

Morningstar Corporate Credit Research Highlights

Corporate credit spreads fail to tighten further.

Morningstar Credit Ratings, LLC
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Contents

2	Credit Market Insights
9	Credit Rating Actions
11	Recent Notes Published by Credit Analysts
20	Credit Contacts

Credit Market Insights

- ▶ Market Data and Insights
- ▶ High-Yield Fund Flows

Credit Rating Actions

- ▶ Rating changes

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
CenturyLink CTL	BB-	BB/UR-

Recent Notes Published by Credit Analysts

- ▶ No Impact on **Dish's** B+ Rating as a Result of Economic Moat Downgrade
- ▶ **Wal-Mart** Offering Multitranche Note Issuance for Tender Offer
- ▶ Solid 3Q Performance All Around for **BlackRock**
- ▶ Healthcare Executive Order Threatens Individual Exchange Affordability in Intermediate Term
- ▶ **JPMorgan's** 3Q Results Add to Solid Performance Record
- ▶ **Citi's** 3Q Results Underwhelm for Bondholders
- ▶ Federal Government Stops Cost-Sharing Payments to Health Insurers in Another Move to Disrupt ACA
- ▶ **Bank of America** Reports Solid 3Q Results

Credit Market Insights

Corporate Credit Spreads Fail to Tighten Further

While prices in most other asset classes rose last week, corporate credit spreads in the investment-grade market were unchanged. In the high-yield market, credit spreads widened modestly. The average spread of the Morningstar Corporate Bond Index (our proxy for the investment-grade bond market) ended the week where it began at +101. In the high-yield market, the average credit spread of the BofA Merrill Lynch High Yield Master Index widened 8 basis points to +360. After seeing the lowest credit spread levels since before the 2008-09 credit crisis, it appears that many investors are unwilling to drive credit spreads even tighter.

Corporate Bond Credit Spreads



Source: Morningstar, Inc., BofA Merrill Lynch Global Indexes. Data as of 10/13/2017.

Although corporate credit spreads were generally unchanged to slightly wider, interest rates on U.S. Treasury bonds declined. The yield curve continued to flatten as long-term interest rates declined faster than short-term rates. This past week, the 2-year Treasury note declined only 1 basis point, whereas the 10-year and 30-year bonds declined 9 and 8 basis points, respectively. With the market pricing in a high probability of another hike this year in the federal funds rate, the interest rate on the 2-year Treasury is at its highest level since the Federal Reserve was in the midst of slashing interest rates during the credit crisis. Currently, according to CME Group, the probability of a rate hike in December is 83%. While slightly lower than a week ago, this still represents a substantial increase from the 58% probability priced into the market in mid-September and the 32% probability at the beginning of September. As of the close Friday, the spread between the 2-year and 10-year Treasury was 78 basis points, matching the flattest level the yield curve has traded at since October 2007.

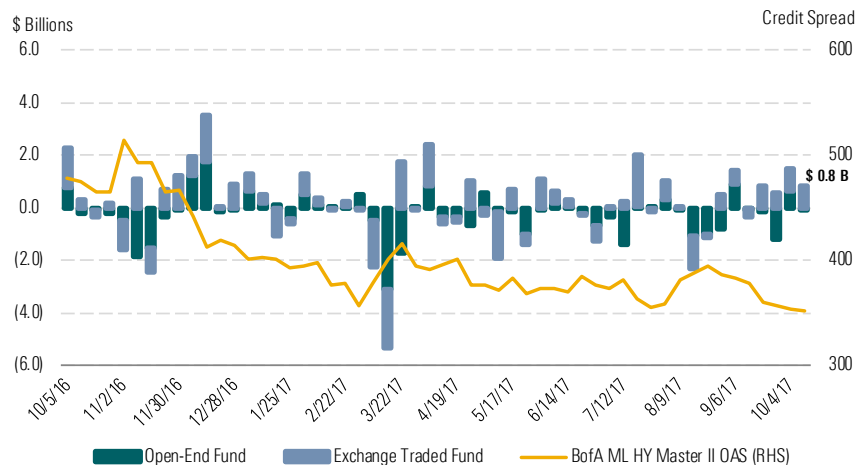
10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity

Although much has been written about the separatist movement in Catalonia threatening to declare independence from Spain, there has not been any meaningful impact in the fixed-income markets. The yield on Spain's 10-year sovereign bond ended the week at 1.61%, only 121 basis points higher than Germany's 10-year bond (the sovereign benchmark in Europe). In the European corporate bond market, the average credit spread of the Morningstar Eurobond Corporate Index tightened 1 basis point last week to +88, only a few basis points higher than the tightest level it reached earlier this past summer. Volatility remained low across the globe. In the United States, the VIX Index closed at 9.6 at the end of the week, only slightly higher than its historically lowest levels.

High-Yield Fund Flows

For the week ended Oct. 11, high-yield exchange-traded funds and open-end mutual funds experienced a net inflow of \$0.8 billion. The inflows consisted of \$0.8 billion of inflows into high-yield ETFs, while the fund flows in the open-end mutual funds were unchanged.

