How Active Management Can Make a Difference in Short Duration Credit

The potential benefits of a thoughtfully designed strategic focus on short credit are documented here for a variety of portfolio applications in the institutional space.

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In this fourth installment of our Short Credit series, we address:

- the "dual credit-spread puzzle" and implications for allocators and active managers;
- the implementation of an active, credit-focused, multi-sector, short-duration strategy; and
- the durability of such an approach over a full market cycle.

Over the past 18 months, in a series of papers and conversations, we've talked to the institutional community about re-evaluating their fixed income exposures. Specifically, we've highlighted a persistent return anomaly in short credit that is evident in a number of asset classes. We've also pointed out the relevance of short credit as a diversifier for poorly priced term risk in core fixed income portfolios and as a yield enhancer in short-to-intermediate cash management portfolios. Much of the opportunity in short credit occurs because, generally speaking, the yield on offer and the spread of that yield to U.S. Treasuries historically has been magnitudes larger than the expected losses on these bonds.

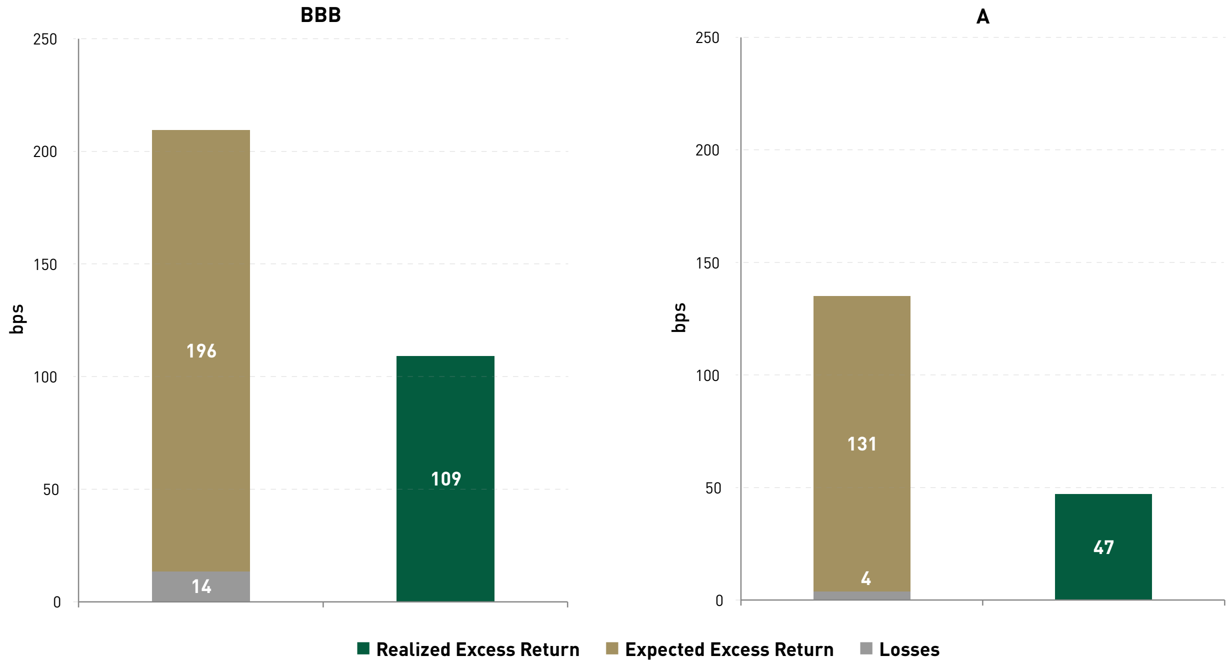
This "credit- spread puzzle" has a number of risk-based and behavioral explanations, which we've covered. The next logical question for many investors is how to implement this strategy in a diversified portfolio. Exploiting the excess returns at the short end of the curve comes with a host of considerations.

THE ADVANTAGES OF A FLEXIBLE APPROACH

First, comparing ex-ante expected returns of lower quality investment-grade (IG) corporate bonds to the ex-post returns of these portfolios of bonds reveals an interesting, second credit-spread puzzle, which, combined with the dramatic overpayment of spread to expected losses, is sometimes called the "dual credit-spread puzzle." Chart 1 lays out the problem: With an average option-adjusted spread (OAS) of more than 200 basis points (bps) and around 14 bps of losses, one would expect 'BBB'-rated bonds to realize something very near 200 bps of excess returns. And yet, according to Barclays, it's more like 100 bps. The same disappearing act happens for excess returns to 'A'-rated corporates when comparing expected returns to ex-post measured returns 'A'-rated portfolios.

