# Morningstar Corporate Credit Research Highlights

## Corporate credit spreads widen slightly, but financial conditions remain especially easy.

**Morningstar Credit Ratings, LLC**
20 November 2017

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| Issuer/Ticker | Current Issuer Credit Rating | Previous Issuer Credit Rating |
|---|---|---|
| Sanofi **SNY** | AA- | AA- |
| Pfizer **PFE** | AA- | AA- |
| Roche **RHHBY** | AA- | AA- |
| Merck **MRK** | AA | AA |
| Marathon **MPC** | BBB | BBB |
| T-Mobile **TMUS** | BB | BB |
| Valero Energy **VLO** | BBB+ | BBB+ |
| Phillips 66 **PSX** | BBB+ | BBB+ |

### Recent Notes Published by Credit Analysts

- **Republic Services** Is Issuing New 10-Year Bonds
- **CBS** Announces New Senior Notes
- **Southwest Airlines** Is Issuing New 5- and 10-Year Debt
- **Lennar** in Market to Fund CalAtlantic Acquisition
- **Anthem** in Market With Series of Senior Notes
- **Schlumberger** Announces New Senior Notes to Purchase Palliser Block
- **Ecolab** Issuing $800 Million in Senior Notes

## Credit Market Insights

### Corporate Credit Spreads Widen Slightly, but Financial Conditions Remain Especially Easy

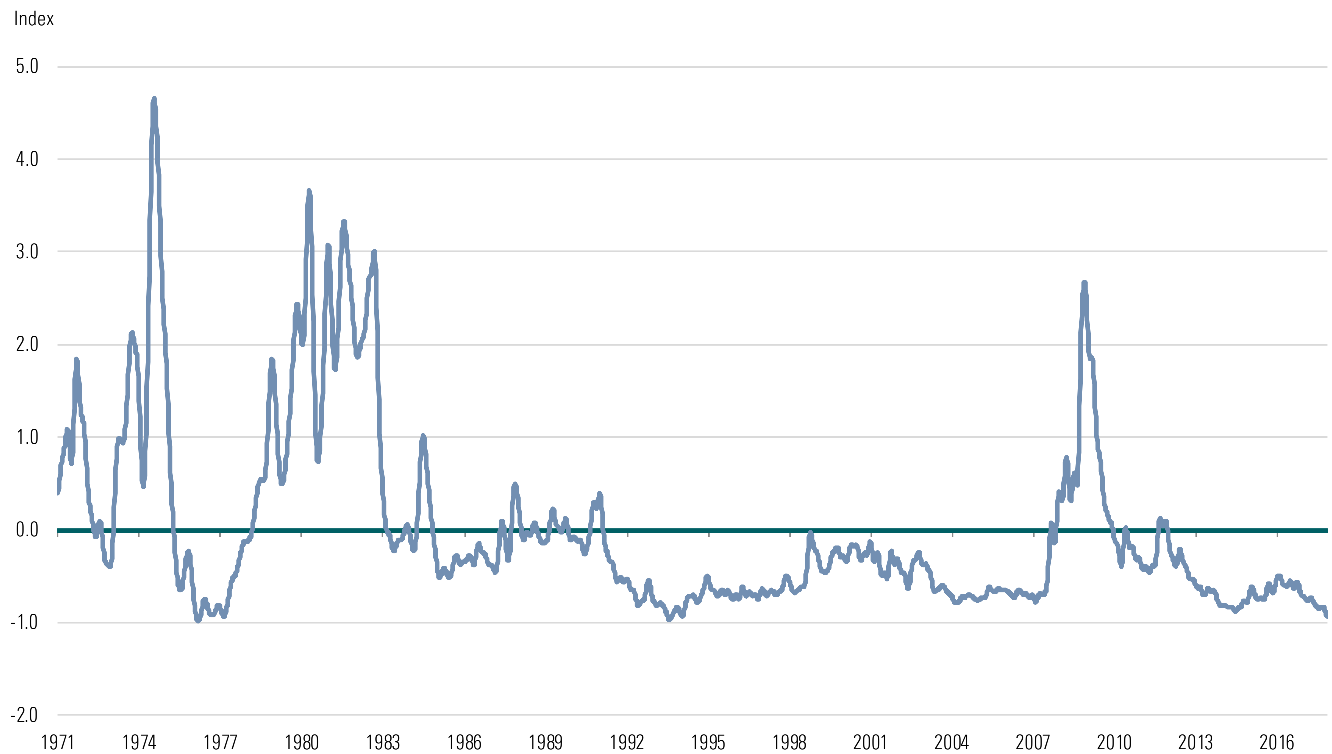
Two weeks ago, we noted the market's difficulty digesting a prodigious serving of new issuances, as some investors were looking to lock in profits for the year early and others seem to have begun year-end window-dressing early this year. This led to a bout of heartburn as the market tried to digest the new supply, and corporate credit spreads had to widen out to attract investors. This trend continued early last week, but once the new supply was absorbed by midweek, the corporate bond market began to recover in the latter half of the week. By the end of the week, the average spread of the Morningstar Corporate Bond Index (our proxy for the investment-grade bond market) had widened 1 basis point to +105. The high-yield market, after widening as much as 20 basis points by midweek, recovered its losses, and the BofA Merrill Lynch High Yield Master Index ended the week unchanged at +376.

**Corporate Bond Credit Spreads**


Source: Morningstar,Inc., BofA Merrill Lynch Global Indexes. Data as of 11/17/2017.

Although corporate credit spreads have bounced off their recent lows, financial conditions in the United States remain highly accommodative. The Federal Reserve Bank of Chicago publishes a weekly index that measures more than 105 variables to gauge how loose or tight financial conditions are in U.S. capital markets as well as the traditional and shadow banking systems. These variables include credit availability and cost, leverage, risk, interest rates, and credit spreads. Index levels above zero indicate tighter-than-average conditions, whereas levels below zero represent looser-than-average conditions. The National Financial Conditions Index is currently showing that financial conditions are at their loosest since October 1994.

**Chicago Fed National Financial Conditions Index**




Source: Federal Reserve Bank of St. Louis via Federal Reserve Bank of Chicago. Data as of 11/17/2017.

As corporate credit spreads widened over the past few weeks, the negative sentiment pressured many issuers to hold off accessing the public capital debt markets last week. Typically, there will be a surge of new issuances during the week before Thanksgiving. At that time, issuers have exited self-imposed quiet periods before the release of third-quarter results and are looking to take advantage of the narrow window to the new issue market before the beginning of the holiday season the following week. A few issuers that held off last week will probably tap the market early this week, but those issues will need to be priced Monday or Tuesday; otherwise, issuers will need to wait until after the Thanksgiving holiday.

While the yield on the 2-year Treasury bond rose another 7 basis points to 1.72%, hitting its highest level since October 2008, interest rates fell across the long end of the curve. The yield on the 10- and 30-year Treasury bonds declined 6 and 10 basis points, respectively, ending the week at 2.34% and 2.78%. The yield on the 2-year bond has been trending steadily higher for several years and has outpaced the increase on longer-term bonds. As such, the yield curve has been flattening, and the spread between the between the 2-year and the 10-year has tightened.

**10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity**


Source: Federal Reserve Bank of St. Louis and Bloomberg. Data as of 11/17/2017.

Historically, a flattening yield curve has been a leading indicator of a potentially weakening economy, However, this time around, this signal may be distorted by global central bank actions. The short end of the curve is being directly influenced by the Federal Reserve, which is hiking short-term rates, while the long end of the curve may be influenced by the ongoing quantitative easing programs of the European Central Bank and Bank of Japan. Even though the 10-year U.S. Treasury is yielding only 2.34%, that yield is attractive to global bond investors, as the yield on Germany's 10-year bond is 0.36% and the yield on Japan's 10-year bond is barely positive at 0.04%. From an economic perspective, growth in the short term appears to be healthy. GDP was reported to be a relatively strong 3.0% in the third quarter, and the GDPNow model forecast produced by the Federal Reserve Bank of Atlanta for real GDP growth in the fourth quarter was just increased to 3.4%.

