



Short-Term Bonds: A History of Opportunity

Portfolios of short maturity bonds historically have had greater risk-adjusted returns than portfolios with greater term risk. What are the implications for investment portfolios?

by Joseph Graham, Investment Strategist; Stephen Hillebrecht, Product Strategist; and Michael Cibelli, Product Strategist

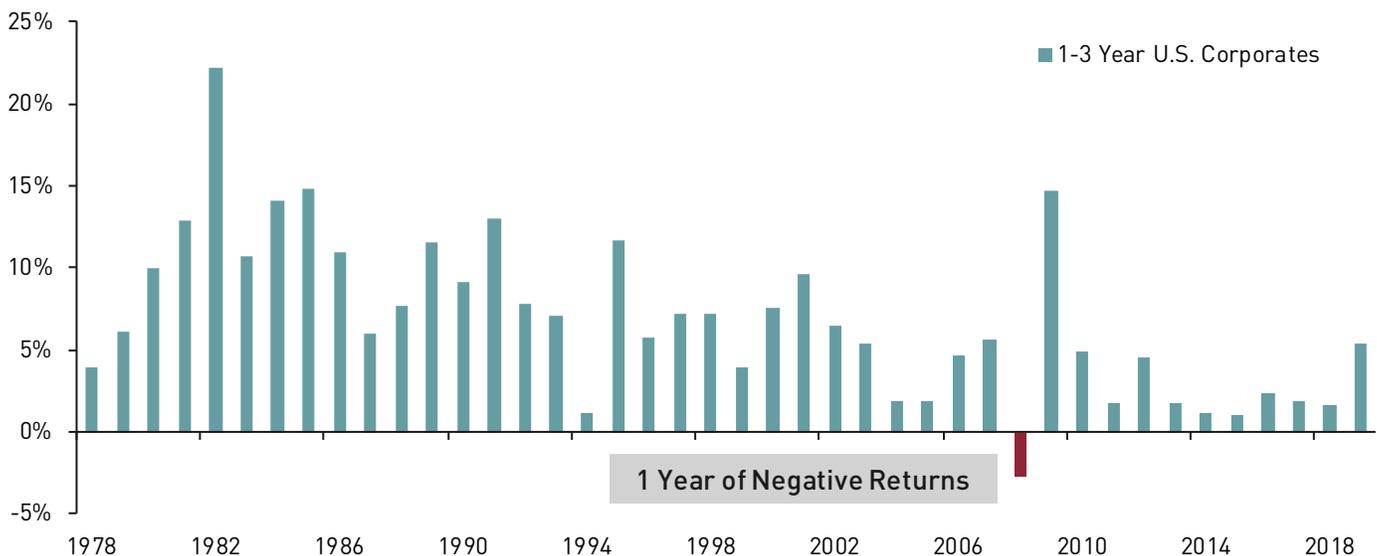
IN BRIEF

- Over the past few decades, U.S. short-term corporate debt has displayed superior risk-adjusted returns compared to U.S. government securities of comparable maturity and longer-term corporates of comparable quality.
- In doing so, short corporates have confounded standard risk-factor models. The anomalous performance may have behavioral roots. In this article, we offer some possible explanations.
- An examination of other short-maturity debt categories—asset-backed securities (ABS), high-yield bonds, and commercial mortgage-backed securities—reveals a similar pattern of outperformance.
- While a strategic blend of all these asset classes may lead to more consistent outcomes, we believe it can be improved upon through a carefully designed, actively managed approach.

For the last 40 years, short-maturity corporate bonds have exhibited remarkably consistent performance on an absolute basis, as shown in the upper portion of Chart 1. When looking at one-year holding periods, there simply hasn't been enough exposure to either interest-rate volatility or credit volatility to outweigh the yield on these securities. In addition, the two primary risks within short corporates of duration and credit have provided some balance. In a strong economy, for example, credit risk typically does well, while duration risk detracts from performance. In examining excess returns versus short-term U.S. Treasury securities over the past few decades (in the lower portion of Chart 1), we find that this balance of risks has contributed to short-term corporates outperforming in 96% of the rolling five-year periods surveyed.

Chart 1: Short-Term Corporate Debt Has Shown Consistent Positive Annual Returns...