CHART 1. THE DIFFERENCE BETWEEN EX-ANTE AND EX-POST RETURNS IS DUE TO FORCED SELLING AND DOWNGRADES

'BBB'- and 'A'- rated corporates, expected excess returns versus realized excess returns and losses (January 1, 1996 – December 31, 2017)



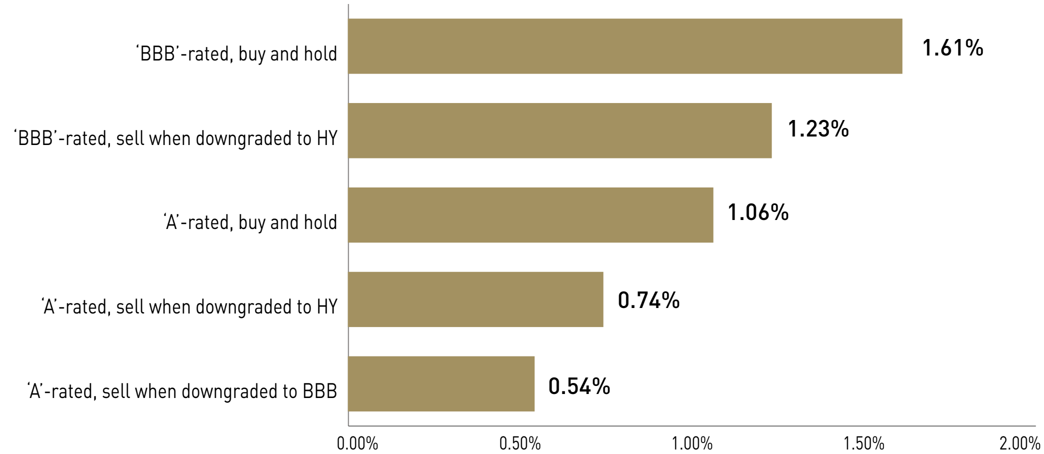
Source: Moody's, Barclays, and Lord Abbett. Data as of December 30, 2017. For illustrative purposes only and does not represent any specific portfolio managed by Lord Abbett or any particular investment.

So where does the expected excess return go?

A big part of the difference can be ascribed to downgrades and forced selling. The ex-ante expectations in the left set of return bars in Chart 1 assume you hold the particular group of rated bonds to maturity. The right set of bars averages the returns to that quality of bond each year. So when a bond gets downgraded, the methodology for the right side assumes investors shed their holdings of the bond – a scenario that happens quite a bit due to investor policy constraints, regulation, or holders without a lot of credit conviction. It turns out that if you don't have the ability to hold a credit through those downgrades – and many investors don't – you give up a lot of the return implied by your starting credit spread. Chart 2 from Bank of America Merrill shows that buy and hold investors have done much better than investors subject to forced selling over the years. This makes sense in the context of overreaction from credit investors to the specter of losses compared to the actual experience of those losses. The number of non-economic investors in the bond market compounds this, and restrictions on otherwise completely rational investors can further worsen it.

CHART 2. BUY AND HOLD HAS OUTPERFORMED ACROSS RATINGS

Average annualized excess return, 10-year bonds (as of June 30, 2018)*



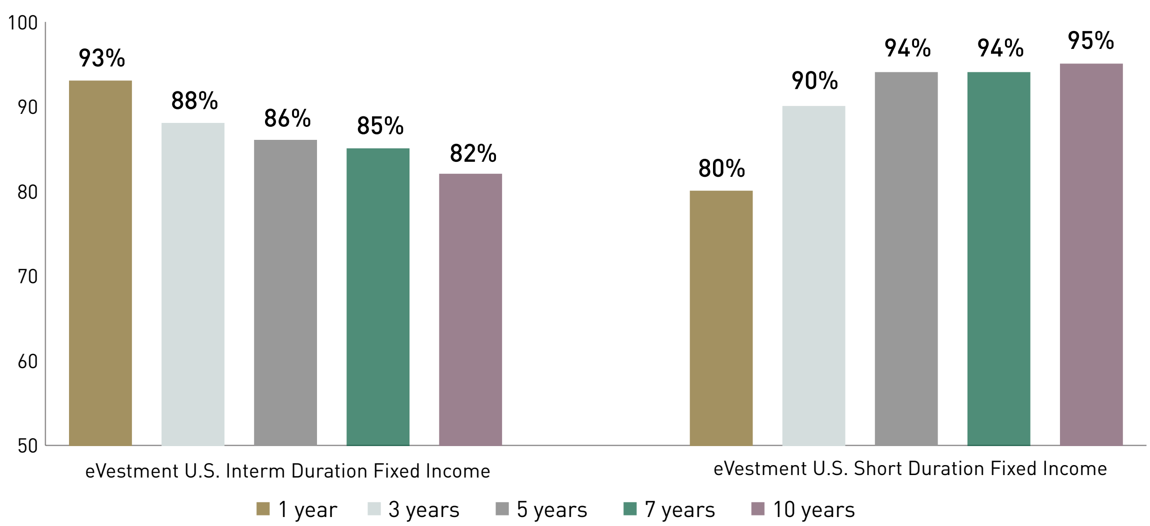
Source: BofA Merrill Global Research. *Most recent data available. Past performance is not a reliable indicator or guarantee of future results. For illustrative purposes only and does not represent any specific portfolio managed by Lord Abbett or any particular investment.