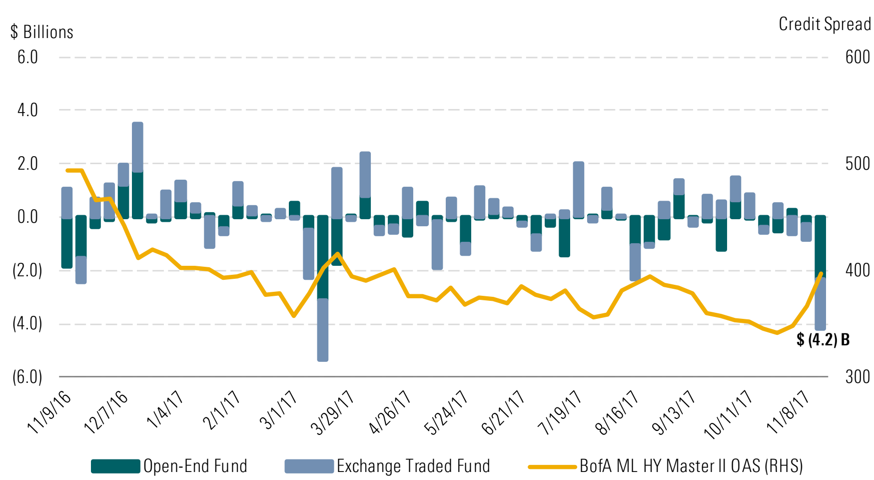
This flattening trend may continue to be influenced by global central bank monetary policy. While the Fed held off on raising short-term interest rates at its November meeting, the futures market for the federal funds rate has priced in an interest rate hike following the December Federal Open Market Committee meeting as fait accompli. Based on CME Group's FedWatch Tool, the market is pricing in a 100% probability of a rate hike in December. The European Central Bank announced that it would not begin to taper its asset-purchase program until next year. Even then, it will continue to purchase EUR 30 billion per month until September 2018 and noted that the purchases could be extended, if warranted. While this places the ECB on the path to a more normalized monetary policy late next year, these purchases will still infuse the eurozone with an additional EUR 270 billion of new money that will need to find a home somewhere, and the ECB's main financing rate remains at 0%.

### High-Yield Outflows Surge as Credit Spreads Widen

Outflows among high-yield mutual funds and exchange-traded funds surged to $4.2 billion last week, the fifth consecutive week of outflows. This outflow represented the third-greatest amount of weekly outflows we have recorded since we began tracking fund flows in June 2009. The second-largest outflow of $5.3 billion occurred in March 2017 following the Fed's increase in the federal funds rate in conjunction with weakness in oil prices, which slipped below $50 in mid-March. The single-greatest weekly outflow of $6.7 billion occurred in August 2014 when oil prices began to crack and were poised for a free fall.

The outflows consisted of redemptions of $2.3 billion among open-end funds and $1.9 billion in ETFs. Over the past five weeks, the total amount of outflows is $6.0 billion, split nearly equally between open-end high-yield mutual funds and high-yield ETFs. The amount of outflows over the past month represents well over half of the outflows the high-yield asset class has registered this year. Year to date, the high-yield asset class has suffered total redemptions of $11.6 billion, consisting of $13.7 billion of redemptions in open-end mutual funds offset by $2.1 billion of new unit creation in ETFs. Typically, ETFs are considered a proxy for institutional investor demand, which is often more correlated to changes in the corporate credit spread, whereas open-end funds are considered a proxy for individual investors and correlated to changes in the absolute yield.

**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. 17, 2017

(000,000s $ unless otherwise noted)

| Issuer | | | Issue | | | | |
|---|---|---|---|---|---|---|---|
| Name | Ticker | Morningstar Corporate Rating | Size | Coupon | Description | Maturity | Approx Spread to US Treasuries |
| CBS | CBS | BBB | $400 | 2.90% | Senior Unsecured | 2023 | +100 |
| CBS | CBS | BBB | $500 | 3.70% | Senior Unsecured | 2028 | +150 |
| Diageo Finance PLC | DEO | A-(1) | € 775 | 0.00% | Senior Unsecured | 2020 | +8(2) |
| Diageo Finance PLC | DEO | A-(1) | € 500 | 0.50% | Senior Unsecured | 2024 | +18(2) |
| Ecolab | ECL | BBB+ | $500 | 3.25% | Senior Unsecured | 2027 | +93 |
| Ecolab | ECL | BBB+ | $325 | 3.95% | Senior Unsecured | 2047 | +118 |
| Lennar | LEN | BB+ | $300 | 2.95% | Senior Unsecured | 2020 | +114 |
| Lennar | LEN | BB+ | $900 | 4.75% | Senior Unsecured | 2027 | +237 |
| Republic Services | RSG | BBB+ | $650 | 3.375% | Senior Unsecured | 2027 | +100 |
| Schlumberger | SLB | A+ | $500 | 2.20% | Senior Unsecured | 2020 | +43 |
| Schlumberger | SLB | A+ | $600 | 2.65% | Senior Unsecured | 2022 | +60 |
| Southwest Airlines | LUV | BBB+ | $300 | 2.75% | Senior Unsecured | 2022 | +70 |
| Southwest Airlines | LUV | BBB+ | $300 | 3.45% | Senior Unsecured | 2027 | +110 |
| Valeant Pharmaceuticals | VRX | B- | $1,750 | 5.50% | Senior Unsecured | 2025 | +316 |

Source: Bloomberg, company Securities and Exchange Commission filings

(1) Morningstar's consolidated corporate credit rating is assigned at the holding company level

(2) Spread over midswaps

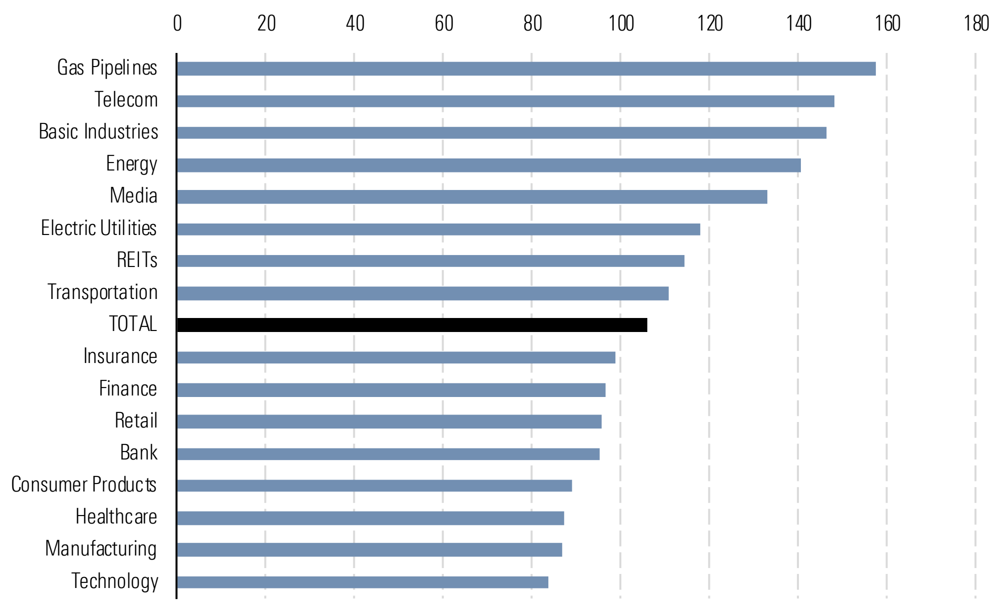
**Exhibit 2** Morningstar, Inc. Corporate Bond Index Sector Summary

| 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-** | **4,938** | **7.0** | **105** | **7** | **(23)** | **(0.13)** | **5.50** |
| **FINANCIAL** | **A-** | **1,468** | **5.5** | **90** | **5** | **(32)** | **(0.13)** | **4.84** |
| Bank | A- | 902 | 5.0 | 88 | 4 | (34) | (0.17) | 4.66 |
| Finance | A | 261 | 5.8 | 93 | 6 | (27) | (0.19) | 4.42 |
| Insurance | A | 215 | 7.8 | 94 | 4 | (28) | 0.07 | 6.40 |
| REITs | BBB+ | 81 | 5.9 | 113 | 9 | (22) | (0.01) | 5.42 |
| **INDUSTRIAL** | **A-** | **2,884** | **7.6** | **111** | **8** | **(19)** | **(0.14)** | **5.73** |
| Basic Industries | BBB | 237 | 7.9 | 136 | 8 | (45) | (0.05) | 9.21 |
| Consumer Products | A- | 326 | 7.6 | 92 | 6 | (15) | (0.01) | 5.03 |
| Energy | A- | 411 | 7.4 | 130 | 6 | (25) | 0.12 | 6.88 |
| Healthcare | A- | 406 | 7.8 | 99 | 10 | (16) | (0.28) | 5.57 |
| Manufacturing | A- | 453 | 6.3 | 87 | 3 | (22) | (0.03) | 4.61 |
| Media | BBB+ | 201 | 8.5 | 146 | 13 | (12) | (0.53) | 5.64 |
| Retail | A- | 166 | 8.2 | 96 | 3 | (12) | 0.08 | 4.80 |
| Technology | A+ | 336 | 7.3 | 90 | 14 | (16) | (0.54) | 4.89 |
| Telecom | BBB+ | 155 | 8.9 | 157 | 13 | (1) | 0.02 | 5.45 |
| Transportation | BBB+ | 142 | 9.0 | 104 | 5 | (29) | 0.14 | 6.93 |
| **UTILITY** | **BBB+** | **548** | **8.7** | **126** | **6** | **(26)** | **(0.02)** | **7.02** |
| Electric Utilities | A- | 322 | 9.2 | 110 | 4 | (26) | 0.19 | 7.11 |
| Gas Pipelines | BBB | 214 | 7.8 | 151 | 9 | (26) | (0.34) | 6.89 |
| **Rating Bucket** | | | | | | | | |
| AAA Bucket | | 111 | 8.2 | 56 | 5 | (10) | 0.01 | 4.93 |
| AA Bucket | | 492 | 6.1 | 64 | 5 | (19) | (0.10) | 3.90 |
| A Bucket | | 1,899 | 6.9 | 82 | 5 | (24) | (0.09) | 5.01 |
| BBB Bucket | | 2,436 | 7.2 | 136 | 9 | (28) | (0.17) | 6.35 |
| **Term Bucket** | | | | | | | | |
| 1-4 | A- | 1,563 | 2.3 | 62 | 5 | (32) | (0.21) | 2.26 |
| 4-7 | A- | 1,173 | 4.6 | 88 | 7 | (28) | (0.33) | 4.29 |
| 7-10 | A- | 924 | 7.0 | 117 | 8 | (20) | (0.23) | 5.78 |
| 10PLUS | A- | 1,278 | 13.9 | 158 | 8 | (17) | 0.20 | 10.12 |