Annual return, calendar years 1978–2019

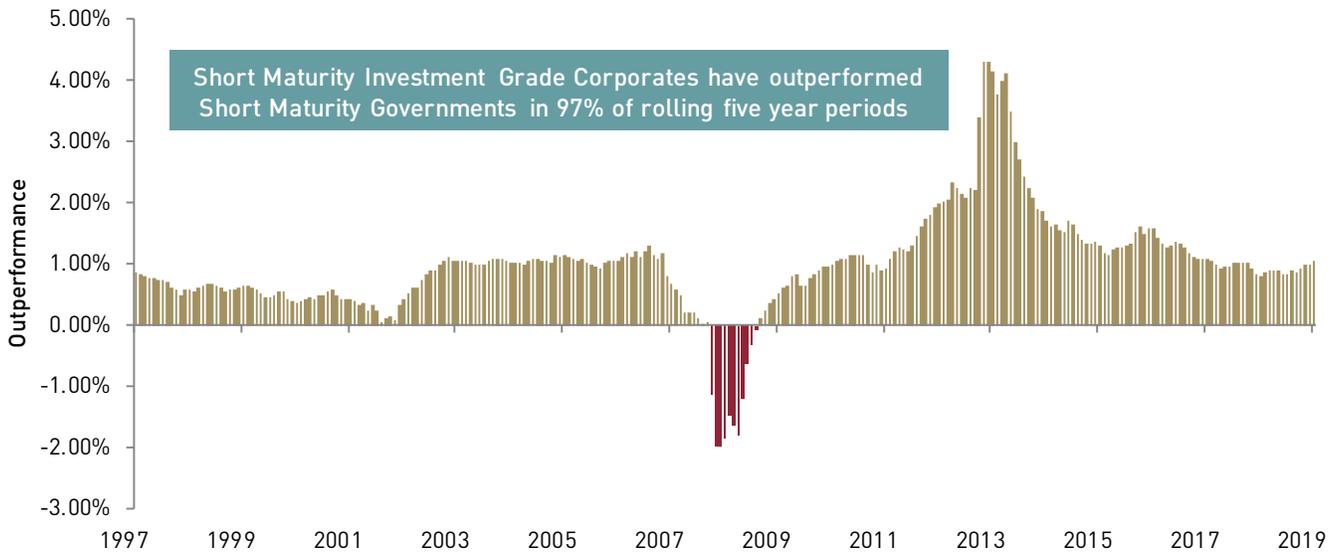


Source: Morningstar. Note: One- to three-year U.S. corporates are represented by the ICE BofAML 1–3 Year Corporate Bond Index (inception date, January 1, 1976). Past performance is not a reliable indicator or guarantee of future results. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment. Due to market volatility, the market may not perform in a similar manner in the future. Other time periods may have been different. The historical data are for illustrative purposes only and do not represent the performance of any portfolio managed by Lord Abbett or any particular investment.



...While Outperforming Similar-Maturity Government Debt

Performance of representative index of short-maturity corporate bonds versus short-term Treasuries, December 30, 1997–December 31, 2019



Source: ICE Data Indices and Bloomberg Barclays Indices.

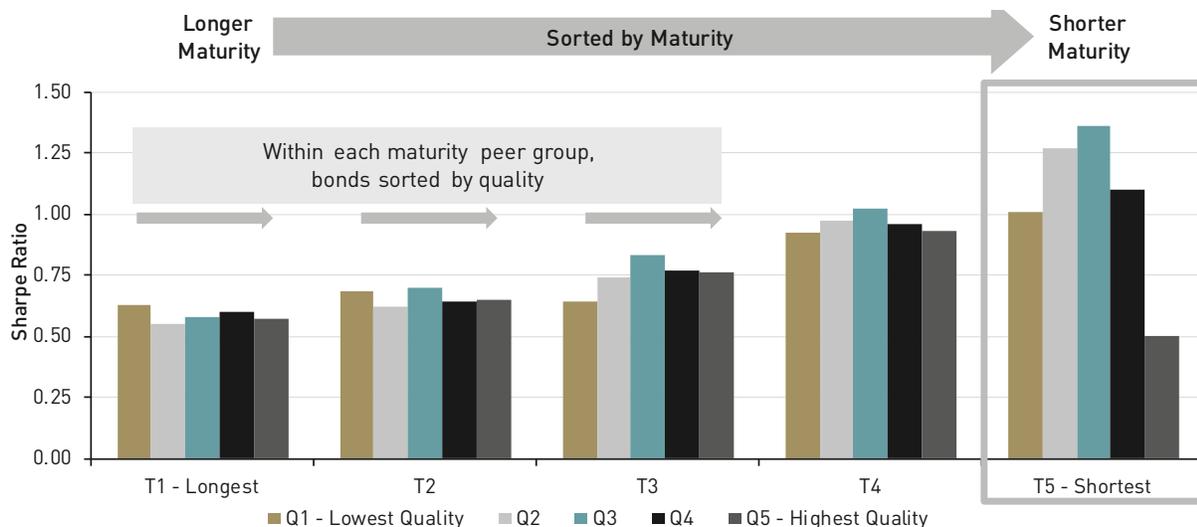
Note: Chart data represent five-year rolling returns of the ICE BofAML 1-3 Year Corporate Bond Index (inception date, January 1, 1976) versus the Bloomberg Barclays U.S. 1-3 Year Government Bond Index. Beginning date for the rolling five-year return series is the inception date of the corporate index.

