

LORD ABBETT CORE FIXED INCOME MANAGEMENT

Plymouth County Retirement Association

Timothy Paulson

Investment Strategist, Global Fixed Income

Greg Balewicz

Institutional Director, U.S. Institutional

Lord Abbett 90 Hudson Street Jersey City, NJ 07302

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PCRA & LORD ABBETT STRATEGIC PARTNERSHIP

Advantages of PCRA and Lord Abbett Partnering in U.S. Core Fixed Income:

- Enterprise-level partnership with an industry-leading fixed income organization, providing synergies and insights across asset classes
- Two mandates, each serving as a ballast of the broader portfolio and a source of liquidity, allow for maximum efficiencies
- History of delivering high risk-adjusted returns relative to the Bloomberg Barclays U.S. Aggregate Bond Index

Scope of Services

- Actively managed portfolio seeking consistent excess returns
- Collaborate with PCRA and Meketa to provide fixed income market insights and outlook
- Host regular and ongoing portfolio reviews with investment professionals
- Proactively communicate relevant and timely market updates, key investment trends, and industry insights
- Coordinate seamless onboarding experience
- Ensure timely execution of reporting deliverables and ongoing client account servicing needs as required



DEDICATED TEAM AND RESOURCES



Robert Lee
Partner & Co-Head of
Taxable Fixed Income
Core



Andrew O'Brien, CFA
Partner & Portfolio Manager
Short Duration



Gregory Balewicz Institutional Director U.S. Institutional



Timothy Poulin
Relationship Manager
U.S. Institutional



Timothy Paulson Investment Strategist Core



Joseph Graham, CFA
Managing Director,
Investment Strategist
Short Duration



Maria Kalimnios
Client Account Manager
U.S. Institutional



Kevin Davey
Director
Consultant Relations

Portfolio Team

- Construct an optimal portfolio consistent with client guidelines
- Collaborate on all aspects of active portfolio management, equity research, and trading
- Develop key market insights and communicate with clients and consultants

Relationship Team

- Deliver a client experience that exceeds expectations
- Offer the full breadth and depth of Lord Abbett's resources
- Responsible for the day-to-day account servicing needs and ad-hoc client requests







LORD ABBETT

A singular focus since 1929

INVESTMENT-LED

- Active management characterized by a deliberate process, teamwork and collaboration
- Rigorous research that challenges consensus and identifies opportunities
- Comprehensive risk management that enhances investment decisions

INVESTOR-FOCUSED

- Perspectives shaped and decisions sharpened by our independence
- Resources dedicated to the markets we serve
- Strategies intelligently designed to meet client needs



About Us

As of June 30, 2021

What Guides Us

Independent privately held firm

Assets under management: approximately

\$246

164

investment professionals
with an average of
18 years of
industry experience

MISSION

Securing a sustainable future for our clients, our people, and our world.

We Invest for Our Clients:

Supporting values, making an impact, and providing financial security.

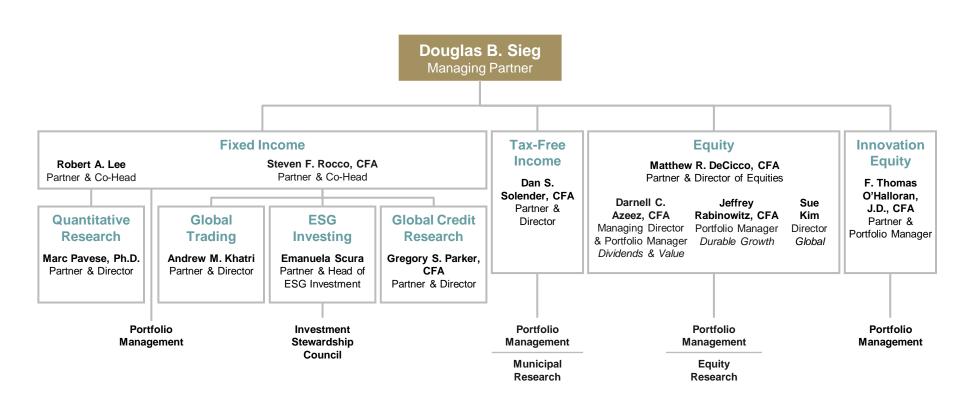
We Empower Our People:

Building meaningful careers, enhancing well-being, and creating an equitable environment for all. We Engage Our World:

Advancing our local communities, taking a stand on global issues, and driving change to benefit our planet.



OUR INVESTMENT TEAMS



164 Investment Professionals with an Average of 18 Years Industry Experience

As of 06/30/2021.



OUR ASSETS AND INVESTMENT STRATEGIES

\$246 BILLION IN ASSETS UNDER MANAGEMENT

Including over \$752 million from current and former partners, employees, and their families

U.S. Equity

- Large Value
- Focused Large Value
- Mid Value
- Smid Value
- Small Value
- Focused Small Value
- Multi Value
- Small Core
- Large Growth
- Focused Growth
- Mid Growth
- Small Growth
- Micro Growth
- Convertible
- Equity Income
- Dividend Growth

Global and International Equity

- International Equity
- International Value
- International Small Core
- Global Equity
- Health Care

Tax-Free Fixed Income

- Short
- Short Duration High Yield
- Intermediate
- Long
- High Yield
- State Specific (CA, NY, NJ)

Taxable Fixed Income

- Ultra Short Bond
- Short Credit
- Intermediate Government/Credit
- Government
- Core
- Core Plus
- Climate Focused
- Inflation Focused
- Corporate Credit
- Bank Loan
- Multi-Sector
- Global Multi-Sector
- EM Corporate Debt
- EM Bond
- Long Duration
- Short Duration High Yield
- High Yield
- Global High Yield
- Credit Opportunities



TAXABLE FIXED INCOME ASSETS UNDER MANAGEMENT

ASSETS UNDER MANAGEMENT BY STRATEGY AND ASSET CLASS

(AS OF 06/30/2021)

