

## ***Investment Committee Agenda***

### **SPECIAL MEETING**

**THURSDAY, DECEMBER 10, 2020**

**TIME: 8:30 A.M.**

### **MEETING LOCATION:**

In conformity with the Governor's Executive Order N-29-20 (March 17, 2020) and due to the concerns over COVID-19, the LACERS Investment Committee's December 10, 2020, Special meeting will be conducted via telephone and/or videoconferencing.

**Important Message to the Public**  
***Information to call-in to listen and/or participate:***  
Dial: (669) 900-6833 or (253) 215-8782  
Meeting ID# 883 0239 2236

***Instructions for call-in participants:***

- 1- Dial in and enter Meeting ID
- 2- Automatically enter virtual "Waiting Room"
- 3- Automatically enter Meeting
- 4- During Public Comment, **press \*9** to raise hand
- 5- Staff will call out the last 3-digits of your phone number to make your comment

***Information to listen only:*** Live Committee Meetings can be heard at: (213) 621-CITY (Metro), (818) 904-9450 (Valley), (310) 471-CITY (Westside), and (310) 547-CITY (San Pedro Area).

Chair: Sung Won Sohn

Committee Members: Elizabeth Lee  
Nilza R. Serrano

Manager-Secretary: Neil M. Guglielmo

Executive Assistant: Ani Ghoukassian

Legal Counselor: City Attorney's Office  
Public Pensions General  
Counsel Division

**Notice to Paid Representatives**

If you are compensated to monitor, attend, or speak at this meeting, City law may require you to register as a lobbyist and report your activity. See Los Angeles Municipal Code §§ 48.01 *et seq.* More information is available at [ethics.lacity.org/lobbying](http://ethics.lacity.org/lobbying). For assistance, please contact the Ethics Commission at (213) 978-1960 or [ethics.commission@lacity.org](mailto:ethics.commission@lacity.org).

**Request for services**

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities.

Sign Language Interpreters, Communication Access Real-Time Transcription, Assistive Listening Devices, Telecommunication Relay Services (TRS), or other auxiliary aids and/or services may be provided upon request. To ensure availability, you are advised to make your request at least 72 hours prior to the meeting you wish to attend. Due to difficulties in securing Sign Language Interpreters, five or more business days' notice is strongly recommended. For additional information, please contact: Board of Administration Office at **(213) 855-9348** and/or email at [ani.ghoukassian@lacers.org](mailto:ani.ghoukassian@lacers.org).

**Disclaimer to participants**

Please be advised that all LACERS Board and Committee Meeting proceedings are audio recorded.

[\*\*CLICK HERE TO ACCESS BOARD REPORTS\*\*](#)

- I. PUBLIC COMMENTS AND GENERAL PUBLIC COMMENTS ON MATTERS WITHIN THE COMMITTEE'S JURISDICTION AND COMMENTS ON ANY SPECIFIC MATTERS ON THE AGENDA – ***THIS WILL BE THE ONLY OPPORTUNITY FOR PUBLIC COMMENT - PRESS \*9 TO RAISE HAND DURING PUBLIC COMMENT PERIOD***

- II. [FINALIST FIRMS OF THE CORE FIXED INCOME MANAGER SEARCH AND POSSIBLE COMMITTEE ACTION](#)
- III. OTHER BUSINESS
- IV. NEXT MEETING: The next Regular meeting of the Investment Committee is scheduled for January 12, 2021, at 10:30 a.m., or immediately following the Regular Board Meeting, at LACERS, 977 N. Broadway, Suite 260, Los Angeles, CA 90012-4401 and/or via telephone and/or videoconferencing. Please continue to view the LACERS website for updated information on public access to Board/Committee meetings while public health concerns relating to the novel coronavirus continue.
- V. ADJOURNMENT

## **Board of Administration Agenda**

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President: Cynthia M. Ruiz  
Vice President: Sung Won Sohn

Commissioners: Annie Chao  
Elizabeth Lee  
Sandra Lee  
Nilza R. Serrano  
Michael R. Wilkinson

Manager-Secretary: Neil M. Guglielmo

Executive Assistant: Ani Ghokassian

Legal Counsel: City Attorney's Office  
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- V. ADJOURNMENT



**REPORT TO INVESTMENT COMMITTEE**  
**From: Neil M. Guglielmo, General Manager**

**MEETING: DECEMBER 9-10, 2020**  
**ITEM: II**

*Neil M. Guglielmo*

**SUBJECT: FINALIST FIRMS OF THE CORE FIXED INCOME MANAGER SEARCH AND POSSIBLE COMMITTEE ACTION**

ACTION:  CLOSED:  CONSENT:  RECEIVE & FILE:

**Recommendation**

That the Committee:

1. Interview the following seven firms as finalists for the Core Fixed Income Mandate Search:

- Robert W. Baird & Co., Inc.
- Garcia Hamilton & Associates, L.P.
- Income Research & Management
- J.P. Morgan Asset Management
- Loomis, Sayles & Company, L.P.
- Neuberger Berman Investment Advisers LLC
- Segal Bryant & Hamill, LLC

2. Recommend three or more finalists to the Board for contract award.

**Executive Summary**

The Board-approved request for proposal (RFP) for core fixed income investment managers opened on August 19, 2019, and closed on October 4, 2019. A total of 57 proposals were received, representing 54 firms, including four emerging investment managers. For business reasons, one firm withdrew its proposal after submission. Following review by staff and NEPC, LLC (NEPC), LACERS General Fund Consultant, 54 of the 56 remaining proposals met the minimum qualifications and eight proposals from eight distinct firms were recommended to advance as semi-finalists. Staff and NEPC conducted further due diligence on each semi-finalist. Of the eight semi-finalists, seven firms are recommended to advance as finalists.

## **Discussion**

### *Background*

The Board approved an RFP process to evaluate the current marketplace for core fixed income investment managers on October 23, 2018. Based upon the asset allocation targets approved by the Board on April 10, 2018, approximately \$2.44 billion (13.75% of total fund assets) will be allocated to this mandate. LACERS seeks three or more qualified investment management firms to actively manage publicly-traded core fixed income investment strategies through separately managed accounts.

The search opened on August 19, 2019, and closed on October 4, 2019. The search was advertised in the Pensions and Investments and Emerging Manager Monthly publications. The RFP was published on LACERS' website and the websites of NEPC, Association of Asian American Investment Managers, and New America Alliance. Further, the RFP was emailed to all contacts within the LACERS Investment RFP/RFI Notification System database.

### *Search Results*

A total of 57 proposals were received, representing 54 firms, including four emerging investment managers. For business reasons, one firm withdrew its proposal after submission. Following a review of the minimum qualifications (MQs) required to participate in the search, 54 of the 56 remaining proposals met the MQs, including two of the four proposals from the emerging investment managers.

On September 8, 2020, the Committee reviewed NEPC's candidate evaluation report and concurred with the staff recommendation to advance the following eight firms as semi-finalists in the search:

- Robert W. Baird & Co., Inc. (incumbent fixed income manager)<sup>1</sup>
- C.S. McKee, L.P.
- Garcia Hamilton & Associates, L.P.
- Income Research & Management
- J.P. Morgan Asset Management
- Loomis, Sayles & Company, L.P. (incumbent fixed income manager)<sup>2</sup>
- Neuberger Berman Investment Advisers LLC (incumbent fixed income manager)<sup>3</sup>
- Segal Bryant & Hamill, LLC<sup>4</sup>

### *Additional Due Diligence Activities*

Staff and NEPC conducted due diligence meetings with all eight firms to obtain a better understanding of potential investment and organizational risks. Staff and NEPC interviewed various professionals on topics including, but not limited to, overall business strategy and growth, organization and reporting structure, staffing and compensation, investment philosophy and strategy, trading, risk management,

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<sup>1</sup> Managed approximately \$360 million for LACERS in core fixed income strategy as of November 30, 2020; Strategy submitted under proposal is distinct from current LACERS strategy

<sup>2</sup> Managed approximately \$894 and \$246 million for LACERS in core fixed income and high yield fixed income strategies, respectively, as of November 30, 2020

<sup>3</sup> Managed approximately \$905 million for LACERS in core fixed income strategy as of November 30, 2020

<sup>4</sup> Managed approximately \$85 million for LACERS in domestic small cap value equities strategy as of November 30, 2020

compliance and controls, and technology. Staff also conducted reference checks and conferred with NEPC's manager research team.

Based upon these due diligence activities, staff recommends the following seven firms as the proposed finalists to consider for hire:

- Robert W. Baird & Co., Inc. (incumbent fixed income manager)
- Garcia Hamilton & Associates, L.P.
- Income Research & Management
- J.P. Morgan Asset Management
- Loomis, Sayles & Company, L.P. (incumbent fixed income manager)
- Neuberger Berman Investment Advisers LLC (incumbent fixed income manager)
- Segal Bryant & Hamill, LLC

These firms exhibit organizational stability, strong management teams, well-articulated investment strategies consistent with LACERS' objectives, well-defined risk management and compliance practices, and track records of adding value. Staff also received positive feedback from references for these firms. NEPC concurs with staff's recommendation.

### **Strategic Alignment**

The RFP for core fixed income investment managers aligns with the Strategic Plan Goal to optimize long-term risk adjusted investment returns (Goal IV).

Prepared by: Barbara Sandoval, Investment Officer II, Investment Division  
Jeremiah Paras, Investment Officer I, Investment Division

NMG/RJ/BF/BS/JP:rm

- Attachments:
1. Finalist Information Matrix and Performance Returns
  2. Presentation by Garcia Hamilton & Associates, L.P.
  3. Presentation by Income Research & Management
  4. Presentation by J.P. Morgan Asset Management
  5. Presentation by Segal Bryant & Hamill, LLC
  6. Presentation by Robert W. Baird & Co., Inc.
  7. Presentation by Loomis, Sayles & Company, L.P.
  8. Presentation by Neuberger Berman Investment Advisers LLC

**FINALISTS OF THE ACTIVE CORE FIXED INCOME INVESTMENT MANAGER SEARCH**  
**FINALIST INFORMATION MATRIX as of September 30, 2020**

Firm Name	Robert W. Baird & Co. Incorporated	Garcia Hamilton & Associates, L.P.	Income Research & Management	J.P. Morgan Asset Management
Strategy Name	Baird Advisors Core Bond	Fixed Income - Aggregate	IR+M Aggregate	JPM Core Bond
Main Office	Milwaukee	Houston	Boston	New York
Ownership Structure	95% employee-owned	100% employee-owned	89.3% employee-owned, 10.7% owned by non-employee founder family members	Wholly-owned subsidiary of JP Morgan Chase & Co., a publicly-traded company
Year Founded	1919	1988	1987	1863
Strategy Inception	September 2000	December 1991	December 1991	January 1986
Firm Assets (\$ millions)	\$104,700	\$16,254	\$84,269	\$2,129,309
Strategy Assets (\$ millions)	\$42,700	\$11,118	\$13,357	\$69,890
Product Capacity	Will limit the number of new large institutional relationships added each year	Does not have a policy limiting AUM	None identified	None
Number of Firm Employees	66	35	180	6,946
Number of Professionals on Strategy	28	11	47	49
Team	28 member PM Team	5 PMs, 5 analysts, 1 strategist	13 PMs, 4 Directors, 13 Research Analysts, 11 Risk Analysts, 6 Traders	17 PMs, 27 Research Analysts, 5 Traders
Key Team Members	Mary Ellen Stanek, CIO Charlie Groeschel, Senior PM Warren Pierson, Deputy CIO Jay Schwister, Research Director	Gilbert Garcia, Managing Partner Karen Tass, PM Nancy Rodriguez, PM Jeffery Detwiler, PM Benjamin Monkiewicz, PM Don Eisenbrock, Strategist	William O'Malley, CEO/co-CIO Jim Gubitosi, co-CIO	Richard Figuly, PM/Core Team Lead Susan Parekh, Lead PM Andy Melchiorre, PM
Strategy Description	The investment process begins with an evaluation of the return potential of each sector. They then determine which issuers appear to offer the best relative value within each sector. Available issues are then selected based on credit quality, attributes, structures, and liquidity. Decisions also have a top-down component in that they incorporate the firm's view of the macro risk environment and broad valuation of risk. Only investment grade securities are purchased for core portfolios. Credit research plays a fundamental role in the investment process and is an important aspect of security selection. Yield curve positioning is an important part of the portfolio's performance over time.	The investment process is top-down oriented and begins with qualitative research based on analysis of the following factors: sentiment, monetary policy, economic environment, valuation and inflation. The continual analysis of these indicators helps them to anticipate moves in interest rates and informs sector rotation decisions. The team also performs quantitative research and compares these results to their qualitative findings. The team uses this analysis to set target ranges for duration, yield curve positioning, sector allocations and sector's contribution to duration. They also utilize traditional financial and quantitative metrics analysis as well as qualitative assessments to identify ESG risks and opportunities and inform buy/sell/hold decisions.	IR&M's process is designed to use bottom-up security selection and constructs portfolios to provide yield and convexity advantages. This is achieved by emphasizing selection in investment grade corporate bonds and mortgage-backed securities. The strategy is neutral to the benchmark in terms of duration and yield curve posture. Overweight in bond sectors will be the result of relative value decisions, where each potential investment is analyzed within a rigorous credit, structure, and price framework. ESG factors are considered as part of our credit analysis. They will use out-of-benchmark securities such as century bonds, put bonds, hybrid ARMS and very occasionally busted convertible bonds when they offer attractive value.	The strategy uses a bottom-up approach that is based on finding undervalued securities and sectors in an effort to provide incremental yield and total return versus the benchmark. Their security selection process emphasizes the securitized sectors because they believe that the market is less efficient at pricing these securities. Purchases are investment grade only and they may invest in non-rated securities if the firm internally rates it investment grade. Duration management is the firm's primary risk control measure.
Investment Restrictions	Duration neutral to benchmark; all cash bonds, all U.S. dollar-denominated, no derivatives and no leverage; core strategy may only purchase investment grade. The strategy does not have any other explicit constraints; however, some general guidelines: Industry exposure limited to 25%; Any single issuer may not comprise more than 5% (except for U.S. Government and Agency obligations). Overall, credit risk is generally limited to shorter maturities.	0-75% treasuries, 0-50% agencies, 0-60% mortgage-backed securities and 5-60% corporate bonds. Corporate bonds are limited to A-rated or better by 2 rating agencies. As a risk control, limits spread product exposure to the short-to-intermediate part of the yield curve. Does not invest in foreign bonds, high yield securities, zero-coupon bonds, or derivatives. Does not incorporate any leverage into their portfolios.	Maximum security weighting is 15% for Treasury, 5% for securitized; maximum issuer weighting is 3% for credit and municipal holdings. Maximum sector weights include 75% Credit, 10% Municipal, 50% Agency-guaranteed securitized, 20% other securitized, 25% Agency and 50% Treasury. Duration is $\pm 0.25$ years relative to index.	Guidelines can be tailored to clients objectives. Typical sector allocations include 15%-35% Treasury, 0%-10% Agency (excluding MBS), 20%-45% Corporate and ABS, and 25%-60% Mortgage-Backed securities. Portfolio duration typically managed within 10% of index. Portfolios are 100% investment grade at time of purchase.
Typical Number of Holdings/Issuers	200-350 holdings	35-45 holdings, 12-15 issuers	150 – 220 holdings	300 – 500 holdings
Typical Turnover/Holding Period	20%-50% turnover	45%-75% turnover	35% - 75% turnover	25% turnover
Investment Vehicle	Separate Account	Separate Account	Separate Account	Separate Account
PRI Signatory/Year Signed	No	Yes/2019	Yes/2013	Yes/2007
Max Allowable Mandate Allocation (LACERS represents less than 25% of strategy assets, \$ millions)	\$2,440	\$2,440	\$2,440	\$2,440
Proposed Fee Schedule	First \$100m: 16 bps Balance: 10 bps	First \$25m: 25 bps Next \$25m: 17 bps Next \$200m: 14 bps Next \$350m: 10 bps Balance: 8 bps	First \$250m: 14 bps Next \$250m: 12 bps Balance: 10 bps	First \$250m: 15 bps Next \$250m: 12.5 bps Balance: 10 bps
Effective Fee (based on mandate equally allocated among three managers with \$610 million each)	10.74 bps	11.15 bps	11.85 bps	12.31 bps
Effective Fee (based on mandate equally allocated among four managers with \$610 million each)	10.98 bps	12.18 bps	12.46 bps	13.07 bps
Effective Fee (based on mandate equally allocated among five managers with \$490 million each)	11.22 bps	12.76 bps	13.02 bps	13.78 bps



**FINALISTS OF THE ACTIVE CORE FIXED INCOME INVESTMENT MANAGER SEARCH**  
**FINALIST INFORMATION MATRIX as of September 30, 2020**

Firm Name	Loomis, Sayles & Company, L.P.	Neuberger Berman Investment Advisers LLC	Segal Bryant & Hamill, LLC
Strategy Name	Core Fixed Income	Core Bond	Core Fixed Income
Main Office	Boston	New York	Chicago
Ownership Structure	Wholly-owned subsidiary of Natixis Investment Managers, L.P.	100% owned by NBSH Acquisition, LLC, which is owned by the firm's current and former employees, directors and consultants and, in certain instances, their permitted transferees	53% employee-owned, 47% owned by Thoma Bravo, LLC
Year Founded	1926	1939	1994
Strategy Inception	July 1980 (LACERS Account Inception Date)	January 1962	January 1987
Firm Assets (\$ millions)	\$328,039	\$373,097	\$21,232
Strategy Assets (\$ millions)	\$17,287	\$7,179	\$3,195
Product Capacity	\$50 billion with current staff	\$100-\$125 billion given highly liquid investable sector	Will evaluate when assets approach \$10 billion
Number of Firm Employees	747	2,310	119
Number of Professionals on Strategy	15	48	15
Team	Two PMs supported by 13 investment professionals and large research team	7 PMs, 32 Research Analysts, 7 Traders, 2 Portfolio Specialists	8 PMs, 6 analysts, 1 Fixed Income Trader
Key Team Members	John Hyll, PM Neil Burke, PM	Thanos Bardas, Senior PM Dave Brown, Senior PM Nate Kush, Senior PM	Jim Dadura, Director of Fixed Income Greg Hosbein, Senior PM
Strategy Description	Portfolio construction is driven by a combination of bottom-up security selection and top-down macroeconomic analysis. The firm maintains a centralized research group charged with identifying high potential relative return investment ideas. Portfolio duration is managed in a narrow range relative to the benchmark.	The Core Bond team allocates amongst fixed income sectors using a proprietary asset allocation framework. The quantitative element of this framework is based on Black-Litterman modeling with modifications. The team believes this approach better projects future return estimates and enhances tail/principal risk mitigation. Key sources of alpha are expected by the team to be sector allocation/rotation and security selection, but there is also a degree of duration/yield curve flexibility versus the benchmark.	The strategy seeks to exploit inefficiencies in the bond market by using fundamental analysis to identify high-quality securities in areas generally overlooked by other managers (e.g., small issue corporates, taxable munis, and mortgages). Performance is primarily driven by bottom-up research and security selection, as opposed to market timing. The process also emphasizes disciplined risk controls, sector diversification and liquidity.
Investment Restrictions	Duration $\pm$ 20% of the index, Portfolio credit quality greater than A2/A, Individual issue credit quality greater than B3/B-, 5% maximum in single issuer (US government and agencies excluded), out of benchmark issuers are limited to 10% of the portfolio.	Key restrictions for existing mandate: Portfolio duration $\pm$ 20% of benchmark. Spread duration max +30% of benchmark. Portfolio credit quality > A2 (Moody's) or A (S&P). Individual issue credit quality > B3 by Moody's or B- by S&P. Out of benchmark non-investment grade and non-U.S. are limited to 10%.	Maximum 5% invested in any one issuer (U.S. Treasury and Federal Agencies excluded). Duration $\pm$ 10% ( $\pm$ 0.5 year) of the benchmark. Cash less than 5%. Industry exposure averages less than 15%.
Typical Number of Holdings/Issuers	145 – 186 holdings	200 – 300 holdings	125 – 175 holdings
Typical Turnover/Holding Period	125% - 175% turnover	118% turnover for the 12-month period ending 9/30/2020	30% - 40% turnover
Investment Vehicle	Separate Account	Separate Account	Separate Account
PRI Signatory/Year Signed	Yes/2015	Yes/2012	Yes/2017
Max Allowable Mandate Allocation (LACERS represents less than 25% of strategy assets, \$ millions)	\$2,440	\$2,392	\$1,065
Proposed Fee Schedule	First \$400m: 15 bps Balance: 10 bps	First \$150m: 13 bps Next \$150m: 11 bps Balance: 9 bps  In addition, a 10% rebate shall apply to the total investment management fee	First \$10m: 20 bps Next \$90m: 10 bps Balance: 8 bps
Effective Fee (based on mandate equally allocated among three managers with \$610 million each)	12.47 bps	9.10 bps	8.37 bps
Effective Fee (based on mandate equally allocated among four managers with \$610 million each)	13.28 bps	9.43 bps	8.49 bps
Effective Fee (based on mandate equally allocated among five managers with \$490 million each)	14.08 bps	9.75 bps	8.61 bps

**FINALISTS OF THE ACTIVE CORE FIXED INCOME INVESTMENT MANAGER SEARCH**

Annualized Returns and Risk as of September 30, 2020

Gross of Fees

Firm Name	Inception Date	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	Since Inception
Robert W. Baird & Co. Incorporated*	9/30/2000	8.12%	5.94%	5.00%	4.76%	5.19%	5.83%	5.83%
Garcia Hamilton & Associates, L.P.	12/31/1991	7.26%	5.46%	4.44%	4.63%	5.74%	6.06%	6.29%
Income Research & Management	12/31/1991	8.63%	6.02%	4.92%	4.44%	5.24%	5.77%	6.25%
J.P. Morgan Asset Management	1/1/1986	7.26%	5.78%	4.63%	4.23%	5.25%	5.76%	7.18%
Loomis, Sayles & Company, L.P.^	7/1/1980	9.20%	6.39%	5.63%	4.90%	5.60%	6.51%	9.01%
Neuberger Berman Investment Advisers LLC^	10/31/1990	8.11%	5.67%	4.65%	4.45%	5.64%	6.24%	6.85%
Segal Bryant & Hamill, LLC	1/1/1987	7.64%	5.60%	4.42%	3.87%	5.06%	5.53%	6.65%
<i>Bloomberg Barclays U.S. Aggregate Bond Index</i>	-	6.98%	5.24%	4.18%	3.64%	4.48%	5.01%	

Firm Name	5 Year Tracking Error	5 Year Information Ratio	10 Year Tracking Error	10 Year Information Ratio	20 Year Tracking Error	20 Year Information Ratio
Robert W. Baird & Co. Incorporated*	0.91%	0.90	0.81%	1.38	1.21%	0.68
Garcia Hamilton & Associates, L.P.	1.15%	0.23	1.63%	0.61	1.40%	0.75
Income Research & Management	0.68%	1.09	0.79%	1.01	1.53%	0.50
J.P. Morgan Asset Management	0.71%	0.63	0.62%	0.95	0.85%	0.88
Loomis, Sayles & Company, L.P.^	1.05%	1.38	1.43%	0.88	3.31%	0.45
Neuberger Berman Investment Advisers LLC^	0.91%	0.52	1.37%	0.59	1.96%	0.63
Segal Bryant & Hamill, LLC	0.32%	0.75	0.34%	0.68	0.91%	0.57

\*Return and risk metrics presented are for proposed Baird Advisors Core Bond strategy, distinct from the Intermediate Government/Credit strategy currently managed for LACERS

^Return and risk metrics presented are for core bond strategies currently managed for LACERS

**FINALISTS OF THE ACTIVE CORE FIXED INCOME INVESTMENT MANAGER SEARCH**  
**Calendar Year Returns as of September 30, 2020**  
**Gross of Fees**

Firm Name	Inception Date	2006	2007	2008	2009	2010	2011	2012	2013
Robert W. Baird & Co. Incorporated*	9/30/2000	5.19%	5.93%	-2.06%	11.21%	8.66%	8.17%	8.24%	-0.96%
Garcia Hamilton & Associates, L.P.	12/31/1991	4.19%	8.61%	5.88%	12.13%	8.21%	5.33%	10.48%	0.09%
Income Research & Management	12/31/1991	4.81%	6.91%	0.23%	13.49%	7.16%	7.30%	7.39%	-1.33%
J.P. Morgan Asset Management	1/1/1986	4.59%	7.38%	4.56%	10.38%	8.35%	7.89%	5.73%	-1.32%
Loomis, Sayles & Company, L.P.^	7/1/1980	4.18%	6.54%	-4.95%	20.09%	8.81%	6.81%	8.35%	-0.98%
Neuberger Berman Investment Advisers LLC^	10/31/1990	5.59%	5.75%	-3.70%	23.06%	11.00%	6.45%	8.98%	-1.17%
Segal Bryant & Hamill, LLC	1/1/1987	4.38%	7.60%	7.87%	8.73%	6.27%	8.59%	4.36%	-1.98%
<i>Bloomberg Barclays U.S. Aggregate Bond Index</i>		4.33%	6.97%	5.24%	5.93%	6.54%	7.84%	4.21%	-2.02%

Firm Name	Inception Date	2014	2015	2016	2017	2018	2019	YTD 2020
Robert W. Baird & Co. Incorporated*	9/30/2000	7.21%	0.86%	3.83%	4.51%	0.00%	9.81%	7.72%
Garcia Hamilton & Associates, L.P.	12/31/1991	8.02%	0.85%	3.18%	3.82%	0.98%	7.26%	7.30%
Income Research & Management	12/31/1991	7.10%	0.59%	3.57%	3.97%	0.09%	9.32%	8.41%
J.P. Morgan Asset Management	1/1/1986	5.84%	1.34%	2.92%	4.26%	0.67%	8.88%	7.39%
Loomis, Sayles & Company, L.P.^	7/1/1980	7.47%	-0.36%	5.72%	4.70%	0.08%	9.71%	9.02%
Neuberger Berman Investment Advisers LLC^	10/31/1990	5.77%	0.73%	3.34%	3.84%	-0.51%	9.40%	7.81%
Segal Bryant & Hamill, LLC	1/1/1987	6.56%	0.79%	2.66%	3.42%	0.46%	8.63%	7.59%
<i>Bloomberg Barclays U.S. Aggregate Bond Index</i>		5.97%	0.55%	2.65%	3.54%	0.01%	8.72%	6.79%

\*Performance returns presented are for proposed Baird Advisors Core Bond strategy, distinct from Intermediate Government/Credit strategy currently managed for LACERS

\*Performance returns presented are for core bond strategies currently managed for LACERS



# GARCIA HAMILTON & ASSOCIATES

Presented By:

*Gilbert A. Garcia, CFA*  
Managing Partner

*Ruby Muñoz Dang*  
Partner



## Los Angeles City Employees' Retirement System

December 9, 2020

5 Houston Center

1401 McKinney, Suite 1600

Houston, TX 77010

Tel: (713) 853-2359

Fax: (713) 853-2300

Ruby@GarciaHamiltonAssociates.com

www.GarciaHamiltonAssociates.com



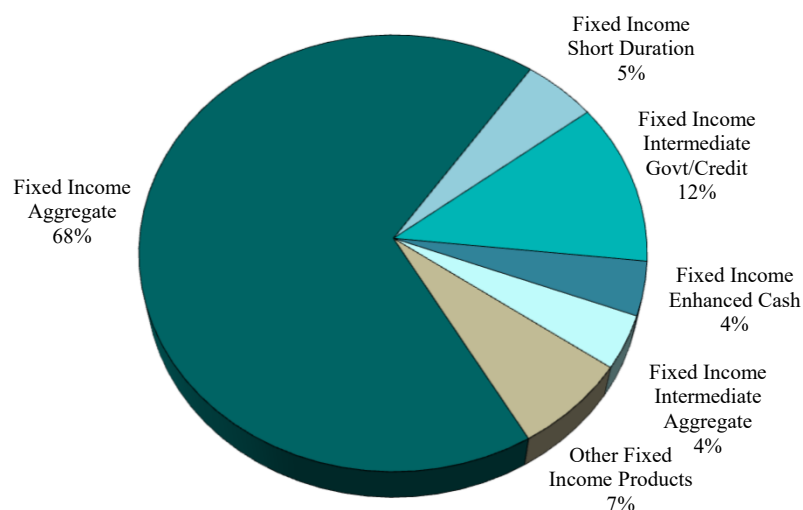
Awards/rankings may not represent client experiences and are not indicative of future performance. Go to [www.garciahiltonassociates.com/awards/](http://www.garciahiltonassociates.com/awards/) for additional information on each award.