*Data as of 11/17/2017*

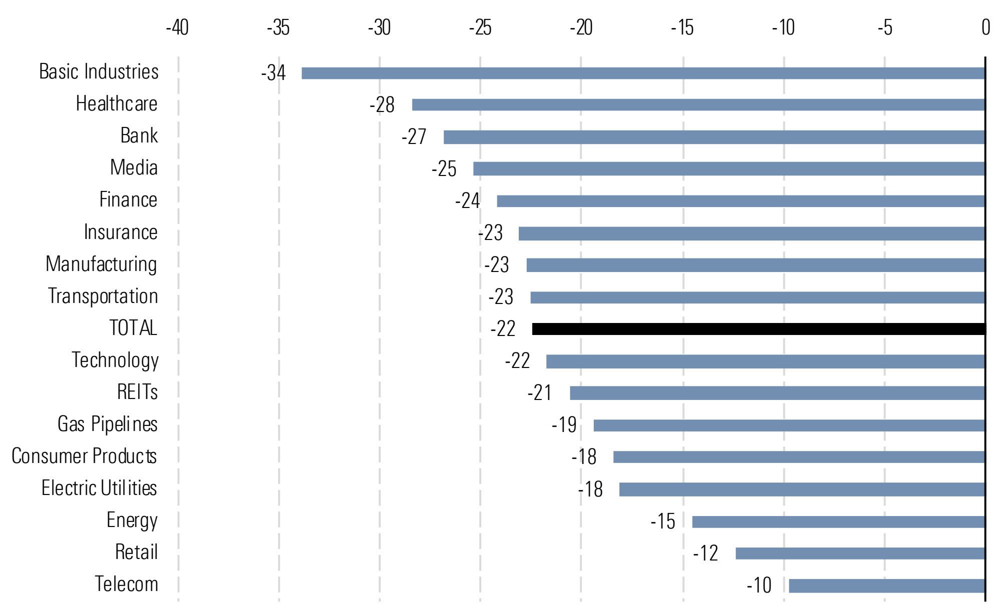
Source: Morningstar, Inc.

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



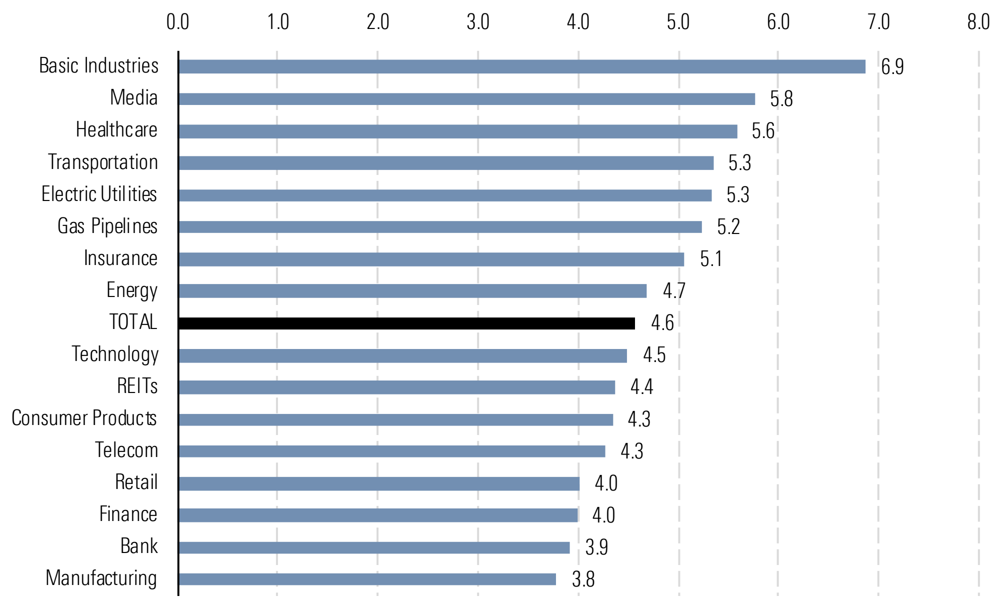

Source: Morningstar, Inc.

**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 affirmations

| Issuer/Ticker | Current Issuer Credit Rating | Previous Issuer Credit Rating |
|---|---|---|
| Sanofi **SNY** | AA- | AA- |
| Pfizer **PFE** | AA- | AA- |
| Roche **RHHBY** | AA- | AA- |
| Merck **MRK** | AA | AA |
| Marathon **MPC** | BBB | BBB |
| T-Mobile **TMUS** | BB | BB |
| Valero Energy **VLO** | BBB+ | BBB+ |
| Phillips 66 **PSX** | BBB+ | BBB+ |

### Sanofi's AA- Credit Rating Affirmed; Outlook Stable

Morningstar Credit Ratings, LLC is affirming Sanofi SA's AA- rating and stable outlook, reflecting the firm's historical financial discipline along with its well-diversified product portfolio spanning prescription pharmaceuticals, over-the-counter medicines and human vaccines. Additionally, we expect a refreshed pharmaceutical and vaccine portfolio to mitigate erosion from biosimilar competition to the firm's top-selling medicine Lantus.

Our key credit concern for Sanofi is erosion of its bestseller Lantus, 13% of overall revenue, from biosimilar competition in Europe and Eli Lilly's follow-on insulin glargine Basaglar in the U.S. The firm's broad commercial portfolio offsets some pressure on its medicines chest with offerings in consumer healthcare and pediatric and adult vaccines, with this diversity supporting a strong Business Risk pillar. We see research innovation as the primary way to counter Sanofi's moderate patent cliff since the company generally refrains from transformational acquisitions to reset its growth prospects. The firm's productive research program has launched seven novel therapies since 2014, including oral multiple sclerosis treatment Aubagio, next-generation insulin Toujeo, novel cholesterol-fighter Praluent, first-in-class atopic dermatitis drug Dupixent, and second-generation IL-6 receptor inhibitor Kevzara. Solid uptake of these promising therapies along with a broader vaccine offering may support revenue growth around 4% compounded annually through 2021, in our estimation. But EBITDA generation may slightly lag sales growth at the low single digits compounded annually through 2021 due to increased research costs to shepherd promising drug and vaccine candidates through the regulatory approval process. Sanofi hopes to moderate operating expenses through cost-efficiency efforts targeting up to EUR 1.3 billion in savings by the end of 2017.

Sanofi maintains a conservative financial policy and last stretched its balance sheet with the acquisition of Genzyme for around $20 billion in 2011. The financial discipline has resulted in a strong balance sheet, with net debt leverage historically below 1 times. At the end of the third quarter, Sanofi owed EUR 16.8 billion in debt and held EUR 9.9 billion of cash and investments. So gross debt leverage and net debt leverage stood at 1.6 times and 0.7 times, respectively, for the latest 12 months at the end of the third quarter. We expect these credit metrics to remain relatively steady through 2021 from modest EBITDA growth as the firm contends with Lantus biosimilar entrants, together with a stable debt load. We see Sanofi refinancing its well-laddered debt maturities consisting of EUR 0.8 billion due in 2018, EUR 2.1 billion in 2019, EUR 2.5 billion in 2020, and EUR 2.4 billion in 2021, although the firm may generate free cash flow of more than EUR 6.0 billion per year on average through 2021, in our estimation. The firm remains committed to its heavy dividend, which consumes around 60% of free cash flow, while it uses the remainder for opportunistic share repurchases or bolt-on acquisitions, which may limit future debt reduction. As such, Sanofi used its cash flows and part of Boehringer Ingelheim asset swap proceeds to satisfy a EUR 3.5 billion share-repurchase program by August 2017. We are cautious of the firm's capital deployment since the company thinks it still has flexibility to continue repurchasing shares while consummating tuck-in to midsize deals (up to the size of Genzyme) to strengthen its key therapeutic areas.