Strategy	Assets
Total Taxable Fixed Income	\$168,562,988,036
Money Market	\$599,636,051
Ultra Short	\$20,650,444,502
Short Duration Credit	\$75,906,899,410
Intermediate Government/Credit	\$310,552,451
Government	\$261,988,472
Core	\$3,727,586,347
Core Plus	\$9,216,887,642
Inflation Focused	\$2,288,783,270
Corporate Credit	\$3,050,540,935
Bank Loan	\$6,682,867,174
Multi Sector	\$27,533,747,325
Global Multi Sector	\$90,027,677
Emerging Markets Corporate	\$99,543,375
Emerging Markets Bond	\$219,239,596
High Yield Core	\$4,986,772,682
High Yield Opportunistic	\$12,330,382,223
Global High Yield	\$49,108,546
Credit Opportunities	\$557,980,358

Asset Class	Assets
Total Corporate Credit	\$102,277,056,287
Investment Grade Corporate	\$49,243,461,746
U.S. IG Corporate	\$30,883,384,218
Non-U.S IG Corporate	\$18,360,077,528
High Yield Corporate	\$28,220,070,415
U.S. HY Corporate	\$24,119,189,854
Non-U.S. HY Corporate	\$4,100,880,561
Short Duration High Yield	\$8,887,701,511
U.S. HY Corporate	\$7,027,688,470
Non-U.S. HY Corporate	\$1,860,013,041
Bank Loans	\$15,925,822,615
Total Securitized Products	\$43,777,021,569
Commercial MBS	\$12,684,770,110
Asset Backed Securities	\$27,580,212,247
Residential MBS	\$3,512,039,212
U.S. Government Related	\$12,539,515,277
Emerging Markets Debt	\$6,902,578,842
EM Corporate	\$5,249,290,318
EM Sovereign US\$	\$1,581,258,251
EM Sovereign Local Currency	\$72,030,273

Assets under management data is as of 06/30/2021 unless noted and includes approximately \$656.7 million for which Lord Abbett provides investment models to managed account sponsors. In addition to the strategies listed above, the fixed income asset totals include the fixed income portion of the multi-asset class strategies managed by Lord Abbett. Strategy and Asset Class total assets may differ since only key asset classes are displayed.





COLLABORATIVE TEAM WITH DEEP SECTOR EXPERTISE

Robert A. Lee Steven F. Rocco, CFA Partner & Co-Head Partner & Co-Head Taxable Fixed Income Taxable Fixed Income 30 Years 20 Years Kewiin Yuoh Giulio Martini QUANTITATIVE RESEARCH TRADING Partner & Portfolio Manager Partner & Director Investment Grade Strategic Asset Allocation Andrew M. Khatri Marc Pavese, Ph.D. 27 Years Partner & Director 36 Years Partner & Director of 21 Years Andrew H. O'Brien, CFA Global Trading 19 Years Bjorn Flesaker, Ph.D. Partner & Portfolio Manager Jeffrey D. Lapin, J.D. Director, Fixed Income Corporates Partner & Portfolio Manager 29 Years 23 Years Shane Magoon Bank Loans Partner & Director of 13 Additional Investment Leah G. Traub, Ph.D 24 Years Global Fixed Income Trading **Professionals** Partner & Portfolio Manager 14 Years Average 18 Years Global Rates & Liquid Products Mila Skulkina, CFA 20 Years Portfolio Manager 10 Additional Fixed Income Trading Harris Trifon **Emerging Markets Professionals** Managing Director & Portfolio Manager 20 Years 11 Years Average **CMBS** 20 Years Christopher Gizzo, CFA Adam C. Castle, CFA Managing Director & Portfolio Manager Managing Director & Portfolio Manager High Yield ABS 13 Years 13 Years PORTFOLIO MANAGEMENT Robert S. Clark, CFA Eric P. Kang Kearney Posner, CFA Hyun Lee, CFA Multi-Sector Corporates Managing Director Rates/MBS 24 Years 22 Years 20 Years Bank Loans 22 Years Yoana Koleva, CFA Annika Lombardi 16 Additional Investment Managing Director **European Corporates Professionals** 14 Years Corporates 14 Years Average 18 Years RISK MANAGEMENT **INVESTMENT STRATEGISTS** Alec Crawford Joseph Graham, CFA

GLOBAL CREDIT RESEARCH

Gregory S. Parker, CFA
Partner & Director of
Global Credit Research
30 Years

Kevin Coyne
Deputy Director of
Global Credit Research
27 Years

24 Additional Research Analysts 15 Years Average

22 Years

Riz Hussain
25 Years

Ritchie Oriol

25 Years

Andrew Fox. CFA

tchie Oriol Andrew Fox, CFA 25 Years 22 Years

71 Investment Professionals with an Average of 16 Years Industry Experience

Partner & Chief Investment Risk Officer

33 Years

Four Additional Risk Professionals

14 Years Average



INVESTMENT PROCESS: KEY DECISIONS

Investment Process

How much risk?

Which sectors?

Which securities?

KEY PEOPLE

- Lead Portfolio Managers
- Portfolio Managers
- Sector Leaders

- Portfolio Managers
- Credit Analysts
- Sector Specialists

PRIMARY INPUTS

- Economic and Market Environment
- Insights from Firm-wide Experts
- Spread Schedule

- Fundamental Research View
- Sector Allocation Model
- In-house Credit Research
- Credit Valuation Models



SECTOR ALLOCATION: MODEL-INFORMED

SECTOR ALLOCATION MODEL

(SAMPLE OUTPUT)