# Organization

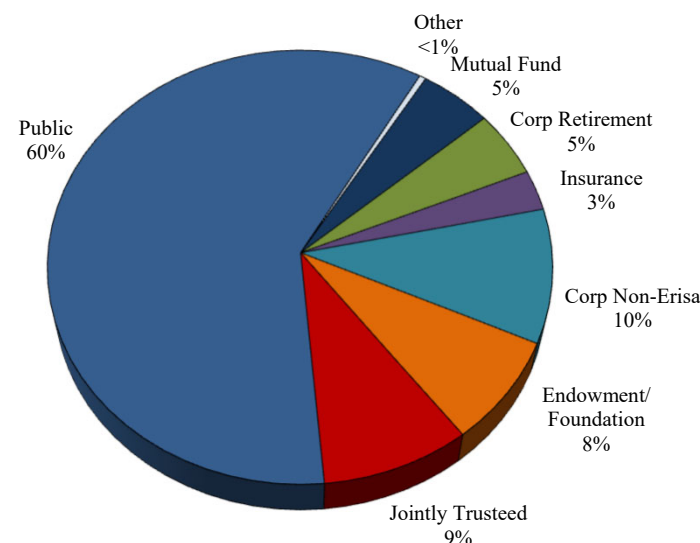
- Founded in 1988
- Firm is 100% employee-owned and certified as an MBE firm
- ESG/RI Manager and a Principles for Responsible Investment (PRI) signatory
- Firm has 35 employees located in Houston, Texas
- The 11 members of the investment team have over 210 years of investment experience and over 90 years with the firm combined
- Firm manages over \$16 billion in assets under management
- High-quality fixed income strategies designed to prevent “negative surprises”
- No debt

## Asset Breakdown

By Type



By Client



Data as of September 30, 2020



# Representative Client List – 50+ Clients Over 10 Years

## PUBLIC FUNDS

Addison Police, IL  
 City of Annapolis Police and FF, MD  
 Arkansas Local Police & FF, AR  
 Arkansas State Highway Employees, AR  
 City of Atlanta GE, GA  
 City of Atlanta Police & FF, GA  
 Town of Bay Harbor Islands ERS, FL  
 Berwyn Police & FF, IL  
 City of Bloomington Police, IL  
 City of Boynton Beach GE, FL  
 Buffalo Grove Police, IL  
 City of Cape Coral Police & FF, FL  
 Capital Metropolitan Transportation Authority Retirement Plan, TX  
 Chicago FF Annuity & Benefit, IL  
 Chicago Municipal Annuity & Benefit, IL  
[Chicago Public Schools, IL](#)  
 Chicago Transit Authority, IL  
 Colorado FF & Police, CO  
 Cook County Employees' & Officers' College of Micronesia Land Grant, FM  
 Coral Gables Retirement System, FL  
 City of Coral Springs FF, FL  
 City of Coral Springs Police, FL  
 City of Corpus Christi FF, TX  
 Annuity & Benefit, IL  
 Dallas Area Rapid Transit, TX  
 DFW International Airport, TX  
[Town of Davie Police, FL](#)  
[Town of Davie FF, FL](#)  
[City of Deerfield Beach Police, FL](#)  
 City of Deerfield Beach FF, FL  
[City of DeLand Police, FL](#)  
 Delray Beach Police, FF & GE, FL  
 City of Detroit Health Care Trust, MI  
 Detroit Retirement Protection Trust, MI  
 Des Plaines FF & Police, IL  
 Dukes County, MA  
 East Bay Municipal Utility District ERS, CA  
 ERS of Baltimore County, MD  
 ERF of the City of Dallas, TX  
 Englewood FF, FL  
[City of Evanston Police, IL](#)  
 City of Evanston FF, IL  
 Fairfax County Uniformed RS, VA  
[City of Ft. Lauderdale GE, FL](#)  
[City of Ft. Myers Police, FL](#)  
[City of Ft. Walton Beach GE, FL](#)  
 City of Ft. Walton Beach Police, FL  
 City of Ft. Walton Beach FF, FL  
 FSM Social Security Administration, FM  
 General RS of the City of Detroit, MI  
[Government of Guam, GU](#)  
 Greater Orlando Aviation Authority, FL  
 City of Hialeah FF, FL  
 Hoffman Estates FF Pension, IL

[City of Hollywood FF, FL](#)  
 City of Hollywood Police, FL  
 Illinois State Board of Investments, IL  
 Illinois Student Assistance Commission, IL  
[Jackson County ERS, MI](#)  
 City of Jacksonville Beach ERS, FL  
 Lake Bluff Police, IL  
[City of Lake Worth FF, FL](#)  
 City of Lakeland, FL  
 Lantana FF, FL  
 Lantana Police Relief, FL  
 Lemont Police, IL  
 Lubbock FF, TX  
 Macon-Bibb County, GA  
 Marianas Public Land Trust, MP  
 Matteson FF, IL  
 Medford Retirement System, MA  
 City of Melbourne Police & FF, FL  
 Metropolitan Water Reclamation District, IL  
 Miami GE' & Sanitation ERS, FL  
[City of Miramar Police, FL](#)  
 Municipality Of Anchorage, AK  
 MWRA Employees' RS, MA  
 NC Association of County Commissioners, NC  
[City of New Port Richey Police, FL](#)  
[City of North Miami Beach GE, FL](#)  
[City of North Miami Beach Police & FF, FL](#)  
 City of North Miami GE, FL  
 City of North Miami Police, FL  
 City of North Port Police, FL  
 Northern Marianas College, MP  
[City of Oakland Park Police & FF, FL](#)  
 City of Ocoee Police & FF, FL  
 Oklahoma FF, OK  
 Town of Orange Park Police, FL  
 Orlando Utilities Commission, FL  
[City of Ormond Beach Police, GE & FF, FL](#)  
 Overland Park Police, KS  
 Town of Palm Beach, FL  
 Palm Beach County FF, FL  
[City of Palm Beach Gardens FF, FL](#)  
 Village of Palatone Police, IL  
 Village of Palm Springs Police & GE, FL  
 City of Pembroke Pines OPEB Trust, FL  
 Pennsylvania Turnpike Commission Retiree Medical Trust, PA  
 City of Pensacola GE & FF, FL  
[Philadelphia Gas Works, PA](#)  
 City of Pinellas Park Police & GE, FL  
 City of Plantation Police, FL  
 Policemen's Annuity and Benefit Fund of Chicago, IL  
 City of Pontiac Police & FF, MI  
 Port Authority of New York and New Jersey Retiree Health Benefits Trust, NY  
[Prince George's County Police & FF, MD](#)

Prince William County Police, VA  
 City of Punta Gorda Police & GE, FL  
 Rantoul Police, IL  
 Republic of Palau Civil Service, Palau  
 Republic of Palau COFA Trust Fund, Palau  
 River Forest Police, IL  
 Riviera Beach GE, FL  
 City of Riviera Beach Police, FL  
 Road Commission for Oakland County, MI  
 City of Roanoke, VA  
 City of Rockledge Police, GE & FF, FL  
 City of Sanford FF, FL  
 City of Sanford Police, FL  
 City of Sarasota Police, FL  
 City of Sebring Police, FL  
 City of St. Cloud Police & FF, GE, FL  
 City of St. Louis FF, MO  
 St. Petersburg Police, FL  
 South Walton Fire Control District FF, FL  
 State Universities RS, IL  
[City of Sunrise Police, FL](#)  
 City of Tamarac FF, FL  
 City of Tarpon Springs Police, FL  
 City of Taylor GE Retirement System, MI  
 Teachers' Retirement System, IL  
[City of Temple Terrace Police & FF, FL](#)  
[City of Titusville Police & FF, FL](#)  
 Urbana Police, IL  
 Utrik Atoll, Marshall Islands, MH  
 City of Venice FF, FL  
 City of Venice Police, FL  
[City of Vero Beach Police, FL](#)  
 Village of Tequesta Public Safety Officers, FL  
[City of West Palm Beach Police, FL](#)  
 City of West Palm Beach GE, FL  
 City of West Palm Beach FF, FL  
 Westchester Police, IL  
 City of Westland Police & FF, MI  
 City of West Melbourne Police, FL  
[City of Wilton Manors GE, FL](#)  
 Winnetka Illinois Police & FF, IL  
[City of Winston-Salem, NC](#)  
 City of Winter Garden GE, Police & FF, FL  
 City of Winter Haven Police, FL  
 Wood Dale Police, IL  
 The Woodlands FF Retirement System, TX  
 Yap State Trust Fund, FM  
 Yorktown Independent School District, TX

## CORPORATE-NON-ERISA

Air Force Association, VA  
 American Baptist Home Mission Society, PA  
[American Speech-Language-Hearing Association, MD](#)  
 American Quarter Horse Association, TX

Amerilodge Group LLC, MI  
 AOA Deposit and Loan Fund, GA  
 Archbold Medical Center, Inc., GA  
 Archdiocese of Portland, OR  
[Attorney's Liability Assurance Society, IL](#)  
 Banner Health, AZ  
 Bedford Fund, QUE  
 Bethesda Inc., OH  
 Brooklyn Museum, NY  
 Catholic Education of North Georgia, GA  
 Century Insurance Company, GU  
 Church Extension Fund of the Michigan District, MI  
 City Public Service Decommissioning Trust, TX  
 Construction Association of Michigan, MI  
[Crime Stoppers of Houston, TX](#)  
 FSM Development Bank, FM  
 John P. McGovern Museum of Health & Medical Science, TX  
 KEW Management Investor, NY  
 Maryland Insurance Trust, MD  
 Micronesia Conservation Trust, FM  
[Naples Community Hospital HealthCare System, FL](#)  
 Operators Reinsurance Company, CI  
 Pacific Indemnity Insurance Company, GU  
 Paradigm Indemnity Corporation, OR  
 Pheasants Forever, MN  
 Roman Catholic Archdiocese of Atlanta, GA  
[Specialty Equipment Market Assoc., CA](#)  
 Stetson University, Inc., FL  
 Strategic Investment Fund for La Raza, DC  
 St. Ignatius College Prep, IL  
 Superior Enterprise Holdings, Inc., MI  
 Sweeny Community Hospital, TX  
 Terrapin Insurance Company, CI  
 University Athletic Association, Inc., GA  
 University of Maryland Medical System Pool, MD  
 Union Presbyterian Seminary, VA  
 United Board For Christian Higher Education in Asia, NY  
 United Regional Health Care System, TX  
 The Walters Art Gallery, MD  
 Wistar Institute of Anatomy and Biology, PA  
 The Widows Corporation, PA

## CORPORATE ERISA

Atmos Energy Corporation, TX  
 D.W. McMillan Hospital/ Escambia County Healthcare, AL  
 Dimension Assurance LTD, CI  
 Dimensions Health Corporation Pension Plan, MD  
 Emergency Medicine Professional Assurance Risk Corporation, FL  
 H.N.S. Management Co., Inc, CT

Integris Health, Inc., OK  
[Millers Group, TX](#)  
 Nissan Motor Co., Ltd., TN  
 Operators Reinsurance Company, KY  
 Roman Catholic Archdiocese of Atlanta, GA  
[STP Nuclear Operation Company, TX](#)  
 Sulzer Pumps (US) Inc., TX  
 University Athletic Association, GA  
 University of Maryland Medical System Trust, MD

## ENDOWMENTS/FOUNDATIONS

American Quarter Horse Foundation, TX  
 Arkansas Tech University Foundation, AR  
 Bakersfield College Foundation, CA  
 Baptist Health Foundation of San Antonio, TX  
 Barnabas Foundation Common Trust, IL  
[Board of Higher Education and Ministry, The United Methodist Church, TN](#)  
 The Boyd and Joan Kelley Charitable Foundation, TX  
 Briarwood-Brookwood, Inc., TX  
 Catholic Community Foundation of Minnesota, MN  
 Catholic Foundation of Oklahoma, OK  
 Charles Hayden Foundation, NY  
 Children's Home Foundation, TX  
 Community Foundation of Greater Flint, MI  
 The Community Foundation of Herkimer & Oneida Counties, TX  
 Community Foundation for Northeast Florida, Inc., FL  
 Curtis Institute of Music, PA  
 E. Rhodes and Leona B. Carpenter Foundation, PA  
 East Bay Community Foundation, CA  
 East Texas Medical Center Foundation, TX  
 Embry Riddle Aeronautical University, FL  
 Florida A&M University Foundation, FL  
 Fort Hays State University, KS  
 Gilbert Family Foundation, MI  
 Greater Milwaukee Foundation, MI  
 Guam Community College Foundation, GU  
 Hartford Foundation for Public Giving, CT  
 International Retinal Research Foundation Inc., AL  
 Jewish Senior Life Foundation, NY  
 Louisiana Baptist Foundation, LA  
 Marin Community Foundation, CA  
 Mary Institute & St. Louis Country Day School, MO  
 Mary Louise Curtis Bok Foundation, PA  
 McDaniel College, Inc., MD  
 The Medical Foundation of North Carolina, NC

Medical University of South Carolina Foundation, SC  
 Northfield Mount Hermon School, MA  
 Racine Community Foundation Inc., WI  
 San Francisco Foundation, CA  
 San Juan Island Community Foundation, PR  
 Sarah Campbell Blaffer Foundation, TX  
 Seattle Foundation, WA  
 Shelby County Community Health Foundation, AL  
 Silicon Valley Community Foundation, CA  
 Southern Baptist Foundation, TN  
 Special Operations Warrior Foundation, GA  
 Tallahassee Memorial HealthCare Foundation, FL  
 Triangle Community Foundation, NC  
[United Methodist Foundation, NC](#)  
[University of Guam Endowment, GU](#)  
 University of Hartford, CT  
 Westminster Canterbury, VA  
 White's Residential & Family Services, IN  
 Wichita Falls Area Community Foundation, TX  
 Xavier University of Louisiana, LA

## TAFT-HARTLEY & UNION

Bricklayers of Indiana, IN  
 Central Illinois Carpenters Retirement, IL  
 District 1199J New Jersey Healthcare Employers, NJ  
 IBEW Local Union #129, OH  
 IBEW Local Union #351, NJ  
 Indiana Electrical Workers Pension Trust, ID  
 Local 665 IATSE Annuity Fund, HI  
 MARTA/ATU Local 732, GA  
 The Mason Tenders District Council of Greater New York and Long Island, NY  
 Palm Tran, Inc./ATU Local 1577, GA  
[Plumbers Local Union #68, TX](#)  
[Sacramento Area Electrical Workers, CA](#)  
[San Mateo HERE, CA](#)  
 Service Employees International Union Health And Welfare Fund, DC  
 Sheet Metal, Air, Rail, and Transportation Association Local #33, OH  
[Sheet Metal Workers Health Plan, CA](#)  
 Teamsters Union Local NO. 35, NJ  
 WMATA/ Local 922 Retirement Plan, DC

## OTHER

American Beacon Garcia Hamilton Quality Bond Fund (Mutual Fund), TX  
 Bivium Capital Partners, LLC, CA



Clients who have retained GH&A for 10 years or more are noted in green. This representative client list is provided for informational purposes only and should not be construed as an endorsement of our services. These clients were chosen for name recognition and may be invested in products other than those included in the presentation.

# Culture of Excellence



# Partners – Average Firm Tenure 16 Years

## Investment Team



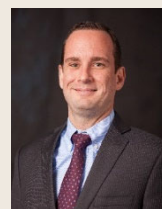
**GILBERT ANDREW GARCIA, CFA**  
 Managing Partner  
 Portfolio Manager  
 BA: Yale University  
 Year Hired: 2002  
 Industry Experience: 35 yrs  
 Ownership: 34.5%



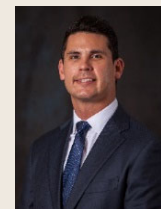
**KAREN H. TASS, CFA**  
 Portfolio Manager  
 BA: Texas A&M University  
 MBA: University of Houston  
 Year Hired: 2010  
 Industry Experience: 15 yrs  
 Ownership: 5.9%



**NANCY RODRIGUEZ**  
 Portfolio Manager  
 BS: University of Houston  
 Year Hired: 1998  
 Industry Experience: 33 yrs  
 Ownership: 5.0%



**JEFFREY D. DETWILER, CFA, AAMS**  
 Portfolio Manager  
 BS: University of South Florida  
 MS: University of Houston  
 Year Hired: 2007  
 Industry Experience: 24 yrs  
 Ownership: 2.0%



**BENJAMIN D. MONKIEWICZ**  
 Portfolio Manager  
 BA: Sam Houston State University  
 Year Hired: 2010  
 Industry Experience: 10 yrs  
 Ownership: 1.5%



**DON ELSENBROCK**  
 Portfolio Manager, Strategist  
 BS: University of Houston  
 MA: University of Houston  
 Year Hired: 2014  
 Industry Experience: 28 yrs  
 Ownership: 1.5%

## Client Service & Marketing



**JANNA HAMILTON**  
 Marketing and Client Services  
 BA: Florida Atlantic University  
 AIMSE: Wharton School of Business  
 Year Hired: 1994  
 Industry Experience: 40 yrs  
 Ownership: 17.5%



**RUBY MUÑOZ DANG**  
 Director of Marketing and Client Services  
 BA: University of Houston – Downtown  
 Year Hired: 1995  
 Industry Experience: 27 yrs  
 Ownership: 11.6%



**STEPHANIE J. ROBERTS**  
 Marketing and Client Services  
 BBA: Texas Southern University  
 Year Hired: 2000  
 Industry Experience: 24 yrs  
 Ownership: 6.8%

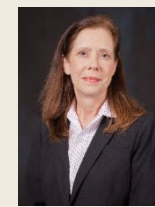


**MORGAN DOYLE**  
 Client Relations Manager  
 BS: University of Texas  
 Year Hired: 2014  
 Industry Experience: 6 yrs  
 Ownership: 1.0%

## Administrative Departments



**KEVIN LUNDAY, CPA**  
 Chief Operating Officer  
 BBA: Texas Tech University  
 Year Hired: 2007  
 Industry Experience: 19 yrs  
 Ownership: 6.5%



**BETH L. MCWILLIAMS**  
 Chief Compliance Officer  
 Patricia Stevens Secretarial College  
 Year Hired: 1994  
 Industry Experience: 39 yrs  
 Ownership: 4.7%



**GARY MONTGOMERY**  
 Systems Manager  
 University of Houston – Downtown  
 Year Hired: 2007  
 Industry Experience: 18 yrs  
 Ownership: 1.5%



Ownership numbers are rounded.



## Fixed Income Investment Team – Average Firm Tenure 9 Years



**GILBERT ANDREW GARCIA, CFA**  
Managing Partner  
Portfolio Manager  
BA: Yale University  
Year Hired: 2002  
Industry Experience: 35 yrs



**KAREN H. TASS, CFA**  
Partner  
Portfolio Manager  
BA: Texas A&M University  
MBA: University of Houston  
Year Hired: 2010  
Industry Experience: 15 yrs  
Coverage: Corporates



**NANCY RODRIGUEZ**  
Partner  
Portfolio Manager  
BS: University of Houston  
Year Hired: 1998  
Industry Experience: 33 yrs  
Coverage: Team Oversight



**JEFFREY D. DETWILER,  
CFA, AAMS**  
Partner  
Portfolio Manager  
BS: University of South Florida  
MS: University of Houston  
Year Hired: 2007  
Industry Experience: 24 yrs  
Coverage: Short Term



**BENJAMIN D. MONKIEWICZ**  
Partner  
Portfolio Manager  
BA: Sam Houston State University  
Year Hired: 2010  
Industry Experience: 10 yrs  
Coverage: MBS/Agencies



**DON ELSENBROCK**  
Partner  
Portfolio Manager, Strategist  
BS: University of Houston  
MA: University of Houston  
Year Hired: 2014  
Industry Experience: 28 yrs  
Coverage: Strategist/Short Term



**YVETTE M. DUEÑAS**  
Investment Analyst  
BBA: University of Incarnate Word  
MBA: Our Lady of the Lake University  
Year Hired: 2016  
Industry Experience: 13 yrs



**CONNIE FALCON DAVIS**  
Investment Analyst  
BS: University of Houston  
Year Hired: 2012  
Industry Experience: 8 yrs  
Coverage: Analytics



**REESE WELLER**  
Investment Analyst  
BA: Texas Tech University  
Year Hired: 2017  
Industry Experience: 20 yrs



**BRIAN SIMON**  
Investment Analyst  
BA: Morehouse College  
MBA: University of Houston-Victoria  
Year Hired: 2003-2007, 2018  
Industry Experience: 22 yrs



**JAZMINE DANIELS**  
Junior Analyst  
BA: University of Texas at San Antonio  
Year Hired: 2020  
Industry Experience: <1 yr

# Investment Goal

## *Investment Goal*

Our goal is to outperform the benchmark, net of fees, over a full market cycle using a high-quality strategy with less risk and an ESG focus. By setting realistic expectations, we avoid taking unnecessary risks.