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 Oct. 16, 2017

(000,000s \$ unless otherwise noted)

Issuer			Issue				
Name	Ticker	Morningstar Corporate Rating	Size	Coupon	Description	Maturity	Approx Spread to US Treasuries
Citibank NA	C	A- ⁽¹⁾	\$650	L+30	Senior Unsecured	2020	NA
Citibank NA	C	A- ⁽¹⁾	\$2,100	2.13%	Senior Unsecured	2020	+52
Conagra Brands	CAG	BBB	\$500	L+50	Senior Unsecured	2020	NA
Northrop Grumman	NOC	A-	\$1,000	2.08%	Senior Unsecured	2020	+45
Northrop Grumman	NOC	A-	\$1,500	2.55%	Senior Unsecured	2022	+60
Northrop Grumman	NOC	A-	\$1,500	2.93%	Senior Unsecured	2025	+75
Northrop Grumman	NOC	A-	\$2,000	3.25%	Senior Unsecured	2028	+90
Northrop Grumman	NOC	A-	\$2,250	4.03%	Senior Unsecured	2047	+115
Wal-Mart Stores	WMT	AA-	\$1,200	1.75%	Senior Unsecured	2019	+23
Wal-Mart Stores	WMT	AA-	\$300	L-3	Senior Unsecured	2019	NA
Wal-Mart Stores	WMT	AA-	\$1,250	1.90%	Senior Unsecured	2020	+30
Wal-Mart Stores	WMT	AA-	\$1,250	2.35%	Senior Unsecured	2022	+40
Wal-Mart Stores	WMT	AA-	\$1,000	2.65%	Senior Unsecured	2024	+48
Wal-Mart Stores	WMT	AA-	\$1,000	3.63%	Senior Unsecured	2047	+75

Source: Bloomberg, company Securities and Exchange Commission filings.

(1) Morningstar's issuer credit rating is assigned at the holding company level.

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-	4,906	7.0	101	(3)	(27)	0.58	5.86
FINANCIAL	A-	1,467	5.5	88	(4)	(34)	0.51	5.21
Bank	A-	896	5.0	86	(4)	(36)	0.47	5.04
Finance	A	262	5.8	90	(3)	(31)	0.45	4.95
Insurance	A	218	7.9	93	(5)	(29)	0.80	6.62
REITs	BBB+	82	5.9	107	(3)	(28)	0.63	5.67
INDUSTRIAL	A-	2,861	7.7	105	(2)	(25)	0.59	6.12
Basic Industries	BBB	229	7.9	135	(3)	(45)	0.81	9.05
Consumer Products	A-	325	7.6	87	(2)	(21)	0.58	5.46
Energy	A-	417	7.3	132	(2)	(23)	0.49	6.49
Healthcare	A-	406	7.9	88	(1)	(28)	0.50	6.46
Manufacturing	A-	440	6.3	85	(4)	(24)	0.62	4.78
Media	BBB+	201	8.5	135	(2)	(23)	0.77	6.66
Retail	A-	160	8.3	93	(4)	(15)	0.83	5.29
Technology	A+	336	7.3	79	(3)	(26)	0.57	5.67
Telecom	BBB+	156	9.0	148	(1)	(10)	0.44	5.87
Transportation	BBB+	141	9.1	105	(3)	(28)	0.72	6.86
UTILITY	BBB+	541	8.7	125	(3)	(27)	0.84	7.14
Electric Utilities	A-	320	9.3	110	(2)	(26)	0.78	7.17
Gas Pipelines	BBB	209	7.8	149	(4)	(27)	0.92	7.13

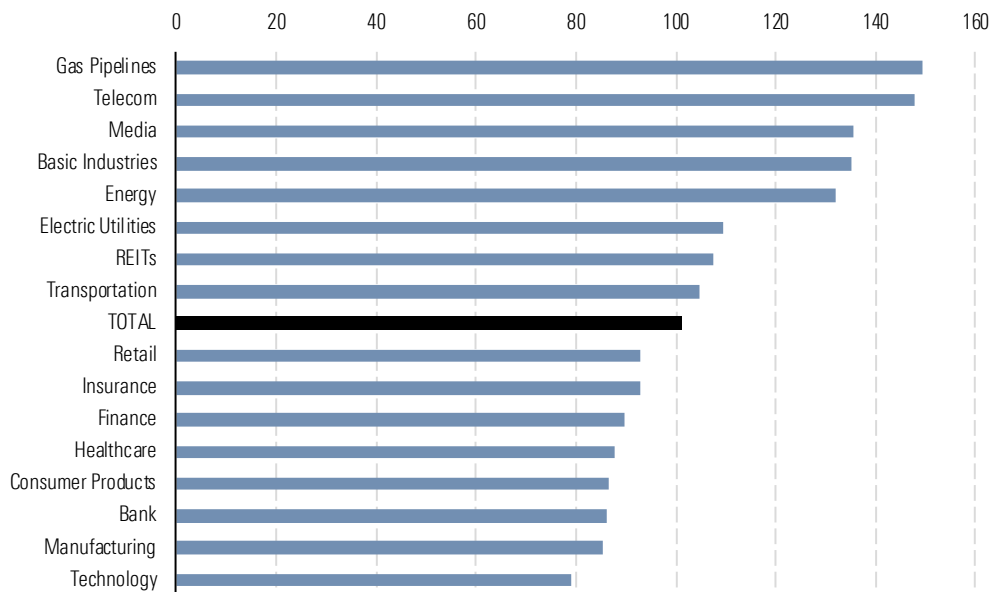
Rating Bucket

AAA Bucket		111	8.2	51	(2)	(15)	0.55	5.36
AA Bucket		491	6.1	61	(4)	(22)	0.50	4.28
A Bucket		1,878	6.9	79	(3)	(27)	0.61	5.36
BBB Bucket		2,426	7.3	131	(2)	(33)	0.57	6.72