Our stable outlook considers Sanofi's financial conservatism and its ability to counter biosimilar Lantus competition with newly commercialized medicines and vaccines. A significant deviation from our revenue and earnings growth assumptions that push down our Cash Flow Cushion and Solvency Score pillars could lead to a downgrade of the current AA- rating. In addition, leveraging shareholder-friendly activities, most likely aggressive share repurchases or heavy business development that increase leverage for a sustained period, could lead to negative rating action related to a weaker Solvency Score. Positive rating momentum would most likely stem from marked improvement to the Cash Flow Cushion pillar, likely due to materially less generous shareholder rewards. A lighter impact from Lantus biosimilar competition over the next two years along with greater-than-expected uptake of new drugs and vaccines, which also benefits our Cash Flow Cushion pillar, could support an upward rating action.

### Pfizer's AA- Credit Rating Affirmed; Outlook Stays Stable

Morningstar Credit Ratings, LLC is affirming Pfizer Inc.'s AA- rating and stable outlook, which reflect the firm's successful navigation of its easing patent wave mainly through heavy acquisition activities in 2015-16 boosting research innovation. We see Pfizer overcoming its long-standing patent expiration period that will lighten after annualizing the U.S. patent lapse of pain treatment Lyrica in 2019, which helps inform our stable outlook.

After its failed inversion with AstraZeneca PLC (A-, negative) in 2014, Pfizer stepped up its business development to broaden therapeutic strengths in its Innovative Health segment and build scale and reach of its Essential Health division. As such, the firm purchased Anacor in June 2016 to add a late-stage dermatology drug to its research program, Hospira in September 2015 to expand its capabilities in parenteral medicines, and Medivation in September 2016 to obtain commercial and research portfolios of cancer drugs. Market potential of a broader research program together with sustained uptake of novel medicines, notably rheumatoid arthritis treatment Xeljanz, blood thinner Eliquis, and breast cancer therapy Ibrance, lead us to think that Pfizer can grow sales in the low-single-digits compounded annually through 2021. Our view is also supported by expanding clinical utility and geographic reach of the firm's partnered immuno-oncology backbone Bavencio and increasing acceptance of eczema topical Eucrisa. Pfizer's solid ability to trim operating expenses as sales of best-selling medicines erode due to generic competition may help EBITDA increase at a faster pace than revenue through 2021, in our estimation. This steady operating performance bodes well for our Cash Flow Cushion, which has also benefited from a pause in major business development activities during 2017. While we expect less product diversification from a possible divestment of its consumer health business in 2018, Pfizer's strong Business Risk pillar should remain intact.

One of our top concerns is Pfizer's penchant for transformational deals that would stress both its Cash Flow Cushion and Solvency Score pillars in light of the firm's shareholder-friendly stance. Pfizer's buying spree in 2015-16 that totaled $34 billion has left the balance sheet stretched with almost $44 billion of total debt compared with $24 billion in cash and investments at the end of the third quarter of 2017. Accordingly, total debt and net debt leverage were elevated at 2.2 and 1.0 times, respectively, for the latest 12 months ended Sept. 30. These figures compare with total debt and net debt leverage of 1.6 and 0.2 times, respectively, in 2013 (before the unsuccessful merger with AstraZeneca). We see the firm able to manage more than $14 billion in long-term debt maturities in 2018-21 including around $2.7 billion of new short-dated debt due in 2019-20 (out of $5.8 billion worth of debt issued in the first quarter) with tremendous free cash flow averaging over $17 billion annually through 2021. However, we think the firm may devote the majority of cash flows to shareholder rewards and business development as we expect it to continue to actively seek new assets. Any improvement to currently inflated debt leverage may primarily stem from EBITDA generation along with some moderation in the debt load, in our estimation. During the last 12 months to the end of the third quarter, Pfizer greatly rewarded its shareholders, having distributed around $7.6 billion of dividends and repurchased $5 billion in shares under an accelerated repurchase program. It still had repurchase authorization of $6.4 billion as of Oct. 31.

Our stable outlook on Pfizer's rating considers that the firm ably manages sales and earnings erosion arising from patent lapses through solid demand for its innovative medicines, specifically Xeljanz, Eliquis, Bavencio, and Ibrance, and successful commercialization of its late-stage research pipeline, notably potential diabetes blockbuster ertugliflozin. As the firm's patent expiration exposure lightens at the end of the decade, continued uptake of a refreshed drug product portfolio could bolster our Cash Flow Cushion pillar enough for positive rating action. If actual operational performance or research successes fall below our expectations, and the Cash Flow Cushion falls while leverage remains elevated stressing both our Cash Flow Cushion and Solvency Score pillars, downward rating action may be warranted. In addition, large leveraging transactions, such as heavy business development or aggressive share repurchases that significantly stress leverage over a long period, such that our Solvency Score pillar deteriorates, may also support a downgrade.

**Roche's AA- Credit Rating Affirmed; Outlook Stable**

Morningstar Credit Ratings, LLC is affirming Roche Holding AG's AA- rating and stable outlook, reflecting 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.

Roche manages a diverse product portfolio with offerings across human pharmaceuticals and clinical diagnostic testing, which supports a solid Business Risk pillar. The company is presently tasked with overcoming sales and earnings erosion stemming from imminent biosimilar competition to its aging cancer pharmaceutical portfolio, Rituxin, Avastin, and Herceptin, which collectively represent around 40% of overall sales. Research innovation from both operating segments is the most important means of offsetting these nearing or recent biosimilar launches. Roche's broad drug research pipeline, spanning oncology, neurology, immunology, ophthalmology, and hematology, in addition to a plethora of new immuno-oncology combinations, may provide a steady stream of new growth drivers as biosimilar competition intensifies in the next few years. Along these lines, Roche has successfully commercialized five novel medicines since 2015, such as highly promising immuno-oncology agent Tecentriq and next-generation multiple sclerosis treatment Ocrevus. This refreshed medicine bag, which also includes cancer therapeutics, Alecensa for non-small-cell lung cancer, Cotellic for combination use with Zelboraf in skin cancer, and Venclexta for chronic lymphocytic leukemia, gives us confidence that Roche can increase revenue and EBITDA in the midsingle digits compounded annually through 2021. Roche's estimated steady operating performance backstops our Cash Flow Cushion, which is consistently pressured by significant cash flows dedicated to a heavy dividend.

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. Roche's conservatism has yielded a strong credit profile supported by a solid balance sheet filled with CHF 6.9 billion of cash and investments versus CHF 21.1 billion of outstanding debt at the end of the second quarter. We suspect that debt at the end of the third quarter remained relatively consistent with the second-quarter balance, given a modest amount (around CHF 300 million) of floating-rate notes that matured in September. Using the second-quarter cash and debt levels, we estimate gross debt leverage and net debt leverage of 1.1 times and 0.7 times, respectively, for the trailing 12 months ended Sept. 30. Roche will see long-term debt representing around one third of total borrowings mature over the next five years, comprising CHF 1.7 billion due in 2018, CHF 2.0 billion in 2019, CHF 0.6 billion in 2020, and CHF 2.7 billion in 2021. We expect this well-laddered schedule may be easily managed by annual free cash flow averaging more than $14 billion through 2021.

Roche's top priority for capital deployment remains its dividend, which targets a payout ratio of 60%. Accordingly, the firm paid around CHF 7 billion for the trailing 12 months ended Sept. 30, which we see rising by 6% annually on average through 2021. While we expect Roche to generate cash flows including its growing dividend far in excess of its annual debt maturities, we think leverage may only ease from current levels, primarily via EBITDA growth, since we see the firm likely refinancing its maturing obligations. While we expect the firm to remain disciplined with capital deployment, we would not be surprised by a series of tuck-in asset purchases that could modestly move leverage higher than current levels. Generally, strong free cash flow, manageable debt maturities, solid growth prospects, and a strong balance sheet positively influence our Cash Flow Cushion, Solvency Score, and Distance to Default pillars.

Our stable outlook infers that there is no immediate catalyst to change the rating negatively or positively. But we could envision upward movement to the current rating if Roche successfully weathers biosimilar competition to its maturing cancer medicine bag, mainly through innovation. We would need to see sustained sales and earnings growth via solid uptake of newly launched pharmaceuticals and viable line extensions offsetting biosimilar competition to Rituxan, Herceptin, and Avastin, such that our Cash Flow Cushion holds steady. In addition, an improvement to our Solvency Score, likely stemming from a stronger balance sheet and better returns on invested capital, may further support an upgrade to the present rating. In the case of worse-than-expected operating performance arising from limited demand for Roche's new medicines, along with greater-than-expected erosion from biosimilar competition such that our Cash Flow Cushion is negatively affected, a downgrade may be warranted. Though we currently expect Roche to remain disciplined with capital deployment, the AA- rating could come under pressure if the firm pursues a large debt-funded acquisition or significantly increases returns to shareholders.

### Merck's AA Credit Rating Affirmed; Outlook Remains Stable

Morningstar Credit Ratings, LLC is affirming Merck & Co. Inc.'s AA rating and stable outlook, reflecting the firm's successful navigation of its long-standing patent cliff through drug product innovation while it maintains a strong balance sheet. With strong demand for the firm's immuno-oncology cornerstone Keytruda from increasing clinical utility and global expansion, we estimate over the long term that Merck can overcome the impact from expiring drug patents, which helps inform our stable rating outlook.