Achieving our goal is centered around several core principles:

- Preserve Principal
- Maintain Liquidity
- Provide High Current Income
- Be Responsible Citizens (ESG)

Key Tools:

- Sector Rotation
- Controlled Interest Rate Anticipation
- Yield Curve Positioning

## Investment Style

### *High-Quality*

Portfolio Dominated by U.S. Treasuries, Agency Debentures and Agency 15-Year MBS  
Corporate Securities Rated A or Better

Spread Product Exclusively in the Short to Intermediate Maturities to Reduce Volatility

### *No Big Surprises*

No Foreign Bonds/Yankees

No BBB Rated Securities

No Sin Names –Tobacco, Gambling, Alcohol, Firearms

No Derivatives

No Leverage/Dollar Rolls

No Pricing Overrides

Maintain a Manageable Number of Securities

No Soft Dollars

ESG Overlay

### *Flexibility*

Actively Rotating Sectors

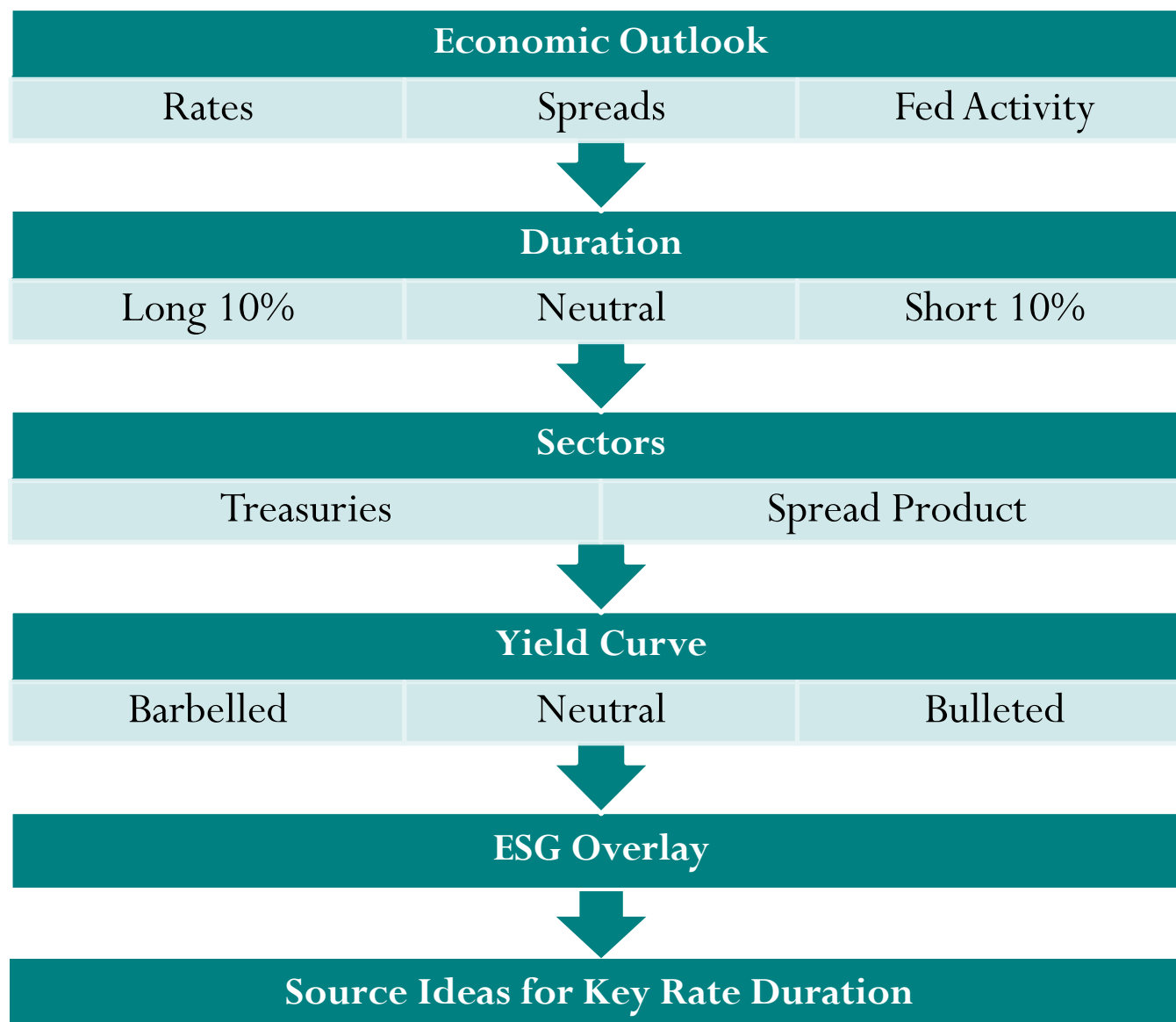
Actively Managing Yield Curve

Exploiting Smaller Markets

### *Risk Controls*

Percentage Sector Allocation, Duration Contribution by Sector, Credit Reviews,  
Yield Curve, Performance Attribution, Peer Group Performance Monitoring,  
and ESG Scale Monitoring

# Portfolio Construction

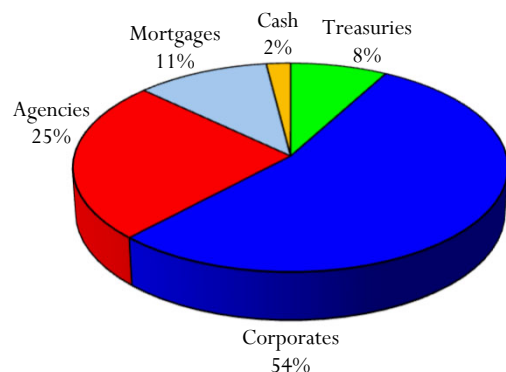


\*The firm normally operates in a duration range of +/- 10% of the benchmark index. In extreme market environments, the firm operates in a duration range of +/- 25%.

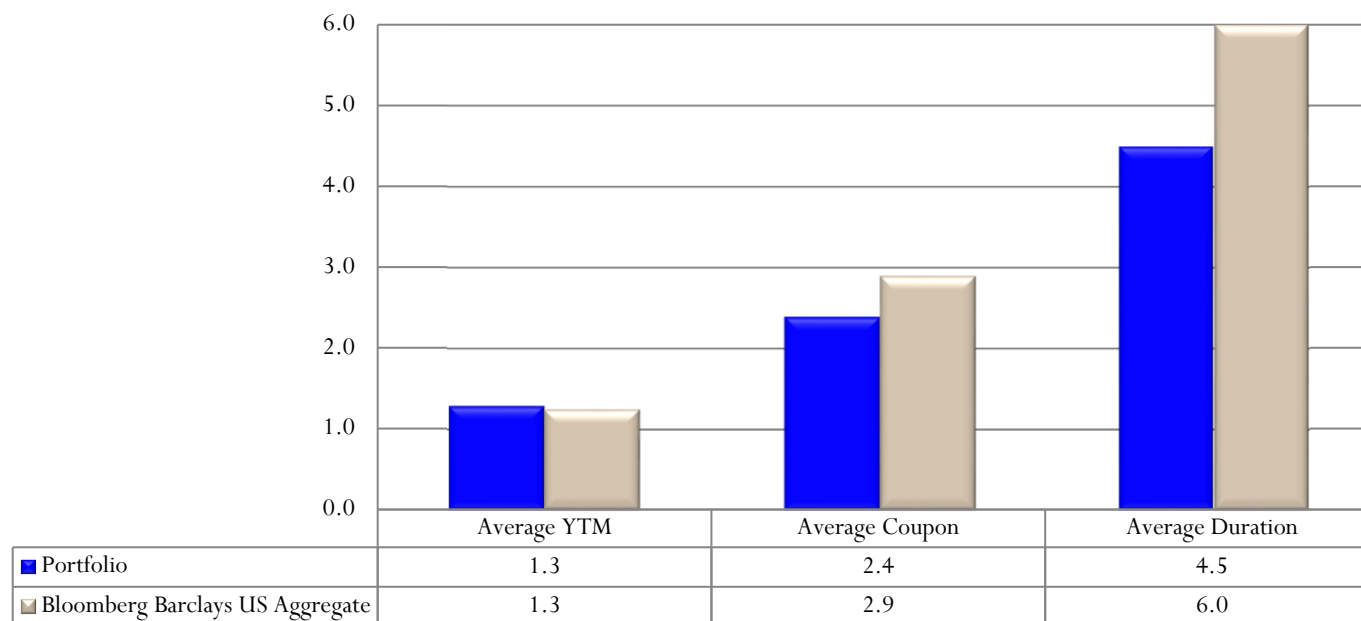
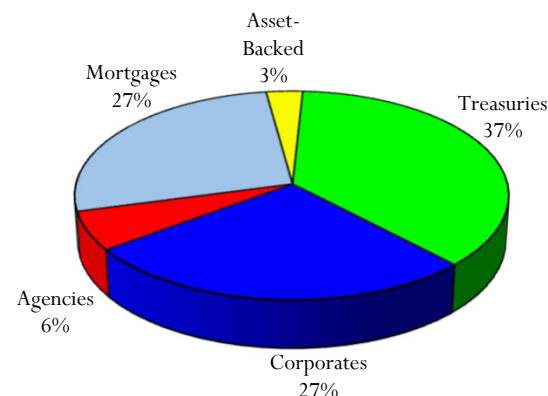
# Fixed Income – Aggregate Portfolio Characteristics

October 31, 2020

**Portfolio**



**Bloomberg Barclays US Aggregate**



The characteristics shown are those of an actual portfolio that is representative of this strategy at a particular point in time. Individual portfolio characteristics may vary depending on the date shown as well as client-imposed restrictions, cash flows, etc. This information is supplemental to the Fixed Income Aggregate Composite Disclosure Statement in the Appendix.

Source: Bloomberg Barclays

# Risk Tools

## Representative Aggregate Portfolio

Duration Contribution		Treasury	Agency	Corp	Corp Spread D	MBS	ABS	Sum
Dec '19	Portfolio	2.98	0.02	1.22	2.25	0.15	0.00	4.37
	Bloomberg Barclays US Aggregate	2.54	0.33	1.95	1.95	0.86	0.12	5.80
Jun '20	Portfolio	0.00	0.04	4.19	4.46	0.31	0.00	4.54
	Bloomberg Barclays US Aggregate	2.62	0.36	2.30	2.30	0.55	0.12	5.95
Sep '20	Portfolio	0.62	0.05	3.64	3.86	0.28	0.00	4.59
	Bloomberg Barclays US Aggregate	2.65	0.37	2.33	2.33	0.56	0.12	6.03

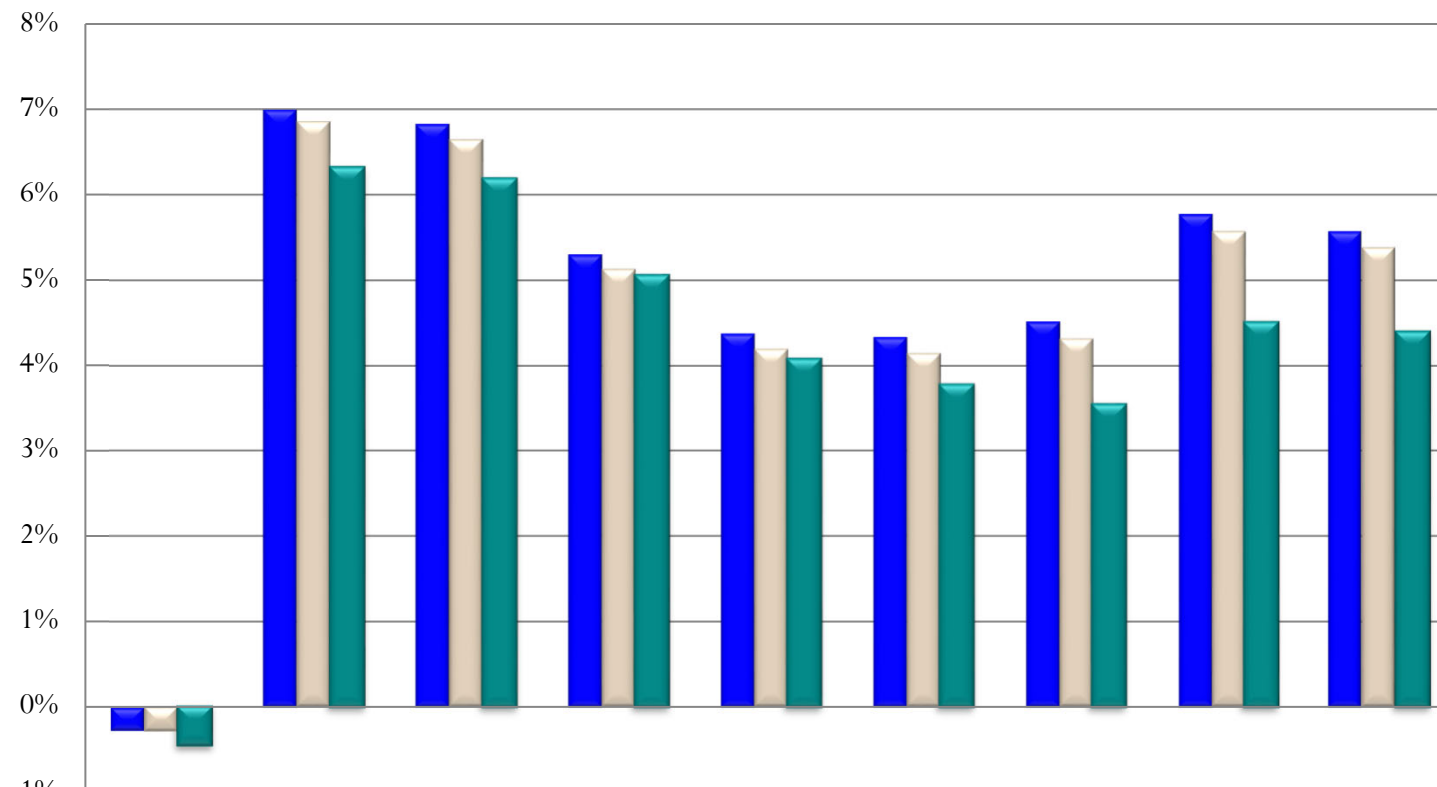
Yield Curve Positioning		0-2	2-4	4-6	6-8	8-10	10-16	16+
Dec '19	Portfolio	54.76	4.44	0.00	22.41	9.62	0.00	8.77
	Bloomberg Barclays US Aggregate	15.58	36.34	19.30	9.26	2.80	7.29	9.43
Jun '20	Portfolio	34.59	12.45	0.00	26.57	26.39	0.00	0.00
	Bloomberg Barclays US Aggregate	22.79	31.64	14.45	8.82	3.96	6.70	11.64
Sep '20	Portfolio	34.16	11.18	0.00	25.52	29.14	0.00	0.00
	Bloomberg Barclays US Aggregate	22.65	30.93	14.76	8.94	4.02	6.77	11.93



# Fixed Income – Aggregate Composite Returns

## Comparative Annualized Rates of Return

For periods ending October 31, 2020



	QTD	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	15 Yrs	18 Yrs*
GH&A Gross of Fees	-0.28%	7.00%	6.83%	5.31%	4.39%	4.35%	4.53%	5.78%	5.58%
GH&A Net of Fees	-0.29%	6.86%	6.65%	5.14%	4.21%	4.16%	4.33%	5.58%	5.39%
Bloomberg Barclays US Aggregate	-0.45%	6.32%	6.19%	5.06%	4.08%	3.78%	3.55%	4.51%	4.40%

Periods longer than 12 months are annualized.

Additional information is in the performance disclosure.

\*Gilbert Garcia management inception March 31, 2002.

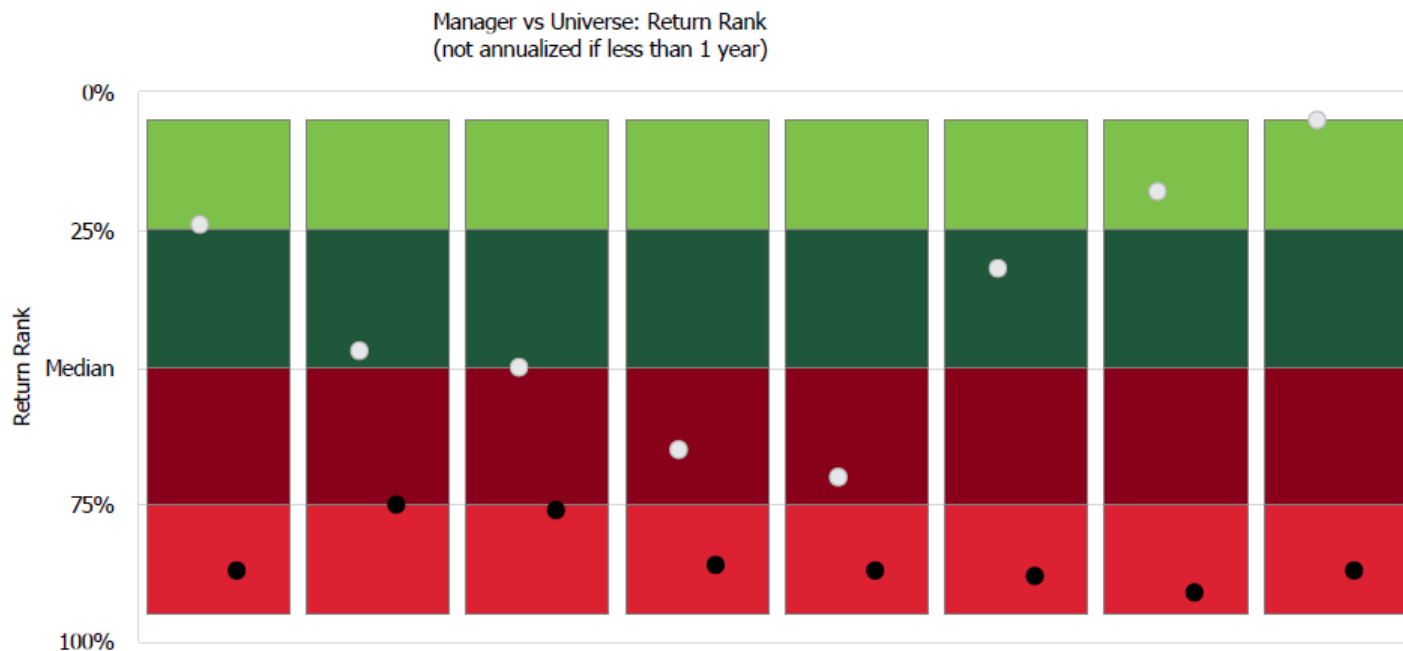


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Source: Bloomberg Barclays

# GH&A FI - Aggregate vs Aggregate Universe

October 31, 2020



Universe: GH&A Q2 Aggregate Universe

	MRQ		YTD		1 Year		3 Years		5 Years		7 Years		10 Years		15 Years	
		Rk		Rk		Rk		Rk		Rk		Rk		Rk		Rk
5th percentile	-0.26		8.59		8.56		6.46		5.67		4.97		4.81		5.78	
25th percentile	-0.78		7.72		7.70		5.79		4.80		4.46		4.42		5.30	
Median	-1.06		6.98		6.84		5.47		4.54		4.17		4.05		5.04	
75th percentile	-1.20		6.32		6.22		5.23		4.36		4.04		3.86		4.77	
95th percentile	-1.51		5.11		4.85		4.71		3.79		3.54		3.28		4.26	
# of Observations	92		92		92		92		91		89		86		78	
● GH&A Agg	-0.77	24	7.01	47	6.83	50	5.30	65	4.38	70	4.34	32	4.52	18	5.77	5
● Bloomberg Barclays US Aggregate	-1.30	87	6.32	75	6.19	76	5.06	86	4.08	87	3.78	88	3.55	91	4.51	87





# Attribution

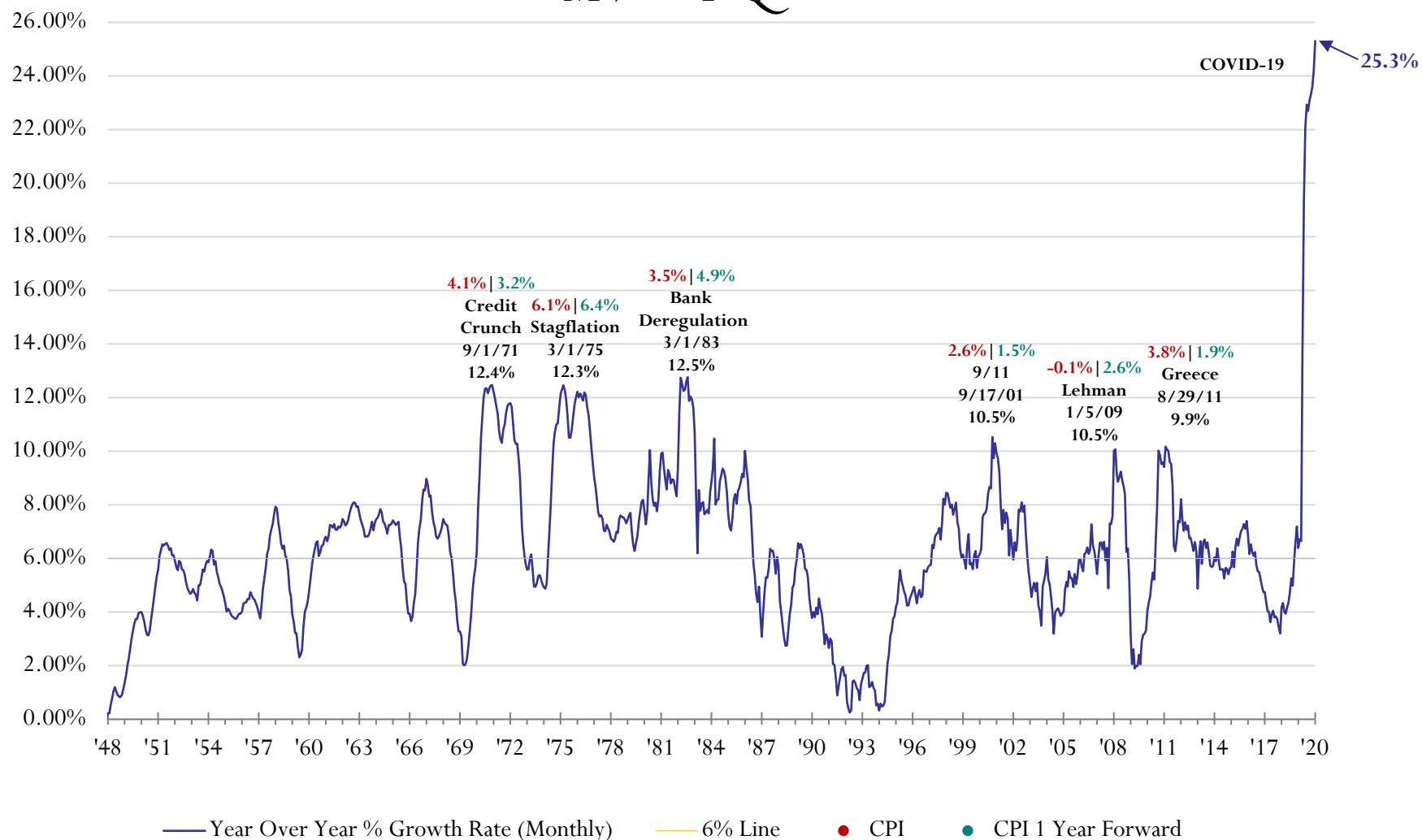
*Representative Aggregate Portfolio*

June 30, 2020 - September 30, 2020

<b>Income</b>	5 bps
<b>Yield Curve Movement</b>	1 bps
<b>Duration</b>	-1 bps
<b>Sectors</b>	12 bps
<b>Net Performance</b>	<b>17 bps</b>

# Money Supply Long Term Growth

$$MV = PQ$$



Source: Federal Reserve  
 As of 11/16/2020



The data used to create the long-term year over year growth rate was compiled from data published by the Federal Reserve Historical Monetary Aggregate Data. The monthly series from Jan 1948 until November 1980 was compiled from the M2SA and M2SL series and is used to calculate the year over year annualized growth rate. After November 1980, the weekly data series for M2 is used to calculate the year over year annualized growth rate.