Past performance is not a reliable indicator or guarantee of future results. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment. Due to market volatility, the market may not perform in a similar manner in the future. Other time periods may have been different. The historical data are for illustrative purposes only and do not represent the performance of any portfolio managed by Lord Abbett or any particular investment.

However, risk-factor exposure may not tell the whole story. Several comprehensive studies have documented that limited volatility and outsized return at the short end of the curve for corporate debt securities confound standard risk-factor models. One of these studies, "The Short-Term Corporate Bond Anomaly" (Jeroen Derwall, Joop Huij, and Gerben de Zwart, 2009), divides corporate bonds into quintiles by term risk and default risk, finding that lower term-risk bonds had exceptionally high Sharpe ratios over the period measured (1993–2003), particularly those with higher default betas, as shown in Chart 2.¹

Chart 2. Higher Default-Risk, Lower Term-Risk Corporates Have Had Higher Risk-Adjusted Returns

Sharpe ratios for indicated term-risk and default-risk categories, January 1993–December 2003



Source: Jeroen Derwall, Joop Huij, and Gerben de Zwart, "The Short-Term Corporate Bond Anomaly," January 14, 2009; available at <https://ssrn.com/abstract=1101070> or <http://dx.doi.org/10.2139/ssrn.1101070>. The chart depicts the results of a study of the risk-adjusted return (as measured by the Sharpe ratio) of groups of corporate bonds of varying term risk levels, sorted by default risk, for the period January 1993–December 2003.

Q=quintile, T=term. **Past performance is not a reliable indicator or guarantee of future results.** The historical data are for illustrative purposes only and do not represent the performance of any portfolio managed by Lord Abbett or any particular investment.



The authors examined a full spectrum of possible bond-return factors to explain the outsized risk-adjusted return, including:

- Market risk
- Term and default risk
- Steepness and curvature
- Premiums associated with inflation and economic development
- Liquidity risk

The authors concluded that these common risk factors underestimated the returns of bonds with short-term maturities. In addition, the study found that by sorting mutual funds by the same term and default risk factors, the mutual funds focused on short-term bonds also were shown to exhibit anomalous returns relative to risk exposures. From this, the authors further concluded that the short-term anomaly was likely not the byproduct of portfolio construction methods used or of the lack of frictions in hypothetical portfolios.

In sum, there is a real-life anomaly here. We think it's important to examine why this exists.

Reasons for the Mispricing

The authors suggest the reason for this anomaly may be behavioral in nature, and note parallels with the low-beta stock anomaly, first detailed in 1973 by Eugene Fama and James MacBeth.² Later research postulates that demand for high-beta stocks (think "lottery stocks") in specific market states may force prices for these securities up, leaving other, low-beta securities a relative bargain. We generally concur with this hypothesis. When investment management practitioners have an insight into an industry trend, they typically look for the securities with maximum point of leverage for this insight. That can lead to persistent overlooking of low-beta, low-risk securities. Interestingly, this behavioral bias would lead to more pronounced mispricing for low term-risk bonds than low default-risk bonds because of the relatively larger magnitude of interest-rate volatility compared to credit volatility.