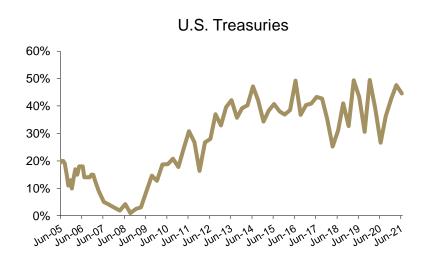
Sector	Current Exposure	Recommended Exposure	Suggested Action
MBS: Agency Fixed Rate (R)	-0.22	0.02	0.24
CMBS: Agency (R)	0.01	0.05	0.05
U.S. Agencies (R)	-0.02	-0.02	0.00
Supranational (R)	-0.03	0.09	0.11
MBS: Covered (R)	0.06	-0.01	-0.07
Developed HG Corporate (C)	-0.11	-0.36	-0.26
Developed HY Corporate (C)	0.44	0.70	0.26
EM Corporate (C)	-0.07	-0.46	-0.39
EM Non Corporate (C)	-0.13	-0.33	-0.20
Developed Gov. (C)	-0.03	-0.04	-0.01
U.S. Municipals (C)	0.03	0.13	0.10
CMBS: Non-Agency (C)	0.12	0.30	0.18
ABS (C)	0.29	0.28	-0.01
MBS: Non-Agency (C)	0.03	0.03	0.00
RATES (R) Total	-0.20	0.13	0.33
CREDIT (C) Total	0.56	0.24	-0.33
TOTAL	0.36	0.37	0.01

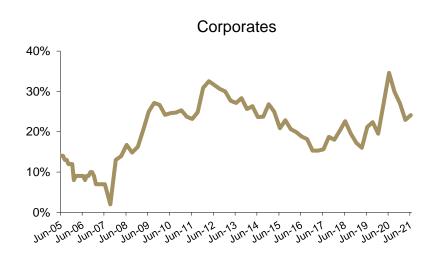
Measured in relative Spread Duration Exposures (in years).

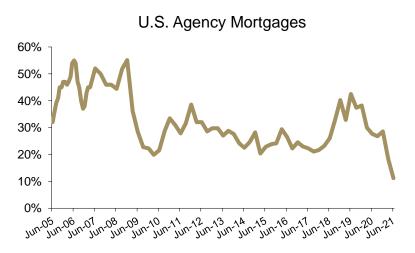
Sector Spread Model

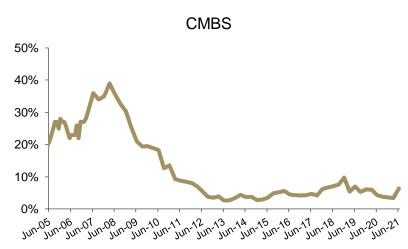
- Recommends allocation of risk exposure across sectors
- Provides context to inform portfolio manager decisions (not "Model-driven")

(AS OF 06/30/2021)









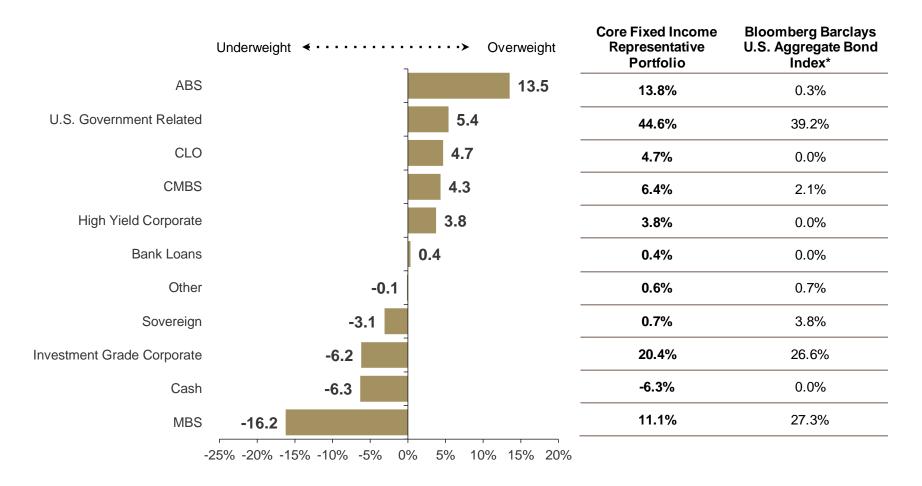
Source: Lord Abbett. The information in the chart is based on historical data as of the date indicated. The representative portfolio is actively managed and portfolio characteristics may change over time.





CURRENT ACTIVE SECTOR WEIGHTS

(AS OF 06/30/2021)

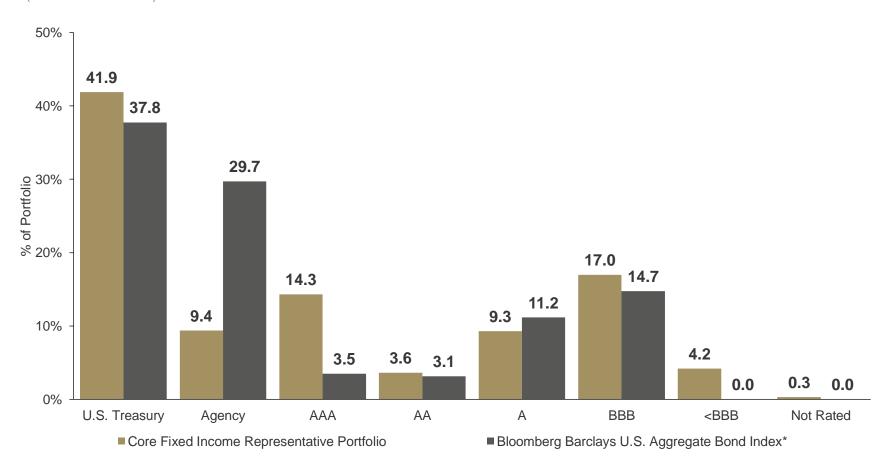


[&]quot;Other" may include municipal bonds and non-index holdings. Allocations are reported as of the date a security transaction is initiated; however, certain transactions may not settle until several days later. Accordingly, cash may appear as a negative allocation as a result of forward settling instruments, such as currency forwards, certain mortgage-backed securities, and treasury futures. *Source: Bloomberg Index Services Limited.