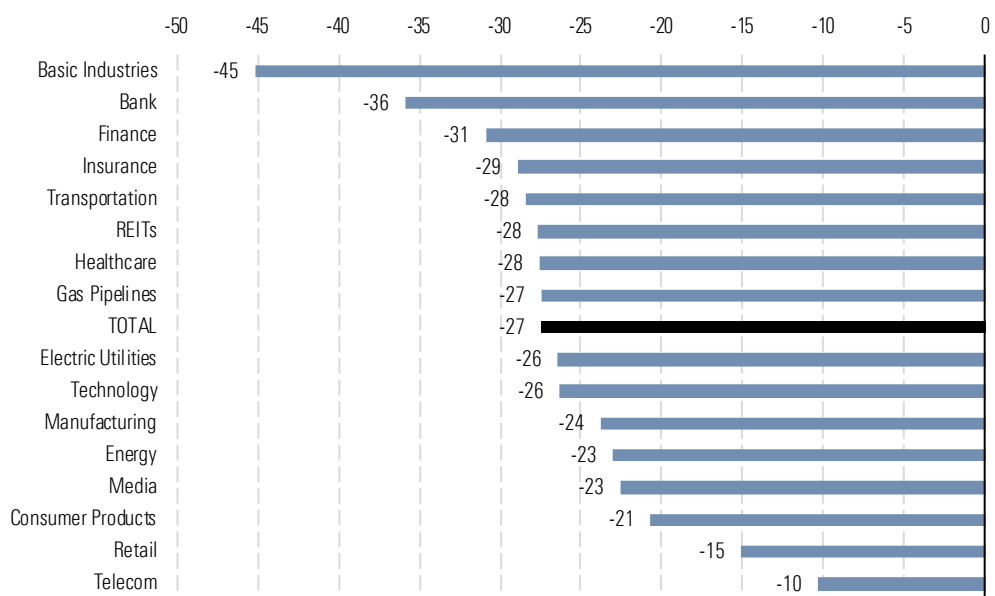
Term Bucket

1-4	A-	1,554	2.4	57	(5)	(36)	0.18	2.56
4-7	A-	1,170	4.7	84	(2)	(31)	0.43	4.86
7-10	A-	910	7.1	113	(3)	(24)	0.70	6.31
10PLUS	A-	1,272	13.9	154	(1)	(21)	1.06	10.25

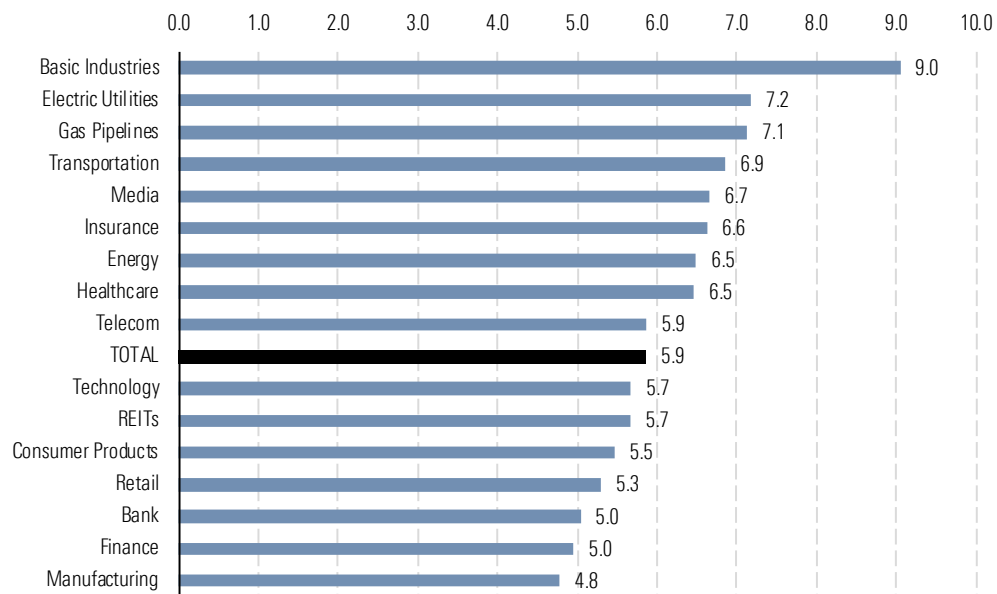
Data as of 10/13/2017

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

Source: Morningstar, Inc.

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

Source: Morningstar, Inc.

Exhibit 5 Morningstar, Inc. Corporate Bond Index YTD Return

Source: Morningstar, Inc.

Credit Rating Actions

► Rating changes

Issuer/Ticker	Current Issuer Credit Rating	Previous Issuer Credit Rating
CenturyLink CTL	BB-	BB/UR-

Downgrading CenturyLink's Rating to BB- in Anticipation of Level 3 Acquisition; Outlook Negative

Morningstar Credit Ratings, LLC is downgrading its corporate credit rating on CenturyLink Inc. by one notch to BB- and establishing a negative outlook. This rating action concludes the rating review initiated Nov. 3, 2016, following the company's announcement of its agreement to acquire Level 3 Communications. Our revised rating and outlook are prospective for the completion of the Level 3 merger and fully reflect our financial projections for the combined company. The transaction has cleared many significant regulatory hurdles for approval, including the Department of Justice. The Federal Communications Commission and the California Public Utilities Commission are the last approvals required to close.