ACTIVE OUTPERFORMANCE: THE RULE NOT THE EXCEPTION

These circumstances can benefit active managers who can take advantage of overreactions and noneconomic actions by other market participants. The flexibility of active managers is a big reason they have done so well versus indexes, with the majority of active managers outperforming passive peers in short and intermediate credit as shown in Chart 3.

CHART 3. HISTORICALLY, ACTIVE MANAGERS HAVE OUTPERFORMED THEIR PASSIVE PEERS

Percentage of active managers that have outperformed their median passive peers (as of September 30, 2018)



Source: eVestment. Past performance is not a reliable indicator or guarantee of future results. For illustrative purposes only and does not represent any specific portfolio managed buy Lord Abbett or any particular investment.

Even better for fixed income investors is persistence in outperformance among active asset managers. Table 1 shows the SPIVA (S&P Indices Versus Active) data which is often used to skewer active equity managers – showing that often their outperformance comes and goes and isn't persistent or predictable. Less advertised is the fact that fixed income managers do have persistent outperformance. This data is over consecutive three-year periods; if a manager is top quartile for the first three-year period, how many ended up top quartile for the next three-year period? A lot of them – many more than you might expect from random selection.

TABLE 1. ACTIVE FIXED-INCOME MANAGERS HAVE DEMONSTRATED PERSISTENT HISTORICAL OUTPERFORMANCE

SPIVA Indices performance over two non-overlapping three-year periods (as of March 31, 2018)*

Investment-Grade Intermediate Funds

	1st Quartile	4th Quartile
1st Quartile	41.86%	9.30%
4th Quartile	9.30%	34.88%

Investment-Grade Short Funds

	1st Quartile	4th Quartile
1st Quartile	38.89%	5.56%
4th Quartile	11.11%	50.00%

Source: S&P Dow Jones Indices LLC, CRSP. *Most recent data available. Past performance is not a reliable indicator or guarantee of future results. For illustrative purposes only and does not represent any specific portfolio managed by Lord Abbett or any particular investment.

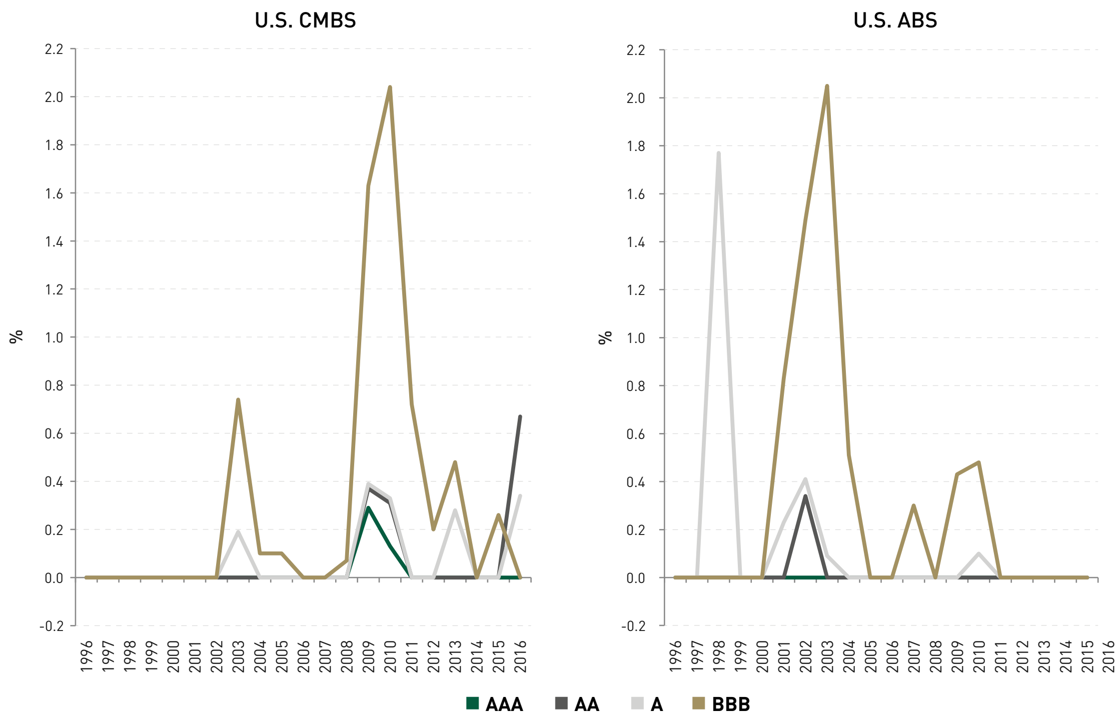
Why? Well, we believe – and Lord Abbett has often been in this set of outperforming managers – it's because they have well defined credit processes that take advantage of uneconomic decisions by many market participants. Sometimes the tendency to overweight credit is used as an argument against the skill of these outperforming managers. But if credit almost always overpays, as we've seen in much of the IG data, we believe managers should have a bias to overweight credit as long as they are flexible, active, and risk-aware in their approach.