CREDIT QUALITY DISTRIBUTION

(AS OF 06/30/2021)

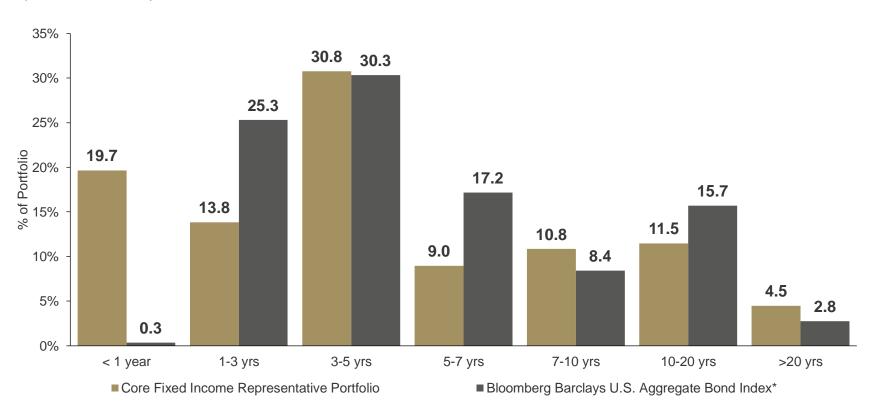


The portfolio is actively managed and credit quality distribution may change significantly over time. Totals may not equal 100% due to rounding. Ratings (other than U.S. Treasury securities or securities issued or backed by U.S. agencies) provided by Standard and Poor's, Moody's, and Fitch. For certain securities that are not rated by any of these three agencies, credit ratings from other agencies may be used. Where the rating agencies rate a security differently, Lord Abbett uses the median, but if there are only two ratings, the lower rating is used. A portion of the portfolio's securities may not be rated. Breakdown is not an S&P credit rating or an opinion of S&P as to the creditworthiness of such portfolio.*Source: Bloomberg Index Services Limited.



DURATION DISTRIBUTION

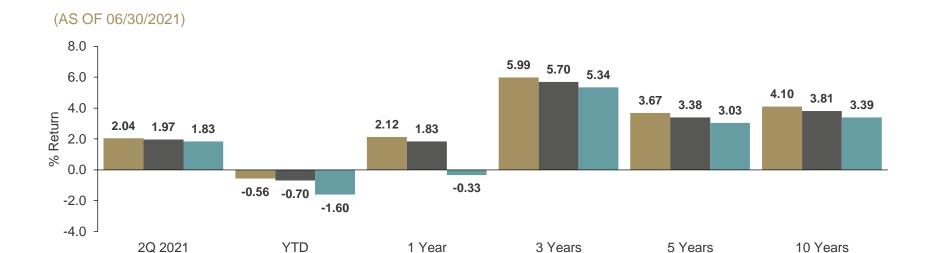
(AS OF 06/30/2021)



	Core Fixed Income Representative Portfolio	Bloomberg Barclays U.S. Aggregate Bond Index*
Effective Duration	6.1 Years	6.6 Years
Average Life	7.7 Years	8.5 Years



AVERAGE ANNUAL RATES OF RETURN



- Core Fixed Income Institutional Composite (Gross of Fees)
- Core Fixed Income Institutional Composite (Net of Fees)

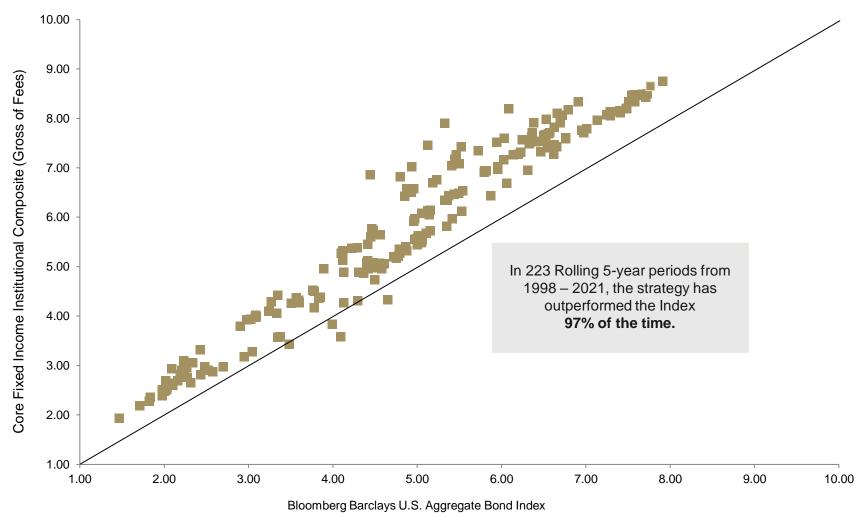
■ Bloomberg Barclays U.S. Aggregate Bond Index*

Past performance is not a reliable indicator or guarantee of future results. Returns for periods of less than one year are not annualized. 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, 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. *Source: Bloomberg Index Services Limited.

CONSISTENT RETURNS VS. INDEX

EXCESS RETURNS VS. BLOOMBERG BARCLAYS U.S. AGGREGATE BOND INDEX*

(ROLLING 5 YEAR RETURNS: 01/01/1998 - 06/30/2021)



Past performance is not a reliable indicator or guarantee of future results. The gross performance shown does not reflect the deduction of investment advisory fees, but does reflect the deduction of transaction costs. Please refer to the End Notes to Performance in the Appendix for additional performance information, including the effect of fees on performance. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment. *Source: Bloomberg Index Services Limited.