Merck will gain a temporary reprieve in 2018 as erosion dwindles from the patent lapses in 2016-17 of Zetia, Remicade, Cubicin, and Vytorin. Still, it could face generic versions of diabetes medicine Januvia, which has U.S. patent protection potentially lapsing 2019. Nonetheless, we expect compelling growth of immuno-oncology cornerstone Keytruda to support revenue growth in the low single digits through 2021, compounded annually. Our estimate includes higher demand for Keytruda from increasing clinical utility, as the drug serves as a backbone for combination therapies for treatment across various cancer conditions. Merck dedicates significant research investment to ensure commercial success of the molecule while still advancing promising drug candidates like ertugliflozin, a SGLT-2 diabetes therapy, and verubecestat, a high-risk/high-reward BACE inhibitor for the treatment of prodromal Alzheimer's disease. Diversification provided by Merck's broad medicine chest, vaccine portfolio, and leading animal health business help maintain our solid Business Risk pillar. We expect EBITDA growth to outpace sales growth and increase in the high single digits compounded annually through 2021, thanks to Merck's proven ability to contain operating expenses. Increasing profitability, coupled with a cash-rich balance sheet that drives our estimate for stable, neutral net leverage over the next five years, positively influences our Cash Flow Cushion, Solvency Score, and Distance to Default pillars.

Merck has historically managed a solid balance sheet as it fought through a long-dated patent cliff that saw a blockbuster-level pharmaceutical expire almost every other year dating back to Zocor in 2006. Over the course of its long patent expiration period, Merck maintained gross leverage below 2 times, except for the merger with Schering-Plough in 2009. At the end of the third quarter of 2017, the firm owed debt of $27.0 billion, or 1.8 times trailing 12-month EBITDA. With $23.4 billion of cash and investments on Sept. 30, net leverage stood at 0.2 times. Very strong liquidity is provided by a $6 billion revolving credit facility expiring in 2022 and free cash flow that we estimate may average more than $11 billion per year through 2021. We see this financial flexibility allowing the firm to readily satisfy well-laddered debt maturities of $3.0 billion due in 2018, $1.3 billion in 2019, $1.9 billion in 2020, and $2.2 billion in 2021. Still, we see debt reduction as a lower priority for capital deployment than its generous dividend, small-scale business development, and aggressive share repurchasing. Merck distributed $5.1 billion in dividends and repurchased $3.3 billion in shares for the last 12 months ended in September.

The firm had remaining share-repurchase authorization of $2.7 billion against a $10 billion program from March 2015 at the end of the third quarter. Additionally, given a research pipeline relatively concentrated on line extensions for Keytruda, we think that Merck may actively pursue developmental assets to broaden its therapeutic base over the next few years. For example, the firm reached a development and commercialization partnership with AstraZeneca PLC (A-, negative) in the third quarter of 2017 regarding cancer medicine Lynparza for an up-front payment of $1.6 billion and future payments of $750 million over a multiyear period. As such, we expect any leverage improvement to stem from operational strength as Merck likely refinances the maturing debt obligations.

Our stable outlook on Merck's rating implies that we see no immediate catalysts to change the rating upward or downward. However, the firm's rating considers the potential for steady, but modest sales growth, mainly driven by continued solid demand for Keytruda, and if there is significant deviation from our operational performance estimates such that our Cash Flow Cushion is pressured, then negative rating action may follow. In addition, the AA rating could be threatened by large leveraging transactions, such as heavy business development or aggressive share repurchases that significantly stretch leverage for a sustained period, and negatively affect the Cash Flow Cushion, Solvency Score, and Distance to Default pillars. On the other hand, positive movement to the current rating would likely require significant reduction in the debt load and a material pullback in shareholder rewards to drive our Cash Flow Cushion and Solvency Score enough to support an upgrade.

**Marathon Petroleum's BBB Rating Affirmed; Outlook Stable**

Morningstar Credit Ratings, LLC is affirming the corporate credit rating of Marathon Petroleum Corp. at BBB and maintaining a stable outlook. Our rating reflects Marathon's large scale and cost-advantaged refining position on the U.S. Gulf Coast, the inherent cyclicality of the petroleum refining industry, integrated interests in midstream assets that generate higher returns and add earnings stability to petroleum refining operations, extensive retail network of Marathon-brand outlets and Speedway convenience stores, and the company's debt leverage. These attributes are all incorporated in the narrow economic moat assessment assigned to Marathon by Morningstar's Equity Research Group, which supports our Business Risk score. We expect the upward migration in the rating to be limited during the next few years, as any additional free cash flow is likely to be diverted toward shareholder returns rather than significant debt reduction.

On Nov. 13, Marathon announced an agreement to drop down refining logistics assets and fuels distribution services to MPLX for approximately $8.1 billion, made up of $4.1 billion paid in cash by MPLX via a debt raise and MPLX equity valued at approximately $4 billion. Marathon is general partner of MPLX LP (not rated), a midstream master limited partnership. The transaction is expected to close on Feb. 1, 2018. We estimate the dropdown will increase pro forma consolidated total debt/EBITDA to 2.6 times versus our current estimate for fiscal 2018 of 1.7 times. However, assuming the $4.1 billion 364-day term loan is converted to long-term debt in fiscal 2019, we estimate pro forma gross leverage declines to 1.8 times, little changed from our current leverage estimate of 1.6 times.

Marathon owns petroleum refineries, related infrastructure, midstream assets, and a convenience store chain that are difficult to replicate. The high-complexity capacity of the company's refineries on the U.S. Gulf Coast allows it to process cheaper, lower-quality crude imports as feedstock, increasing realized margins. With about 60% of its refining capacity located on the U.S. Gulf Coast, Marathon 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 Marathon to fund refining optimization projects and growth in the midstream (excluding MPLX) and Speedway segments, which have planned expansions in logistics capacity and convenience store locations and offerings, respectively, while minimizing the need to tap capital markets.

We regard Marathon Petroleum's liquidity as excellent. At the end of September, the company reported $2.1 billion in cash and equivalents. Furthermore, Marathon collectively has $6.1 billion total borrowing capacity available on its credit facilities, a trade receivables securitization facility, and including $1.83 billion remaining on a $2.25 billion credit facility at MPLX. Marathon plans to spend a total of approximately $3.7 billion on capital expenditures in 2017, which includes $2.1 billion to be spent by MPLX. We estimate 2018 total capital expenditures to be $3.4 billion. After capital expenditures, we estimate Marathon has more than sufficient cash flow to pay out a 10% annual increase in the dividend through 2021.

In our base forecast, we estimate the company's adjusted EBITDA margin to increase to 9.6% in 2021 from 8.5% in 2017. Further, the ratio of total consolidated debt/trailing EBITDA is forecast to steadily decline to about 1.2 times in 2021 from 2.1 times in 2017, as the company pays back maturing debt. Commensurate with this, we forecast interest coverage to increase to about 16 times by 2021 from 10 times in 2017. Our base forecast incorporates average 2017 and 2018 price assumptions of $3.05/mmBtu and $3.00/mmBtu for U.S. natural gas, and $51.50/bbl and $57.50/bbl for West Texas Intermediate oil, respectively. Our forecast incorporates natural gas pricing 2%-4% above the futures price curve (as of Nov. 7) through 2021. For oil (WTI basis), our yearly forecast is 5%-25% above the futures price curve through 2021, at the top end of the range for the last two years of our forecast.

Our rating outlook is stable and assumes Marathon is able to incrementally reduce its financial leverage as refined product supply and demand fundamentals and pricing gradually improve. However, if refined product pricing languishes, squeezing margins, we may consider a downgrade of the credit rating. Alternatively, if refined product fundamentals and the pricing outlook improve more quickly than our current expectation, and the company accelerates its pace of debt reduction faster than estimated, we would consider raising the credit rating as we would expect improvement in our Cash Flow Cushion and Solvency scores.

**T-Mobile's BB Rating Affirmed, Outlook Remains Stable, Supported by Subscriber Growth**

Morningstar Credit Ratings, LLC is affirming its BB corporate credit rating on T-Mobile US Inc., and affirming a stable outlook. Our rating is supported by moderate Business Risk, offset by relatively weak Cash Flow Cushion and Solvency pillars, which were negatively affected by the recent spectrum purchase through lower cash on hand and a higher base of invested capital.

Our Business Risk considers Morningstar's Equity Research Group's view that T-Mobile does not benefit from an economic moat based on its cost disadvantage compared with larger competitors despite steady gains in subscriber share. T-Mobile's growth has been dramatic over the past four years, its share among the top-4 wireless carriers rising to 14.5% from 10%. However, with the recent collapse of merger talks with Sprint Corp. (B, negative), we believe T-Mobile is likely to remain firmly in third place among the carriers. We are assuming T-Mobile will remain aggressive on pricing, with average revenue per user trending lower over time as the carrier continues to focus on expanding its subscriber base at the expense of the other wireless operators. T-Mobile is in the final stages of bringing its 700 MHz PCS spectrum on-line and will begin to commercialize its recent 600 MHz spectrum purchase over the next few years, which we believe should help attract additional subscribers.