Our rating incorporates a weaker Business Risk pillar, which is primarily driven by Morningstar's Equity Research Group's recent downgrade of CenturyLink's economic moat assessment to none from narrow based on lower expected returns on invested capital and erosion in competitive advantages from efficient scale and cost. After the merger, we expect the historical deterioration in CenturyLink's legacy services portfolio to be mitigated by Level 3's higher growth and stronger free cash flow profile. Over time, this may contribute to improvement in Business Risk if the merger integration is successful.

We expect the merger to add significantly to CenturyLink's fiber network capacity as well as a larger penetration into enterprise services. Management estimates that higher-growth enterprise revenue will represent about 75% of pro forma revenue, with 25% from CenturyLink legacy residential and other services. However, we also expect that enterprise and other core business lines will continue to face intense competition from other service providers, keeping uncertainty elevated.

We believe CenturyLink's Cash Flow Cushion and Solvency Score remain at the weaker end of the scale, influenced by higher leverage and returns on invested capital diluted by a heavy amount of goodwill. We expect dependence on capital markets to remain moderately high.

Management expects pro forma net debt to be 3.7 times EBITDA by year-end 2018, including the full impact of \$850 million of operating synergies, which it expects to realize over 36 months after the deal's close. We calculate that pro forma net leverage will initially be close to 4.3 times, excluding synergies, but adjusted to include a full year of Level 3 operating results. CenturyLink management has confirmed that it will continue to manage toward a net leverage target of 3.0 times, though we believe an interim target of 3.5 times seems more attainable within our 5-year forecast horizon. To fund the merger, CenturyLink anticipates drawing on \$2.0 billion of 5-year term loan A facilities in addition to the \$6 billion term loan B facility due 2025 it borrowed in the second quarter. Covenants under the loan facilities restrict net debt to 5.0 times or less and interest coverage to be maintained at or above 2.0

times. In the second year following the close, the net leverage cap will reset to 4.75 times for the remaining terms of the facilities.

Our rating assumes organic revenue growth of flat to down 1% per year through 2021, with EBITDA margins stable around 35% before synergies. Our forecast also indicates free cash flow expansion between \$500 million and \$1 billion over the next five years, depending on synergy realizations. Currently, we do not expect to upgrade the rating. We may downgrade the rating if operating performance worsens materially from our base-line expectations.

Recent Notes Published by Credit Analysts**No Impact on Dish's B+ Rating as a Result of Economic Moat Downgrade***Market News*

On Oct. 6, Morningstar's Equity Research Group downgraded its economic moat assessment on Dish Network Corp. (rating: B+, stable) to none from narrow and maintained a negative moat trend rating. It cited a material erosion in Dish's ability to compete with cable operators and the increasingly low barriers for competitors to offer access to popular video content outside traditional pay-TV distribution networks as reasons behind the moat change. The report pointed to Dish's lack of a competitive broadband and business service offering, which might otherwise offset weakness in pay TV, as well as Dish's highly risky investment in wireless spectrum for which it currently has no commercial use as other key risk factors in its future performance.

MCR Credit Risk Assessment

Morningstar Credit Ratings, LLC does not anticipate any near-term change in Dish's corporate credit rating as a result of the moat downgrade. MCR downgraded its credit rating on June 16 one notch to B+ and moved the outlook to stable from negative. The negative moat trend was considered by MCR as a key factor in its rating action.

The credit rating reflects the expected near-term increase in leverage from the recent spectrum acquisition as well as long-term concerns about the ongoing burden on bondholders from funding the firm's wireless ambitions. We expect uncertainty around these issues to continue to influence Dish's Business Risk. The Cash Flow Cushion has also been eroding as management continues to add debt to fund wireless spectrum acquisitions. Dish's pay-TV business currently generates recurring cash flow, though we believe that cash flow may decline in future years as traditional satellite subscribers defect to competing pay-TV services or are cannibalized by Dish's lower-margin Sling TV streaming platform.

Dish is in the midst of executing on several strategic initiatives, including a shift away from traditional satellite pay-TV toward lower-barrier streaming video and its highly risky and probably expensive gambit to build out a wireless network to fulfill requirements under its wireless spectrum licenses. As a result, we continue to view uncertainty as very high.

Longer term, we remain skeptical that Sling TV will be able to offer the same barriers to competition as traditional satellite video delivery. Meanwhile, Dish continues to lose customers to competitors, particularly cable, and marginal profitability on incremental Sling customers appears to be much lower relative to traditional satellite customers.

In the next few years, we expect Dish to continue to direct most of its excess cash flow toward funding its wireless ventures. As a result, we expect liquidity to remain dependent on external sources of capital despite solid ongoing internal cash flow. Over time, we expect cash flow to decline as lower-margin Sling customers increasingly supplant traditional satellite customers and operating margins decline.

Market Data

According to Oct. 9 pricing data provided by Interactive Data, Dish's 7.75% notes due 2026 were indicated at a yield to maturity of 5.59% (+333 basis points over the nearest Treasury). This spread is 135 basis points wide to Netflix Inc.'s (rating: BB-, stable) 4.38% notes due 2026, indicated at a yield to maturity of 4.26% (+198 basis points). The Dish 2026 notes are +49 basis points tighter than CenturyLink Inc.'s (rating: BB, UR-) 5.63% notes due 2025 indicated at a yield to maturity of 6.00% (+381 basis points). Over the past six months, Dish notes are 20 basis points wider, while the spreads on CenturyLink and Netflix notes have moved 35 and 25 basis points tighter, respectively.