CALENDAR YEAR RETURNS

	Core Fixed Income Institutional Composite (Gross of Fees)	Core Fixed Income Institutional Composite (Net of Fees)	Bloomberg Barclays U.S. Aggregate Bond Index*
2020	8.57%	8.27%	7.51%
2019	8.53%	8.23%	8.72%
2018	0.13%	-0.15%	0.01%
2017	4.10%	3.81%	3.54%
2016	3.32%	3.03%	2.65%
2015	0.15%	-0.12%	0.55%
2014	6.99%	6.68%	5.97%
2013	-1.35%	-1.64%	-2.02%
2012	6.66%	6.35%	4.22%
2011	8.41%	8.11%	7.84%

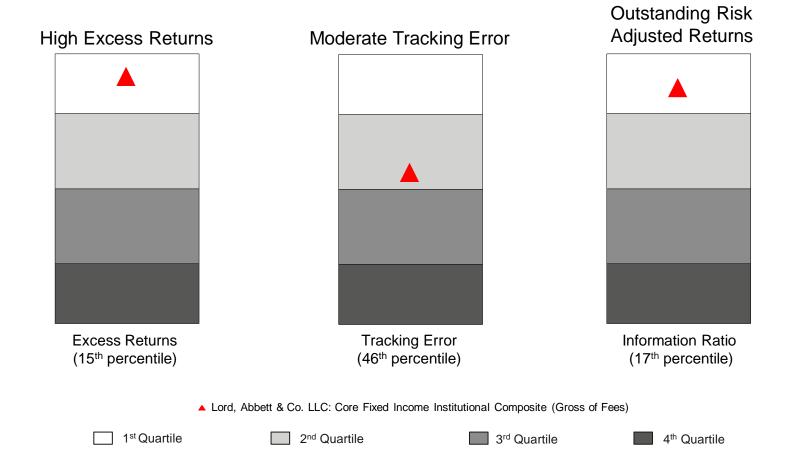
Past performance is not a reliable indicator or guarantee of future results. Net of fees performance reflects the deduction of the highest applicable management fee ("Model Net Fee") that would be charged based on the fee schedule appropriate to you for this mandate without the benefit of breakpoints. 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, 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. *Source: Bloomberg Index Services Limited.



STRONG LONG-TERM RISK ADJUSTED RETURNS

SINCE INCEPTION

(01/01/1998 - 06/30/2021)



Source: eVestment Alliance. Inception of the Core Fixed Income Institutional Composite is 01/01/1998. **Past Performance is not a reliable indicator or guarantee of future results.** eVestment rankings are based on gross performance. Please refer to End Notes for net of fees returns. (The peer group noted is defined by eVestment Alliance as "eA US Core Fixed Income Universe" and is comprised of 114 separate account and mutual fund portfolios, whose gross performance attributes for the time period 01/01/1998 through 06/30/2021 are represented above.





GLOBAL CREDIT RESEARCH TEAM

Gregory S. Parker, CFA

Partner & Director of Global Credit Research, 30 Years

Kevin Coyne

Deputy Director of Global Credit Research, 27 Years Gaming, Lodging & Leisure, Media

Paul A. Langlois, CFA Chemicals, Energy (Refiners, Storage, Pipelines) 29 Years	Sundar Varadarajan Telecommunication (Telecom, Broadcasting) 27 Years	Andrew Bernstein Energy (E&P, services) 25 Years	John M. Novak, CFA Industrials (Heavy Machinery, Transportation), Automotive & Truck 25 Years
Murali Ganti, CPA Healthcare (Facilities, Distribution, Services) 25 Years	Alan Danzig, CFA Financials (Insurance, REITs); 23 Years	Ryan Butkus Financials (Banks, Asset Managers, Special) 21 Years	Brian A. Ilardo Consumer (Products, Restaurants, Tobacco); Services (Educational, Office) 21 Years
Raymond Wu, CFA Industrials (Aero & Defense, Machinery, Diversified) 21 Years	Kunal Rambhia, CFA Asia 19 Years	Matthew Albrecht Metals and Mining; Coal 17 Years	Klim Fedoff, CFA CEEMEA 17 Years
Yi Ding Chen Technology 15 years	Larry Liou, CFA Utilities 12 Years	Emmi Palviainen, CFA Europe coverage: Technology, Media, Telecommunication, Europe 11 Years	Alexandre Marrucho Latin America 10 Years
Vicky Wang, CFA Technology 10 Years	Brittany Chen Healthcare 8 years	Elan Ariel, CFA Homebuilding, Commercial & Consumer Services 7 Years	Vanessa Deng Consumer (Retail, Apparel, Packaged Food) 5 Years
Anna Di, CFA Technology 7 Years	Imman Akram Materials 6 Years	Shiv Adhlakha Energy 5 Years	John Dong, CFA Utilities 5 Years

- Narrow breadth promotes deep research focus
- Cumulative knowledge drives proactive idea generation
- Centralized structure allows for timely identification of sector trends and investment opportunities

26 Investment Professionals With an Average of 16 Years Industry Experience

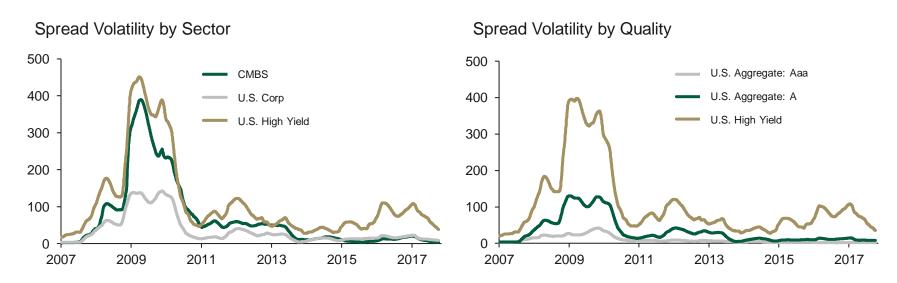


OVERALL PORTFOLIO RISK ALLOCATION

Investment Process

- Effective Duration is commonly used to estimate the price impact of rate movements
- Spread Duration estimates the price impact of a change in a bond's credit spread
- Credit Adjusted Spread Duration estimates a bond's responses to "generic" spread changes

Major Drivers of Spread Volatility: Sector and Quality



Major drivers of spread volatility are independent and typically have stable ordering



OVERALL PORTFOLIO RISK ALLOCATION

Investment Process

Credit Adjusted Spread Duration

- Adjusts for relative spread volatility of sectors and ratings
- Allows for comparisons across sectors and asset classes

Spread Volatility Betas

Sector Beta				
ABS	0.75			
Health 0.75				
A Corp	1.00			
Auto	1.25			
CMBS	2.00			