A MULTI-SECTOR APPROACH: ADDING OPPORTUNITY AND DIVERSIFICATION

Much of the data set we've shown around the anomaly in short credit has been confined to corporates – a function of the data availability and ease of interpretation. We haven't scratched the surface of what a multi-sector active manager can do in the short credit space. Asset-backed securities (ABS) and commercial mortgage-backed securities (CMBS) are two examples. Both have similarly low default rates among short investment grade and usually have larger spreads and spread volatilities. They also have gone through a lot of structural changes that have led to old biases not being relevant and greater active opportunity in general. Additionally, because they represent different markets from corporates, they may default on different cycles, or at least have in the past. Chart 4 shows that ABS had a default cycle beginning in 2001 and CMBS beginning in 2008 and that diversification helps address a big component of corporate spread: systematic risk or non-diversifiability.

CHART 4. SECURITIZED PRODUCTS OFFER DIVERSIFICATION POTENTIAL

*U.S. CMBS and U.S. ABS one-year default rates (1986-2016)**



Source: S&P Global Ratings. *Data most recent available. For illustrative purposes only and does not represent any specific portfolio managed by Lord Abbett or any particular investment.

OUTCOMES: CONSISTENT OUTPERFORMANCE

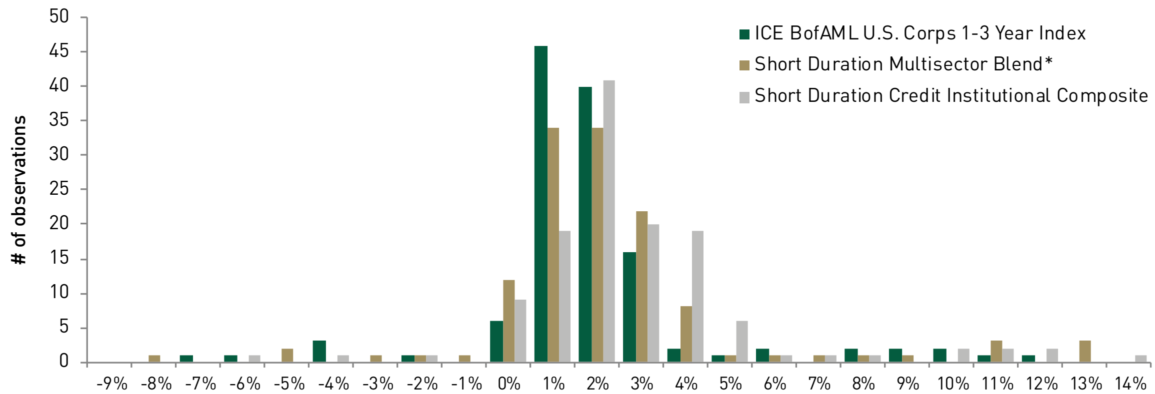
We've hypothesized that the short-credit anomaly continues to exist in so many sectors because of the difficulty in scaling such an approach. At Lord Abbett, we are intimately familiar with this problem because we operate in scale in this space, with over $40 billion in short-credit mandates as of December 31, 2018. We have nearly five decades of experience in multi-sector fixed income and in that time we have built deep and collaborative credit-focused teams and, importantly, empowered those teams with a set of risk tools to find relative value and construct portfolios that reflect our intended risk positioning. In this way, we have distributed our decision-making framework, putting the entire department to work on our short credit portfolios and enabling us to achieve scale along with depth in each market.