Wal-Mart Offering Multitranche Note Issuance for Tender Offer*Market Data*

Wal-Mart Stores Inc. (rating: AA-, negative) is reportedly in the market with a multitranche debt offering, including 2- and 3-year fixed- and floating-rate notes and 5-, 7-, and 30-year fixed-rate notes. Net proceeds are expected to be used to pay a portion of the purchase price for the company's previously announced cash tender offer for up to \$8.5 billion of its outstanding debt securities, with any remaining balance for general corporate purposes. Wal-Mart filed a preliminary prospectus supplement to the prospectus dated Dec. 19, 2014.

Wal-Mart's key competitor under MCR coverage is Costco Wholesale Corp. (rating: AA-, stable). While each company has a strong competitive market position and a wide economic moat, Wal-Mart's recent profitability has eroded and its net adjusted leverage is over 1 turn higher than Costco's. For further comparison we look at the broader consumer retail sector, including Nike Inc. (rating: AA-, stable) and The Home Depot Inc. (rating: A+, stable), each of which has a wide economic moat and modest debt leverage.

MCR utilizes data from pricing service Interactive Data. In the short-term area, spreads over the nearest Treasury from these issuers are:

Wal-Mart \$1.0 billion 4.25% notes due 2021 at +30 basis points.

Costco \$800 million 2.3% notes due 2022 at +41 basis points.

Nike \$500 million 2.25% notes due 2023 at +34 basis points.

Home Depot \$1.25 billion 2.625% notes due 2022 at +28 basis points.

In the intermediate-term area, spreads over the nearest Treasury from these issuers are:

Wal-Mart \$1.0 billion 3.3% notes due 2024 at +43 basis points.

Costco \$1.0 billion 2.75% notes due 2024 at +55 basis points.

Nike \$1.0 billion 2.375% notes due 2026 at +69 basis points.

Home Depot \$1.3 billion 3.0% notes due 2026 at +63 basis points.

In the long-term area, spreads over the nearest Treasury from these issuers are:

Wal-Mart \$1.0 billion 4.3% notes due 2044 at +87 basis points.

Nike \$500 million 3.375% notes due 2046 at +88 basis points.

Home Depot \$750 million 3.9% notes due 2047 at +92 basis points.

For further reference, the AA- Morningstar Corporate Bond Index is at +59 basis points and has a duration that approximates the intermediate-term area.

MCR Credit Risk Assessment

Wal-Mart's AA- rating reflects its leading competitive position in the discount retail market. Wal-Mart derives a tremendous cost advantage because of the purchasing power it commands as the world's largest retailer, with nearly \$500 billion in annual global sales. The company uses this leverage to obtain the most favorable terms from suppliers, vendors, and manufacturers. In addition, Wal-Mart has developed an intangible brand asset through its deep customer trust that it provides everyday low prices. Wal-Mart is increasing investments in e-commerce, which generates strong double-digit digital sales growth. These initiatives include leveraging its massive store base as points of distribution for delivery, using mobile payment systems, testing free shipping, and completing various acquisitions that have accelerated online growth. Morningstar's Equity Research Group has assigned a wide economic moat rating to Wal-Mart. Because of these increased investments as well as pressures from alternative discount-store formats and online-only retailers, Wal-Mart has experienced multiyear erosion in profitability, as evidenced by lower margins and returns. A negative outlook on Wal-Mart's credit rating reflects the potential for ratings to be lowered if the company's investments in existing stores and e-commerce do not improve comparable sales growth or stabilize operating margins and returns on invested capital. Management maintains a moderately leveraged balance sheet. Leverage as measured by net lease-adjusted debt/EBITDAR has remained below 1.7 times over the past three years. Wal-Mart's slightly below average Solvency Score reflects this leverage, as well as a decline in the return on invested capital over the past several years. Wal-Mart maintains excellent liquidity, including over \$6 billion of balance sheet cash at year end as well as a \$5 billion undrawn revolver and a \$7.5 billion undrawn 364-day revolver, both used to support commercial paper borrowings. Over the next five years, MCR projects modest 2%-3% annual revenue growth, a stabilization in EBIT margins (albeit at a lower range), continued strong free cash flow generation, and the maintenance of adjusted leverage at or below historical levels.

Solid 3Q Performance All Around for BlackRock

MCR Credit Risk Assessment

BlackRock, Inc. (rating: AA-, stable) posted impressive third-quarter results, driven by strong net inflows and market and foreign exchange gains. These factors led to new highs in investment advisory and administration fees, which increased 4% over the second quarter to \$2.8 billion, as well as material increases in investment advisory performance fees, which increased nearly threefold to \$191 million, a level not seen since the \$208 million reported in the third quarter of 2015. Total revenue reported at \$3.2 billion and operating income reported at \$1.4 billion resulted in an operating margin of 43.1%, 3.4 and 7.0 percentage points higher than the 39.7% and 36.1% 5- and 10-year averages, respectively. Net income increased 10.5% over the second quarter to \$947 million. On a trailing 12-month basis, revenue grew 7.0% to \$11.9 billion, operating income grew 8.6% to \$5.2 billion, and the company reported a 42.0% operating margin.