# EEOC

September 30, 2020

	Non-Minority Male	Non-Minority Female	African American Male	African American Female	Hispanic/Latino Male	Hispanic/Latino Female	Asian Male	Asian Female	Total	Percentage
Senior Executives	1	2			1	1			5	14%
Investment Professionals	3	1	1	1	1	3			10	29%
Marketing & Client Services		5	1	3		3		1	13	37%
Operations				3		1			4	11%
IT			1		1				2	6%
Compliance						1			1	3%
<b>Total</b>	<b>4</b>	<b>8</b>	<b>3</b>	<b>7</b>	<b>3</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>35</b>	<b>100%</b>

**Additional Statistics:**

Total Female: 25    Total Male: 10  
 Minority: 23    Non-Minority: 12

# Diversity

## *Diversity is a central theme throughout the entire firm*

- Certified as a MBE in several states
- 90% of the firm owned by minority and female partners
- 61% owned by minority partners and 53% owned by Hispanic partners
- 88% of employees are ethnic minorities and women
- Executed over 60% of brokerage volume with MBE/MWBE/veteran firms over the past several years
- We also work with many minority and women-owned vendors in the areas of:
  - *Office Supplies, Temporary Staffing Services, Travel, Accounting, Auditors*
- The firm has a summer internship program for minority undergraduate and high school students
- We support and promote the LGBT community

## *Our firm directly supports numerous minority organizations in the community*

### *Community Service*

- Our Managing Partner, Gilbert Garcia, serves as a member of the SEC Asset Management Advisory Committee
- Our Managing Partner, Gilbert Garcia, serves as a member of the SEC Fixed Income Market Structure Advisory Committee
- Our Managing Partner, Gilbert Garcia, serves as trustee on the Dallas Police and Fire Pension System Board of Trustees
- Our Managing Partner, Gilbert Garcia, served as Chairman of the Metropolitan Transit Authority of Harris County Board for six years
- Our Managing Partner, Gilbert Garcia, was the 2012 Houston Area Urban League Gala Honorary Chair
- Our Managing Partner, Gilbert Garcia, was a co-chair of the 103<sup>rd</sup> NAACP National Convention
- Our Managing Partner, Gilbert Garcia, served as a trustee on the Houston Municipal Employees Pension System Board of Trustees
- Our Partner and Director of Marketing and Client Services, Ruby Muñoz Dang, served as Trustee for the METRO Texas Non-Union Pension Plan
- Our Managing Partner, Gilbert Garcia, was awarded Houston Hispanic Chamber Male Entrepreneur of the Year

### *NASP*

- National Association of Securities Professionals is a non-profit association of professionals that brings together minorities and women in the fields of asset management, public finance, investment banking, and other finance professions
- Our Partner, Stephanie Roberts, is highly involved with the organization and is currently a NASP Board Member and the Texas chapter Treasurer

### *SEO*

- SEO - A non-profit organization that mentors young women and minority individuals in the development of careers in investment banking, corporate law, and other leading global companies; Mr. Garcia went through the program in 1983 and is the longest serving board member (since 1988)
- Mr. Garcia was awarded the SEO Alumni Leadership Award at the 2015 Awards Dinner in New York City; Other honorees included Michael R. Bloomberg, three-term Mayor of New York City and Founder of Bloomberg LP & Bloomberg Philanthropies, and David M. Rubenstein, Co-Founder & Co-CEO of The Carlyle Group

### *LULAC*

- The League of United Latin American Citizens is a non-profit organization created to advance the economic condition, educational attainment, political influence, housing, health and civil rights of the Hispanic population of the United States

## Business Risk Minimization

Strong tone at the top for compliance

Compliance reports directly to senior management

Will not tolerate discrimination nor harassment; complaints investigated within 24 hours

\$20 million E&O insurance  
\$3 million cybersecurity insurance

Ownership dispersed among 13 partners

Buy/sell provisions on all partners at book value with 3-year financing

Two signature check provisions

Audited financials with NO debt

Internal dedicated programmer

Duplicate off-site data backups with firewall protection

Separation of duties

Multi-year storage of client info and all emails

## GH&A ESG Sub-Score Metrics

We have chosen to not “reinvent the wheel.” We utilize third-party research of industry experts in our ESG evaluation. The research includes:

- ***RobecoSAM Rank*** – A survey-based proprietary measure that ranks the sustainability of a company’s core business. The industry specific rankings come from RobecoSAM’s annual Corporate Sustainability Assessment (CSA); a survey that companies complete annually.
- ***ISS Governance Quality Score*** – A proprietary measure by Institutional Shareholder Services (ISS).
- ***CDP Climate Score*** – Based on an annual proprietary questionnaire measuring an organizations’ integration of a climate change strategy that is intended to reduce emissions of GHG’s (Green House Gases).

We assign weights to the third-party research metrics according to our own priorities and then calculate a weighted average score for each security. We then stratify the credit universe into 5 categories:

Exemplary	0.80 – 1.00
Satisfactory	0.60 – 0.80
Neutral	0.40 – 0.60
Lagging	0.20 – 0.40
Unsatisfactory	0.00 – 0.20

# Appendix



**Gilbert Andrew Garcia, CFA**  
*Managing Partner*

Mr. Garcia received a B.A. in Economics from Yale University. After graduating in 1985, he joined Salomon Brothers in New York City where he became a Vice President specializing in mortgage-backed securities. In 1990, he joined former Mayor Henry Cisneros to build Cisneros Asset Management Company, ultimately becoming its President. In 2002, he joined Garcia Hamilton & Associates and is the firm’s Managing Partner. Under his leadership, the firm grew from \$200 million in fixed income assets under management to over \$16.4 billion as of October 2020.

GH&A has received numerous industry recognitions. Most recently in 2019 Houston Business Journal recognized Mr. Garcia among Houston’s Top CEOs, as well as being ranked among their Best Places to Work in 2018. The firm also received Pensions & Investments’ Best Places to Work in Money Management for the fourth year in a row (2019, 2018, 2017, 2016). Emerging Manager Monthly awarded the firm Fixed Income Manager of the Year for the third time (2019, 2018 and 2010). Other past awards include FundMap’s 2018 US Fixed Income Manager, Institutional Investor’s Intermediate-Term Fixed Income Manager of the Year in 2016 and 2015, as well as their 2014 Fixed Income Investment Grade Manager of the Year.

During the recent COVID-19 crisis, Mr. Garcia and GH&A have donated over 30,000 masks along with hand sanitizer and disinfectant wipes to various organizations.

Mr. Garcia is proud to serve on two SEC advisory boards: SEC’s Fixed Income Market Structure Advisory Board and SEC’s Asset Management Advisory Committee where he leads a subcommittee focused on Diversity and Inclusion. He currently serves as a member of the Board of Trustees for Dallas Police & Fire Pension System and serves with Chairman Henry Kravis on the Board of Directors of SEO, a non-profit providing summer internships on Wall Street for minority undergraduates. Additionally, in 2018 he was co-chair for the Susan G. Komen Race for the Cure. The same year, he was also awarded “Male Entrepreneur of the Year 2018” by the Houston Hispanic Chamber of Commerce. In 2015, Mr. Garcia was awarded the SEO Alumni Leadership Award alongside other honorees, including the former mayor of New York City, Michael R. Bloomberg, and Co-Founder & Co-CEO of The Carlyle Group, David M. Rubenstein.

From 2012 - 2016, Mr. Garcia served as Chairman of the Metropolitan Transit Authority of Harris County where he implemented the “Garcia Rule” which requires at least one diverse investment manager be included in every asset class search. Also, during his tenure, METRO paid down debt and started five year budget forecasting, secured a \$900 million full funding grant agreement for light rail expansion, passed a referendum securing additional funding for METRO with 80% voter approval, increased light rail from 7 miles to 22 miles, and reimagined the entire bus system. This led to METRO receiving transparency awards and being awarded the 2015 APTA Award for outstanding Public Transportation System Achievement.

Previously, Mr. Garcia served on the Board of Directors of Sanchez Energy, Secretary of the Board of Directors of the Houston Downtown Management District, member of the Board of Directors of the Yale Club of Houston and a member of the Board of Trustees of the Houston Municipal Employees Pension System. In addition, he is a Class X graduate of Leadership Houston. Mr. Garcia is married with four children and enjoys martial arts and coaching youth sports.



Awards/rankings may not represent client experiences and are not indicative of future performance. Go to [www.garciahiltonassociates.com/awards/](http://www.garciahiltonassociates.com/awards/) for additional information on each award.





**Ruby Muñoz Dang**  
*Partner, Director of Marketing and Client Services*

Ms. Dang received a B.A. in Finance from the University of Houston-Downtown in 1994. Following graduation, she joined Garcia Hamilton & Associates as a Portfolio Administrator. Over the years, she has held a variety of investment positions including Equity Trader, Equity Research Analyst and Assistant Equity Portfolio Manager. In January of 2014, Ms. Dang was promoted to Director of Marketing and Client Services, overseeing a team of fourteen professionals. She was promoted to Partner in 2014.

Ms. Dang and her team are responsible for fulfilling client inquiries and providing portfolio information. Additionally, they work closely with the consultant community and co-coordinate the firm's participation in educational forums and conference presentations.

Ms. Dang also served as a Trustee for the Metropolitan Transit Authority of Harris County Non-Union Pension Plan & Trust. Furthermore, she has spoken on numerous panels and forums related to both market and pension issues. Because education has been so important in her life, she devotes considerable time mentoring high school and college students. She is active in her kids' school, volunteering for various activities.

GH&A has received numerous industry recognitions. Most recently in 2019, *Pensions & Investments* ranked the firm among their Best Places to Work in Money Management for the fourth year in a row (2019, 2018, 2017, 2016). The firm also received *Houston Business Journal's* Best Places to Work in 2018. *Emerging Manager Monthly* awarded the firm Fixed Income Manager of the Year for the third time (2019, 2018 and 2010). Other past awards include FundMap's 2018 US Fixed Income Manager, *Institutional Investor's* Intermediate-Term Fixed Income Manager of the Year in 2016 and 2015, as well as their 2014 Fixed Income Investment Grade Manager of the Year.



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# Performance Disclosure

## FIXED INCOME – AGGREGATE COMPOSITE (Disclosure Presentation as of December 31, 2019)

Garcia Hamilton & Associates, L.P.

Year End	Annual Composite Performance Results				Standard Deviation (3-yr) <sup>1</sup>		Composite Assets		Firm Assets	
	Gross Composite Total Return (% US\$)	Net Composite Total Return (% US\$)	Bloomberg Barclays US Aggregate Index Return (%)	Composite Dispersion (%)	Composite (%)	Bloomberg Barclays US Aggregate Index (%)	Number of Portfolios	Composite Assets Period End (US\$ mil)	Total Firm Assets Period End (US\$ mil)	% of Firm Assets
2002	10.4	10.2	10.3	NM	-	-	3	85	3,280	3
2003	4.1	3.9	4.1	NM	-	-	3	88	4,628	2
2004	4.9	4.8	4.3	NM	-	-	4	98	4,710	2
2005	3.8	3.6	2.4	NM	-	-	4	121	4,152	3
2006	4.2	4.0	4.3	NM	-	-	4	126	3,025	4
2007	8.6	8.4	7.0	0.1	-	-	6	184	2,215	8
2008	5.9	5.7	5.2	0.2	-	-	9	248	1,538	16
2009	12.1	11.9	5.9	1.7	-	-	16	419	1,939	22
2010	8.2	8.0	6.5	0.4	-	-	27	653	2,382	27
2011	5.3	5.1	7.8	0.3	3.5	2.8	42	983	2,704	36
2012	10.5	10.3	4.2	0.2	3.1	2.4	47	1,084	3,227	34
2013	0.1	-0.1	-2.0	0.2	3.4	2.7	59	1,372	3,387	40
2014	8.0	7.8	6.0	0.2	2.8	2.6	111	2,485	4,962	50
2015	0.8	0.7	0.6	0.1	3.2	2.9	146	3,768	6,340	59
2016	3.2	3.0	2.7	0.1	3.3	3.0	168	5,080	8,016	63
2017	3.8	3.6	3.5	0.1	3.1	2.8	185	7,135	10,071	71
2018	1.0	0.8	0.0	0.2	2.5	2.8	205	8,287	12,590	66
2019	7.3	7.1	8.7	0.5	2.3	2.9	250	10,113	14,997	67

<sup>1</sup>Historical information not required prior to 2011. NM = Not statistically meaningful due to an insufficient number of portfolios in the composite for the entire year. Creation Date: 10/1/1999.

Source: Bloomberg Barclays

The GH&A Fixed Income – Aggregate Composite is comprised of fully discretionary, fee paying institutional portfolios, including those portfolios no longer with the firm. The Fixed Income – Aggregate investment philosophy utilizes high-quality U.S. investment grade fixed income securities. To help control risk, the portfolios purchase spread product (non-Treasuries) with less than 10-year maturities, 15-year and 20-year Agency Guaranteed Mortgage-Backed securities and Corporate Bonds rated a minimum of single “A-”. The portfolios do not contain derivatives and do not employ leverage. The duration exposure is generally managed within a +/- 10% band around the Bloomberg Barclays US Aggregate Index and a maximum of +/- 25% in extreme market environments.

The composite benchmark is the Bloomberg Barclays US Aggregate Index. The benchmark is used for comparative purposes only and generally reflects the risk or investment style of the product. The account minimum for the composite is \$2.0 million.

Garcia Hamilton & Associates, L.P., (GH&A) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. GH&A has been independently verified for the periods January 1, 1993, through December 31, 2015, by Ashland Partners & Company LLP and from January 1, 2016, through December 31, 2018, by ACA Performance Services, LLC. The verification reports are available upon request. 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. Verification does not ensure the accuracy of any specific composite presentation.

Returns presented include the reinvestment of all income. The net of fees performance results are calculated based on actual fees. The standard fee schedule is: 0.25% of the first \$25 million, 0.20% of the next \$25 million, 0.18% of the next \$50 million, 0.15% of the next \$100 million, and 0.12% of the balance. GH&A is an investment management firm registered under the Investment Advisers Act of 1940. GH&A was known as Davis Hamilton Jackson & Associates prior to June 30, 2010. Past performance is no guarantee of future results. A complete list and description of firm composites is available upon request.

Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request. Composite dispersion is calculated using an asset value-weighted standard deviation of annual gross returns of those portfolios included in the composite the entire year. Standard deviation is presented as a 3-year annualized standard deviation measure of risk using monthly gross returns as of each annual period end. While the composite is older, this date was selected when Mr. Garcia arrived and took over the portfolios.



**INCOME RESEARCH + MANAGEMENT**  
**LOS ANGELES CITY EMPLOYEES'**  
**RETIREMENT SYSTEM**

December 9, 2020

Presented by: Jim Gubitosi, CFA  
Kara Maloy, CFA  
Angela Meringoff, CFA  
Bill O'Malley, CFA



**INCOME RESEARCH + MANAGEMENT**

100 Federal Street, 30<sup>th</sup> Floor, Boston, MA 02110 (617) 330-9333 [www.incomeresearch.com](http://www.incomeresearch.com)

## WHY IR+M

- + Stable organization
- + Consistent investment process and performance
- + Proactive client service with transparent communication
- + Deep, accessible team of subject matter experts
- + Competitive fees



## IR+M FIXED INCOME CAPABILITIES

## IR+M OVERVIEW



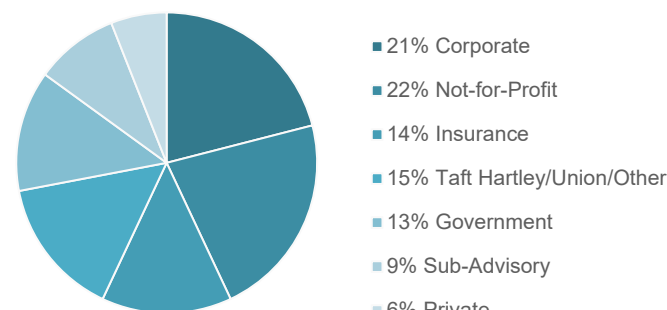
INCOME RESEARCH + MANAGEMENT

## IR+M OVERVIEW KEY FACTS

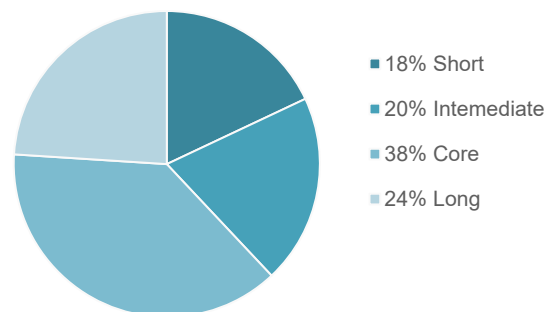
### FIRM FACTS

- 30+ years since firm's inception
- \$84.0 billion in assets under management
- Exclusively US dollar-denominated fixed income
- Consistent, team-oriented, bottom-up investment approach
  - 16-year average portfolio manager tenure
- Material ESG factors fully integrated within our investment process
- Privately owned with 57 employee shareholders

### ASSETS BY CLIENT TYPE



### ASSETS BY STRATEGY



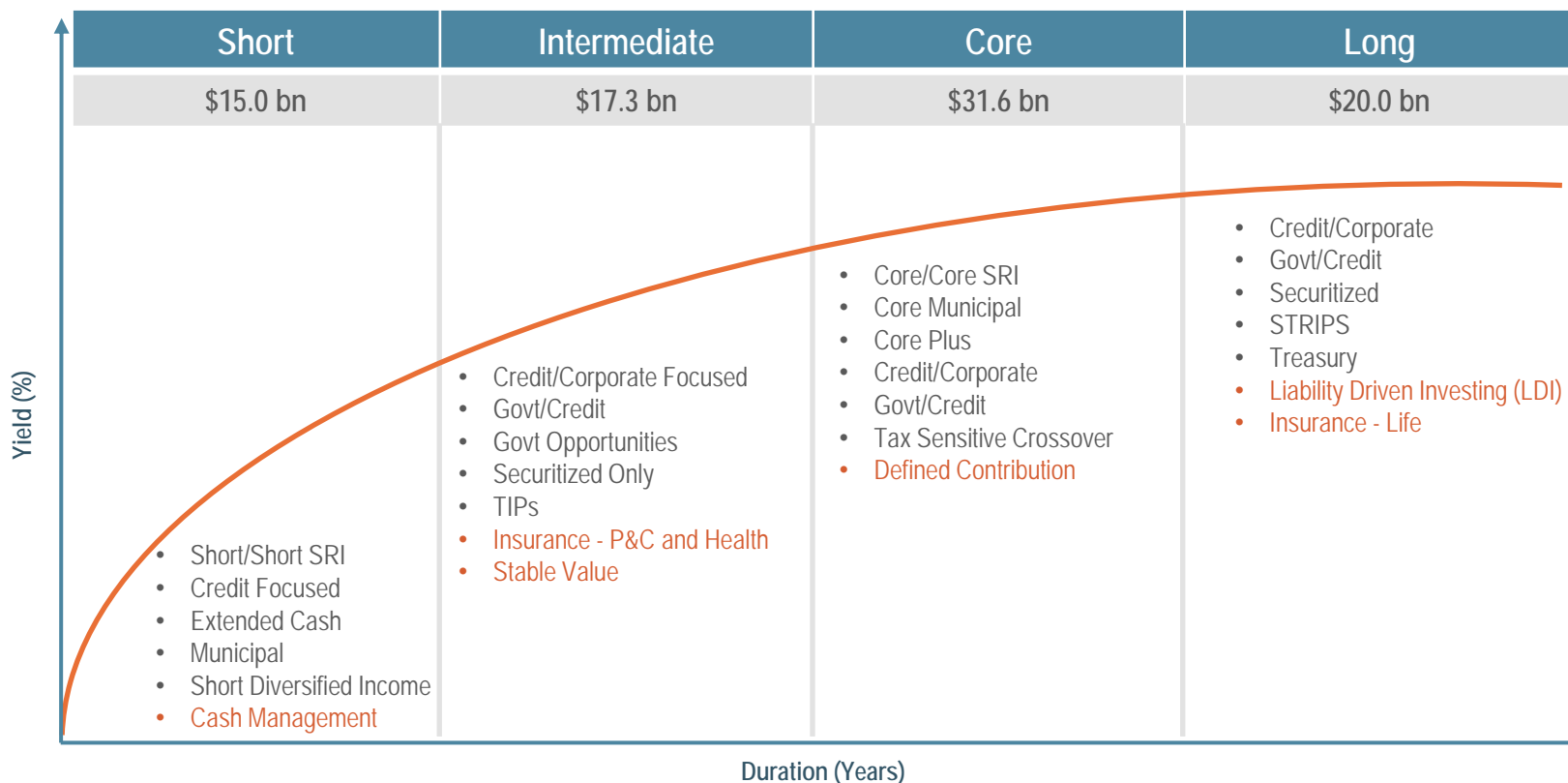
### KEY DIFFERENTIATORS

+ INDEPENDENT FIRM    + VALUE ORIENTED APPROACH    + COLLABORATIVE CULTURE    + CLIENT FOCUS



# IR+M STRATEGY OVERVIEW SOLUTIONS SPECTRUM

- IR+M manages custom solutions across the yield curve



## AUM by Strategy

	Short	Intermediate	Core	Long
Broad	\$8.2 bn	\$11.1 bn	\$22.3 bn	\$8.1 bn
Government/TIPS	\$2.1 bn	\$2.2 bn	\$2.8 bn	\$ 476.4 mm
Corporate-focus	\$3.7 bn	\$3.9 bn	\$2.9 bn	\$11.5 bn
Municipal/Crossover	\$1.1 bn	\$0.0 bn	\$3.5 bn	\$18.8 mm



INCOME RESEARCH + MANAGEMENT

As of 10/31/20  
 Yield/duration chart is for illustrative purposes only. Client solutions are in orange font.  
 This is not a recommendation to purchase or sell any specific security. Actual results may differ. Totals may not sum to 100 due to rounding.

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## IR+M OVERVIEW DIVERSITY OF CLIENTS

### GOVERNMENT: 34

City of Anniston, AL Police & Fire Retirement System  
Bristol County, MA Retirement System  
Cambridge, MA Retirement System  
DeKalb County Employees' Retirement Plan  
City of Detroit, MI Police & Fire Retirement System  
Government of Guam Retirement Fund  
City of Knoxville, TN Pension Board  
MBTA Retirement Fund  
Metropolitan St. Louis Sewer District  
New Hampshire Retirement System  
City of Orlando, FL  
Plymouth County, MA Retirement Association  
City of Springfield, MO Police & Fire Retirement System  
City of Tallahassee  
Commonwealth of Virginia  
City of Warwick, RI  
Washington Suburban Sanitary Commission

### CORPORATE: 47

AMETEK, Inc.  
Belk, Inc.  
Cisco Systems  
Jones Day  
Kaman Corporation  
Merck & Co., Inc.  
Textron, Inc.

### SUB-ADVISORY: 10

Commonfund  
Harbor Capital Advisors, Inc.  
SEI Investments Management Corporation

### HEALTHCARE: 51

Adventist Health System  
Allina Health System  
Boston Medical Center Corporation  
CT Children's Medical Center  
Henry Ford Health System  
Hoag Memorial Hospital Presbyterian  
MaineHealth  
Massachusetts Medical Society  
Memorial Sloan-Kettering Cancer Center  
MetroWest Community Health Care Foundation  
NewYork-Presbyterian Hospital  
ProMedica Health System  
Rochester General Hospital  
Sturdy Memorial Hospital  
Trinitas Regional Medical Center  
Tufts Medical Center  
University of Colorado Medicine

### EDUCATION: 33

Arizona State University  
Claremont McKenna College  
Colby College  
Ithaca College  
Regents of the University of Colorado  
The Rockefeller University  
The University of Iowa  
St. Lawrence University  
Syracuse University  
Temple University  
Trinity University  
University of Maine System  
University of Massachusetts  
University of San Diego

### INSURANCE: 48

American Bankers Mutual Insurance  
Anthem Insurance Companies, Inc  
Attorneys' Liability Assurance Society  
AvMed Health Plans  
BETA Healthcare Group  
Blue Cross Blue Shield of Kansas  
Blue Cross Blue Shield of Massachusetts  
Blue Cross Blue Shield of Tennessee  
CareMore Health Plan  
CCC Investment Trust  
Cidel Bank & Trust Inc.  
Cidel Fund Management Inc.  
Commonwealth Professional Assurance Co.  
Excellus Health Plan, Inc.  
Fallon Community Health Plan  
MedAmerica Insurance Company  
MedAmerica Insurance Company of Florida  
MedAmerica Insurance Company of New York  
MIG Assurance (Cayman) Ltd.  
Mountain States Healthcare  
MVP Health Plan, Inc.  
Neighborhood Health Plan of Rhode Island  
New Life Insurance Company  
Physicians Health Plan of Northern Indiana  
Tufts Associated Health Plans  
Volunteer State Health Plan, Inc.

### UNION AND TAFT HARTLEY: 16

Laborers' International Union of North America  
New England Health Care Employees' Pension Fund  
Pipefitters Benefit Fund  
Teamsters Joint Council Pension Fund  
Sheet Metal Workers Pension Fund  
Social Service Employees Union Annuity Fund  
Union Individual Account Retirement Fund  
United Food and Commercial Workers

### ENDOWMENT, FOUNDATION, & OTHER: 70

American Bible Society  
Archdiocese of Cincinnati  
Bill and Melinda Gates Foundation  
Catholic Relief Services  
Central New York Community Foundation  
Church of the Brethren Benefit Trust  
CRU  
Diocese of Rockville Centre  
Fund for New Jersey  
Hartford Foundation for Public Giving  
IEEE, Inc.  
Knights of Columbus  
Northern California Conference of Seventh-Day Adventists  
Queen Lili'uokalani Trust  
Regenstrief Foundation, Inc.  
Sandler Foundation  
Sisters of the Precious Blood  
The Boston Foundation  
The Community Foundation for Greater New Haven, Inc.  
The First Church of Christ, Scientist  
The Oregon Community Foundation  
The Rhode Island Community Foundation  
The Salvation Army, Illinois  
The Samuel Roberts Noble Foundation  
The Trustees of Reservations  
Trustees of Donations  
Winter Park Health Foundation Inc.