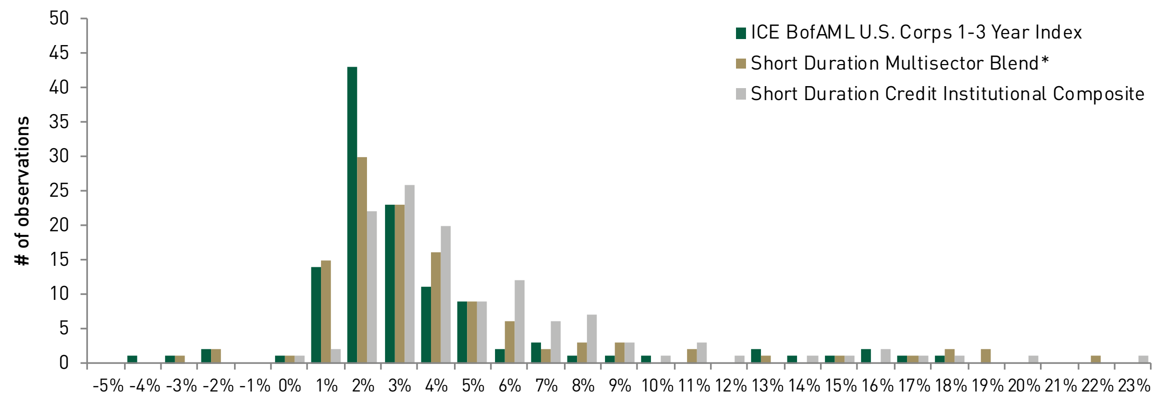
Because of the historical alpha in the space and our ability, historically, to add value through a multisector design and active sector and security selection relative to that design, the results of our process challenge some conventional notions of risk.

Even a greatly simplified blend of short-credit sectors can help prove the power of diversification in this space. Chart 5 compares a frequency chart of six-month returns from 2008 to 2018. First note that the returns are larger and the standard deviation is about the same. The shape of that distribution is important for strategic cash investors as well, and we see that the "tail" of the multi-sector blend is fatter over six- month periods, leading to more six-month periods where returns fall below zero. As that holding period extends to 12 months, however, we see the tail flatten out. The larger spreads available to a multi-sector approach and modest loss profile provide a pull to par as the measurement period approaches the weighted average life of the portfolio. The introduction of an active approach can further reduce the tail risk over modest holding periods, as shown by the return profile of the Lord Abbett Short Duration Income strategy in Chart 5.

CHART 5. FAT-TAILED RETURNS HAVE DISSIPATED OVER LONGER HOLDING PERIODS

Rolling 6-month and 12-month returns (January 1, 2008 – December 31, 2018)





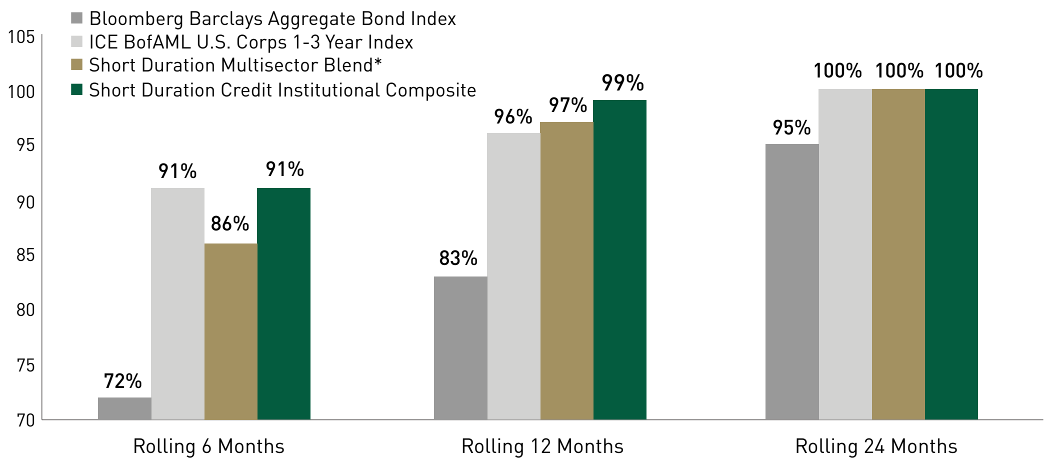
	Annualized Return	Standard Deviation
ICE BofAML U.S. Corps 1-3 Year Index	2.92%	2.71%
Short Duration Multisector Blend	3.42%	2.73%
Short Duration Credit Institutional Composite	4.51%	2.77%

Source: Bloomberg and Lord Abbett. *Blended Allocation includes 30% ICE BofA/Merrill Lynch U.S. Corporate 1-3 Year Index, 30% Bloomberg Barclays CMBS 1-3.5 Year Index, 15% ICE BofA/Merrill Lynch ABS Fixed Rate 0-3 Year Index, 15% Bloomberg Barclays High Yield 1-3 Year Index, and 10% Bloomberg Barclays U.S. Government/Credit 1-3 Year Index. Past performance is not a reliable indicator or guarantee of future results. For illustrative purposes only and does not represent any specific portfolio managed by Lord Abbett or any particular investment.

In Chart 6, we see the fraction of six-month periods in which the principal is returned in full is smaller for a multi-sector blend, but as that period goes out to 12 months it's a larger portion of the time. This is the greater average yield and the diversification of sectors at work. This can be substantially improved by targeting inefficient sub sectors in a strategy design and through active sector rotation and through value-add security selection, as evidenced by the return consistency in the Lord Abbett Short Duration Income strategy.

