA Corporate Credit Rating Affirmed With Stable Outlook

Morningstar Credit Ratings, LLC is affirming Merck's AA credit rating to reflect the firm's successful navigation of a long-standing patent cliff, recent research productivity, and strong balance sheet. We are also assigning a stable outlook, which captures Merck's slow but steady growth prospects as the remaining patent risk ebbs and new pharmaceuticals gain momentum.

Merck has aimed its research on areas of unmet medical need since 2013, which has resulted in the introduction of important new medicines, most notably the immuno-oncology pharmaceutical Keytruda that launched in late 2014. Compelling growth of this innovative cancer drug, which could serve as a backbone for combination therapies, and rapid uptake of Merck's new hepatitis C treatment, Zepatier, may help offset declines in maturing drugs over the next few years. We estimate that Merck may maintain revenue growth in the low single digits through 2020 compounded annually, including the patent lapses of Remicade, Zetia, and Vytorin, which represent almost 14% of company sales. Our estimate also considers the firm's decent research pipeline that balances high-risk, high-reward drug candidates, such as anacetrapib for high cholesterol and a BACE inhibitor for Alzheimer's, with higher-probability projects like ertugliflozin, an SGLT-2 diabetes therapy. Morningstar, Inc. rates uncertainty for Merck as low and gives the firm a wide moat assessment, as Merck has successfully navigated the patent cliff that hung over it for the past 10 years and commercialized promising new drug candidates. These positive factors have helped maintain our solid Business Risk pillar.

A cash-rich balance sheet and expectations for stable, neutral net leverage positively influence our Cash Flow Cushion, Solvency Score, and Distance to Default scores. Merck has historically demonstrated financial discipline, especially in light of its long patent cliff, which saw a major pharmaceutical expire almost every other year dating back to Zocor in 2006. During this time, the firm maintained relatively steady debt leverage (with the exception of the Schering-Plough merger in 2009) below 2 times on a gross debt basis and near neutral on a net debt basis. As of September, Merck owed $25 billion in debt (1.7 times trailing 12-month EBITDA), which was virtually covered by nearly $25 billion in cash and investments. Going forward, we think that operational strength may be the main contributor to keeping net debt leverage relatively constant rather than debt reduction, as the company directs significant cash flows to shareholder rewards. For the last 12 months ended in September, Merck paid around $5 billion in dividends and $4 billion in share repurchases compared with $9 billion in free cash flow. We see Merck's cash priorities as maintaining a healthy dividend, supplementing its business development strategy, and aggressive share repurchasing in the absence of viable M&A.

Our stable outlook on Merck's rating accounts for the potential of new medicines, most notably Keytruda and Zepatier, to fully replace losses stemming from the patent expirations of Remicade, Zetia, and Vytorin, coupled with the company's sustained financial discipline. We do not see an immediate catalyst to move the current credit rating upward or downward, but our AA rating could change by a deviation from our operational performance estimates, most likely resulting from unexpected demand for Merck's best-selling drug franchise Januvia or immuno-oncology cornerstone Keytruda. Additionally, the rating could fall due to large leveraging transactions, such as heavy business development or aggressive share repurchases that significantly stress leverage over a long-term period.

Sanofi's AA- Corporate Credit Rating Affirmed With Stable Outlook

Morningstar Credit Ratings, LLC, is affirming Sanofi's AA- credit rating to reflect the firm's solid balance sheet and diversified product portfolio in human pharmaceutical, consumer healthcare, and vaccines that may help shield it from the impact of biosimilar competition to its best-seller Lantus. We are also assigning a stable outlook, as recent research productivity may mitigate key drug patent expirations after an inflection point in 2017.

Sanofi looks set to overcome biosimilar inroads to its top-selling medicine Lantus with a variety of new pharmaceuticals, along with an expanded consumer health segment. Biosimilar versions of Lantus have already launched in Europe, and Eli Lilly's follow-on insulin glargine product Basaglar is likely to launch in the U.S. in December, which we see as contributing to current weakness in pricing in the insulin market and hindering growth prospects for Lantus (which generates about 18% of Sanofi's revenue). Sanofi's research program has been highly productive since 2013, having introduced six novel medicines and a one-of-a-kind dengue vaccine. We estimate that significant contributions from uptake of these new drug products, notably next-generation insulin Toujeo, novel cholesterol fighter Praluent, and multiple sclerosis treatments Aubagio and Lemtrada, may help ease the stress on the diabetes franchise. Two potential blockbusters may further emerge from Sanofi's innovative research pipeline: immunology medicine sarilumab and atopic dermatitis treatment dupilumab, each with a Food and Drug Administration review deadline in the near term. While Sanofi will lose some diversification with the exchange of its animal health division for Boehringer Ingelheim's consumer health business, an enhanced consumer healthcare franchise serves as a platform for steady growth that can offset some impact of key drug patent expirations. After a modest stumble in 2017, we think overall sales and EBITDA will grow more than 4% in 2018-20 compounded annually, and despite less diversity than the firm enjoyed previously, our Business Risk pillar remains Sanofi's strongest.