BlackRock continues to report sturdy growth in assets under management, with AUM increasing 5.1% to nearly \$6.0 trillion, dwarfing other asset managers in Morningstar Credit Ratings, LLC's coverage list. Positive third-quarter market changes (\$147.1 billion), net inflows (\$96.1 billion) and foreign exchange gains (\$44.4 billion) accounted for 51%, 33%, and 15% of AUM growth, respectively. The firm's passive retail iShares exchange-traded funds and institutional index products remain the largest contributors to this upward march, with iShares reporting \$52.3 billion of net inflows and \$59.9 billion of market and foreign exchange gains and institutional index products reporting \$16.0 billion of net inflows and \$85.5 billion of market and foreign exchange gains. We believe BlackRock's position as the largest global ETF provider, along with above-average investment performance against benchmarks and peer medians, will result in strong AUM and revenue growth for the foreseeable future.

Peers most comparable to BlackRock include Franklin Resources, Inc. (rating: AA-, negative) and Invesco Ltd. (rating: A-, positive). Franklin Resources is assigned a wide economic moat rating by Morningstar's Equity Research Group with a stable moat trend rating while Invesco is assigned a narrow moat rating but with a positive trend rating due to the latter firm's recent product diversification and strong investment performance. Franklin Resources' negative outlook stems from the company's revenue growth and operating income struggles, while Invesco was assigned a positive outlook in September following the announced acquisition of Guggenheim Partners' ETF business, which we believe will lead to further revenue and AUM growth while supporting improved profitability.

Market Data

The following spreads over the nearest Treasury are provided by Interactive Data:

The BlackRock 3.20% notes due in 2027 are indicated at +69 basis points.

The Franklin Resources 2.85% notes due in 2025 are indicated at +76 basis points.

The Invesco 3.75% notes due in 2026 are indicated at +93 basis points.

Healthcare Executive Order Threatens Individual Exchange Affordability in Intermediate Term

On Oct. 12, President Donald Trump issued an executive order on healthcare that could have implications for insurance coverage in the intermediate term. We do not expect this order to significantly influence coverage in 2018, as it will probably take more than six months for government agencies to analyze and implement this directive. By then, most people will have committed to another insurance option for next year. However, in future periods, this order may help usher in significant changes to the health insurance marketplace primarily through two parts of the order.

First, the order has tasked the Labor Department with figuring out how to expand access to association health plans through a variety of small-business, trade, and other groups. These plans aim to mimic the benefits that large employers have when purchasing insurance. Through these plans, consumers in these various associations could be able to cross state lines to purchase insurance. The administration hopes that by increasing competition across state lines, insurance will become more affordable for end users. However, coverage standards required by the Affordable Care Act, such as essential benefits, probably would not be required in these plans. Also, medical histories will be used to determine pricing

of association plans, meaning associations with older, sicker populations are likely to face higher costs than those with younger, healthier populations.

The second major part of the order seeks to extend the period that consumers can use short-term insurance policies that do not need to adhere to Affordable Care Act requirements. Under the Obama administration, consumers could only use these policies for three months, but this new order could allow these short-term policies to be used for nearly a year. Presumably, younger and healthier patients who have a short-term disruption to their insurance coverage increasingly would choose to purchase these cheaper plans to cover catastrophic health events rather than more expensive ACA plans on the individual exchanges that guarantee essential benefits.

Overall, depending on how this order is implemented, the ACA individual exchanges look likely to increasingly skew toward higher-risk people who cannot obtain adequate insurance elsewhere. Therefore, affordability on the individual exchanges may decline substantially in the long run. In our opinion, this order represents the first major step in dismantling the ACA's safety nets, and we would not be surprised to see more administrative actions of this nature. Any government action that significantly cuts into the insured patient population could have negative consequences throughout the healthcare industry, particularly for service firms such as hospitals. However, other sectors could feel constraints too if the insured patient population falls and creates an ongoing headwind for industry participants.

JPMorgan's 3Q Results Add to Solid Performance Record

MCR Credit Risk Assessment

JPMorgan Chase, which we recently upgraded to A with a stable outlook from A- (stable), continued its string of solid quarterly results, reporting net income available to common shareholders of \$6.2 billion in the third quarter, which was 7.3% higher than a year ago. By our calculations, return on average common equity was 10.7%, modestly below the 11.3% reported in the prior quarter but about 50 basis points higher than the year-earlier quarter. JPMorgan's profits compare favorably with peer Citigroup (rating: A-, stable), which released results the same day and reported a return on equity of 7.4% for the quarter. JPMorgan's results during the quarter were supported by higher interest rates and modest loan growth, which together contributed to a 10.3% year over year and 4.8% sequential increase in net interest income. Lower mortgage revenue—a natural outcome of higher interest rates—and lower revenue from principal transactions partially offset higher net interest income and contributed to total revenue that was 2.5% higher than a year earlier. Expense control contributed favorably to results as operating expenses decreased 1.0% with legal costs remaining de minimis during the quarter. However, credit costs increased 14.2% year over year, driven by a \$300 million reserve build for credit cards, which reflects the company's belief that card net charge-offs will trend up to 3% in 2018 from a relatively low rate of 2.87% in the third quarter. With the exception of the markets business line, which was marred by weak fixed-income trading revenue that decreased 27.0% because of low volatility in rates and tight credit spreads, most business segments reported higher revenue than a year ago. Consumer and community banking, which was responsible for about 46% of quarterly revenue, reported revenue that was 6.2% higher than a year ago. Commercial banking revenue increased 14.8% from higher interest

income, and net income in the segment increased 13.2%, benefiting from favorable credit conditions. Assets under management increased 10% from a year ago to a record \$1.9 trillion, which contributed to revenue growth of 6.5% year over year in the asset management segment.