CHART 6. RETURN OF PRINCIPAL: HISTORICAL LIKELIHOOD FOR SHORT-TERM CORPORATE BONDS AND BLENDED SHORT CREDIT

Percentage of time periods with positive returns (rolling returns January 1, 2008 – December 31, 2018)



Source: Bloomberg and Lord Abbett. *Blended Allocation includes 30% ICE BofA/Merrill Lynch U.S. Corporate 1-3 Year Index, 30% Bloomberg Barclays CMBS 1-3.5 Year Index, 15% ICE BofA/Merrill Lynch ABS Fixed Rate 0-3 Year Index, 15% Bloomberg Barclays High Yield 1-3 Year Index, and 10% Bloomberg Barclays U.S. Government/Credit 1-3 Year Index. Past performance is not a reliable indicator or guarantee of future results. For illustrative purposes only and does not represent any specific portfolio managed by Lord Abbett or any particular investment.

The increased opportunity set that comes with teams that can rotate among a variety of disparate sectors is often underappreciated. Consider last year (2018). Coming into the year, the IG corporate credit environment was pretty bleak, and many short managers have that category as their sole opportunity set. Those managers struggled. Meanwhile, managers who went up in quality in securitized product, as we did, were able to perform well versus benchmarks and their peers, in a difficult credit year. Through our multi-sector design and active management relative to that design we've outperformed in a variety of environments, as shown in Table 2, providing a superior short-duration solution but also one that can meet a variety of needs not normally associated with short duration, such as diversification from core and absolute return.

TABLE 2. CONSISTENT RETURNS VERSUS INDEX

*Calendar-year returns versus index (2008-2017)**

Year	Short Duration Credit Institutional Composite (Gross of Fees)	Short Duration Credit Institutional Composite (Net of Fees)	ICE BofAML 1-3 Year U.S. Composite Index*	Excess Returns**
2017	2.91%	2.70%	1.91%	1.00%
2016	4.64%	4.39%	2.39%	2.25%
2015	1.03%	0.79%	1.01%	0.02%
2014	2.33%	2.08%	1.19%	1.14%
2013	2.23%	1.99%	1.78%	0.45%
2012	7.25%	7.00%	4.49%	2.76%
2011	3.77%	3.53%	1.76%	2.01%
2010	7.10%	6.84%	4.86%	2.24%
2009	17.86%	17.58%	14.69%	3.17%
2008	-0.24%	-0.48%	-2.68%	2.44%

Past performance is not a reliable indicator or guarantee of future results. Please refer to the GIPS composite presentation below for additional information. Net of fees performance reflects the deduction of the highest applicable management fee ("Model Net Fee") that would be charged based on the fee schedule appropriate to you for this mandate without the benefit of breakpoints. Please be advised that the composite may include other investment products that are subject to management fees that are inapplicable to you but are in excess of the Model Net Fee. Therefore, the actual performance of all the portfolios in the composite on a net-of-fees basis will be different, and may be lower, than the Model Net Fee performance. However, each Model Net Fee performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to you to the gross performance of the composite. Source: ICE Data Indices, LLC. * Most recent data available. **Excess returns: difference between Short Duration Credit Institutional Composite (Gross of Fees) and the ICE BofA/ML 1-3 Year U.S. Corporate Index.

We've documented the potential benefits of a thoughtfully designed and rigorously applied strategic focus on short credit for a variety of portfolio applications in the institutional space. Call us and let's discuss how our active short credit approach can help you.

END NOTES TO PERFORMANCE

The Global Investment Performance Standards (GIPS®) compliant performance results shown represent the investment performance record for the Lord, Abbett & Co. LLC (Lord Abbett) Short Duration Credit Institutional Composite. Prior to April 1, 2013, the composite was named Short Duration Fixed Income Institutional Composite. This composite is comprised of all fully discretionary portfolios managed on behalf of institutional investors investing primarily in taxable short duration investment grade debt securities of various types. The portfolios may also invest in lower-rated debt securities, including non-U.S. debt securities denominated in foreign currencies and floating or adjustable rate senior loans. Effective November 2017, only accounts with a value of $40 million or more are included in the composite. Effective July 2014, only accounts with an initial value of $100 million or more are included in the composite. Effective January 2018, accounts funded on or before the 15th of the month will be included in the Composite effective the first day of the first following month. Accounts funded after the 15th of the month will be included effective on the first day of the second following month. Prior to January 2018, other than registered investment companies sponsored by Lord Abbett, accounts opened/funded on or before the 15th day of the month were included in the Composite effective the first day of the second following month and accounts opened/funded after 15th of the month were included effective on the first day of the third following month. Registered investment companies sponsored by Lord Abbett are included in the Composite in the first full month of management. Closed accounts are removed from the Composite after the last full month in which they were managed in accordance with applicable objectives, guidelines, and restrictions. Performance results are expressed in U.S. dollars and reflect reinvestment of any dividends and distributions. The Composite was created in 2008. A complete list of Lord Abbett composites and a description of their investment strategies is available on request. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