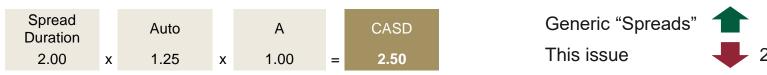
- 7						
Quality Beta						
AAA	0.50					
AA 0.75						
A 1.00						
BBB	1.25					
ВВ	1.50					

Example 1: AA-Rated CMBS 2-Year Spread Duration

Spread Duration		CMBS		AA		CASD
2.00	Х	2.00	X	0.75	=	3.00

Generic "Spreads" 1%
This issue 3%

Example 2: A-Rated Auto Corporate 2-Year Spread Duration





Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
Robert A. Lee*	Co-Head	30	24	ARM Capital Advisors; Kidder Peabody Asset Management; First Boston Corporation	BS, University of Pennsylvania
Steven F. Rocco, CFA*	Co-Head	20	17	FactSet	BA, Cornell University
Kewjin Yuoh*	Portfolio Manager	27	11	AllianceBernstein, LLP; Credit Suisse Asset Management; Sanford C. Bernstein & Co., Inc.	BS, Cornell University
Andrew H. O'Brien, CFA*	Portfolio Manager	23	23	N/A	BA, Princeton University
Jeffrey D. Lapin, J.D.*	Portfolio Manager	24	9	Post Advisory Group; Tablerock Fund Management; Avenue Capital Management, LLC	AB, Georgetown University; JD, Northwestern University; MBA, New York University
Todd Solomon	Portfolio Manager	25	2	TCW Distressed, LLC; Halcyon Capital Management; Triage Capital Management	BA, Union College; MBA, Columbia University



Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
Robert S. Clark, CFA	Portfolio Manager	24	11	Turner Investment Partners; People's Bank	BS, Bryant College; MBA, Yale University
Eric P. Kang	Portfolio Manager	22	6 MidOcean Credit Partners; Bell Point Capital; Citadel Investment Group		BS, University of Pennsylvania; MBA, University of Virginia
Kearney Posner, CFA**	Portfolio Manager	22	6	Metropolitan Life Insurance Company; Radian Group; Goldman Sachs	BS, Georgetown University; MBA, University of Pennsylvania
Mayur M. Lakhani	Portfolio Manager	21	2	Tricadia Capital Management; Bluemountain Capital Management; Deutsche Bank Securities	BS, Cornell University MBA, University of Pennsylvania
Matthew Claeson, CFA	Associate Portfolio Manager	20	2	Compass Group, LLC; Santander Investment Securities; BNP Paribas	BA, Amherst University; MS, London School of Economics; MA, Columbia University
Hyun Lee, CFA	Portfolio Manager	20	20	N/A	BA, MA, University of Chicago



Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
Mila Skulkina, CFA	Portfolio Manager	20	8	Sanders Capital, LLC; Bain & Company; Triton Pacific Capital Partners	BA, University of California; MBA, UCLA Anderson School of Management
Leah G. Traub, Ph.D.*	Portfolio Manager	20	14	Princeton Economics Group; National Bureau of Economic Research; Rutgers University	BA, University of Chicago; MA, Ph.D., Rutgers University
Harris Trifon**	Portfolio Manager	20	<1	Western Asset Management; Deutsche Bank; Standard & Poor's	BA, University of Florida; MS, New York University
Yoana Koleva, CFA**	Portfolio Manager	18	10	Morgan Stanley; BlackRock	BA, The College of Saint Elizabeth
Annika Lombardi	Portfolio Manager	14	4	Janus Capital International; Rogge Global Partners; Delaware Investments	BA, University of Pennsylvania
Peter Noel, CFA	Associate Portfolio Manager	14	6	QBE Insurance; PFM Asset Management	BS, Carnegie Mellon University
Bridget E. Young	Associate Portfolio Manager	14	9	Morgan Stanley; Moody's Investors Service; CIFG Assurance	BA, University of Memphis; MPA, New York University
Christopher Gizzo, CFA**	Portfolio Manager	13	13	N/A	BS, Cornell University



Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education	
Adam C. Castle, CFA**	Portfolio Manager	13	6	Credit Suisse, AllianceBernstein	BS, Cornell University	
Jeremy P. Shean	Portfolio Manager	13	7	Nomura Securities International, Inc.; Malloy and Company	BS, University of Massachusetts, Lowell; MBA, University of Southern California	
Karen Gunnerson	Portfolio Manager	11	4	RBC Capital Markets; Bank of America Merrill Lynch	BS, University of Florida	
Frank Zhi	Associate Portfolio Manager	12	8 Commerzbank AG; BlackRock Inc.		BS, Columbia University; MS, Georgia Institute of Technology	
Jordan Kling, CFA	Associate Portfolio Manager	11	11	N/A	BA, Dartmouth College	
Yuan (Shawn) Yue	Associate Portfolio Manager	10	5	Potomac River Capital; Bank of America Merrill Lynch; MSCI	BS, Jilin University; MS, University of Chicago	
Ty Kern	Associate Portfolio Manager	9	<1	Goldman Sachs Asset Management; BlackRock	BS, Ohio State University	
Devin Hagens, CFA	Associate Portfolio Manager	8	4 Bloomberg L.P.		BS, Cornell University	
Tony Graves, CFA	Associate Portfolio Manager	7	<1	Income Research + Management; Hartford Financial Services Group	BS, Indiana University; MBA, Yale School of Management	



Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education	
Loritta Cheng	Research Analyst	22	<1	Metropolitan Life Insurance Company; Goldman Sachs; Deutsche Bank	BS, Columbia University; MBA, Columbia Business School	
Dillon Goad	Research Analyst	8	Deutsche Bank B		BBA, Texas A&M University	
Marc Pavese, Ph.D.*	Director of Quantitative Research	21	13	Genworth Financial; General Electric	BA, Columbia University; Ph.D., University of Pennsylvania	
Bjorn Flesaker, Ph.D.	Director of Quantitative Research, Fixed Income	29	4	Prudential; Bloomberg, L.P.; Morgan Stanley	MM, BI Norwegian Business School; Ph.D., University of California at Berkeley	
Giulio Martini*	Director of Strategic Asset Allocation	36	6	Anderson Global Macro LLC; Sanford C. Bernstein & Co. and AllianceBernstein	BA, University of Colorado; MA, Boston University	
Jeffrey O. Herzog, Ph.D.	Portfolio Manager	LL Ba		Oxford Economics LLC; Banco Bilbao Vizcaya Argentaria	M.A., Yale University; Ph.D., Cambridge University	



Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
Gregory S. Parker, CFA*	Director of Global Credit Research	30	14	AIG SunAmerica Asset Management; Harbert Management Corporation; Schroder Investment Management	BS, St. Lawrence University; MBA, Babson College
Kevin Coyne	Deputy Director of Global Credit Research	27	5	Goldman Sachs & Co.; Royal Bank of Canada Dain Rauscher; Corvis Corporation	BS, Villanova University; MBA, New York University
Paul A. Langlois, CFA	Research Analyst	29	12	J&W Seligman & Co.; Triton Partners; Delaware Management Company	BS, The Pennsylvania State University; MBA, Temple University
Sundar Varadarajan	Research Analyst	27	5	BNP Paribas; Knight Capital; Citadel Securities	B.Com., University of Madras; MBA, University of Rochester
Andrew Bernstein	Research Analyst	25	7	Credit Suisse; Shenkman Capital Management; The Bank of Tokyo Mitsubishi UFJ	BA, University of Michigan; MBA, Cornell University
John M. Novak, CFA	Research Analyst	25	7	Mizuho Securities, USA, Inc.; Barclays Capital, Inc., Lehman Brothers	BS, Pennsylvania State University; MBA, New York University



Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
Murali Ganti, CPA	Research Analyst	25	4	Citigroup Inc.; BNP Paribas; Nomura Securities International, Inc.	BA, University at Buffalo; MBA, University of Rochester
Alan Danzig, CFA	Research Analyst	23	9	J.P. Morgan; Fox-Pitt, Kelton; Stern Stewart & Co.	BS, University of Pennsylvania
Ryan Butkus	Research Analyst	21	5	Citigroup; KPMG, LLP	BS, Muhlenberg College; MBA, Fordham University
Brian A. Ilardo	Research Analyst	21	18	UBS Warburg; Brean Murray & Co., Inc.; HealthJump	BS, Villanova University; MBA New York University
Raymond Wu, CFA	Research Analyst	21	6	Genworth Asset Management, Twin Capital Management, Gruss Asset Management	BA/BS, Duke University
Kunal Rambhia, CFA	Research Analyst	19	4	Lazard Asset Management; Mount Kellett Capital Management; WL Ross India	BA, Pace University



Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
Matthew Albrecht	Research Analyst	17	5	UBS Investment Bank	BS, Bucknell University
Klim Fedoff, CFA	Research Analyst	17	8	TIAA-CREF; HSBC Bank	BS, Manhattan College
Yi Ding Chen	Research Analyst	15	<1	Benefit Street Partners; Balyasny Asset Management; Canyon Partners	BA, University of Michigan
Larry Liou, CFA	Research Analyst	12	<1	Wells Capital Management; J.P. Morgan Securities LLC; Kaufman Bros LLC	BS, University of Michigan
Emmi Palviainen, CFA	Research Analyst	11	<1	AXA Investment Managers; EFG Asset Management; Legal & General Investment Management	BS, Cass Business School, City University London
Alexandre Marrucho	Research Analyst	10	6	HSBC Securities; Pricewaterhouse Coopers	BS/BA Southern Illinois University; MS, Vanderbilt University



Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education	
Vicky Wang, CFA	Research Analyst	10	3	Goldman Sachs; AQR Capital; BlackRock	BA, Northwestern University; MBA, New York University	
Brittany Chen	Research Analyst	8	<1	Barclays	BS, New York University	
Elan Ariel, CFA	Research Analyst	7	7	N/A	BS, University of Pennsylvania	
Vanessa Deng	Research Analyst	5	3	SMBC Nikko Securities	BA, University of California at Berkeley	
Anna Di, CFA	Associate Research Analyst	7	3	JPMorgan Asset Management	BS, Renmin University of China; MS, Columbia University	
Imman Akram	Associate Research Analyst	6	<1	JPMorgan; Voya Investment Management	BA, Emory University	
Shiv Adhlakha	Associate Research Analyst	5	<1	Barclays	BA, Baruch College	
John Dong	Associate Research Analyst	5	5	N/A	BS, University of Pennsylvania	



GLOBAL FIXED INCOME TRADING TEAM BIOGRAPHIES

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
Andrew M. Khatri*	Director of Global Trading	19	10	MarketAxess; Citigroup Global Markets Inc.; Wellington Management Company, LLP	BS, Boston College
Shane M. Magoon*	Director of Global Fixed Income Trading	18	17	State Street Corp.	BS, Villanova University; MBA, New York University
Bryan Sheehan	Trader	17	4	Nomura Securities; Barclays Capital; Lehman Brothers, Inc.	BS, University of Maryland
Nickolas A. Prala	Trader	16	6	UBS; Loomis Sayles; BNP Paribas	BA, Ohio University; MA, Ohio University
Jason Stofkoper, CFA	Trader	16	14	Nomura Securities	BA, Drew University
Steven Zhou, CFA	Trader	16	4	Deutsche Asset Management; JP Morgan Chase	BS, University of Maryland; MS, Carnegie Mellon University
Evan Tibbetts	Trader	12	5**	JP Morgan Securities; Promontory Financial Group	BA, Haverford College



GLOBAL FIXED INCOME TRADING TEAM BIOGRAPHIES

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education	
Gregory Benz, CFA	Trader	10	5	Payden & Rygel Investment Management	BA, Occidental College	
Patrick Daly, CFA	Associate Trader	10	9	ING Financial Partners	BS, Villanova University	
John Perkins	Associate Trader	4	1	Bank of Montreal Capital Markets	BS, Bentley University	
Breanna Morrissey	Trading Analyst	3	<1	J.P. Morgan Chase	BA, Ohio University	
Natalie Clark	Trading Analyst	3	<1	Bank of America Merrill-Lynch	BA, Ohio University	



Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
Joseph M. Graham, CFA**	Investment Strategist	22	6	HudsonView Capital Management; Route 3 Capital; Millennium Partners	BS, Washington University; MBA, University of Pennsylvania
Riz Hussain	Investment Strategist	25	2	Barclays Capital; Morgan Stanley	BS, Cornell University; MBA, Columbia University
Ritchie Oriol	Investment Strategist	25	3	CQS; Goldman Sachs Asset Management; Neuberger Berman	BA, University of Notre Dame; MBA, Stanford University
Timothy Paulson	Investment Strategist	22	7	Goldman Sachs	BA, Haverford College; MBA, Northwestern University
Andrew Fox, CFA	Investment Strategist	22	20	Prudential Securities	BA, Montclair State University



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) Core Fixed Income Institutional Composite. This composite is comprised of all fully discretionary portfolios managed on behalf of institutional investors investing primarily in various types of fixed-income securities, including securities issued by the U.S. government, its agencies and instrumentalities, mortgage-backed and other asset-backed securities, investment grade corporate debt, U.S.-dollar denominated investment-grade debt of non-U.S. issuers, senior loans and derivatives. 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 \$50 million or more are included in the composite. Effective March 2012, only accounts with an initial value of \$40 million or more are included in the composite. Effective July 21, 2009, only accounts with an initial value of \$20 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 1999 and incepted in 1998. A list of all composite and pooled fund investment strategies offered by the firm, with a description of each strategy, is available upon request. The type of portfolios in which each strategy is available (segregated account, limited distribution pooled fund, or broad distribution pooled fund) is indicated in the description of each strategy. Policies for valuing investments, calculating performance, and preparing GIPS Reports 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 wh	ich
performance information is provided are as follows:	

Calendar Year Ended	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
# of Portfolios	9	9	7	7	8	8	6	5	5	4
Total Assets (\$M)	\$3,342	\$2,686	\$2,009	\$3,758	\$3,791	\$3,487	\$3,990	\$3,057	\$4,030	\$3,020
Percentage of Firm Assets	1.50%	1.32%	1.12%	2.41%	2.82%	2.81%	2.94%	2.25%	3.20%	2.80%
Total Firm Assets (\$M)	\$222,535	\$204,031	\$161,055	\$156,110	\$134,565	\$124,007	\$135,945	\$135,786	\$127,753	\$107,449
Dispersion	0.08	0.05	N/A	0.14	0.07	0.03	0.02	N/A	N/A	N/A
Lord Abbett Core Fixed Income Institutional Composite (Gross Annual)	8.57%	8.55%	0.12%	4.10%	3.32%	0.15%	6.99%	-1.35%	6.66%	8.41%
Lord Abbett Core Fixed Income Institutional Composite Gross (3 year Annualized Return)	5.67%	4.20%	2.50%	2.51%	3.45%	1.87%	4.03%	4.48%	7.56%	9.82%
Lord Abbett Core Fixed Income Institutional Composite Gross (3 year Annualized Ex-Post Standard Deviation)	3.70%	2.75%	2.74%	2.72%	2.95%	2.86%	2.67%	2.76%	2.33%	3.44%
Lord Abbett Core Fixed Income Institutional Composite (Net Annual)	8.27%	8.25%	-0.16%	3.81%	3.03%	-0.12%	6.68%	-1.64%	6.35%	8.11%
Lord Abbett Core Fixed Income Institutional Composite Net (3 year Annualized Return)	5.38%	3.90%	2.21%	2.22%	3.16%	1.58%	3.73%	4.19%	7.27%	9.51%
Bloomberg Barclays U.S Aggregate Bond Index (Annual)	7.51%	8.72%	0.01%	3.54%	2.65%	0.55%	5.97%	-2.02%	4.22%	7.84%
Bloomberg Barclays U.S Aggregate Bond Index (3 year Annualized Return)	5.34%	4.03%	2.06%	2.24%	3.03%	1.44%	2.66%	3.26%	6.19%	6.77%
Bloomberg Barclays U.S Aggregate Bond Index (3 year Annualized Ex-Post Standard Deviation)	3.40%	2.91%	2.88%	2.82%	3.03%	2.92%	2.66%	2.75%	2.42%	2.82%
Supplemental Information:*										
Number of Portfolios Managed in Style*	21	20	18	17	19	22	19	20	25	25
Total Assets Managed in Style*	\$3,837	\$2,956	\$2,343	\$4,147	\$4,374	\$4,284	\$4,586	\$3,858	\$4,930	\$3,898



END NOTES TO PERFORMANCE

Dispersion is represented by the asset-weighted standard deviation, a measure that explains deviations of gross 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 0.28% 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 0.28% of average net assets per year for the 10-year period were deducted, the annual total return would be 9.69% and the ending dollar value would be \$25,284,711. The management fee schedule is as follows: 0.28% on the first \$50 million, 0.20% on the next \$100 million, 0.16% on the next \$350 million, and 0.14% on all assets over \$500 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 Pooled Funds management fee is 0.19%. 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 have sector weights that vary significantly from the Index. Any portfolio with a market value of less than \$200 million will be excluded from the composite if the portfolio has an aggregate monthly inflow/outflow equal to or above 15% of the portfolio's beginning monthly balance. Portfolios removed from composites will be treated as new accounts, and will adhere to the standard composite inclusion policy before being re-introduced to the composite.

*Supplemental information includes accounts managed in Lord Abbett's Core Fixed Income Style by not included in the Composite due to the existence of certain investment restrictions that have a material effect on implementation of Lord Abbett's investment strategies. This information has not been examined by Deloitte & Touche LLP.

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 has been independently verified for the periods 1993-2020. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Core Fixed income Institutional composite has had a performance examination for the periods 1998-2019. The verification and performance examination reports are available upon request.

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. The benchmark has not been examined by Deloitte & Touche LLP.

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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.



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