This is a partial list of IR+M's clients as of 10/31/20. The list excludes confidential clients, private clients, and investors in private placements. It is not known whether the clients listed here approve or disapprove of IR+M or of the investment advisory services provided.

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# IR+M OVERVIEW WHO WE ARE

## SENIOR MANAGEMENT

**Bill O'Malley, CFA\***  
Principal  
CEO, Co-CIO  
32 years experience

**Matt Conroy, CFA\***  
Principal  
Chief Financial Officer  
28 years experience

**Sarah Kilpatrick\***  
Principal  
COO, Senior Portfolio Manager  
18 years experience

**Brooke Anderson, CFA**  
Principal  
Director of Investment Product Management  
26 years experience

**Jack Sommers, CFA\***  
Principal  
Executive Chairperson  
35 years experience

**Max DeSantis, CFA\***  
Principal  
Director of Enterprise Solutions  
21 years experience

**Molly Manning\***  
Principal  
Director of Client Service  
22 years experience

**Rick Kizik, CFA**  
Principal  
Chief Compliance Officer  
28 years experience

**John Sommers\***  
Principal  
Senior Portfolio Manager  
55 years experience

**Jim Gubitosi, CFA\***  
Principal  
Co-CIO  
16 years experience

**Sue Synodis\***  
Principal  
Chief Human Capital Officer  
40 years experience

## WHAT WE STAND FOR

+ *To take care of our clients we need to take care of ourselves and our community, too.*



### Commitment to ESG and Sustainability

- Promote environmentally conscious culture
- Fully integrated ESG research process

### Diversity, Equity and Inclusion

- Workforce Integration, Retention and Engagement Committee (WIRE)
- CEO pledge for D&I

### Giving Back to the Community

- Annual IR+M Week of Giving and paid Personal Volunteering Days
- Generous Charitable Donation Matching Program

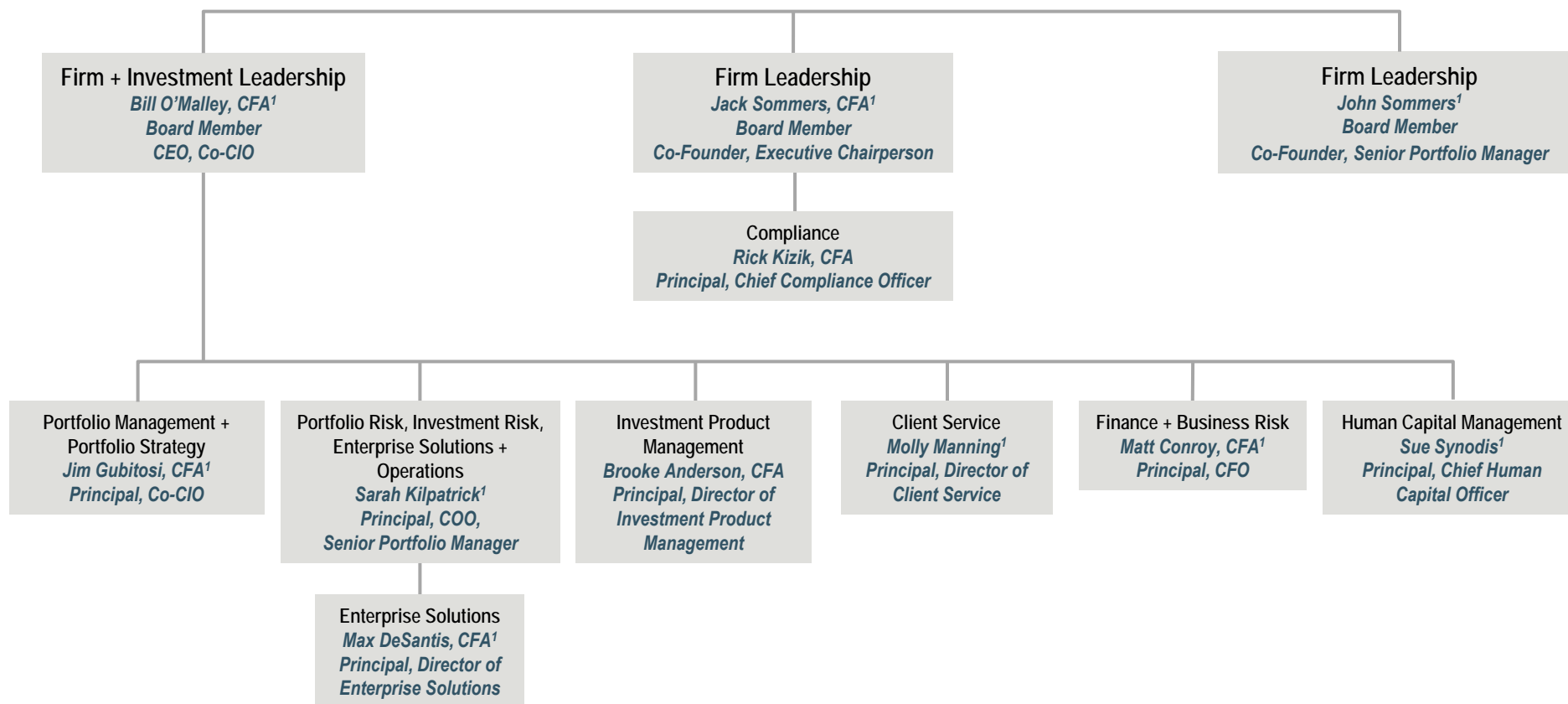


INCOME RESEARCH + MANAGEMENT

As of 10/31/20  
\*Members of the Management Committee

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# IR+M OVERVIEW ORGANIZATIONAL CHART



<sup>1</sup>Management Committee.  
 As of 9/30/20.

## IR+M DIVERSITY, EQUITY, AND INCLUSION (DEI) OVERVIEW

### Diversity Policy Statement

- We commit to taking action – as a firm and individually – to create conditions that support equal rights for people of color and all under-represented communities.
- We emphasize hiring, training and mentoring our employees to eliminate discrimination based on age, gender, race, national or ethnic origin, physical abilities, religious beliefs, sexual orientation, veteran status and socio-economic background within our firm and our communities.
- We support cognitive and experiential diversity by acknowledging that differences in background, communication style, and life experience contribute to making us uniquely who we are and stronger as an organization.
- We commit to fostering a diverse workforce through a variety of ongoing recruiting, retention, and inclusion initiatives.
- We condemn all forms of racism that continue to plague Black and Brown communities. We will continue the work of being anti-racist as individuals and as an organization.

### Our Diversity, Equity and Inclusion PACT:



#### PRIORITIZE

Focus on DEI; this begins with our CEO and Senior Management and must be embraced by our entire firm for our efforts to succeed



#### ACT

Take visible internal inclusion steps; reimagine strategic hiring as an opportunity, and support external organizations that align with our values



#### COMMIT

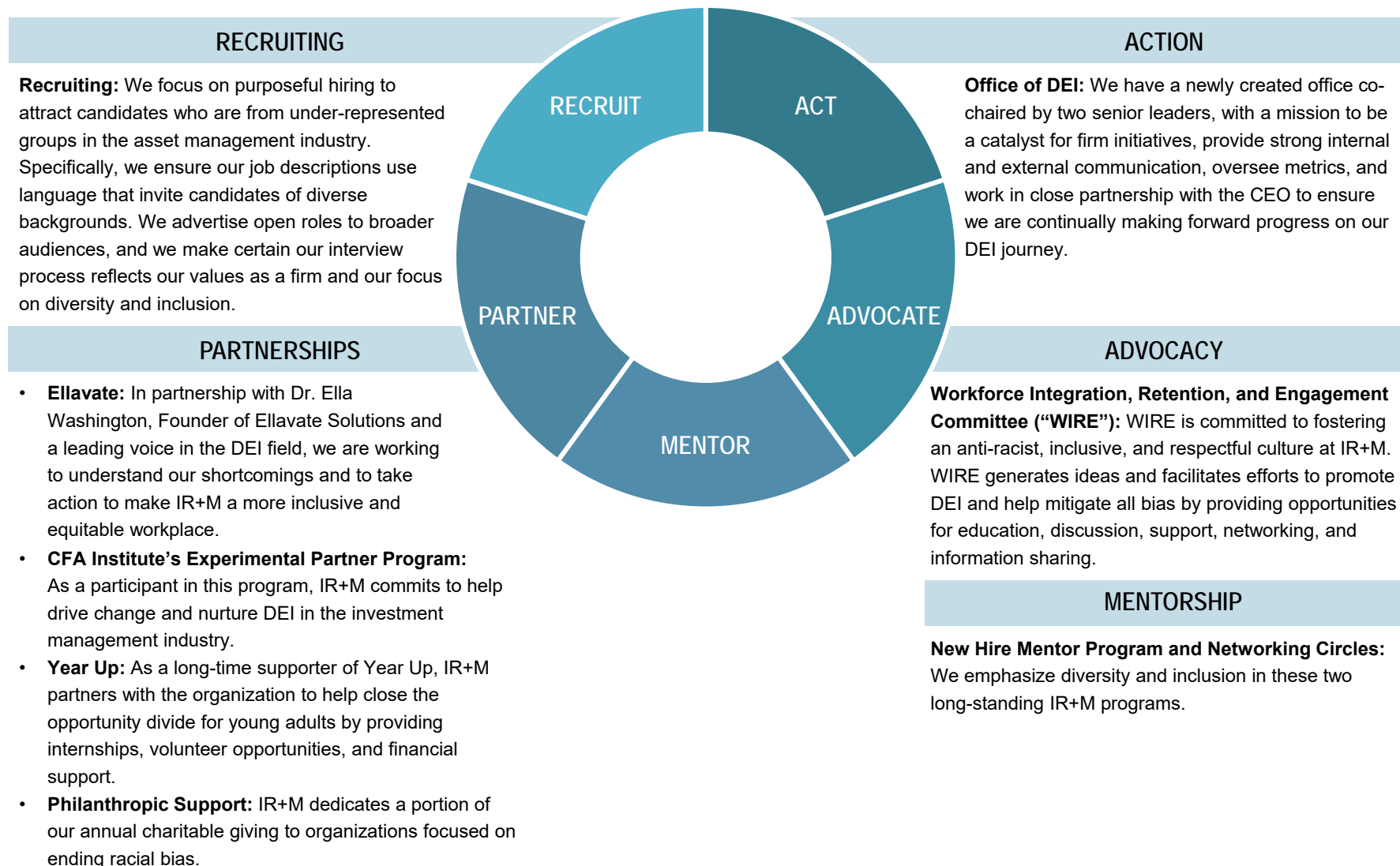
Clearly prioritize our DEI support through IR+M's Firm Vision and Goals, and reinforce through consistent messaging and feedback



#### TRACK

Measure and share indicators of diversity, and create mechanisms for qualitative feedback to foster a more inclusive culture

# IR+M DIVERSITY, EQUITY, AND INCLUSION (DEI) INITIATIVES AND PARTNERSHIPS



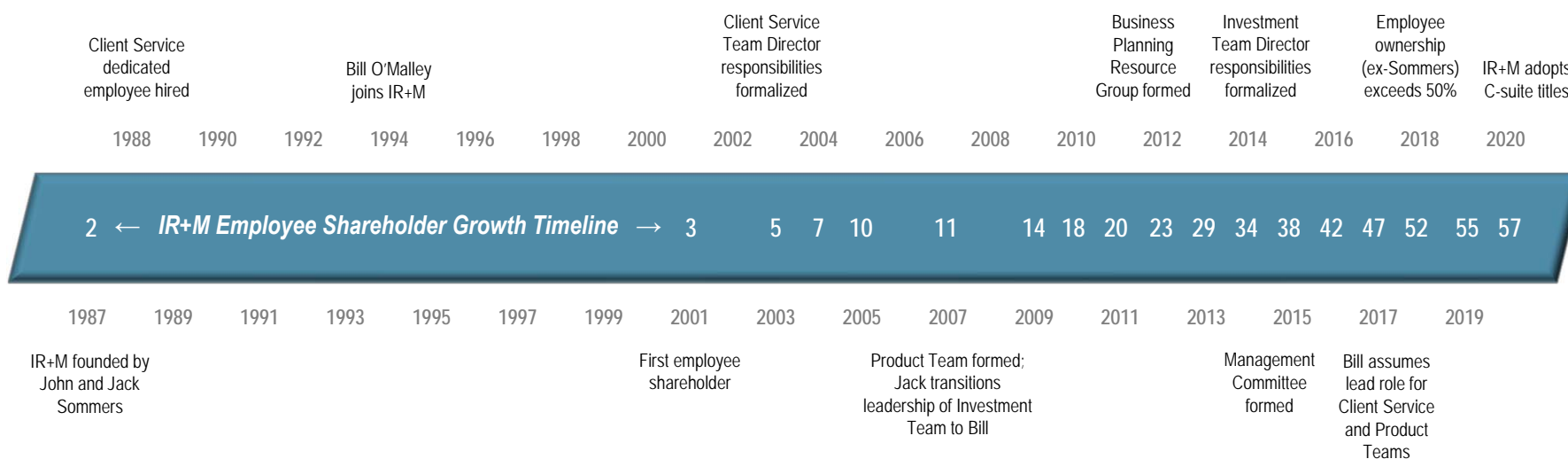
## IR+M OVERVIEW INVESTMENT PROFESSIONALS

TARGET TEAM		YRS EXP / YRS at IR+M	DIRECTORS + INVESTMENT PRODUCT SPECIALISTS		YRS EXP / YRS at IR+M
Bill O'Malley, CFA	Principal, CEO, Co-CIO	32 / 25	Rachel Campbell	Director of Securitized Research	14 / 11
Ed Ingalls, CFA	Principal, Senior PM / Product Specialist	41 / 20	Nate Hollingsworth, CFA	Director of Portfolio Risk	14 / 11
Jim Gubitosi, CFA	Principal, Co-CIO	16 / 13	Kara Maloy, CFA	Director of Credit Research	14 / 10
Sarah Kilpatrick	Principal, COO, Senior Portfolio Manager	18 / 16	Brooke Anderson, CFA	Principal, Director of Investment Product Management	26 / 10
Bill O'Neill, CFA	Principal, Senior Portfolio Manager	20 / 15	Amy DiMarzio	SVP, Investment Product Specialist	20 / 3
Jake Remley, CFA	Principal, Senior Portfolio Manager	19 / 14	Allison Walsh, CFA	SVP, Head of ESG & Corporate Sustainability	17 / 4
Allysen Mattison, CFA	Director of Investment Risk	15 / 11	Theresa Roy, FSA, EA, CFA	VP, Investment Product Specialist	11 / <1
PORTFOLIO MANAGERS		YRS EXP / YRS at IR+M	RESEARCH / INVESTMENT PRODUCT		YRS EXP / YRS at IR+M
John Sommers	Principal, Senior Portfolio Manager	55 / 33	Caroline Chen	SVP, Senior Research Analyst (Securitized)	18 / 4
Paul Clifford, CFA	Principal, Senior PM / Investment Product Specialist	34 / 17	Kristoff Nelson, CFA	SVP, Senior Research Analyst (Credit)	12 / 9
Mike Sheldon, CFA	Principal, Senior Portfolio Manager	29 / 12	Isha Chanana, CFA	Senior Research Analyst (Credit)	13 / 5
Scott Pike, CFA	Senior Portfolio Manager	23 / 13	Luke Ferriter, CFA	Senior Research Analyst (Credit)	14 / 6
Matt Walker, CFA	Senior Portfolio Manager	17 / 13	Rob Nuccio, CFA	Senior Research Analyst (Credit)	12 / 8
Wesly Pate, CFA	Portfolio Manager	12 / 9	Ralph Saturné	Senior Research Analyst (Securitized)	13 / 8
Justin Quattrini, CFA	Portfolio Manager	17 / 14	Ginny Schiappa, CFA	Senior Research Analyst (Credit)	9 / 5
PORTFOLIO STRATEGY / RISK + INVESTMENT RISK		YRS EXP / YRS at IR+M	Michael Bronson, CFA	Research Analyst (Credit)	7 / 4
John Costello, CFA	Senior Portfolio Strategy Analyst	8 / 7	Tony Graves, CFA	Research Analyst (Credit)	7 / <1
Tucker Rothmann, CFA	Portfolio Strategy Analyst	7 / 3	Layla Zhu, CFA	Research Analyst (Securitized)	7 / 4
Annemarie Ellicott	Senior Portfolio Risk Analyst	9 / 6	Harrison Ameen	Research Associate	5 / 1
Mark Riordan, CFA	Senior Portfolio Risk Analyst	11 / 8	Emily O'Toole	Junior Research Associate	3 / 1
Joe Alfano, CFA	Portfolio Risk Analyst	11 / 7	Valérie Salmon	Junior Research Associate	1 / 1
Samantha Quinn, CFA	Portfolio Risk Analyst	8 / 5	Dan Comiskey, CFA	Senior Investment Product Analyst	7 / 5
Kaysonne Anderson	Portfolio Risk Associate	10 / 7	Neal Gombeski, CFA	Senior Investment Product Analyst	15 / 5
John Lu	Junior Portfolio Risk Associate	4 / <1	Jennifer Kaing	Investment Product Analyst	10 / <1
Sarah Spencer	Business Management Analyst	13 / 4	TRADERS		YRS EXP / YRS at IR+M
Carrie Mermelstein, CFA	Senior Investment Risk Analyst	19 / 1	Lucas Murray	SVP, Senior Trader	16 / 12
Devan Acker	Investment Risk Analyst	9 / 9	Mark Paulson	Senior Trader	14 / 11
			Preston Raymond, CFA	Senior Trader	15 / 9
			Andy Tenczar	Senior Trader	22 / 8
			Jeremy Holtz, CFA	Trader	15 / 10
			Nicole Pasquale	Junior Trader	3 / <1



## IR+M OVERVIEW LEADERSHIP + OWNERSHIP EVOLUTION

- Firm founded in 1987; privately held
- Leadership Team built out over time
  - 17 year average tenure for Management Committee members
    - Succession plan in place
  - 16 year average tenure for Portfolio Management Team
- Shareholder base has grown exponentially, currently 57 employee shareholders
  - Firm offers ownership opportunity to designated employees annually



## IR+M FIXED INCOME CAPABILITIES

## INVESTMENT PROCESS

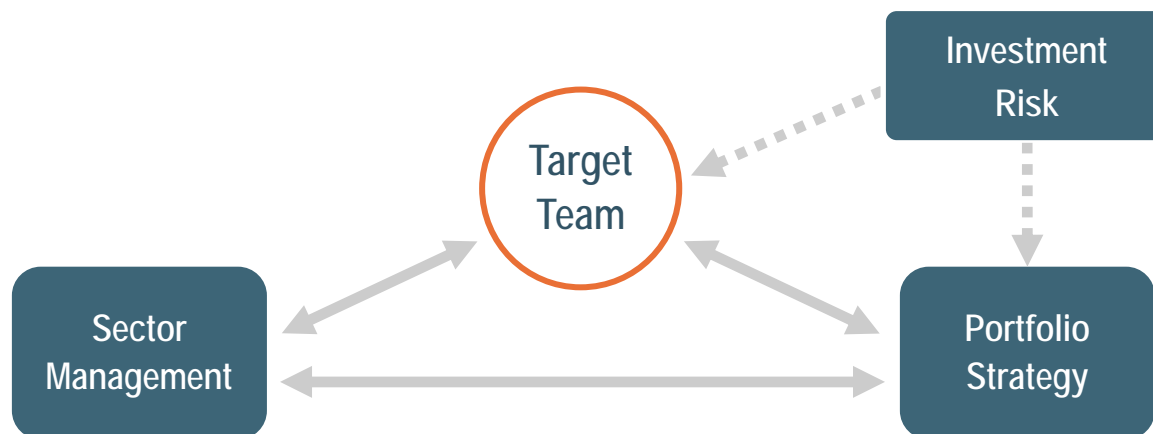


# IR+M INVESTMENT PHILOSOPHY AND PROCESS

## PHILOSOPHY

- + Duration neutral
- + Relative-value oriented
- + Benchmark aware, not beholden
- + Selective
- + Focus on ESG Factors
- + Take what the market gives you
- + Bottom-up security selection

## INVESTMENT PROCESS OVERVIEW



### Research + Analysis

- Bottom-up security selection
- Focus on credit, structure and price
- Consider ESG factors as part of our fundamental analysis

### Risk Positioning + Monitoring

- Define investment philosophy
- Assess relative value across sectors
- Conduct material market risk evaluation

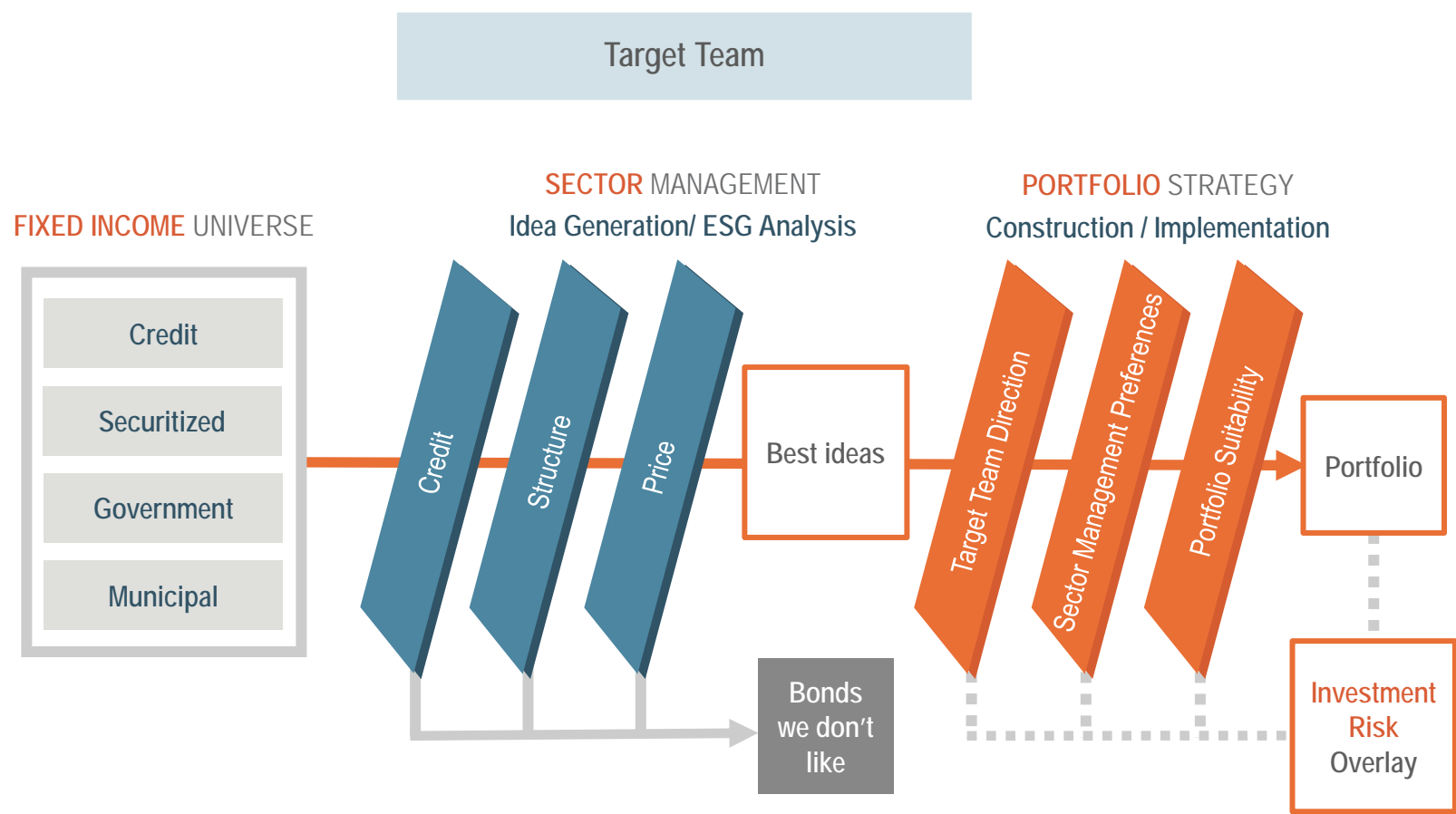
### Construction + Optimization

- Invest to risk parameters established by Target Team
- Express preferred themes made by Sector Management
- Fulfill client needs and objectives