For GIPS® purposes, the firm is defined as Lord, Abbett & Co. LLC ("Lord Abbett"). Total Firm Assets are the aggregate fair value of all discretionary and non-discretionary assets for which the Firm has investment management responsibility. Accordingly, Total Firm Assets include, but are not limited to, mutual funds (all classes of shares), privately placed investment funds, non-U.S. domiciled investment funds, separate/institutional portfolios, individual portfolios and separately managed accounts ("Wrap Fee/SMA Portfolios") managed by Lord Abbett. Total Firm Assets also include any collateralized, structured investment vehicle, such as a collateralized debt obligation or collateralized loan obligation, for which Lord Abbett has been appointed as the collateral manager. For the period prior to January 1, 2000, the definition of the Firm does not include any hedge fund or SMA program accounts where Lord, Abbett & Co. LLC did not have the records so long as it is impossible for Lord, Abbett & Co. LLC to have the records (within the meaning of relevant GIPS® standards interpretations). Total Firm Assets also exclude separately managed program accounts that involve model delivery.

The number of portfolios and total assets in the Composite, and the percentage of total "firm" assets represented by the Composite at the end of each calendar year for which performance information is provided are as follows:

CALENDAR YEAR ENDED	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
# of Portfolios	11	7	3	2	2	1	1	1	1	1
Total Assets ($M)	$45,184	$43,387	$38,072	$34,127	$37,197	$33,783	$28,523	$16,733	$11,525	$4,443
Percentage of Firm Assets	28.06%	27.79%	28.29%	27.52%	27.36%	24.88%	22.30%	15.60%	10.80%	5.00%
Total Firm Assets ($M)	$161,055	$156,110	$134,565	$124,007	$135,945	$135,786	$127,753	$107,449	$106,528	$88,895
Dispersion	0.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lord Abbett Short Duration Credit Institutional Composite Gross (Annual)	1.84%	2.91%	4.64%	1.03%	2.33%	2.23%	7.25%	3.77%	7.10%	17.86%
Lord Abbett Short Duration Credit Institutional Composite Gross (3 year Annualized Return*)	3.13%	2.85%	2.66%	1.86%	3.91%	4.40%	6.03%	9.42%	7.98%	N/A
Lord Abbett Short Duration Credit Institutional Composite Gross (3 year Annualized Ex-Post Standard Deviation*)	1.06%	1.18%	1.33%	1.27%	1.49%	1.76%	1.77%	3.07%	4.70%	N/A
Lord Abbett Short Duration Credit Institutional Composite Net (Annual)	1.22%	2.28%	4.00%	0.43%	1.73%	1.62%	6.64%	3.14%	6.67%	17.40%
Lord Abbett Short Duration Credit Institutional Composite Net (3 year Annualized Return*)	2.49%	2.23%	2.04%	1.26%	3.30%	3.78%	5.47%	8.91%	7.55%	N/A
ICE BofAML 1-3 year U.S. Corporate Index (Annual)	1.62%	1.91%	2.39%	1.01%	1.19%	1.78%	4.49%	1.76%	4.86%	14.69%
ICE BofAML 1-3 year U.S. Corporate Index (3 year Annualized Return*)	1.97%	1.77%	1.53%	1.32%	2.47%	2.67%	3.69%	6.97%	5.39%	N/A
ICE BofAML 1-3 year U.S. Corporate Index (3 year Annualized Ex-Post Standard Deviation*)	0.87%	0.84%	0.88%	0.77%	0.98%	1.21%	1.43%	2.96%	4.91%	N/A

*N/A for periods with less than 3 years of data based on the composite inception date.

Dispersion is represented by the asset-weighted standard deviation, a measure that explains deviations of portfolio rates of return from the asset-weighted composite return. Only portfolios that have been managed within the Composite style for a full year are included in the asset-weighted standard deviation calculation. The measure may not be meaningful (N/A) for composites consisting of five or fewer portfolios or for periods of less than a full year.