T-Mobile ended its September quarter with $30.9 billion of total debt (including tower financing obligations), up $557 million from a year ago. Cash and investments ended the quarter at $739 million, down significantly from earlier in the year because of the $8 billion spectrum purchase during the second quarter. However, net debt continues to decline relative to EBITDA due to strong customer growth in recent years. We calculate that net leverage, including legacy tower obligations, was 2.4 times trailing EBITDA at the end of September, compared with 2.5 times a year ago. T-Mobile's credit profile is also supported by free cash flow expansion. For the trailing 12 months, free cash flow was $2.3 billion, compared with $1.5 billion in the prior year. Our base forecast assumes wireless capital expenditures will increase toward 18% of service revenue over the next five years as the carrier continues to deploy spectrum and prepare its network for 5G. As a result, we expect free cash flow expansion to continue, but at a slower pace than in recent years. In addition to cash on hand, T-Mobile's liquidity is supported by a $1.5 billion secured revolving credit facility with its majority owner Deutsche Telekom AG (not rated), which was undrawn as of Sept. 30. Over the next five years, T-Mobile's faces $10.8 billion of scheduled debt maturities, with the bulk of this due in 2019 and thereafter.

Our rating assumes annual revenue growth gradually slows to 2% over the next five years with operating margin increasing from 12% in 2017 to 14% by 2021. We may consider an upgrade of the rating if management is able to keep debt under control while meeting capital spending demands to grow and improve its network services. Conversely, we may look to downgrade the rating if the carrier's competitive position and operating performance begins to deteriorate, particularly if free cash flow once again turns negative.

### Valero Energy's BBB+ Rating Affirmed, Outlook Stable

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, the integration of midstream assets of majority-owned Valero Energy Partners LP (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 significant 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. This enables the company to earn a narrow economic moat, as assigned by Morningstar's Equity Research Group, which supports our Business Risk score. Our rating also reflects the inherent cyclicality of the petroleum refining industry. We forecast gradually expanding earnings, supporting free cash flow generation and the ability for Valero to stay within its targeted 20%-30% debt/capitalization 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 a 50% interest in the Pasadena Marine Terminal in September, which provide refined product market expansion and are also eligible for future drop-down to Valero Energy Partners LP, its sponsored MLP.

We regard Valero's liquidity as excellent. At the end of September, the company reported $5.9 billion in cash and equivalents, $2.6 billion available on its $3.0 billion unsecured credit facility, $720 million available on Valero Energy Partners LP's $750 million credit facility (both of which mature in November 2020), and $1.2 billion available on its $1.3 billion accounts receivable facility (matures July 2018). Valero plans to spend $2.7 billion on capital expenditures in 2017 (includes about $250 million carryover from 2016 caused by delays to Diamond Pipeline construction), with approximately 60% allocated for sustaining the business and 40% for growth projects. We estimate total company capital expenditures of $2.7 billion for 2018. After capital expenditures, we estimate Valero has sufficient cash flow to pay out its targeted 40%-50% of adjusted net operating cash flow to shareholders (dividends plus stock buybacks) through 2021. This results in an average Cash Flow Cushion score. However, a gradually increasing return on invested capital drives an improving Solvency Score through our forecast period.

In our base forecast, we estimate the company's adjusted EBITDA margin to be 6.2% in 2021, trending nearly unchanged from 6.3% in 2017. However, the ratio of total debt/trailing EBITDA is forecast to steadily decline to about 1 times in 2021 from 1.6 times in 2017, as the company pays back maturing debt. Commensurate with this, we forecast interest coverage to increase to about 20 times in 2021 from 12.1 times in 2017.

Our base forecast also incorporates average 2017 and 2018 price assumptions of $3.05/mmBtu and $3.00/mmBtu for U.S. natural gas and $51.50/bbl and $57.50/bbl for WTI oil, respectively. The forecast incorporates natural gas pricing 2%-to-4% above the futures price curve (as of Nov. 7) through 2021. For oil (WTI basis), our yearly forecast is 5%-25% above the futures price curve through 2021, at the top end of the range for the past two years of our forecast.

Our rating outlook assumes the company is able to incrementally reduce leverage as refined product supply and demand fundamentals and pricing gradually improve. However, if refined product pricing languishes, squeezing margins, we may consider a downgrade of the credit rating. Alternatively, if refined product fundamentals and the pricing outlook improve more quickly than our current expectation, we would consider raising the credit rating as we would expect improvement in our Cash Flow Cushion and Solvency scores.

**Phillips 66's BBB+ Rating Affirmed, Outlook Stable**

Morningstar Credit Ratings, LLC is affirming its BBB+ corporate credit rating on Phillips 66 and maintaining a stable outlook. Our rating reflects Phillips 66's large scale and cost-advantaged refining position on the U.S. Gulf Coast, the inherent 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's Equity Research Group, which supports our Business Risk score. We do not expect to see material improvement in credit fundamentals during the next few years, based on our expectation that incremental free cash flow is likely to be allocated toward shareholder returns rather than significant 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 a gross debt-to-capitalization ratio range of 20%-30% while funding growth in the midstream and chemical segments, which have planned expansions in logistics and manufacturing capacity. In particular, we believe the company should begin to benefit from incremental free cash flow in 2018 generated by CPChem's (50% equity interest) new ethylene and polyethylene facilities in Texas and several pipeline and terminal expansions recently completed or nearing completion by Phillips 66 Partners (its sponsored master limited partnership) and DCP Midstream, LLC (Phillips 66 holds a 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 $1.5 billion in cash and equivalents. Furthermore, it has $5.4 billion total borrowing capacity available on the aggregate $5.75 billion credit facilities of Phillips 66 and Phillips 66 Partners (both mature in October 2021). Phillips 66 plans $2.0 billion in total capital expenditures in 2017. On a preliminary basis, the company foresees capital expenditures ranging from $2.0 billion to $3.0 billion in 2018, with about 40% allocated for sustaining the business and 60% for growth projects. After accounting for capital expenditures and asset sales, we estimate Phillips 66 has more than sufficient cash flow for $1.0 billion in stock buybacks and a 15% annual increase in the dividend through 2021.

In our base-case forecast, we estimate the company's adjusted EBITDA margin to be 5.2% in 2021, trending nearly unchanged from 5.4% in 2017. However, the ratio of total debt to trailing EBITDA is forecast to steadily decline to about 1.1 times in 2021 from 1.8 times in 2017 as the company pays back maturing debt. Commensurate with this, we forecast interest coverage to increase to about 20 times in 2021 from 12.6 times in 2017.

Our base-case forecast incorporates average 2017 and 2018 price assumptions of $3.05/mmBtu and $3.00/mmBtu for U.S. natural gas, and $51.50/bbl and $57.50/bbl for WTI oil, respectively. Our price forecast reflects natural gas pricing 2%-4% above the futures price curve (as of Nov. 7) through 2021. For oil (WTI basis), our yearly forecast is 5%-25% above the futures price curve through 2021, at the top end of the range for the past two years of our forecast.

Our rating outlook is stable and assumes the company can incrementally reduce leverage as refined product supply and demand fundamentals and pricing gradually improve. However, if refined product pricing languishes, squeezing margins, we may consider a downgrade of the credit rating. Alternatively, we may consider upgrading the credit rating if refined product fundamentals and the pricing outlook improve more quickly than our current expectation, driving sustainable improvement in our Cash Flow Cushion and Solvency scores.

## Recent Notes Published by Credit Analysts

### Republic Services Is Issuing New 10-Year Bonds

*Market Data*

Republic Services Inc (BBB+, negative) is in the market Nov. 13 with a new 10-year offering. The preliminary prospectus filed today says the company will use the proceeds to repay $500 million outstanding on its credit facility that expires 2019, and $120 million outstanding on its uncommitted credit facility.

According to pricing service Interactive Data, bonds with similar maturities for Republic Services and key comparables are indicated over the nearest Treasury as follows:
Republic Services Inc 2.90% notes due in 2026 are indicated at +85 basis points.
Waste Management (BBB+, stable) 3.15% notes due in 2027 priced in late October at +78 basis points.
Canadian Pacific Railway Ltd (BBB+, stable) 3.70% notes due in 2026 are indicated at +78 basis points.
Norfolk Southern Corp (BBB+, stable) 3.15% notes due in 2027 are indicated at +75 basis points.

*MCR Credit Risk Assessment*

Our BBB+ rating for Republic Services blends its solid competitive position with its meaningful amount of financial leverage. Republic Services is the second-largest provider of nonhazardous solid waste collection in the United States. The landfills are difficult to replicate, and the costs and regulatory burdens create high barriers to entry that have helped the company earn a narrow economic moat from Morningstar's Equity Research Group, which supports its Business Risk pillar. Republic also benefits from broad customer diversification and countercyclical trends. More than 80% of its revenue has an annuity-type profile that buttresses its Business Risk pillar.