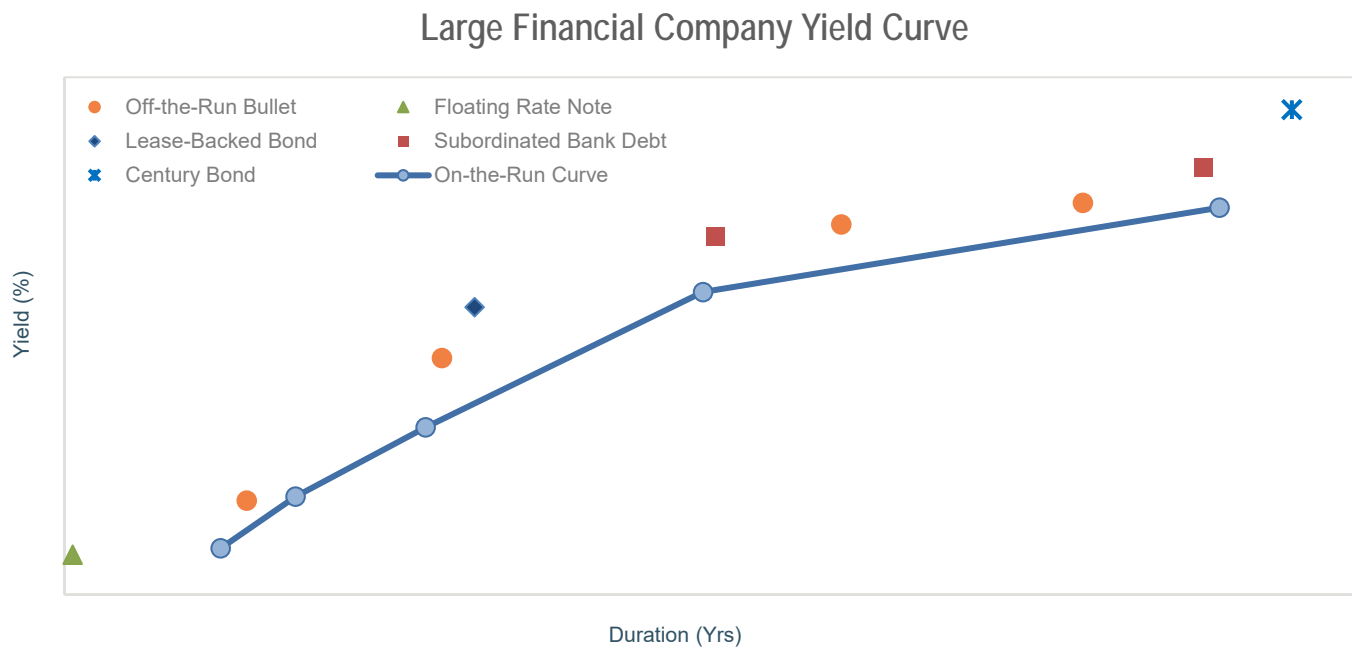
# IR+M INVESTMENT PROCESS BOTTOM-UP APPROACH



# IR+M INVESTMENT PROCESS UNIQUE OPPORTUNITIES

## VALUE-ORIENTED APPROACH

- Market complexities create overlooked bond structures/issues with attractive return profiles and favorable characteristics
- Unique structures and off-the-run points on the yield curve have potential for yield, OAS, and convexity advantages



# IR+M INVESTMENT PROCESS SECURITIZED OPPORTUNITIES

## VALUE-ORIENTED APPROACH

### Agency Fixed-Rate Mortgage-Backed Securities (MBS)

- Specified pass-through pools, collateralized mortgage obligations (CMOs)

### Agency Multi-Family Mortgage-Backed Securities (MBS)

- Loan level and structural features help provide cash flow stability

### Agency Hybrid Adjustable-Rate Mortgage Securities (ARMS)

- Fixed or floating-rate securities

### Non-Agency Fixed-Rate Mortgage-Backed Securities (MBS)

- Senior, primarily front cash flow structure to limit extension risk

### Commercial Mortgage-Backed Securities (CMBS)

- Senior positioning with high levels of credit enhancement
- Favor seasoned, well-diversified pools

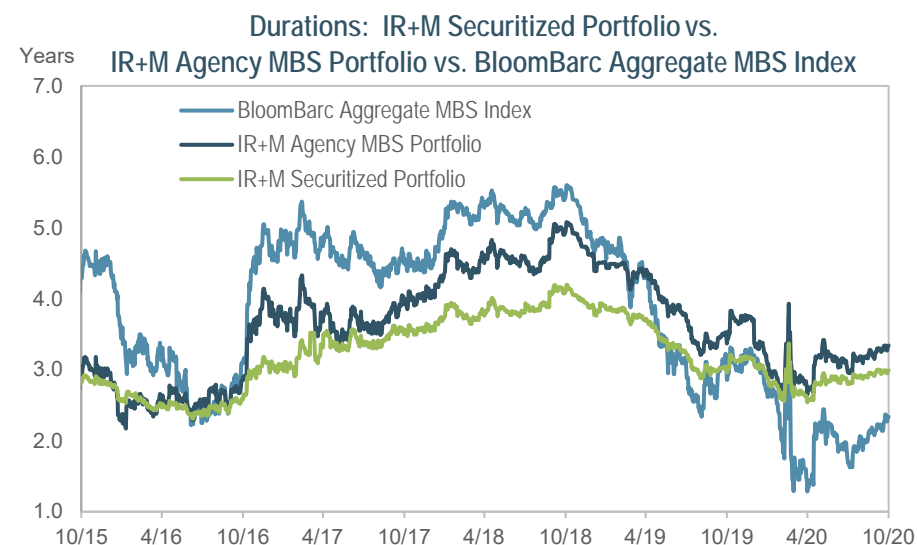
### Asset-Backed Securities (ABS)

- Emphasize structures with strong credit enhancement and solid collateral performance

### Small Business Administration (SBA)

- Full faith and credit of the US Treasury
- Prepayment protection

10/31/20 Characteristics	IR+M Securitized Portfolio	Bloomberg Barclays Securitized Index
OAS (bps)	85	56
Effective Duration (yrs)	2.99	2.55
Convexity	(0.61)	(1.58)
12/31/19		
OAS (bp)	56	42
Effective Duration (yrs)	3.15	3.34
Convexity	(0.37)	(1.71)



The IR+M Securitized Portfolio and IR+M Agency MBS Portfolio are both sample portfolios. IR+M Sample Securitized Portfolio includes Small Business Administration Bonds (SBAs). Source: Bloomberg Barclays

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## IR+M INVESTMENT PROCESS PORTFOLIO CONSTRUCTION + RISK CONTROL

- We are benchmark aware, but not benchmark constrained

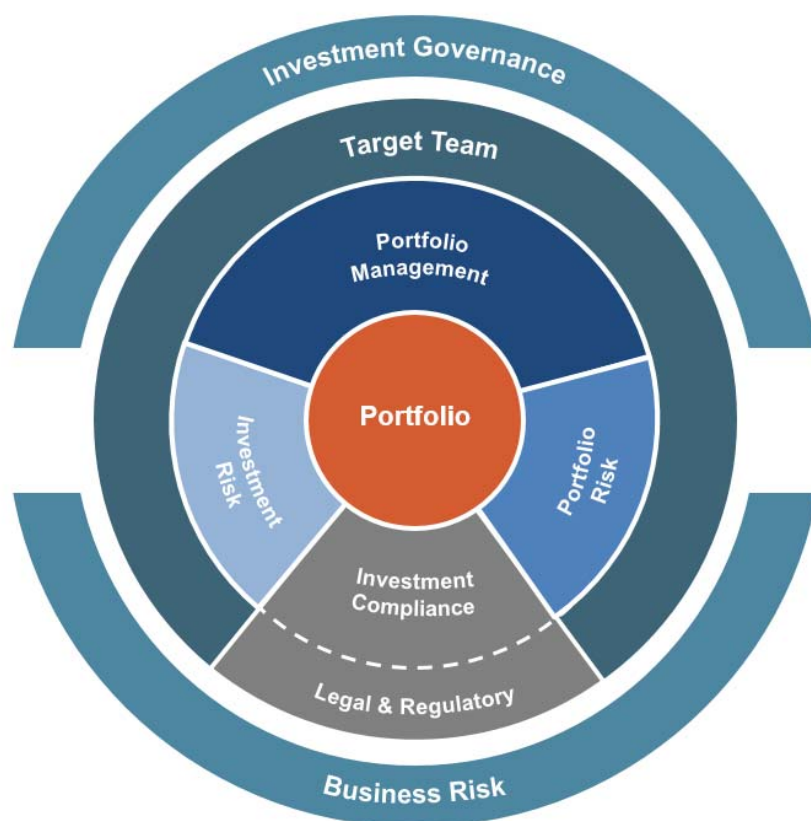
Factors	IR+M Broad Strategy Approach
<b>Duration / Yield Curve</b>	+ Duration and key rate neutral to benchmark
<b>Yield</b>	+ Spread product overweight generally means portfolio's effective spread (OAS) is greater than the Index's effective spread (OAS)
<b>Sector Allocation</b>	+ Security selection and relative value drive exposures + Diversified by sector, but we don't need to own everything
<b>Quality</b>	+ Return of principal is paramount
<b>ESG</b>	+ Compensation vs. risk mitigation; focus on business sustainability
<b>Liquidity</b>	+ Provide liquidity when well-compensated
<b>Tracking Error</b>	+ Tracking error reflects available opportunities
<b>US Cash Bonds</b>	+ No derivatives / no currency
<b>Leverage</b>	+ None



## IR+M OVERVIEW RISK GOVERNANCE

- Managing risk is a cross-functional effort, with several teams and systems engaged in the process

### FUNCTIONAL OVERSIGHT



### TECHNICAL OVERSIGHT

#### Third Party Solutions

- + Order Management System (Fidessa)
  - + Guideline Compliance Monitoring (Sentinel)
  - + Trade Allocations and Trade Workflow (Minerva)
  - + Portfolio Partition Workbooks (Tesseract)
- + Portfolio Risk & Analytics (Bloomberg PORT+)

#### Proprietary Tools

- + Portfolio Exposures & Historical Data (PRISM – Portfolio Risk Investment Strategy Management)
- + Sector Targets (TMA – Target Management Application)
- + Attribution (PAA – Performance Attribution Application)

## IR+M FIXED INCOME CAPABILITIES

## ESG FACTOR INTEGRATION



## IR+M RESPONSIBLE INVESTMENT INTRODUCTION

SRI

ESG

Impact/  
Thematic

### Socially Responsible Investing

- Incorporates negative screening criteria to intentionally avoid selected industries
- Adapts screens to clients' needs and beliefs, such as alcohol, gambling, and predatory lending
- IR+M manages \$11.9 billion in 100+ custom SRI mandates and has managed SRI accounts for over 15 years

### Environmental, Social & Governance

- Integrates environmental, social, and governance (ESG) factors through a holistic approach into traditional credit analysis
- Examines ESG issues that may significantly impact long-term value and creditworthiness
- May include best-in-class investing
- IR+M manages all of its assets incorporating an ESG lens

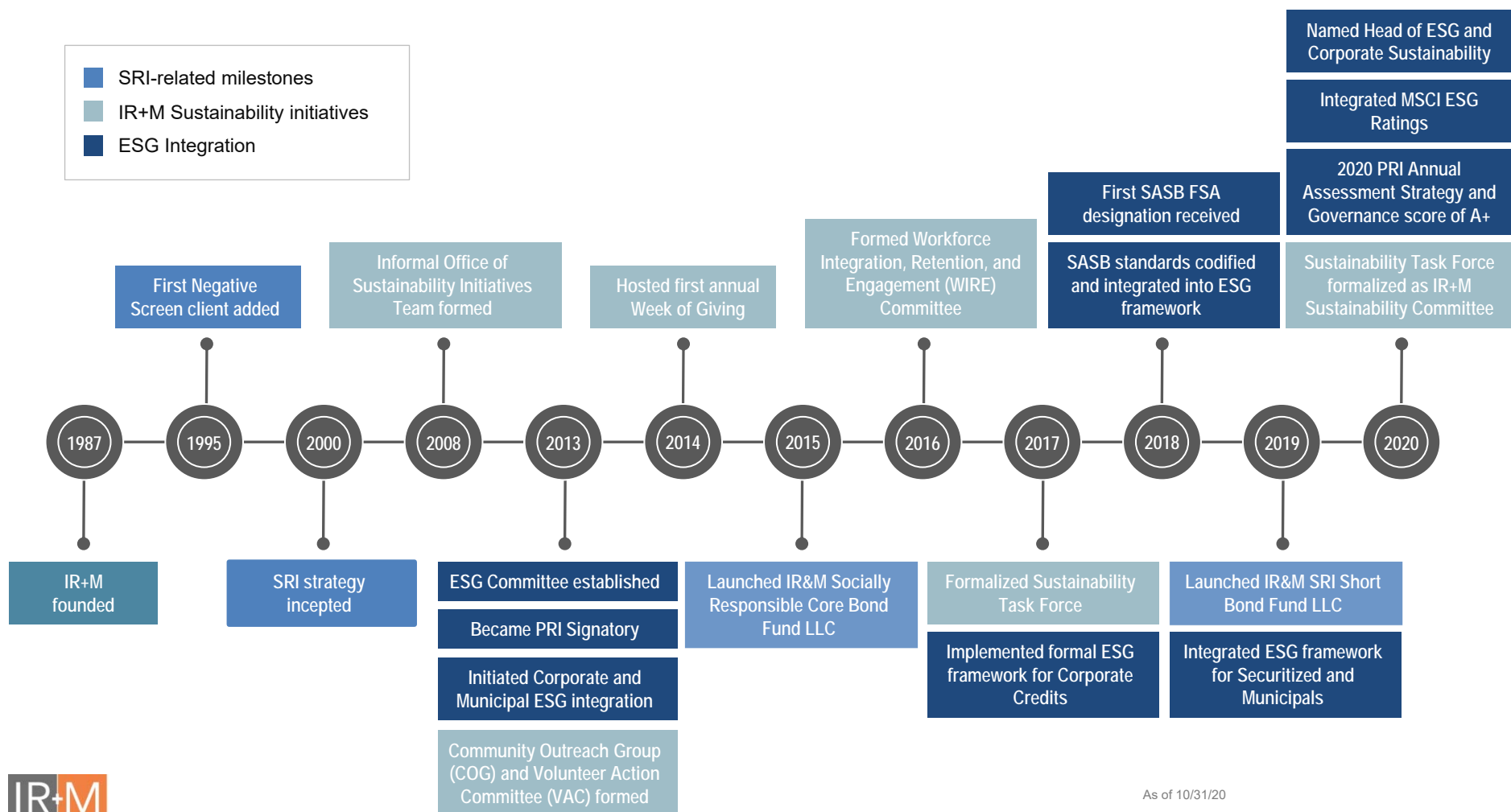
### Impact / Thematic Investing

- Seeks out investments in organizations that effect constructive environmental or social change while benefiting financial return
- Actively pursues specific positive and measurable impact through investments and engagement
- Utilizes values-based investing intended to drive change
- May include investing in areas such as green bonds or participating in divestment campaigns



## IR+M COMMITMENT TO ESG AND SUSTAINABILITY

- IR+M has a history of commitment to socially responsible investing and the incorporation of environmental, social and governance factors in our investment process
- We have a demonstrated commitment to sustainability and Diversity, Equity, and Inclusion (DEI) at the firm level

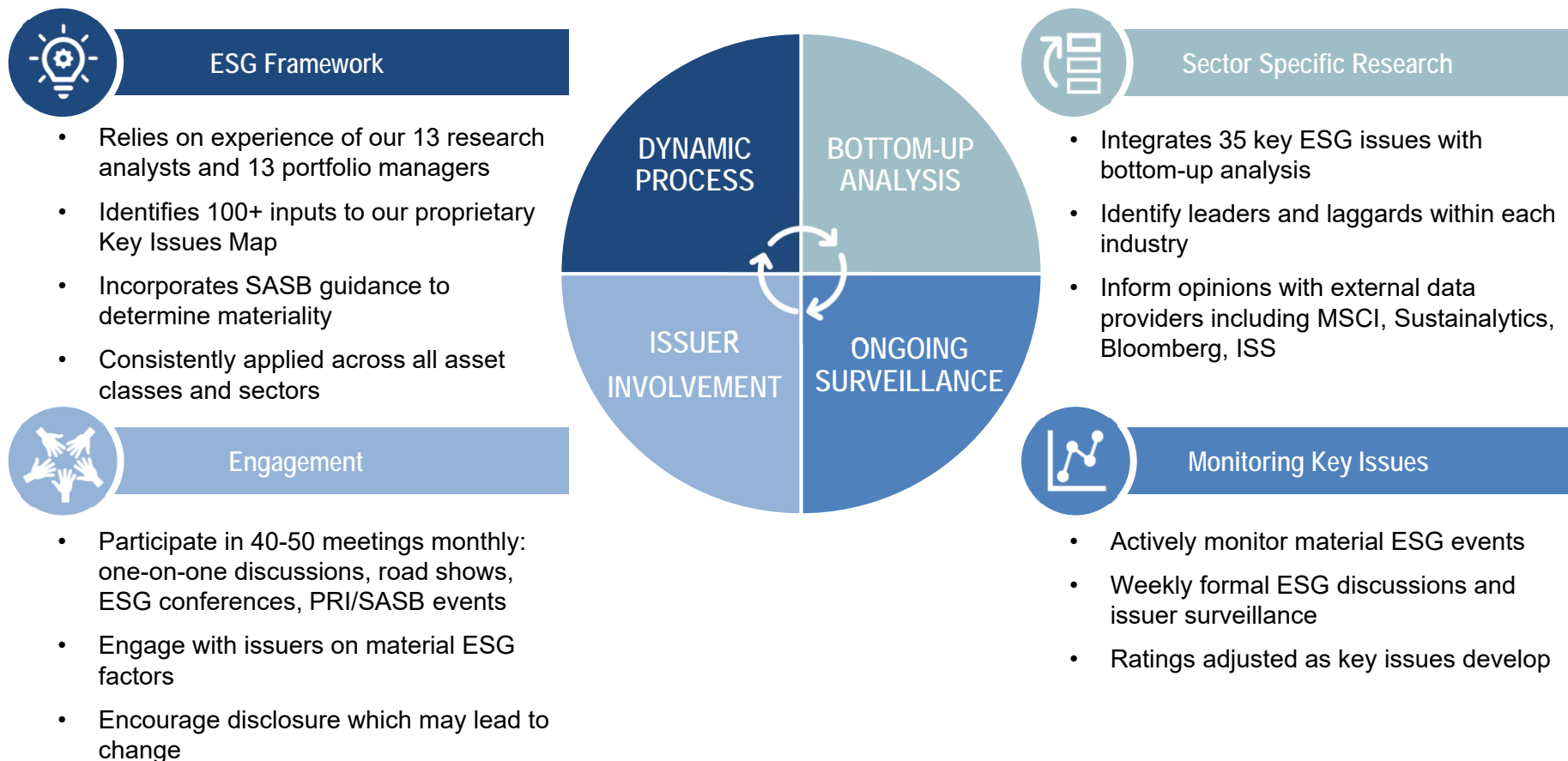


As of 10/31/20



## IR+M ESG PROCESS

- IR+M research analysts and portfolio managers employ an integrated approach to incorporating ESG factors into our fundamental bottom-up credit research process



# IR+M ESG KEY ISSUES

IR+M ESG Key Issues Map										
Pillar	Environmental				Social				Governance	
Theme	Climate Change	Natural Resource Use	Waste Management	Innovation	Human Capital	Customer and Product Management	Societal Impacts	Governance	Behavior	
Key Issue	GHG Emissions Energy and Fuel Consumption, Efficiency, and Management Climate Change Risk Management Water and Wastewater Management Land Use and Biodiversity Impacts Materials Sourcing, Security, and Supply Chain Management Waste, Pollution, and Hazardous Materials Management Product and Packaging Impacts Clean Technology and Renewable Energy	Green Buildings Labor Relations, Management, Inclusion, and Diversity Employee Health, Safety, and Wellbeing Employee Development, Compensation, and Retention Supply Chain Labor Management and Working Conditions Product and Service Safety and Quality Financial Product Risk and Sustainability Cyber Security, Data Security, and Customer Privacy Investment Portfolio and Investment Product ESG Risk and Opportunities Community Relations Government Funding Access to Finance Access to Health Care and Social Services Access to Education Infrastructure and Resiliency Affordable Housing Dependent Populations Oversight and Effectiveness Management Compensation and Incentives Shareholder Control Compliance, Controls, Reporting, and Audit Management and Oversight of Securitized Trusts Ethics	Competition, Entry and Product Stability Financial System Risk Management							
Class 2	Class 3	Class 4								
Industrials	Basic Capital Goods Communications Consumer Cyclical Consumer Noncyclical Energy Technology Transportation	Chemicals Metals & Mining Paper Aerospace & Defense Building Materials Diversified Manufacturing Construction Machinery Packaging Environmental Cable & Satellite, Wireless, Wirelines Media & Entertainment Automotive Aerospace Construction Leisure, Gaming, Lodging Retailers Restaurants Consumer Cyclical Services Consumer Products Food & Beverage Healthcare Pharmaceuticals Supermarkets Tobacco Independent Energy Integrated Energy Oil Field Services Refining Misc Item								
Utilities	Utility	Electric, Natural Gas, Other Utility								
Financial Institutions	Banking Brokerage Asset Managers Exchanges Finance Companies Insurance REITs	Life Insurance P&C Insurance Health Insurance Apartment, Healthcare, Office, Retail, Other REITs								
Tier 3	Tier 4	Tier 5								
ABS	Auto Credit Card Dealer Floorplan Equipment									
Tier 2	Tier 3	Tier 4								
Mun	Revenue GO	Airport Crt Particp, Lease Education Hosp/HlthCare Mlt Fam Housing, Spl Fam Housing Power Res Recovery, Water/Sever State Tax, Spd Assessment, Spd Tax Toll Road, Trans Highway, Trans Other City & Local County Other Dist GO School Dist State App/Auth								

## ESG Key Issues Map

- Internally developed and integrated into our research process
  - Pillars (3): E, S, and G
  - Themes (9), for example: Climate Change, Human Capital, Behavior
  - Key Issues (35), for example: GHG Emissions, Employee Health & Safety, Ethics
  - Sector specialists determine and analyze material ESG factors across subsectors to identify risks and opportunities that may impact long-term performance

**Independent Energy**

Pillar: Environmental  
Theme: Climate Change  
Key Issue: Greenhouse Gas Emissions

**Hospital/ Health Care**

Pillar: Social  
Theme: Human Capital  
Key Issue: Labor Relations, Management, Inclusion, Diversity

**Auto ABS**

Pillar: Governance  
Theme: Governance  
Key Issue: Compliance, Controls, Reporting, Audit

## IR+M FIXED INCOME CAPABILITIES

## IR+M AGGREGATE STRATEGY



## IR+M AGGREGATE STRATEGY CHARACTERISTICS

Characteristics	IR+M Aggregate Portfolio (10/31/20)	Bloomberg Barclays Aggregate Index (10/31/20)	Sector Distribution (%)	IR+M Aggregate Portfolio (10/31/20)	Bloomberg Barclays Aggregate Index (10/31/20)
Yield (%)	1.58	1.24	<b>Government</b>	<b>13.9</b>	<b>38.7</b>
Spread to Tsy (bp)	98	54	Treasury	7.8	37.1
Effective Duration (yrs)	6.01	6.12	TIPS	2.7	0.0
Convexity	0.55	0.37	Agency	0.0	1.5
Number Of Issues	284	11,971	Govt Guaranteed	3.4	0.1
Average Quality (M/S&P)	Aa3/A+	Aa2/AA-	<b>Credit</b>	<b>41.0</b>	<b>31.2</b>
			Finance	13.6	8.2
			Industrial	22.8	16.8
			Utility	4.5	2.2
			Credit Non-Corporate	0.0	3.9
			<b>Securitized</b>	<b>42.6</b>	<b>29.4</b>
			RMBS	1.8	0.0
			Agency RMBS	24.1	26.8
			ABS	7.4	0.4
			CMBS	8.3	1.3
			Agency CMBS	1.0	0.9
			<b>Municipal</b>	<b>2.2</b>	<b>0.7</b>
			GO	0.0	0.2
			Revenue	2.2	0.5
			<b>Cash</b>	<b>0.3</b>	<b>0.0</b>
			<i>Total</i>	<i>100.0</i>	<i>100.0</i>

Ratings Distribution (%)	IR+M Aggregate Portfolio (10/31/20)	Bloomberg Barclays Aggregate Index (10/31/20)
Aaa	54.5	70.0
Aa	3.4	3.4
A	16.4	12.0
Baa	24.2	14.6
Ba	1.1	0.0
Cash	0.3	0.0
<i>Total</i>	<i>100.0</i>	<i>100.0</i>

- IR+M performance objective: Outperform the index by 50-75 bps annually over a market cycle
- Three ways to outperform the benchmark
  - Yield advantage gives the portfolio wind at its back
  - High quality positioning allows the portfolio to hold-up better in negative economic scenarios
  - Security selection generates ~70% of excess returns relative to index

Some statistics require assumptions for calculations which can be disclosed upon request. Yields are represented as of the above date(s) and are subject to change. Totals may not sum to 100 due to rounding. The views contained in this report are those of IR+M as of 10/31/20 and are based on information obtained by IR+M from sources that are believed to be reliable. Source: Bloomberg Barclays

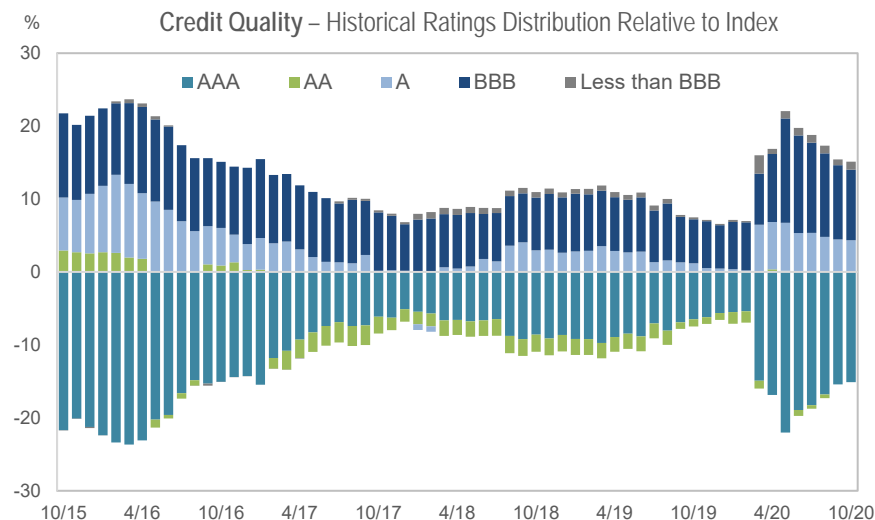
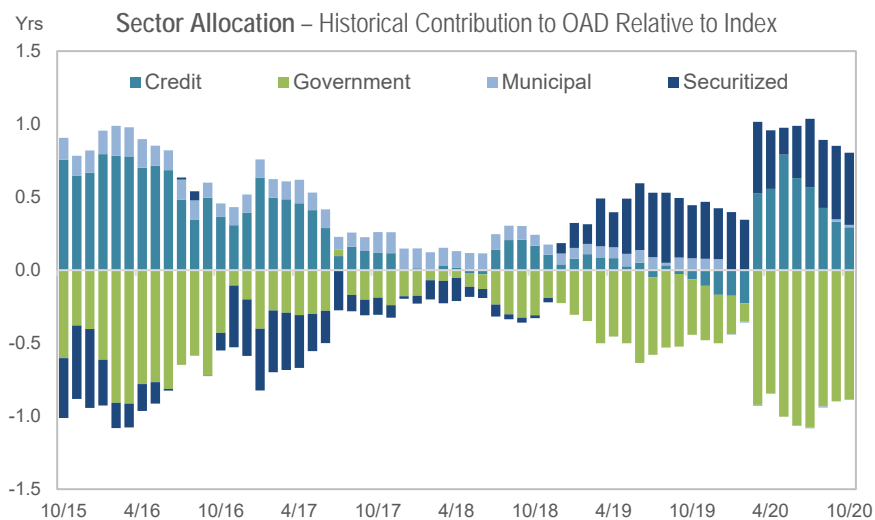
# IR+M AGGREGATE STRATEGY RISK CHARACTERISTICS

## RISK TYPES

- + Interest Rate Risk
- + Sector Allocation
- + Credit Quality/ESG Risks
- + Security Selection
- + Liquidity
- + Tracking Error

## INTEREST RATE RISK

- + Duration neutral position versus benchmark
  - Duration +/- 0.25 years
- + Neutral exposure to key rates versus benchmark
  - Key rates +/- 0.25 years
- + Convexity aware



Some statistics require assumptions for calculations which can be disclosed upon request.  
 Index is Bloomberg Barclays Aggregate Index.  
 Source: Bloomberg Barclays as of 10/31/20.