The performance of the Composite is shown net and gross of advisory fees, and reflects the deduction of transaction costs. The deduction of advisory fees and expenses (and the compounding effect thereof over time) will reduce the performance results and, correspondingly, the return to an investor. Net performance of the Composite as presented in the table on the previous page reflects the deduction of a "model" advisory fee, calculated as the highest advisory fee, borne by any account (without giving effect to any performance fee that may be applicable) in the Composite (an annual rate of 0.20% of assets from April 1, 2017 forward, prior to April 1, 2017 an annual rate of 0.24% of assets) and other expenses (including trade execution expenses). **For example, if $10 million were invested and experienced a 10% compounded annual return for 10 years, its ending dollar value, without giving effect to the deduction of the advisory fee, would be $25,937,425. If an advisory fee of 0.20% of average net assets per year for the 10-year period were deducted, the annual total return would be 9.78% and the ending dollar value would be $25,469,675. The management fee schedule is as follows: 0.20% on the first $50 million, 0.17% on the next $100 million, 0.15% on the next $100 million, and 0.13% on all assets over $250 million.** Net-of-fee performance reflects the deduction of the highest applicable institutional advisory fee that would be charged to a new institutional client account based on the current fee schedule for this strategy. The composite includes one or more registered investment companies sponsored by Lord Abbett ("Lord Abbett Funds") that are subject to fees and expenses that would be inapplicable to an institutional client account. Therefore, the actual performance of Lord Abbett Fund accounts included in the composite may be lower than the net-of-fee composite performance presented. Fees and expenses applicable to the Lord Abbett Funds are disclosed in each Fund's Prospectus, which is available upon request. Past performance does not guarantee future results. Certain securities held in portfolios contained in this composite may have valuations determined using both subjective observable and subjective unobservable inputs. The Firm's valuation hierarchy does not materially differ from the hierarchy in the GIPS Valuation Principles. Portfolios in this composite may be managed against an internal index that is constructed utilizing sectors and sub-sectors of publicly available indices. The weights of the sectors and sub-sectors of the internal index may vary over time and differ materially from the sectors and weightings of the benchmark Index.

Lord Abbett claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Lord, Abbett & Co. LLC has been independently verified for the periods 1993 through 2017. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firmwide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The Short Duration Credit Institutional composite has been examined for the periods 2008 through 2017. The verification and performance examination reports are available upon request.

The **ICE BofAML 1-3 year U.S. Corporate Index** is an unmanaged index comprised of U.S. dollar denominated investment grade corporate debt securities publicly issued in the U.S. domestic market with between one and three year remaining to final maturity. Prior to May 2013, the benchmark for the composite was the Bloomberg Barclays Capital 1-3 Year Government/Credit Bond Index. Lord Abbett believes the ICE BofAML 1-3 year U.S. Corporate Index is more representative of the investment strategy based on the strategy's higher allocation to corporates credit and reduced exposure to U.S. Government securities. The benchmarks have not been examined by Deloitte & Touche LLP.

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IMPORTANT INFORMATION

A Note about Risk: The value of investments in fixed-income securities will change as interest rates fluctuate and in response to market movements. Generally, when interest rates rise, the prices of debt securities fall, and when interest rates fall, prices generally rise. Bonds may also be subject to other types of risk, such as call, credit, liquidity, interest-rate, and general market risks. High-yield securities, sometimes called junk bonds, carry increased risks of price volatility, illiquidity, and the possibility of default in the timely payment of interest and principal. Moreover, the specific collateral used to secure a loan may decline in value or become illiquid, which would adversely affect the loan's value. Longer-term debt securities are usually more sensitive to interest-rate changes; the longer the maturity of a security, the greater the effect a change in interest rates is likely to have on its price. Lower-rated bonds may be subject to greater risk than higher-rated bonds. No investing strategy can overcome all market volatility or guarantee future results. Statements concerning financial market trends are based on current market conditions, which will fluctuate. There is no guarantee that markets will perform in a similar manner under similar conditions in the future.

Diversification does not guarantee a profit or protect against loss in declining markets.

GLOSSARY

The **ICE BofA/Merrill Lynch U.S. Corporate 1-3 Year Index** is an unmanaged index comprised of U.S. dollar denominated investment grade corporate debt securities publicly issued in the U.S. domestic market with between one and three year remaining to final maturity.

The Bloomberg Barclays CMBS 1-3.5 Year Index, measures the market of conduit and fusion CMBS deals with a minimum current deal size of $300mn.

ICE BofA/Merrill Lynch ABS Fixed Rate 0-3 Year Index, is a rate- and maturity-specific subset of the ICE BofA/ML U.S. Fixed and Floating Rate Asset Backed Securities Index.

The **Bloomberg Barclays U.S. High Yield 1-3 Year Index**, is the 3 Year (1-2.9999) component of the Bloomberg Barclays U.S. High Yield Index. The Bloomberg Barclays U.S. High Yield Index covers the universe of fixed rate, non-investment grade debt.

The **Bloomberg Barclays U.S. Government/Credit 1-3 Year Index** is an unmanaged index that is designed to represent a combination of the Government Bond Index and the Corporate Bond Index, and includes U.S. government Treasury and agency securities, corporate bonds, and Yankee bonds with maturities of 1 to 3 years.

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