We compare Republic Services with its direct peer Waste Management and with rails Canadian Pacific and Norfolk Southern because of the significant barriers to entry for both sectors, given the difficulty in replicating operating networks--landfills and rail. Waste Management has lower leverage than Republic does (2.4 times versus 2.9 times). The rails operate with similar rent-adjusted leverage (2.6 times for Canadian Pacific and 2.5 times for Norfolk Southern) and benefit from better Business Risk scores because of their wide economic moats from Morningstar's Equity Research Group. Republic Services reported decent third-quarter earnings early November. Revenue increased 6.3% versus the year-ago period, driven by internal growth of 5.9% and the remaining from acquired business. However, EBITDA margins contracted 70 basis points to 28.2% from cost inflation and a 40-basis-point headwind from hurricane-related costs. These factors partially contributed to the modest year-over-year decline in free cash flow. Nevertheless, leverage remained mostly unchanged at 2.9 times.

### CBS Announces New Senior Notes

*Market Data*

CBS Corp. (BBB, stable) has announced $750 million of new senior notes, including 5- and 10-year maturities. We believe management will use a portion of proceeds for the proposed notes to repay short-term debt. For its September quarter, CBS reported short-term debt of $609 million, including $590 million of commercial paper outstanding.

For market comparables, we reference advertising firms Omnicom Group Inc. (BBB+, stable) and The Interpublic Group of Companies Inc. (BBB, stable) as well as media company Discovery Communications Inc. (BBB, UR-). We source the following market pricing data from pricing service Interactive Data as of Nov. 10.

In the 10-year area, comparable issues are indicated as follows:
CBS 2.90% notes due 2027 at +139 basis points.
Omnicom 3.60% notes due 2026 at +126 basis points.
Interpublic Group 4.20% notes due 2024 at +120 basis points.
Discovery 1.90% notes due 2027 at +155 basis points.

*MCR Credit Risk Assessment*
Among the comparables, CBS' Business Risk is positioned a bit weaker relative to higher-rated Omnicom, in line with same-rated Interpublic Group and stronger than currently same-rated Discovery. Our rating for Discovery is under review negative due to its pending merger with Scripps Networks Interactive (BBB+, UR-). Meanwhile, CBS' Solvency Score is in line with Omnicom and stronger than both Interpublic and Discovery. Finally, its Cash Flow Cushion ranks a notch better than each of the comparables.

CBS' net debt ended the September quarter at 3.0 times adjusted EBITDA, up nearly a half-turn from a year ago. Excluding CBS Radio debt issuance, CBS' total debt has risen by $1.0 billion over the past year to $9.2 billion, while cash on hand has declined to $144 million from $600 million. Free cash flow declined 37% over the past 12 months, while payouts to shareholders climbed to 237% of free cash flow, compared with 121% in the year-ago period, with a portion of the higher repurchases related to CBS' pending spin-off and sale of its radio station portfolio. Relative to its peers, CBS' net lease-adjusted leverage at 3.1 times EBITDAR is higher than Omnicom at 2.2 times and Interpublic Group at 2.8 times but lower than Discovery at 3.6 times.

Our BBB rating reflects CBS' solid profitability and cash flow, offset by a high level of share repurchases, which have kept pressure on the Cash Flow Cushion. Morningstar's Equity Research Group continues to assign CBS a narrow economic moat, supported by its network broadcast licenses and owned TV stations, which serve as valuable outlets for CBS' content. While the high viewer ratings for its content should also help it maintain negotiating leverage with its distributors in the near term, our rating reflects our view that distribution fee revenue will likely compress over the long term. To offset negative pay-TV subscriber trends, CBS has invested heavily in developing streaming media platforms, including Showtime Anywhere and CBS All-Access, which are on trend to have 4 million subscribers between them by year-end 2017. CBS also continues to expand its licensing agreements with other streaming platforms, allowing it expanded access to cord-cutters. Advertising revenue has been declining as a proportion of revenue, though it remains the largest single contributor at over 40%. Uncertainty remains high, given the active environment for media mergers and acquisitions.

**Southwest Airlines Is Issuing New 5- and 10-Year Debt**

*Market Data*

Southwest Airlines Co (BBB+, stable) is in the market issuing new 5- and 10-year debt. The preliminary prospectus filed today indicates the funds will be used for general corporate purposes. Southwest has minimal debt maturities due in 2018 and $1.7 billion remaining on its current $2 billion share-repurchase authorization.

According to pricing service Interactive Data, bonds with similar maturities for Southwest and key comparables are indicated over the nearest Treasury as follows:
Southwest Airlines' 3.00% notes due in 2026 are indicated at +89 basis points.
Republic Services Inc's (BBB+, negative) 3.375% notes due in 2027 issued the previous day are indicated at +94 basis points.
Waste Management's (BBB+, stable) 3.15% notes due in 2027 issued in late October are indicated at +78 basis points.
Kansas City Southern's (BBB, stable) 3.125% notes due in 2026 are indicated at +112 basis points.

*MCR Credit Risk Assessment*

Our BBB+ issuer rating blends Southwest Airlines' mixed competitive position with its strong financial profile. The company has an entrenched position in the domestic market with 24% share, based on domestic originating passengers boarded and leading positions in several metropolitan areas, such as Las Vegas and Denver. Southwest arguably has a lower cost structure than its peers, but the airline industry is challenged to the extent that no company can reliably sustain returns above invested capital for an extended period. Morningstar's Equity Research Group has assigned Southwest an economic moat rating of none, which detracts from its Business Risk pillar. Still, industry consolidation has enabled the firm and the industry to benefit from strong profitability gains, with Southwest delivering strong profitability metrics and interest coverage ratios, two things that bolster its Solvency Score.

We compare Southwest with waste haulers Republic Services and Waste Management, given that they have the same credit ratings, and with lower-rated Kansas City Southern. The waste haulers earn stronger Business Risk scores because Morningstar's Equity Research Group awards them narrow moats. Kansas City Southern has earned a wide moat, but its Business Risk is mitigated by its smaller size and geographic risk. However, Southwest benefits from lower leverage. As of Sept. 30, the airline had rent-adjusted leverage of 1.8 times versus 3.0 times for Republic, 2.6 times for Waste Management, and 2.4 times for Kansas City Southern. Southwest reported decent third-quarter results last month despite natural-disaster-related headwinds. Revenue increased in the low single digits, but higher capital spending caused a modest year-over-year decline in free cash flow.

**Lennar in Market to Fund CalAtlantic Acquisition**

*Market Data*

Lennar Corporation (BB+, positive) is in the market with a senior note offering, with proceeds targeted to fund its recently announced acquisition of CalAtlantic (not rated).

We compare Lennar with other homebuilders and building products companies. According to pricing service Interactive Data, bonds with similar maturities to Lennar in the 10-year area and key comparables are indicated over the nearest Treasury as follows:

Lennar's 4.75% notes due 2025 are indicated at +180 basis points and a yield of 4.09%.
Toll Brothers Inc.'s (BBB-, stable) 4.875% notes due 2027 are indicated at +208 basis points and a yield of 4.44%.
USG Corporation's (BB+, stable) 4.875% notes due 2027 are indicated at +191 basis points to the 2025 par call and a yield to worst of 4.21%.

Meanwhile, the Morningstar BBB- Corporate Bond Index has a spread of +163 basis points and the Merrill Lynch BofA BB index offers a yield to worst of 4.41% and an option-adjusted spread of +225 basis points.

*MCR Credit Risk Assessment*

Our BB+ rating on Lennar and positive outlook are not affected by its announced acquisition of CalAtlantic, as the positive effects of greater size, scale, and geographic diversity are offset by higher leverage. The $9.3 billion deal will vault Lennar over D.R. Horton (BBB-, positive) as the nation's largest homebuilder, with pro forma homebuilding revenue of $17.2 billion. The deal is expected to close in the first quarter of 2018. The transaction price will include both an assumption of $3.6 billion in net debt from CalAtlantic and equity consideration of $5.7 billion. Of the equity consideration, Lennar expects to pay about $1.2 billion in cash and the remainder in Lennar stock. Lennar thus reported homebuilding cash going from $0.6 billion at Aug. 31 to $0.8 billion on a pro forma basis, total debt rising from $5.5 billion to $10.6 billion, and shareholders' equity from $7.6 billion to $12.3 billion. Gross debt/capital increases from 42% to 46%, with net leverage increasing from 40% to 45%. We note that peer Toll Brothers has net leverage of slightly below 40%. Lennar management highlighted that the company expects to continue producing strong free cash flow, with proceeds to be applied to debt reduction. For the first full year of combined operations, the company expects at least $1 billion of homebuilding cash from operations, compared with less than $0.5 billion for fiscal 2016. Both Lennar and CalAtlantic generally have well-laddered maturities, which should allow for steady debt paydown.

Lennar anticipates annual synergies of $250 million in the first full year of operations, which seems achievable, given the revenue base. Despite some modest benefits from scale, we do not expect Morningstar's Equity Research Group to change the firm's economic moat assessment of none, which is standard across the industry. Our positive outlook on Lennar already reflects our expectation of solid free cash flow generation and debt reduction, although this deal will push back progress on deleveraging somewhat.