Despite the modestly higher credit costs during the quarter, overall asset quality trends remain strong at quarter-end. Nonperforming loans represented 0.62% of loans, which was 19 basis points below year-earlier levels. Loan-loss reserves represented over 240% of nonperforming loans at quarter-end, 41.4% higher than a year ago and 13.6% above the prior quarter-end. Elsewhere on the balance sheet, we were pleased to see capital levels remain unchanged from the prior quarter at solid levels, including a 12.6% common equity Tier 1 ratio and a 14.3% Tier 1 ratio. We expect capital returns to shareholders representing over 100% of net income during the next three quarters to contribute to modestly lower capital levels.

Market Data

We compare JPMorgan with large global U.S. banks including Citigroup, Bank of America, and Wells Fargo. Because of the company's presence in investment banking and investment management, we also consider Goldman Sachs and Morgan Stanley. JPMorgan's 2.782% senior notes due 2028 are indicated by pricing service Interactive Data at +106 basis points over the nearest Treasury while 10-year notes of Citigroup (rating: A-, stable) are indicated at +120 basis points. Similar-maturity notes of Wells Fargo (rating: A, stable) are indicated at +89 basis points. Among lower-rated companies, Goldman Sachs' (rating: BBB+, stable) 3.85% notes due 2028 are indicated at +127 basis points while Morgan Stanley's (rating: BBB+, stable) 3.625% notes due 2026 are indicated at +107 basis points and Bank of America's (rating: BBB+, stable) 3.248% notes due 2027 are indicated at +113 basis points.

Citi's 3Q Results Underwhelm for Bondholders

MCR Credit Risk Assessment

Citigroup Inc (rating: A-, stable) reported third-quarter results characterized by higher credit costs, mediocre profits, and lower capital ratios. Although net income available to common shareholders of \$3.9 billion increased 6.8% year over year, results included a discrete aftertax gain of \$355 million related to the sale of a fixed-income analytical product. Without this one-time gain, we estimate adjusted profits decreased 12.7% year over year. By our calculations, return on average common equity for the quarter was 7.4%, representing an improvement from the mediocre 6.8% reported in both the prior and year-earlier quarters, but falling well below JPMorgan Chase & Co's (rating: A, stable) 10.7% rate reported for the quarter. Net revenue during the quarter was negatively affected by higher funding costs, which increased 38% year over year and overwhelmed the positive impact of higher interest revenue. Resulting net interest margin remained unchanged from the prior quarter at 2.72% but decreased 14 basis points from the year-earlier quarter. While Citigroup did a good job of controlling operating costs, which decreased 2.2% year over year, higher credit costs detracted from results. Higher net credit losses in North American credit cards and a net reserve build of \$194 million for potential future losses contributed to credit costs that were 15.1% higher than a year ago. Citigroup revised its estimates for credit card charge-offs to 3%-3.25% from 2.94% for Citi-branded cards in the third quarter

and to 5.1%-5.25% from 4.70% in retail credit cards. We expect these higher credit costs to be manageable for the Citigroup but continue weighing on future profits.

Consistent with its capital plan, Citigroup returned \$6.4 billion of capital to shareholders during the quarter, representing 166% of net income, which contributed to lower capital levels at quarter-end. Tangible common equity decreased about 30 basis points to end the quarter at a still-strong 9.7% while the fully phased common equity Tier 1 capital ratio decreased modestly to 13.0%. While both measures compare favorably with peers, further payouts that bring capital to levels that we consider average relative to peers would be considered a credit negative.

Aside from lower capital levels, other balance sheet measures remain solid, including nonperforming loans/total loans of 0.74%, which was 3 and 19 basis points lower than the prior and year-earlier periods, respectively. Loan-loss coverage representing over 255% of nonperforming loans is strong, in our opinion, and continues to compare favorably with peers.

Market Data

We compare Citigroup with large global U.S. banks including JPMorgan, Bank of America Corporation, and Wells Fargo & Co. Because of the company's presence in investment banking and investment management, we also consider Goldman Sachs Group Inc and Morgan Stanley. Citigroup's 3.887% senior notes due 2028 are indicated by pricing service Interactive Data at +120 basis points over the nearest Treasury, while similar-maturity notes of JPMorgan (rating: A, stable) are indicated at +106 basis points. Wells Fargo's (rating: A, stable) 3.00% notes due 2026 are indicated at +89 basis points. Among lower-rated companies, Goldman Sachs' (rating: BBB+, stable) 3.85% notes due 2028 are indicated at +127 basis points, while Morgan Stanley's (rating: BBB+, stable) 3.625% notes due 2026 are indicated at +107 basis points and Bank of America's (rating: BBB+, stable) 3.248% notes due 2027 are indicated at +113 basis points.

Federal Government Stops Cost-Sharing Payments to Health Insurers in Another Move to Disrupt ACA

Late on Oct. 12, White House officials announced plans to immediately halt cost-sharing payments to health insurers, which help low-income Americans afford coverage in the Affordable Care Act's individual exchanges. This action and the executive order made earlier the same day threaten to cut the insured patient population in the U.S.. This headwind may negatively influence healthcare industry participants, and we remain particularly concerned about the consequences for service providers that may see insured patient volume fall and uninsured care costs rise substantially in the wake of these changes.