The traditional silos of bond market managers may exacerbate the neglect of low term-risk bonds. For example, investment-grade bank loans comprise a small portion of the loan market. While these securities typically have a lower yield than what may be of interest to a dedicated bank loan portfolio manager, these loans often present attractive value relative to other investment-grade securities. In a similar phenomenon, short-term, callable high-

yield bonds may present lower potential return than what might be of interest to a high-yield portfolio manager, yet may provide very attractive returns compared to other short-term fixed income and relative to the volatility of the bonds.

But why wouldn't these conditions stemming from behavioral preferences or biases be more widely recognized, and exploited, by market participants?

We believe the limiting factor here is that, despite an abundance of liquidity, the scale required to manage a diversified, credit-oriented short-term bond portfolio is difficult to achieve. Each decision to purchase or sell a short-maturity bond requires a good deal of effort when compared to the reward. The effort required to purchase or sell a short-maturity bond is essentially the same as that for a long-maturity bond, but the rewards, on an absolute basis, are smaller, generally just a couple of basis points here and there. Maintaining a diversified and attractively valued short-maturity portfolio can require hundreds and even thousands of relative-value decisions to be made every few months. However, if done efficiently, all that effort to manage a portfolio of short-maturity bonds may pay off meaningfully, as the empirical studies show.

Extending the Anomaly to Other Asset Classes

The reasons for the underpricing of short-maturity investment-grade corporate bonds are important, because if those same reasons hold for other kinds of short-maturity fixed income, then it should follow that they, too, might exhibit underpricing. Examining the rolling excess returns of short-maturity asset-backed securities (ABS), short-maturity high-yield bonds, and short-term commercial mortgage-backed securities (CMBS) in Chart 3, we see a similar pattern of very consistent outperformance.

Because these asset classes are not perfectly correlated, a blended strategy that utilizes the range of short-term bond categories can diversify risk specific to any one asset class. A blended strategy thus helps isolate the short-maturity mispricing, potentially leading to more consistent outcomes that are less dependent on fortunate or unfortunate individual asset-class movements.

A hypothetical design rebalanced to a blend among investment-grade corporates (30%), CMBS (30%), ABS (15%), high-yield corporates (15%), and a broad grouping of government and corporate investment-grade securities (10%), as shown in Chart 4, shows attractive hypothetical risk and return characteristics.



Chart 3. The Short-Term Anomaly Extends Beyond Short Investment-Grade Corporate Bonds

Rolling five-year returns for representative indexes (since inception) versus short-term U.S. government securities for indicated time periods



Source: ICE Data Indices and Bloomberg Barclays Indices. Data as of December 31, 2019. Asset-backed securities (ABS) represented by the ICE BofAML 0-3 Year U.S. Asset Backed Securities Index. High yield represented by the Bloomberg Barclays U.S. High Yield 1-3 Year Bond Index. Commercial mortgage-backed securities (CMBS) represented by the Bloomberg Barclays U.S. 1-3.5 Year CMBS Investment Grade Bond Index. Short-term U.S. government securities represented by the Bloomberg Barclays U.S. 1-3 Year Government Bond Index. Beginning dates for the rolling five-year return series are the inception dates of the respective indexes.

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. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment.

The Active Opportunity In Short-Term Credit

Though it shows promising potential returns, that blended allocation can be improved upon, in our view, through a carefully designed, actively managed approach. We believe a manager skilled at multi-sector valuation and fundamental analysis can add value through sector rotation as various sectors fall in and out of favor. Similarly, strong fundamental credit research and a valuation framework may add value at the security-selection level. In our experience, the lack of focus on many sectors in short-maturity bonds can create a class of “orphaned” securities—resulting in rich opportunities for both sector rotation and active security selection.

Last, short-duration names are often sold first in a liquidity crunch or risk-off event because they are priced so near to par value. We have found that being an active presence in this market and a consistent liquidity provider can result in being the “first call” when a seller is raising cash. That can mean less competitive pricing and an opportunity for excess returns.