**Anthem in Market With Series of Senior Notes**

*Market Data*

According to a prospectus filed and reported Nov. 14, Anthem, Inc. (BBB, stable) is in the market with an offering of senior unsecured debt securities which include 3-, 5-, 7-, 10-, and 30-year fixed-coupon maturities. Proceeds from the offering are expected to be used to help fund a portion of its HealthSun and America's 1st Choice acquisitions as well as for the redemption of tender notes under its tender offers. Any remaining proceeds may be used for repayment of short- or long-term debt, share repurchases, or general corporate purposes.

For reference, the Morningstar Corporate Bond Index for A rated issuers is indicated at +83 basis points and +135 basis points for BBB rated issuers as of Nov. 13. For key comparables, we reference bonds from the other managed-care organizations. According to Interactive Data as of Nov. 13, these bonds are indicated over the nearest Treasury as follows:

In the 10-year area:
Anthem, Inc. 3.50% due 2024 at +100 basis points.
UnitedHealth Group Incorporated (A-, negative) 3.38% due 2027 at +76 basis points.
Aetna Inc. (BBB+, stable) 3.50% due 2024 at +108 basis points.
Cigna Corporation (BBB, stable) 3.05% due 2027 at +114 basis points.
Humana Inc. (BBB, negative) 3.95% due 2027 at +126 basis points.

In the 30-year area:
Anthem, Inc. 4.65% due 2044 at +146 basis points.
UnitedHealth Group Incorporated 4.25% due 2047 at +106 basis points.
Aetna Inc. 3.88% due 2047 at +142 basis points.
Cigna Corporation 3.88% due 2047 at +132 basis points.
Humana Inc. 4.80% due 2047 at +148 basis points.

*MCR Credit Risk Assessment*

Our BBB credit rating on Anthem factors in the company's strong Business Risk pillar, which reflects the company's competitive position as one of the nation's largest managed-care organizations by medical membership. This substantial scale informs Morningstar's Equity Research Group's narrow moat assessment and also contributes favorably to our credit risk assessment. Anthem participates in 14 states under the Blue Cross/Blue Shield brand, which gives it unparalleled recognition among consumers of healthcare services. Anthem also has the ability to negotiate advantageous pricing with its provider network, given its sizable and geographically dense membership base. This large membership base also leads to fixed-cost scale advantages.

While it took a bit longer than we initially expected, Anthem has been active in the M&A market recently with its purchases of smaller Medicare Advantage providers HealthSun Health Plans and America's 1st Choice. The insurer also announced that it will be discontinuing its pharmacy benefits management contract with Express Scripts Holding Company, opting instead to form its own PBM that will begin operating in 2020. Muddying the waters, Anthem entered into a five-year agreement in October with CVS Health Corp. to help with the initial operations, prior to news of a potential acquisition/merger of equals between CVS and Aetna, one of Anthem's competitors. Additionally, in early November Anthem announced that current CEO Joseph Swedish will be stepping down, with replacement Gail Boudreaux, former CEO of UnitedHealth Group subsidiary United Healthcare, taking over Nov. 20.

Anthem reported a 38% debt/capital ratio at the close of the third quarter, and we expect leverage will slightly increase following this senior note issuance. In comparison, competitors Aetna, Cigna, and Humana reported debt/capital ratios of 39%, 27%, and 31% as of Sept. 30, with Humana's negative outlook reflecting greater sensitivity to increases in leverage in our credit risk assessment. UnitedHealth Group's negative outlook stems from elevated financial leverage at the time of our last review in March 2017, though as of the third quarter the company had made significant progress deleveraging, reporting debt/capital at 38% versus 46% at year-end 2016.

### Schlumberger Announces New Senior Notes to Purchase Palliser Block

*Market Data*

Schlumberger Ltd. (A+, stable) is reportedly in the market with an issuance of $1.1 billion of new senior notes, including 3- and 5-year maturities. Proceeds from the proposed notes will be used for general corporate purposes, including financing the cash consideration of the pending acquisition of the Palliser Block located in Alberta. The Palliser Block consists of oil and gas wells, surface facilities, a pipeline network, and approximately 800,000 acres of oil and gas development rights. The asset has current production of approximately 54,000 barrels of oil equivalent per day.

Schlumberger and its joint-venture partner, privately held Torxen Energy, announced the Palliser purchase for approximately $1 billion total on Oct. 19. Schlumberger will be the majority nonoperating owner of Palliser.

For market comparables, we reference Halliburton Co. (BBB+, stable), a large, diversified oilfield services peer. We source the following market pricing data from pricing service Interactive Data as of Nov. 14.

In the 5-year area, comparable issues are indicated as follows:
Schlumberger 3.63% notes due 2022 at +78 basis points.
Halliburton 3.50% notes due 2023 at +86 basis points.

In the 10-year area, comparable issues are indicated as follows:
Schlumberger 4.00% notes due 2025 at +88 basis points.
Halliburton 3.80% notes due 2025 at +102 basis points.

*MCR Credit Risk Assessment*

Our A+ rating reflects Schlumberger's large scale and number-one position as an innovator and technology leader in oilfield services, product and customer concentration and the inherent cyclicality of the oilfield service industry, cost- and revenue-related synergies related to the 2016 acquisition of Cameron and several smaller tuck-in acquisitions since then, ability to consistently generate free cash flow despite the sharp decline in energy prices since the fall of 2014, and low debt leverage. These attributes are all incorporated into the narrow economic moat rating assigned to Schlumberger by

Morningstar's Equity Research Group, which support our Business Risk, Cash Flow Cushion, and Solvency Scores.

In mid-October, Schlumberger reported in line third-quarter earnings results. However, revenue increased by 13% and operating cash flow by 35% versus the year-ago period, driven by the continued surge in North American land activity. Further, the company reported $1.1 billion in free cash flow, including $598 million in capital expenditures, but prior to $698 million paid in dividends. As of Sept. 30, Schlumberger reported total debt of $17.2 billion and $5.0 billion in cash and equivalents. Gross and net leverage at the end of September were 2.4 times and 1.7 times, respectively, little changed from 3.0 times and 1.5 times at year-end 2016.

Also in mid-October, Halliburton reported third-quarter earnings results modestly better than expectation. Commensurate with this, revenue increased 42% and operating cash flow 6% versus the year-ago period. Similar to Schlumberger and other oilfield service peers, better results centered on continued improvement in North America, in particular, U.S.-land based activity. As of Sept. 30, gross and net leverage were 3.8 times and 3.2 times, respectively, having declined by 2.6 turns and 1.1 turns since the end of 2016, in part because the company redeemed senior notes with cash on hand earlier in 2017.

**Ecolab Issuing $800 Million in Senior Notes**

*Market Data*

Ecolab (BBB+, stable) is issuing $800 million in senior notes split between 10-year and 30-year maturities. The use of proceeds are for general corporate purposes that can include, among other things, repayment of debt. Ecolab has $800 million of senior notes maturing within the next 60 days.

As references for Ecolab's proposed notes, we also look to chemical peers Dow Chemical (BBB, UR) and Eastman Chemical (BBB, stable) as well as similarly rated agricultural processor Archer Daniels Midland Co. (BBB+, stable). The following market pricing data is taken from Interactive Data as of Nov. 15.

In the 10-year area, comparable issues were indicated as follows:
Ecolab's 2.7% notes due 2026 at +84 basis points.
Dow Chemical's 3.5% notes due 2024 at +75 basis points.
Eastman Chemical's 3.8% notes due 2025 at +85 basis points.
Archer Daniels Midland's 2.5% notes due 2026 at +79 basis points.

In the near 30-year area, comparable issues were indicated as follows:
Ecolab's 3.7% notes due 2046 at +121 basis points.
Dow Chemical's 4.675% notes due 2044 at +140 basis points.
Eastman Chemical's 4.65% notes due 2044 at +150 basis points.
Archer Daniels Midland's 4.016% notes due 2043 at +108 basis points.

*MCR Credit Risk Assessment*

Ecolab's credit rating is supported by its strong competitive positions in its institutional and industrial business segments, its consistent free cash flow profile, and the company's moderate balance sheet leverage. The company's rating reflects moderate risk scores for its Business Risk and Cash Flow Cushion pillars and low risk scores for its Solvency Score and Distance to Default pillars. Its Business Risk is supported by its size, a narrow economic moat as assigned by Morningstar's Equity Research Group, and relatively consistent operating performance. It Cash Flow Cushion pillar is helped by strong free cash flow offset by high near- term debt maturities and a sizable dividend requirement. Its Solvency Score pillar reflects double-digit ROICs and strong interest coverages, while its Distance to Default pillar reflects a large enterprise value relative to its debt. We currently estimate Ecolab's total debt is approximately $7.6 billion, and its debt/latest 12-month EBITDA is 2.7 times.

We expect Ecolab to continue to produce robust free cash flow ($1 billion or more annually), and debt/EBITDA could decline to 2 times by 2019, if the firm refrains from leverage-increasing capital-allocation activities.

## 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, Nonbank 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

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

REITs
Mike Magerman, CFA
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

MORNINGSTAR®

22 West Washington Street
Chicago, IL 60602 USA