According to the latest data from Department of Health & Human Services, these cost-sharing payments helped about 7 million people receive insurance through the individual exchanges—about 58% of the roughly 12 million on the exchanges—in 2017. Throughout 2017, the administration has threatened to end these payments, and many insurers who contractually agreed to participate in the individual exchanges in 2018 have significantly increased premiums for next year because of the uncertainty

around these government subsidies. The way we understand it, these insurers will probably still have to offer these plans in 2018, but in future years, they could drop out of the exchanges or continue raising rates substantially to offset these lost subsidies. In general, plan costs on the individual exchanges look set to continue rising because of this action and another executive order.

Also on Oct. 12, President Donald Trump issued an executive order that may help usher in significant changes to the health insurance marketplace primarily through two parts.

First, the order has tasked the Labor Department with figuring out how to expand access to association health plans through a variety of small-business, trade, and other groups. Through these plans, consumers in these various associations could be able to cross state lines to purchase insurance, potentially making plans more affordable for end users. However, coverage standards required by the ACA, such as essential benefits, probably would not be required in these plans. Also, medical histories will be used to determine pricing of association plans, meaning associations with older, sicker populations are likely to face higher costs than those with younger, healthier populations.

The second major part of the order seeks to extend the period that consumers can use short-term insurance policies that do not need to adhere to Affordable Care Act requirements. Under the Obama administration, consumers could only use these policies for three months, but this new order could allow these short-term policies to be used for nearly a year. Presumably, younger and healthier patients who have a short-term disruption to their insurance coverage increasingly would choose to purchase these cheaper plans to cover catastrophic health events rather than more expensive ACA plans on the individual exchanges that guarantee essential benefits.

Overall, with these actions, the insured patient population in the U.S. looks set to fall, and the cost of obtaining insurance on the individual exchanges looks set to rise, as that population skews toward a sicker patient set that cannot obtain adequate coverage elsewhere. Any government action that significantly cuts into the insured patient population could have negative consequences throughout the healthcare industry, particularly for service firms such as hospitals. However, other sectors could feel constraints too if the insured patient population falls, creating an ongoing headwind for the industry. For example, capital equipment makers may feel the pinch if their hospital customers feel compelled to pull back on capital spending because of rising care costs associated with uninsured patients.

Bank of America Reports Solid 3Q Results

MCR Credit Risk Assessment

Bank of America (rating: BBB+, stable) reported solid third-quarter results Oct. 13 that reflected considerable improvement across profits, capital, and asset quality. Net income available to common shareholders of \$5.1 billion was 15.1% higher than a year ago and 4.4% above the prior quarter. Return on common equity for the quarter was 8.1% and contributed positively to a return on equity of 7.6% for the trailing 12 months, about 130 basis points higher than in each of the two prior years. This quarterly profitability compares favorably with Citigroup's (rating: A-, stable) 7.4% ROE reported for the quarter

but continues to trail higher-rated peers JPMorgan's (rating: A, stable) 10.7% and Wells Fargo's (rating: A, stable) 9.1%.

Higher short-term rates and loan growth contributed to higher net interest income, which increased 9.4% relative to the year-earlier quarter. Lower mortgage activity—a natural consequence of higher interest rates—and weak capital markets trading activity contributed to noninterest income levels that were 6.6% below year-earlier levels. Total revenue increased about 1% year over year. However, results during the quarter benefited from lower costs across both credit and operations. Operating costs decreased 2.5% year over year led by lower compensation costs, which fell 2.9%, and lower legal expenses, which were de minimis during the quarter. Importantly, credit costs decreased 1.9% compared with the year-earlier quarter and increased only 14.9% sequentially. The company cited improvements in the consumer real estate and energy portfolios. Net charge-offs in the credit card portfolio decreased 22 basis points from the prior quarter to 2.65%, a level favorable to JPMorgan's reported for the quarter and low by historical standards.

Positive credit trends continued on the balance sheet during the quarter. The ratio of nonperforming loans to total loans of 0.71% was down 3 bps sequentially and 21 bps year over year to the lowest level of the cycle. Reserves for loan losses continued to increase, finishing the quarter at about 163% of nonperforming loans, a level 23% higher than a year ago. Despite roughly \$4.9 billion of payouts to shareholders during the quarter, which represented about 96% of net income, regulatory capital ratios increased. Both transitional and fully-phased common equity Tier 1 capital levels increased 30-40 bps during the quarter to 11.9%, a level that we would consider at least average following many years of levels we considered below-average.

Market Data

We compare Bank of America with large global U.S. banks including Citigroup, JPMorgan Chase, and Wells Fargo. Because of the company's presence in investment banking and investment management, we also consider Goldman Sachs (rating: BBB+, outlook) and Morgan Stanley (rating: BBB+, stable). Bank of America's 3.348% senior notes due 2027 are indicated by pricing service Interactive Data at +113 basis points over the nearest Treasury while Morgan Stanley's 3.625% notes due 2027 are indicated at +107 bps. and Goldman Sachs' 3.85% notes due 2027 are indicated at +127 bps. Among higher-rated companies, Citigroup's 3.887% notes due 2028 are indicated at +120 bps. while JPMorgan's 3.782% due 2028 are indicated at +106 bps. Ten-year notes of Wells Fargo, which also reported earnings Oct. 13, are indicated at +89 bps.

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