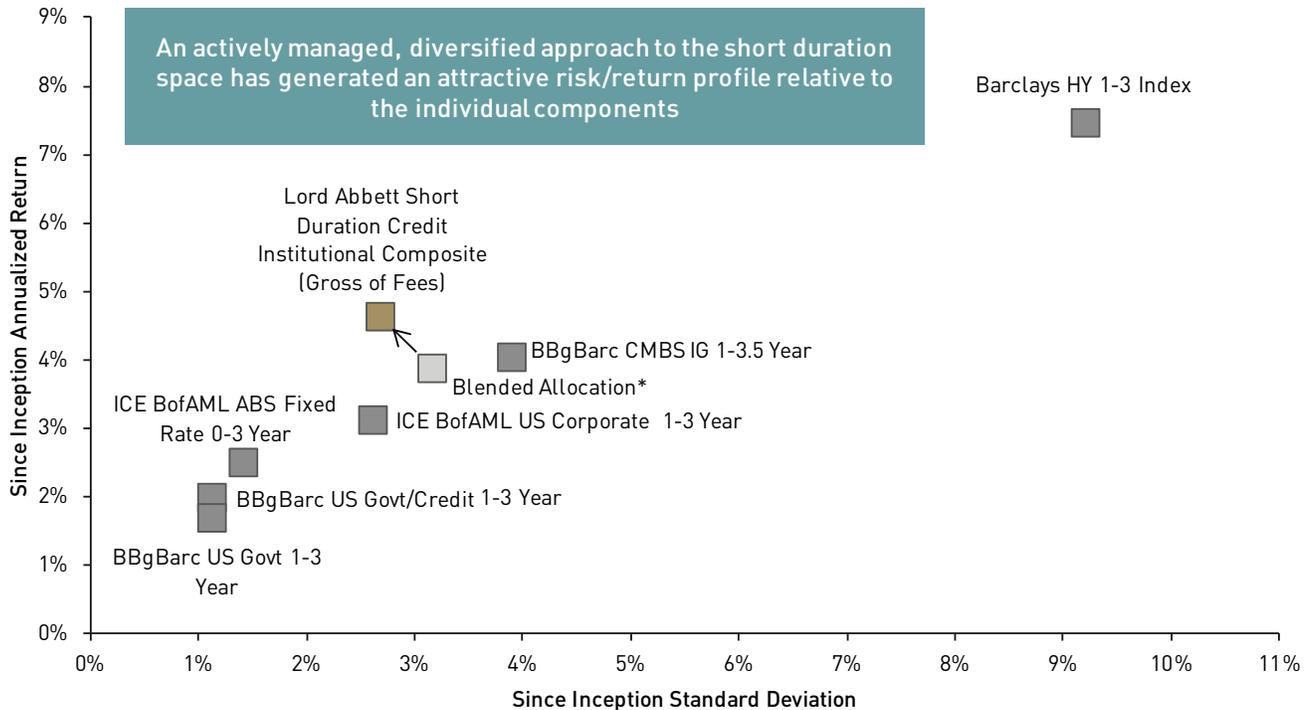
More important, though, in order to effectively capitalize on this opportunity in short-maturity credit, an active manager needs a process-oriented approach that enables distributed decision making. In other words, a manager needs to refine a scalable approach in a space where it’s difficult to scale. It requires a substantial allocation of resources, a team of credit analysts with sector expertise, for example, and a comprehensive yet flexible quantitative valuation framework that can help target the fundamental efforts in security selection and sector allocation.

Lord Abbett has managed multi-sector fixed income for nearly 50 years. We’ve shown the ability to add significant value through active management among and within these short-duration asset classes. This is illustrated in Chart 4, which compares the risk/reward balance of our Short Duration Credit strategy to the short-term bond categories—and the simplified, hypothetical blended portfolio.



Chart 4: For Short-Term Bonds, Diversified Exposure Historically Has Improved the Risk/Return Profile

Annualized return and standard deviation for indicated indexes, January 1, 2008–December 31, 2019



Short Duration Credit Institutional Composite	1 Year	3 Years	5 Years	10 Years
Gross of Fees	6.05%	3.59%	3.28%	3.89%
Net of Fees	5.84%	3.38%	3.05%	3.66%

**Average Annual Return

Source: Morningstar and Lord Abbett.