# IR+M AGGREGATE STRATEGY RISK CHARACTERISTICS

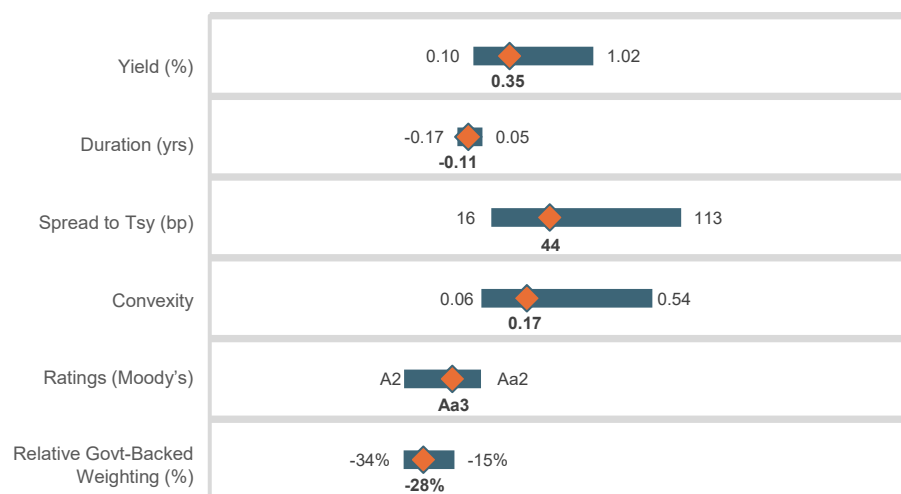
Sector Allocation – Top 10 OASD Differences vs. Index by Spread Sectors

Overweight (yrs)		Underweight (yrs)	
Sector	OASD	Sector	OASD
Transportation	0.19	Sovereign	-0.12
Brokerage	0.16	Technology	-0.08
Small Business Administration	0.13	Basic	-0.07
CMBS SS 2.0/3.0	0.11	CMBS Other	-0.06
Capital Goods	0.07	Supranational	-0.05
CMBS SS 2.0/3.0 LCF	0.07	Energy	-0.05
Banking	0.07	Non-Corp Other	-0.04
Taxable Muni – Special Tax	0.07	US Agency	-0.04
Agency Fixed Rate CMO	0.07	Other Indus	-0.02
Communication	0.07	Trans Other	-0.02

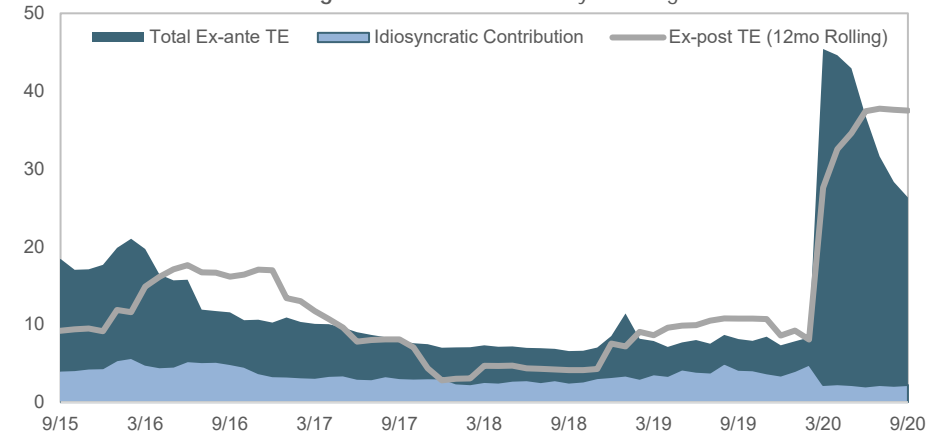
Security Selection – Top 10 OASD Differences vs. Index by Credit Ticker

Overweight (yrs)		Underweight (yrs)	
Ticker	OASD	Ticker	OASD
KKR	0.10	WFC	-0.04
CLECLI	0.08	AAPL	-0.03
EXC	0.08	MSFT	-0.03
BX	0.07	MEX	-0.03
CP	0.06	CVS	-0.02
CHTR	0.06	ABBV	-0.02
NYSDEV	0.05	UNH	-0.02
VRSK	0.05	JPM	-0.02
MS	0.05	BA	-0.02
MCD	0.05	HSBC	-0.02

5-Year Historical Characteristics Relative to Index



Tracking Error – Historical Monthly Tracking Error



IR+M Aggregate Composite is used for historical monthly tracking error. Tracking Error as of 9/30/20.

Sector Allocation and Security Selection are as of 10/31/20.

Some statistics require assumptions for calculations which can be disclosed upon request.

Index is Bloomberg Barclays Aggregate Index. Yields are represented as of the above date and are subject to change.

This is not a recommendation to purchase or sell any specific security listed in the above chart.

The blue bars show the 5-year historical range and the orange diamond represents the value as of 9/30/20. Ratings (Moody's) shows the number of rating notch differences between the portfolio and index.

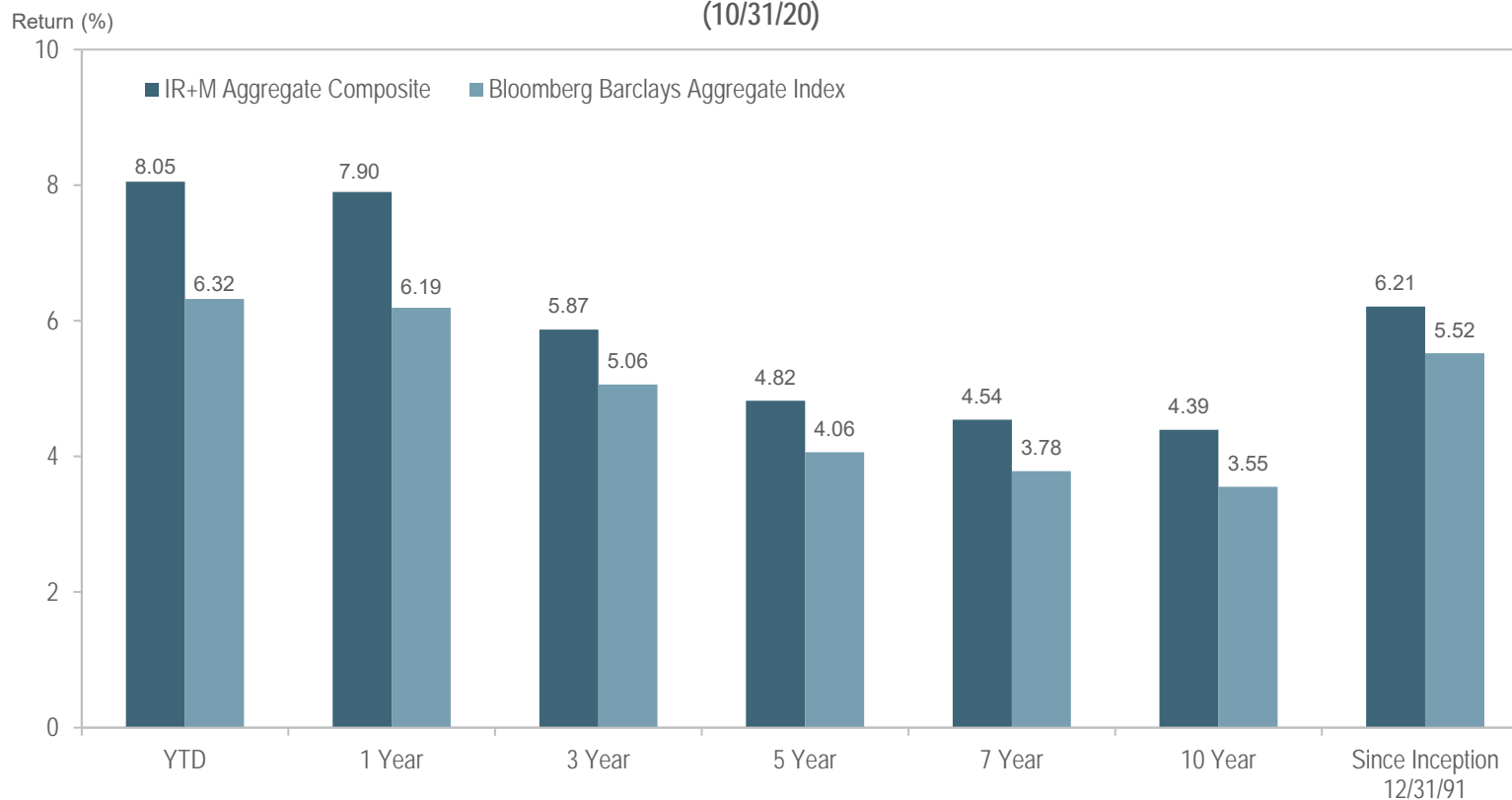
The relative gov't-backed weighting is the aggregate weighting for Treasuries, Agency, Gov't Guaranteed, Agency RMBS and Agency CMBS versus the benchmark weighting for those sectors.

Sources: Bloomberg Barclays, IR+M Analytics, Barclays POINT® and Bloomberg PORT+

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# IR+M AGGREGATE STRATEGY PERFORMANCE

IR+M Aggregate Composite vs. Bloomberg Barclays Aggregate Index  
 Investment Results  
 (10/31/20)



Unless otherwise stated, the investment results shown do not reflect the deduction of investment advisory fees. Periods over one year are annualized. Past performance is not indicative of future results. A similar analysis can be provided for any time period since inception. Please refer to the GIPS® composite disclosures at the end of this presentation.

## IR+M AGGREGATE STRATEGY HISTORICAL PERFORMANCE ATTRIBUTION

### IR+M Aggregate Composite

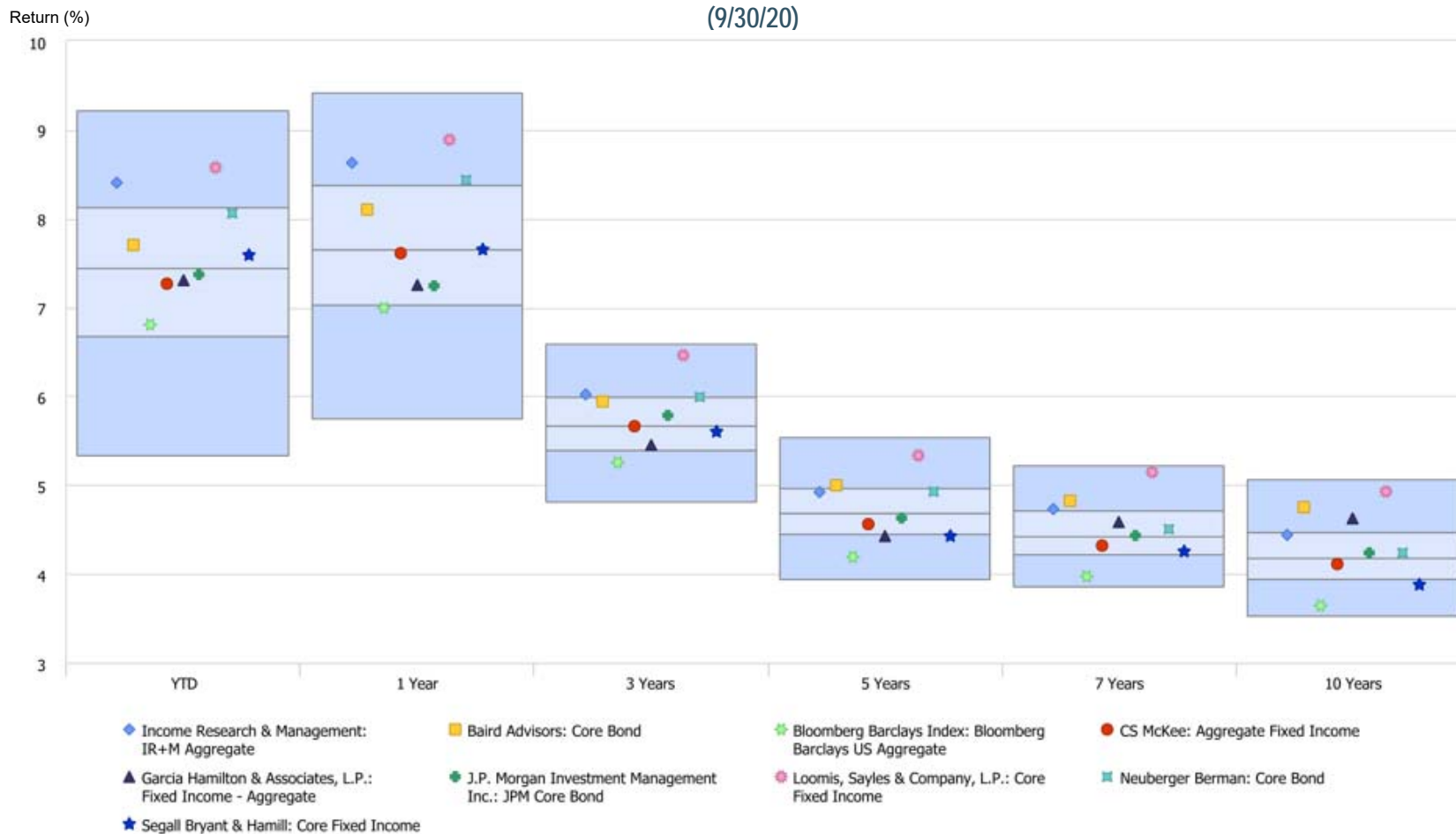
	Composite Return (Gross of Fee)	Bloomberg Barclays Aggregate Index Return	Return Difference	Market Term Structure	Asset Allocation	Security Selection	Price and Intraday	Total
YTD	8.05	6.32	1.73	0.15	1.26	0.55	(0.23)	1.73
2019	9.32	8.72	0.60	(0.19)	0.60	0.26	(0.07)	0.60
2018	0.09	0.01	0.08	(0.06)	(0.19)	0.34	(0.01)	0.08
2017	3.97	3.54	0.43	(0.08)	0.44	0.12	(0.05)	0.43
2016	3.57	2.65	0.92	(0.16)	0.96	0.15	(0.03)	0.92
2015	0.59	0.55	0.04	(0.05)	(0.11)	0.23	(0.03)	0.04

YTD Attribution as of 10/31/20.  
 Please see important IR+M Composite and Attribution Disclosures for details.  
 Source: Bloomberg Barclays



# INVESTMENT RESULTS IR+M VS. PEERS

IR+M Aggregate Composite vs. Competitors  
 (9/30/20)



IR+M Aggregate Composite	YTD	1 Year	3 Year	5 Year	7 Year	10 Year
Percentile Rank	17th	16th	22nd	28th	24th	27th

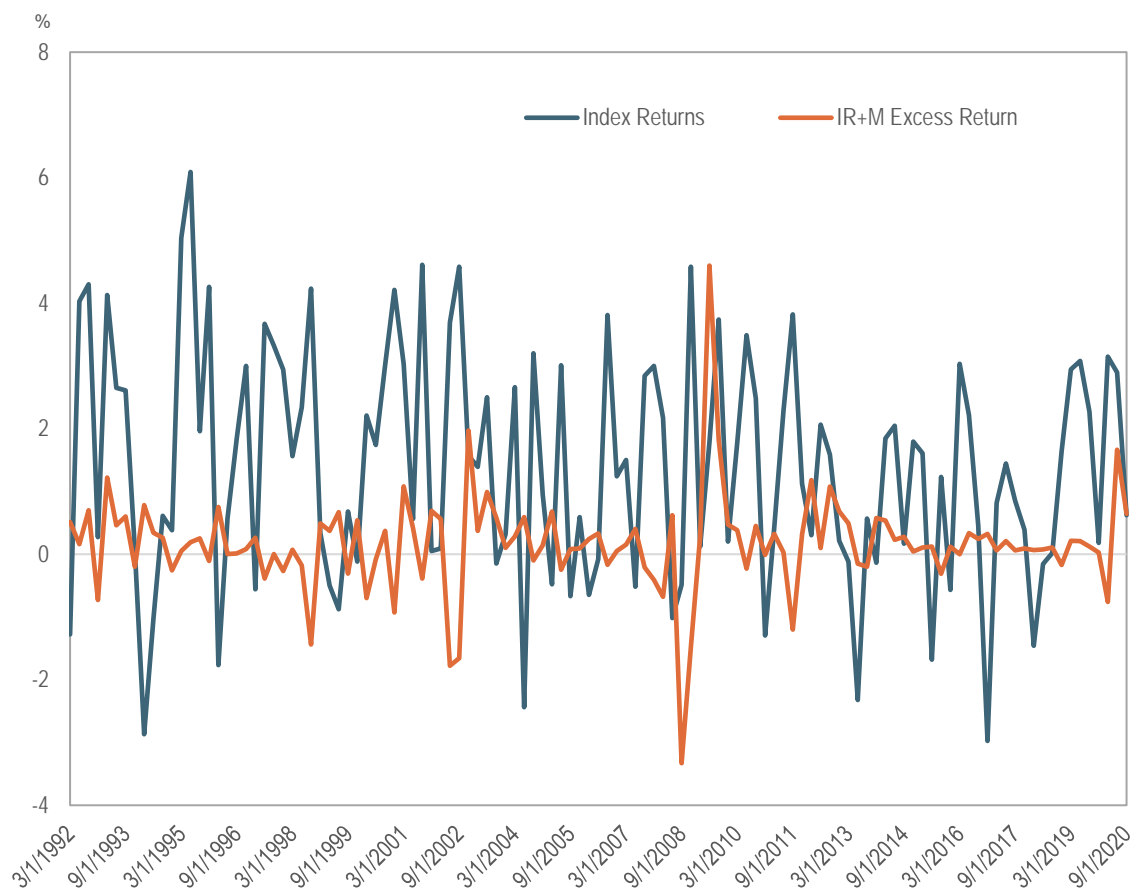
Blue shading represents return ranges in 5<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 95<sup>th</sup> percentiles of the 257 manager observations available via eVestment. The bottom table represents IR+M Aggregate Composite's percentile rank in comparison to eVestment's manager observations.

Source: eVestment as of 9/30/2020. eVestment collects information directly from investment management firms and other sources believed to be reliable. eVestment does not guarantee or warrant the accuracy, timeliness, or completeness of the information provided and are not responsible for any errors or omissions. Performance results may be provided with additional disclosures available on our systems and other important considerations such as fees may be applicable. Not for general distribution. \* All categories not necessarily included; Totals may not equal 100.