The firm's conservative financial strategy has positively influenced our Solvency Score and Distance to Default pillars. Sanofi has historically managed a strong balance sheet with gross debt leverage below 1.5 times and net debt leverage less than 1.0 times. Presently, the debt load is higher at EUR 20 billion, owing to new issuances that totaled EUR 4.8 billion during 2016, compared with long-term debt of nearly EUR 3 billion due in the first half of the year. Sanofi also held EUR 12 billion in cash and investments at the end of September. As such, total debt/EBITDA increased to 2.0 times and net debt/EBITDA rose to 0.9 times for the trailing 12 months ended in September, from 1.5 times and 0.6 times, respectively, at the end of 2015. We see leverage only slightly easing from the current levels over the next two years as the firm grapples with weak operating performance due to weakening Lantus sales. Also, around 60% of free cash flow is used to pay a large dividend, with the balance left for share repurchases or asset buys, which may crimp debt repayment over the next few years. Additionally, with proceeds from the Boehringer Ingelheim asset swap, the firm announced a new EUR 3.5 billion repurchase program to be completed by the end of 2017. These generous shareholder rewards constrain any potential improvement to the Cash Flow Cushion and limit uplift to our AA- rating. Plus, following the failed pursuit of Medivation, Sanofi remains open to tuck-in and midsize deals (up to the size of Genzyme, or around $20 billion) to strengthen its key therapeutic areas, which creates some event risk at the firm.

Our stable outlook for Sanofi considers the company's continued financial conservatism and ability to somewhat counter biosimilar Lantus competition with a diverse portfolio, including a refreshed medicine chest. A deviation from its financial strategy that calls for leveraging shareholder-friendly activities, most likely aggressive share repurchases, or heavy business development that stresses leverage above traditional levels for a sustained period could lead to negative rating action. On the flip side, a subdued impact from Lantus biosimilars over the next two years, possibly from strong demand for newer drugs (most notably an acceleration in Praluent uptake) and vaccines (namely Dengvaxia), could support an upward rating action.

Recent Notes Published by Credit Analysts

Pfizer Issuing New Debt to Refinance Existing Obligations

Market News and Data

Pfizer (rating: AA-) is in the market with a new multitranche debt offering comprising 3-, 5-, 10-, 20-, and 30-year bonds. Proceeds will be used for general corporate purposes, including funding a tender offer for $3.25 billion of 6.2% senior unsecured notes due in 2019. In addition, the firm may direct some proceeds to a reduction in short-term debt as it had $8 billion in commercial paper borrowings outstanding at the end of September.

For closest comparison to Pfizer's bonds, we look to similar-rated Roche (rating: AA-) and Bristol-Myers Squibb (rating: AA-, stable). We also compare Pfizer with higher-rated Eli Lilly (rating: AA, stable) and Merck (rating: AA). Within this comparable group, Pfizer's 10-year bonds trade closest to those from Roche and Eli Lilly, but tighter than the level of the Morningstar AA Corporate Bond Index.

In the approximate 5-year maturity bucket, bonds from these issuers recently traded over the nearest Treasury as follows:
Pfizer's (rating: AA-) 1.95% notes due 2021 at +46 basis points;
Roche's (rating: AA-) 2.875% notes due 2021 at +54 basis points;
Bristol-Myers Squibb's (rating: AA-, stable) 2.0% notes due 2022 +49 basis points;
Merck's (rating: AA) 3.875% notes due 2021 +50 basis points; and
Eli Lilly's (rating: AA, stable) 1.95% notes due 2019 +38 basis points.

In the approximate 10-year maturity bucket, bonds from these issuers recently traded over the nearest Treasury as follows:
Pfizer's 2.75% notes due 2026 at +69 basis points;
Roche's 2.625% notes due 2026 at +66 basis points;
Bristol-Myers Squibb's 3.25% notes due 2023 +47 basis points;
Merck's 2.75% notes due 2025 +81 basis points; and
Eli Lilly's 2.75% notes due 2025 +64 basis points.

For comparison with the approximate 10-year maturities, the Morningstar Corporate Bond Index is at +84 basis points in the AA category.

In the approximate 30-year maturity bucket, bonds from these issuers recently traded over the nearest Treasury as follows:
Pfizer's 4.4% notes due 2044 at +102 basis points;
Roche's 4.0% notes due 2044 at +89 basis points;
Bristol-Myers Squibb's 4.5% notes due 2044 +107 basis points;
Merck's 3.7% notes due 2045 +92 basis points; and
Eli Lilly's 3.7% notes due 2045 +97 basis points.