*Blended index represents a hypothetical combination of 30% ICE BofAML 1-3 Year U.S. Corporate Bond Index (ICE BofAML US Corps 1-3 Year), 30% Bloomberg Barclays U.S. 1-3.5 Year CMBS Investment Grade Bond Index (BBgBarc CMBS IG 1-3.5 Year), 15% ICE BofAML 0-3 Year U.S. Asset Backed Securities Index (ICE BofAML ABS Fixed Rate 0-3 Year), 15% Bloomberg Barclays U.S. 1-3 Year High Yield Bond Index BBgBarc HY 1-3 Year, and 10% Bloomberg Barclays 1-3 Year U.S. Government/Credit Bond Index (BBgBarc US Govt/Credit 1-3 Year). BBgBarc US Govt 1-3 Year= Bloomberg Barclays U.S. 1-3 Year Government Bond Index. **Annualized return as of December 31, 2017.

Past performance is not a reliable indicator or guarantee of future results. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment. 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 break-points. 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, such 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.



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 30 2017, only accounts with a value of \$45 million or more are included in the composite. Effective July 1, 2014, only accounts with an initial value of \$100 million or more are included in the composite. Other than registered investment companies sponsored by Lord Abbett, accounts opened/funded on or before the 15th of the month will be included in the Composite effective on the first day of the second following month. Accounts opened/funded after the 15th of the month will be included in the Composite 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							
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)	1.64%	2.70%	4.39%	0.79%	2.08%	1.99%	7.00%	3.53%	6.84%	17.58%
Lord Abbett Short Duration Credit Institutional Composite Net (3 year Annualized Return*)	2.90%	2.61%	2.41%	1.62%	3.66%	4.15%	5.78%	9.15%	7.73%	NA
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 performance periods with less than three 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 above 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 2016. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide 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 2016. The verification and performance examination reports are available upon request.

The **ICE BofAML 1-3 Year U.S. Corporate Bond 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 Bond Index is more representative of the investment strategy based on the strategy’s higher allocation to corporate credit and reduced exposure to U.S. Government securities. The benchmarks have not been examined by Deloitte & Touche LLP.

Source ICE Data Indices, LLC (“ICE”), used with permission. ICE PERMITS USE OF THE ICE BofAML INDICES AND RELATED DATA ON AN “AS IS” BASIS, MAKES NO WARRANTIES REGARDING SAME, DOES NOT GUARANTEE THE SUITABILITY, QUALITY, ACCURACY, TIMELINESS, AND/OR COMPLETENESS OF THE ICE BofAML INDICES OR ANY DATA INCLUDED IN, RELATED TO, OR DERIVED THEREFROM, ASSUMES NO LIABILITY IN CONNECTION WITH THE USE OF THE FOREGOING, AND DOES NOT SPONSOR, ENDORSE, OR RECOMMEND LORD ABBETT, OR ANY OF ITS PRODUCTS OR SERVICES.

Past performance is not a reliable indicator or a guarantee of future results. Differences in account size, timing of transactions, and market conditions prevailing at the time of investment may lead to different results among accounts. Differences in the methodology used to calculate performance also might lead to different performance results than those shown. Composite performance is compared to that of an unmanaged index, which does not incur management fees, transaction costs, or other expenses associated with a managed account.

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.

The information provided is not directed at any investor or category of investors and is provided solely as general information about Lord Abbett’s products and services and to other-wise provide general investment education. None of the information provided should be regarded as a suggestion to engage in or refrain from any investment-related course of action as neither Lord Abbett nor its affiliates are undertaking to provide impartial investment advice, act as an impartial adviser, or give advice in a fiduciary capacity. If you are an individual retirement investor, contact your financial advisor or other fiduciary about whether any given investment idea, strategy, product or service may be appropriate for your circumstances.

The information contained herein is provided by Lord Abbett. Distribution of this information to any person other than the person to whom it was originally delivered and to such person’s advisers is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of the contents hereof, without the prior consent of Lord Abbett, is prohibited. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice. Lord Abbett has no obligation to update any or all of such information. All amounts, market value information, and estimates included herein have been obtained from outside sources where indicated or represent the good faith judgment of Lord Abbett. Where such information has been obtained from outside sources, Lord Abbett cannot guarantee the accuracy or completeness of such information. These materials are not intended to be an offer or solicitation with respect to the purchase or sale of any security or other financial instrument or any investment management services. These materials do not constitute investment advice and should not be used as the basis for any investment decision.

These materials do not purport to provide any legal, tax, or accounting advice.

The financial indices referenced herein as benchmarks are provided for information purposes only. Portfolio holdings and characteristics will differ from those of the benchmark(s), and such differences may be material. Factors affecting portfolio performance that do not affect benchmark performance may include portfolio rebalancing, the timing of cash flows, credit quality, diversification, and differences in volatility. In addition, financial indices do not reflect the impact of fees, applicable taxes, or trading costs, which reduce returns.

Unless otherwise noted, financial indices assume reinvestment of dividends. You cannot make a direct investment in an index.

The **ICE BofAML 0-3 Year U.S. Asset Backed Securities Index** is a subset of the ICE BofAML U.S. Asset Backed Securities Index including all securities with an average life less than 3 years.

The **ICE BofAML 1-3 Year U.S. Corporate Bond 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 years remaining to final maturity.

The **Bloomberg Barclays U.S. 1-3 Year Government/Credit Bond Index** includes all medium and larger issues of U.S. government, investment-grade corporate, and investment-grade international dollar-denominated bonds that have maturities of between 1 and 3 years and are publicly issued.

The **Bloomberg Barclays U.S. Aggregate Bond Index** represents securities that are SEC-registered, taxable, and dollar denominated. The Index covers the U.S. investment-grade fixed-rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. Total return comprises price appreciation/depreciation and income as a percentage of the original investment.

The **Bloomberg Barclays U.S. 1-3 Year Government Bond Index** is an unmanaged index that includes U.S. government Treasury and agency securities with maturities of 1 to 3 years.

The **Bloomberg Barclays U.S. 1-3.5 Year CMBS Investment Grade Bond Index** measures the market of conduit and fusion CMBS deals with a minimum current deal size of \$300 million. The index includes bonds that are ERISA eligible under the underwriter’s exemption.



LORD ABBETT®

The **Bloomberg Barclays U.S. High Yield 1-3 Year Bond Index** is the 3 Year (1-2.9999) component of the Bloomberg Barclays U.S. High Yield Bond Index. The Bloomberg Barclays U.S. High Yield Bond Index covers the universe of fixed rate, non-investment grade debt. Original issue zeroes, step-up coupon structures, 144-As and pay-in-kind bonds (PIKs, as of October 1, 2009) are included.

Source: Bloomberg Index Services Limited. BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively "Bloomberg"). BARCLAYS® is a trademark and service mark of Barclays Bank Plc (collectively with its affiliates, "Barclays"), used under license. Bloomberg or Bloomberg's licensors, including Barclays, own all proprietary rights in the Bloomberg Barclays Indices. Neither Bloomberg nor Barclays approves or endorses this material, or guarantees the accuracy or completeness of any information herein, or makes any warranty, express or implied, as to the results to be obtained therefrom and, to the maximum extent allowed by law, neither shall have any liability or responsibility for injury or damages arising in connection therewith.

Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment.

The credit quality of the securities in a portfolio is assigned by a nationally recognized statistical rating organization (NRSRO) such as Standard & Poor's, Moody's, or Fitch, as an indication of an issuer's creditworthiness. Ratings range from 'AAA' (highest) to 'D' (lowest). Bonds rated 'BBB' or above are considered investment grade. Credit ratings 'BB' and below are lower-rated securities. High yielding, non-investment-grade bonds involve higher risks than investment-grade bonds. Adverse conditions may affect the issuer's ability to pay interest and principal on these securities.

¹Jeroen Derwall, Joop Huij, and Gerben J. de Zwart, "The Short-Term Corporate Bond Anomaly," January 14, 2009; available at <https://ssrn.com/abstract=1101070> or <http://dx.doi.org/10.2139/ssrn.1101070>.

²Eugene F. Fama and James D. MacBeth, "Risk, Return, and Equilibrium: Empirical Tests," *The Journal of Political Economy*, May-June, 1973.

The opinions in this article are as of the date of publication, are subject to change based on subsequent developments, and may not reflect the views of the firm as a whole. The material is not intended to be relied upon as a forecast, research, or investment advice, is not a recommendation or offer to buy or sell any securities or to adopt any investment strategy, and is not intended to predict or depict the performance of any investment. Readers should not assume that investments in companies, securities, sectors, and/or markets described were or will be profitable. Investing involves risk, including possible loss of principal. This document is prepared based on the information Lord Abbett deems reliable; however, Lord Abbett does not warrant the accuracy and completeness of the information. Investors should consult with a financial advisor prior to making an investment decision.