MCR Credit Risk Assessment

Pfizer's AA- rating reflects the firm's proven ability to weather a significant patent cliff by boosting growth prospects via heavy acquisition activity and research productivity while generally maintaining a conservative balance sheet. Pfizer has dug a wide moat, according to Morningstar, Inc., as the firm has restocked its stable of patent-protected medicines as it contended with key drug patent expirations for over a decade. Pfizer's recent decision to forgo a split of its businesses has alleviated the significant uncertainty typically associated with corporate spin-offs. Now, Pfizer has breathing room from patent challenges to gain midterm approval of its late-stage research pipeline and before a patent cliff reappears in 2018-19 after U.S. patent lapses of Lyrica (10% of sales) and Viagra (4% of sales). Nonetheless, we see revenue from promising new therapies, notably Xeljanz (diabetes) and Ibrance (cancer), contributing to mid-single-digit sales growth compounded annually through 2020. Our main concern centers on growth beyond the next patent cliff that we expect may need successful commercialization of potential blockbusters, including avelumab as an immuno-oncology cornerstone. However, we believe that Pfizer can increase EBITDA slightly ahead of revenue growth through 2020, given its prowess in extracting operating costs in the face of generic competition to its best-selling medicines. Active business development over the past couple of years includes Anacor to add late-stage dermatology drug project crisaborole, Hospira to expand capabilities in parenteral medicines, and Medivation to obtain commercial and research portfolios of cancer drugs. After Pfizer paid more than $34 billion for the three acquisitions, total debt and net debt leverage rose to 2.1 times and 1 times, respectively, for the 12 months ended in September from 1.6 times and 0.2 times, respectively, in 2013.

Merck KGaA's Third-Quarter Performance Driven by Sigma-Aldrich; Leverage Unwinding

MCR Credit Risk Assessment

On Nov. 15, Merck KGaA (rating: BBB+/stable) announced solid third-quarter results with sales jumping 19% due to the acquisition of Sigma-Aldrich in November 2015. Paring back the contribution from the acquisition, group revenue rose 0.9% organically, with the healthcare segment generating organic sales growth of 1.3%, the life sciences sector increasing 5.7% organically, and the performance materials business declining 0.4%. Despite a somewhat weaker performance in the quarter from the healthcare segment and a near-ending of a washout of liquid crystal display inventory, the firm maintained sales guidance of EUR 14.9 billion-15.1 billion in 2016. With better-than-expected cost control through its research programs, Merck KGaA raised its forecast for adjusted EBITDA to EUR 4.45 billion-4.60 billion (from EUR 4.25 billion-4.40 billion) and free cash flow to EUR 3.25 billion-3.36 billion (from EUR 3.14 billion-3.25 billion).

From a credit perspective, we applaud the company's commitment to reducing leverage that dramatically rose following its purchase of Sigma-Aldrich. In conjunction with the acquisition, the company's debt load jumped to EUR 13.7 billion at the end of 2015 from EUR 5.6 billion in 2014. So far in 2016, the company has made strides on its top priority of reducing net leverage to below 2 times in 2018 by paying down around EUR 1 billion of debt (gross debt of EUR 12.6 as of September). As such, gross debt and net debt leverage stood at 2.8 times and 2.6 times, respectively, on a pro forma basis for the trailing 12 months ended in September, strengthening the firm's positioning in its BBB+ rating. We expect the firm's net leverage target of below 2 times can be achieved through debt reduction and solid operational performance, while the firm holds tight on large business development transactions and significant repurchases in the near term. We expect Merck KGaA's roughly EUR 2 billion in annual free cash flow could grow to exceed EUR 3 billion by 2020, which can easily satisfy annual dividend payments of greater than EUR 500 million while providing flexibility to quickly wind down leverage. Long-term debt maturities totaling approximately EUR 1.4 billion through 2018 offer the firm an opportunity to chip away at the outstanding debt load to meet its deleveraging goal.

Market Data

For best comparisons with Merck KGaA's notes, we look to similar-rated AbbVie (rating: BBB+/negative) and Zoetis (rating: BBB+). Within this comparable group and adjusted for bond maturities, Merck KGaA's 5-year bonds recently traded tighter than those at AbbVie and Zoetis. In the approximate 5-year maturity bucket, bonds from these issuers recently traded over the nearest Treasury as follows:
Merck KGaA's (rating: BBB+/stable) 2.95% notes due 2022 at +91 basis points
Zoetis' (rating: BBB+) 3.45% notes due 2020 at +104 basis points; and
AbbVie's (rating: BBB+/negative) 2.3% notes due 2021 at +98 basis points.

Merck KGaA's 10-year bonds trade tighter than its peer group. In the approximate 10-year maturity bucket, bonds from these issuers recently traded over the nearest Treasury as follows:
Merck KGaA's 3.25% notes due 2025 at +131 basis points
Zoetis' 4.5% notes due 2025 at +146 basis points; and
AbbVie's 3.6% notes due 2025 at +142 basis points.

Merck KGaA's' 10-year bond also trade tighter than the level of the Morningstar BBB+ Corporate Bond Index, which was recently at +156 basis points. In comparison, the Morningstar A- Corporate Bond Index was recently at +123 basis points.

Credit Analyst 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

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

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

For More Information

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

22 West Washington Street
Chicago, IL 60602 USA