## STRONG PERFORMANCE IN DOWN MARKETS

- IR+M outperformed the index in 23 of the 26 quarters since 1991 when the index had negative absolute returns



Date	Index Return	IR+M Excess Returns
2Q18	-0.16	0.08
1Q18	-1.46	0.06
4Q16	-2.98	0.32
4Q15	-0.57	0.12
2Q15	-1.68	0.12
4Q13	-0.14	0.57
2Q13	-2.32	-0.15
1Q13	-0.12	0.49
4Q10	-1.30	-0.01
3Q08	-0.49	-3.33
2Q08	-1.02	0.62
2Q07	-0.52	0.40
2Q06	-0.08	0.33
1Q06	-0.65	0.24
3Q05	-0.67	0.08
1Q05	-0.48	0.68
2Q04	-2.44	0.59
3Q03	-0.15	0.58
4Q99	-0.12	0.54
2Q99	-0.88	0.67
1Q99	-0.50	0.37
1Q97	-0.56	0.26
1Q96	-1.77	0.75
2Q94	-1.03	0.34
1Q94	-2.87	0.78
1Q92	-1.28	0.51

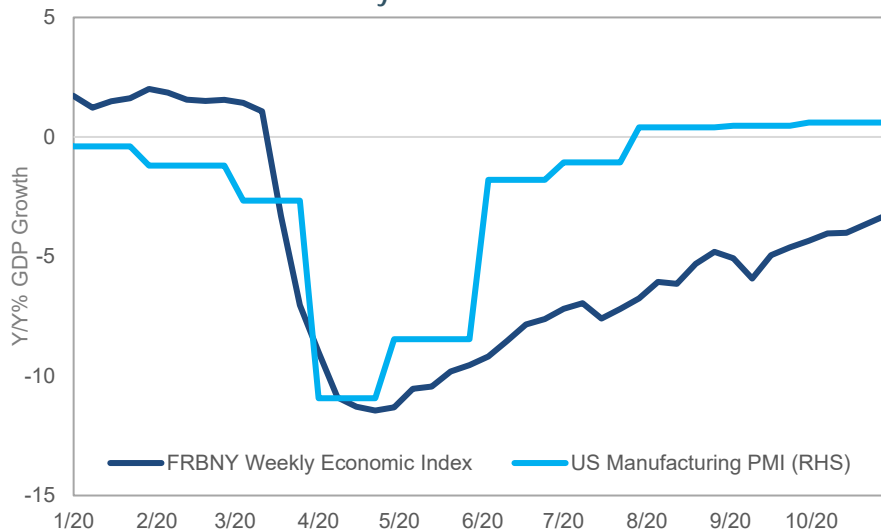
## IR+M FIXED INCOME CAPABILITIES

## MARKET UPDATE

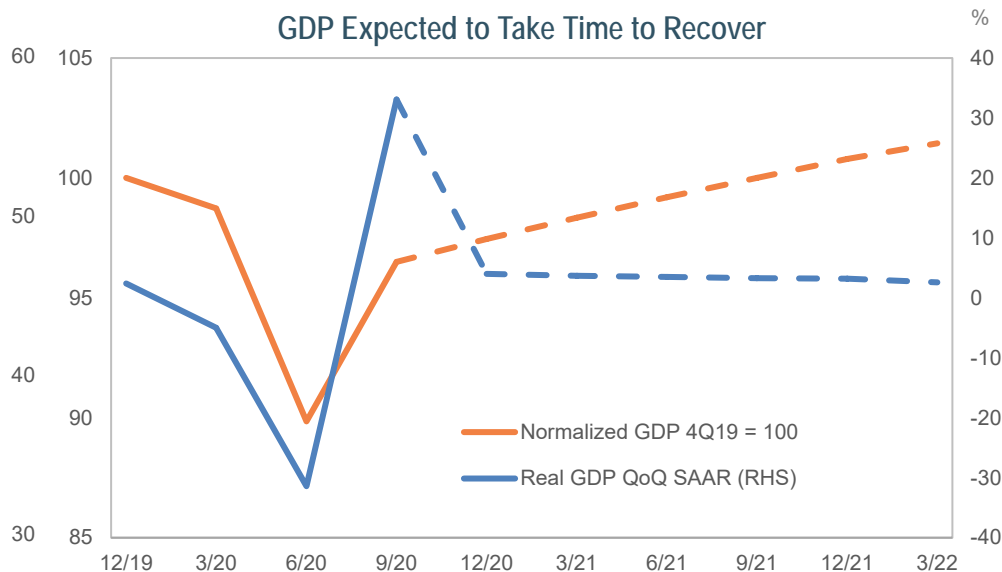


# MARKET UPDATE WHERE ARE WE NOW?

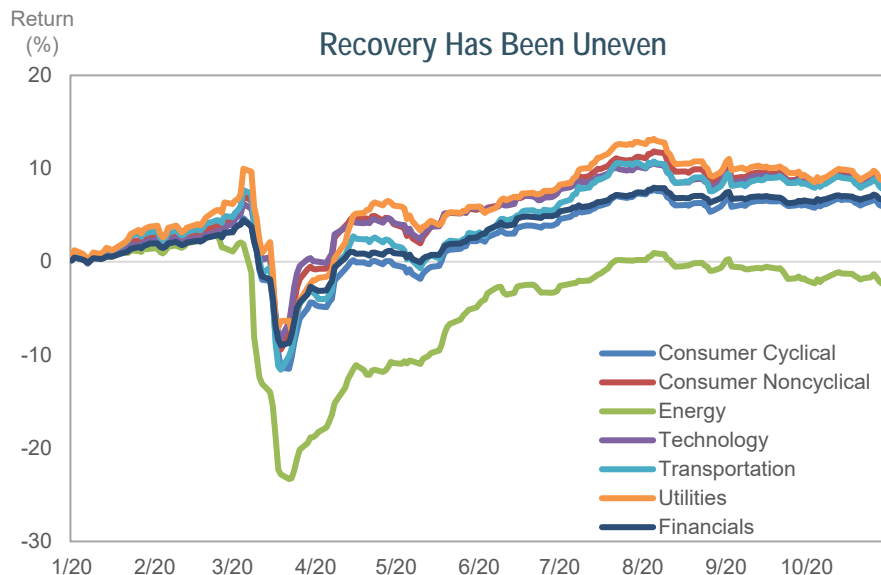
Economy Continues to Rebound



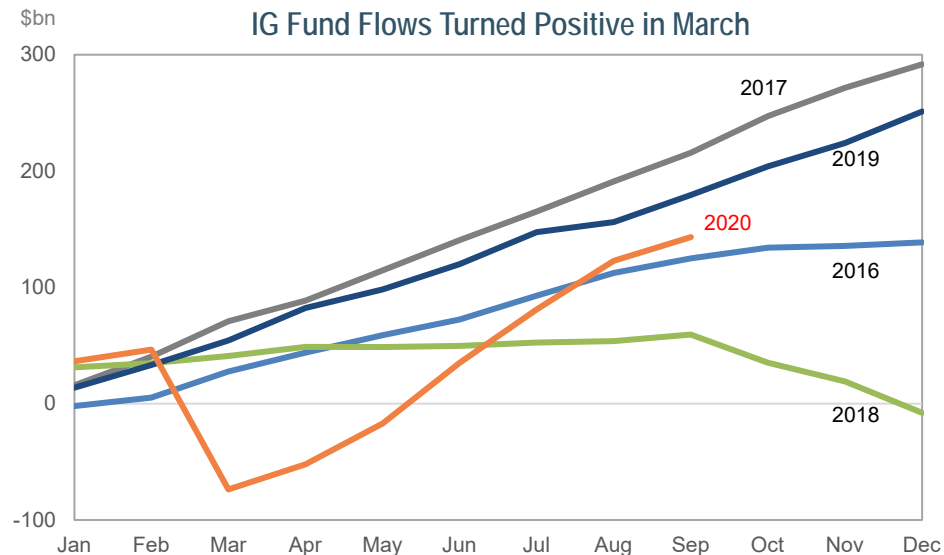
GDP Expected to Take Time to Recover



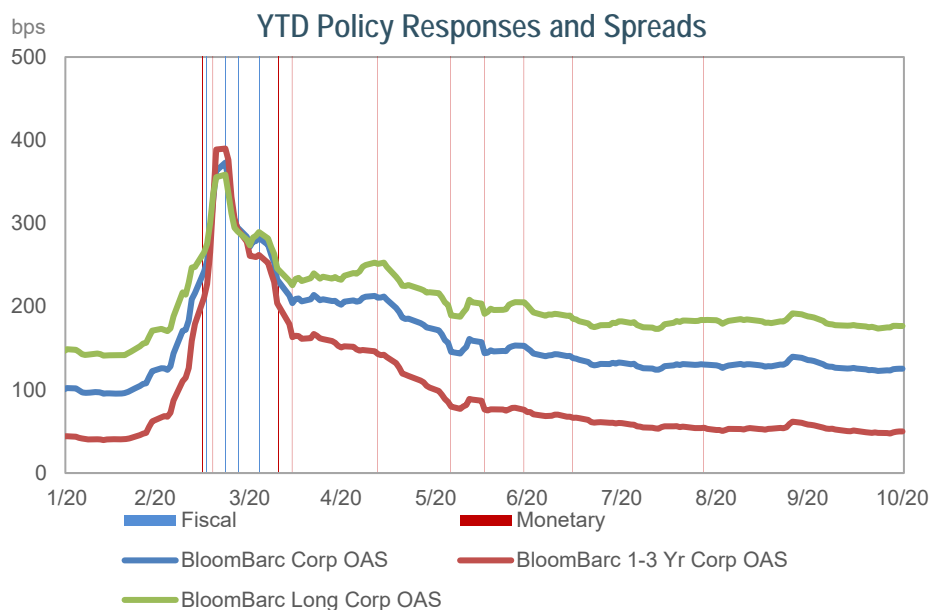
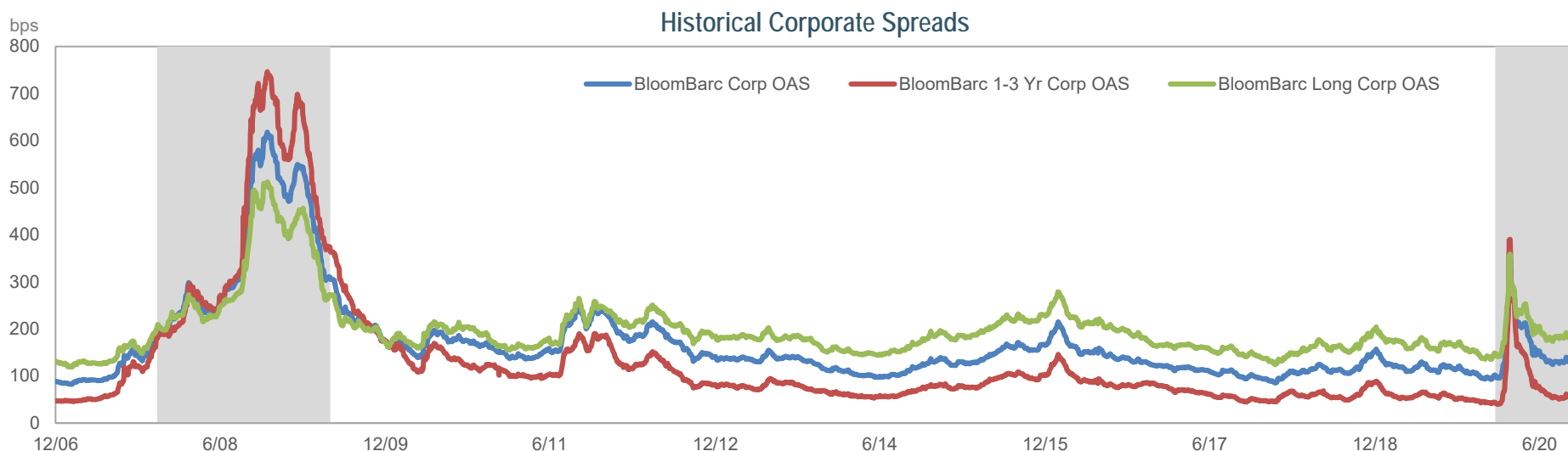
Recovery Has Been Uneven



IG Fund Flows Turned Positive in March



# MARKET UPDATE SPREAD HISTORY AND FISCAL AND MONETARY ACTIONS

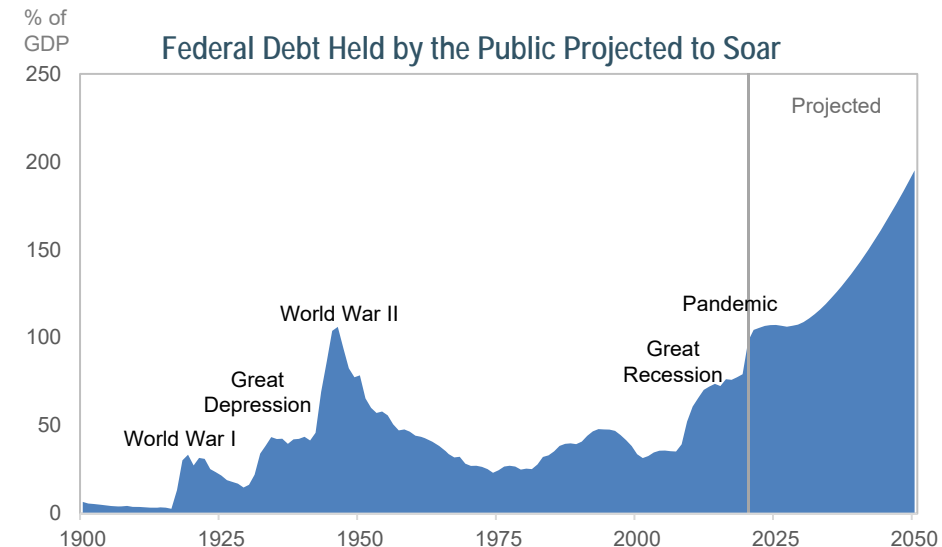
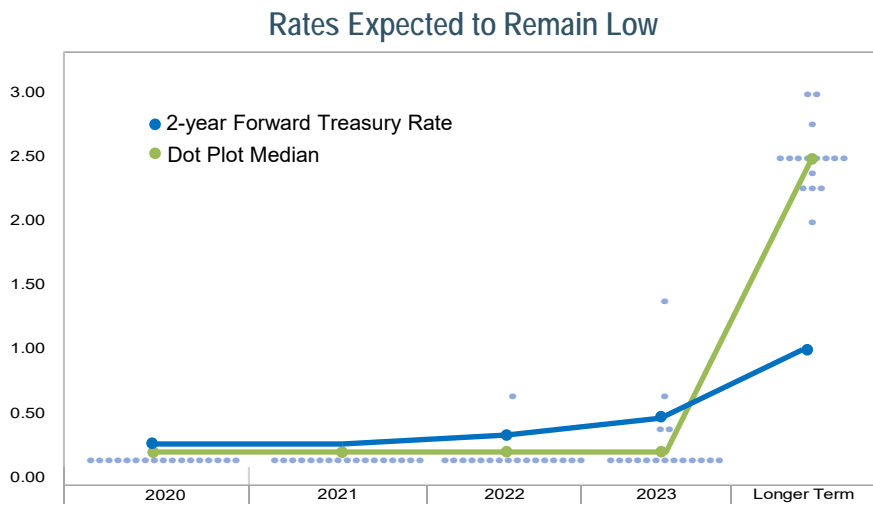
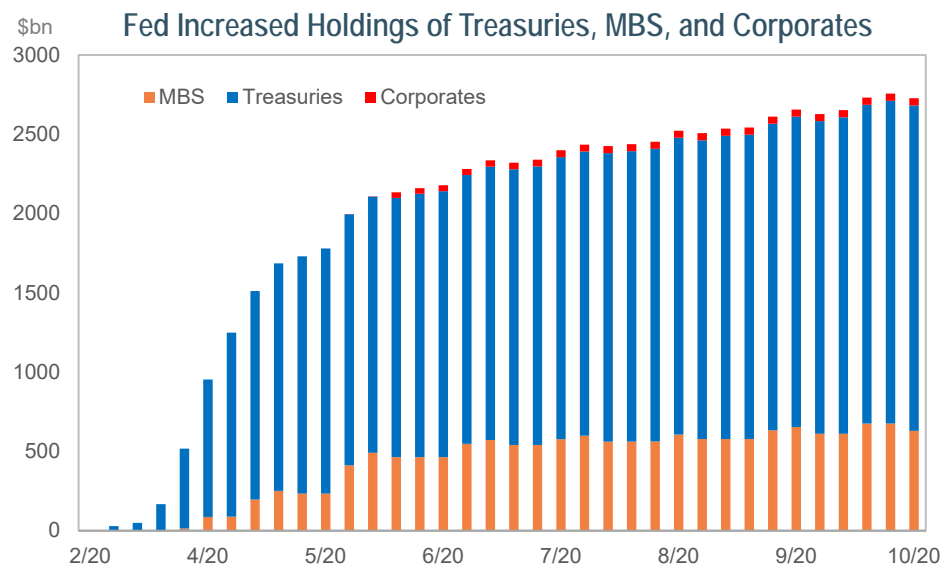
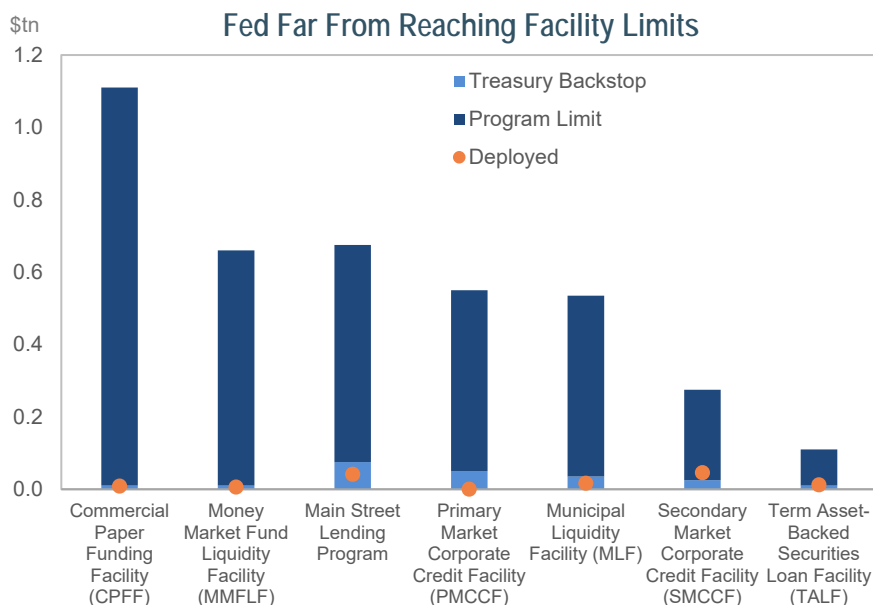


### Great Financial Crisis vs. COVID-19 Response

	2008	2020	Announced	Launched
Asset Purchases (QE)	X	X	3/15/20	3/15/20
Zero Bound Rates	X	X	3/15/20	3/15/20
Primary Credit Rate/Discount Window	X	X	3/15/20	3/15/20
Reserve Requirements		X	3/15/20	3/15/20
Central Bank Liquidity Swaps	X	X	3/15/20	3/16/20
Term Auction Facility (TAF)	X			
Term Securities Lending Facility (TSLF)	X			
TSLF Options Program	X			
Primary Dealer Credit Facility (PDCF)	X	X	3/17/20	3/20/20
Commercial Paper Funding Facility (CPFF)	X	X	3/17/20	4/14/20
Money Market MF Liquidity Facility (MMLF)	X	X	3/18/20	3/23/20
Term Asset-Backed Securities Loan Facility (TALF)	X	X	3/23/20	6/17/20
Troubled Asset Relief Program (TARP)	X			
Primary Market Corporate Credit Facility (PMCCF)		X	3/23/20	6/29/20
Secondary Market Corporate Credit Facility (SMCCF)		X	3/23/20	5/12/20, 6/16/20
Foreign and International Monetary Authorities (FIMA) Repo Facility		X	3/31/20	4/6/20
Main Street New Loan Facility (MSNLF)		X	4/9/20	7/15/20
Main Street Expanded Loan Facility (MSELF)		X	4/9/20	7/15/20
Main Street Priority Loan Facility (MSPLF)		X	4/30/20	7/15/20
Municipal Liquidity Facility (MLF)		X	4/9/20	6/5/20
Paycheck Protection Program Liquidity Facility (PPPLF)		X	4/9/20	4/16/20

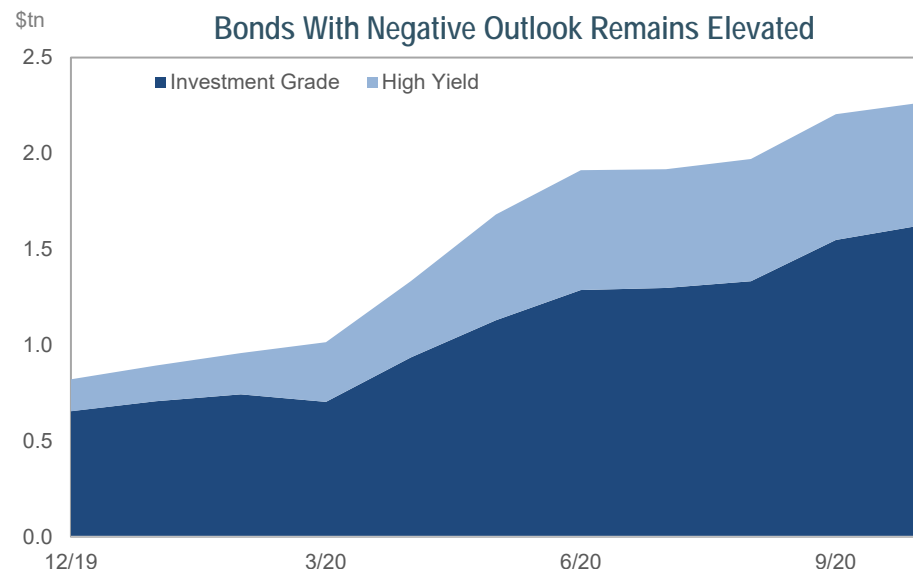
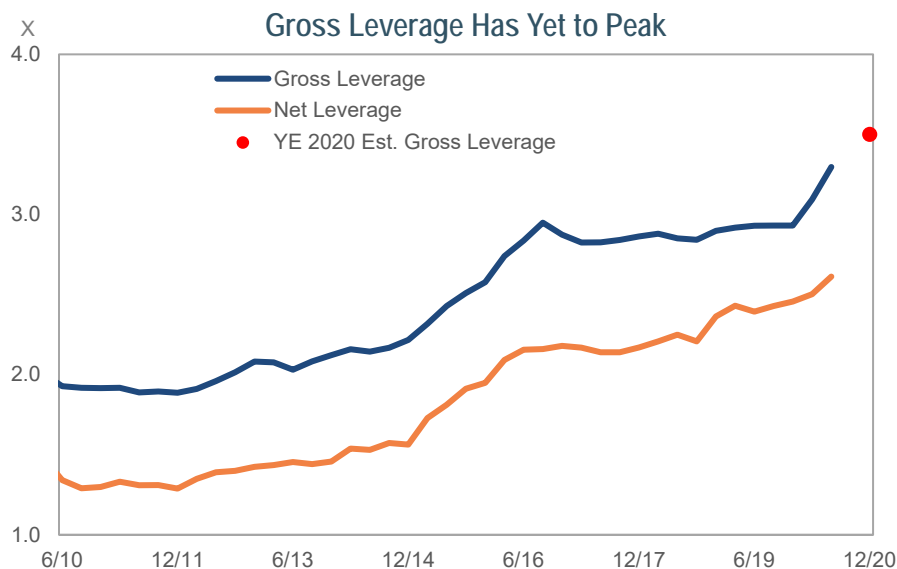
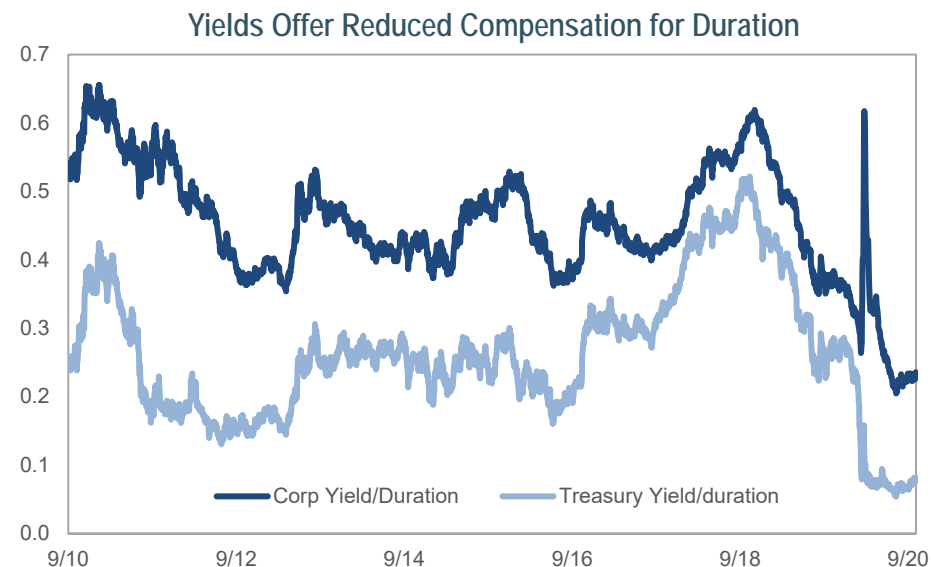
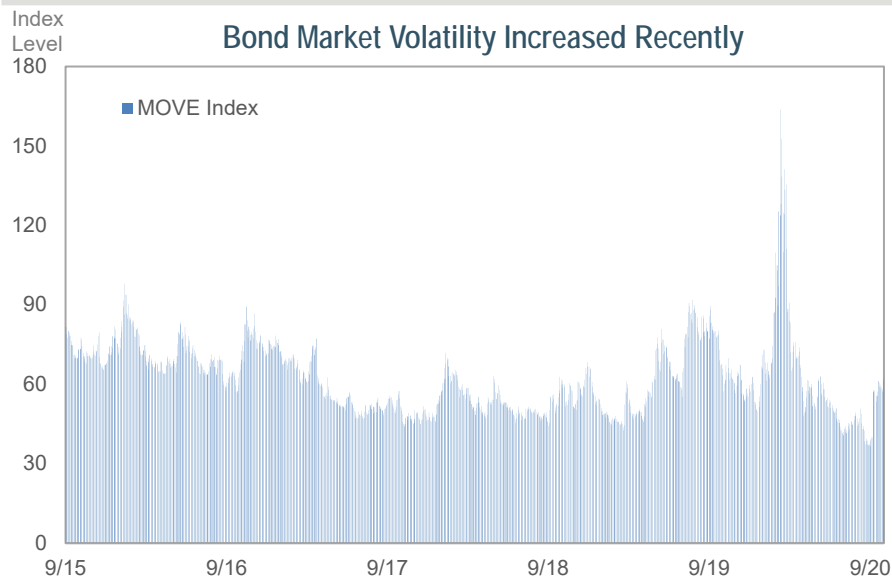
Sources: Bloomberg and Federal Reserve as of 10/31/20. Gray bars in top chart indicate US recessions. Blue vertical lines represent fiscal policy responses and red vertical lines represent monetary policy responses in bottom left chart. The bottom right chart is not a complete list of policies enacted during the GFC and COVID-19 Response. A complete list can be provided upon request. The views contained in this report are those of IR+M as of 10/31/20 and are based on information obtained by IR+M from sources that are believed to be reliable.

# MARKET UPDATE FED AND TREASURY RESPONSE



Sources: Bloomberg and Federal Reserve as of 10/31/20. Lower left chart is Fed Dot Plot from September meeting. Lower right chart sourced from Congressional Budget Office as of 9/30/2020. The views contained in this report are those of IR+M as of 10/31/20 and are based on information obtained by IR+M from sources that are believed to be reliable.

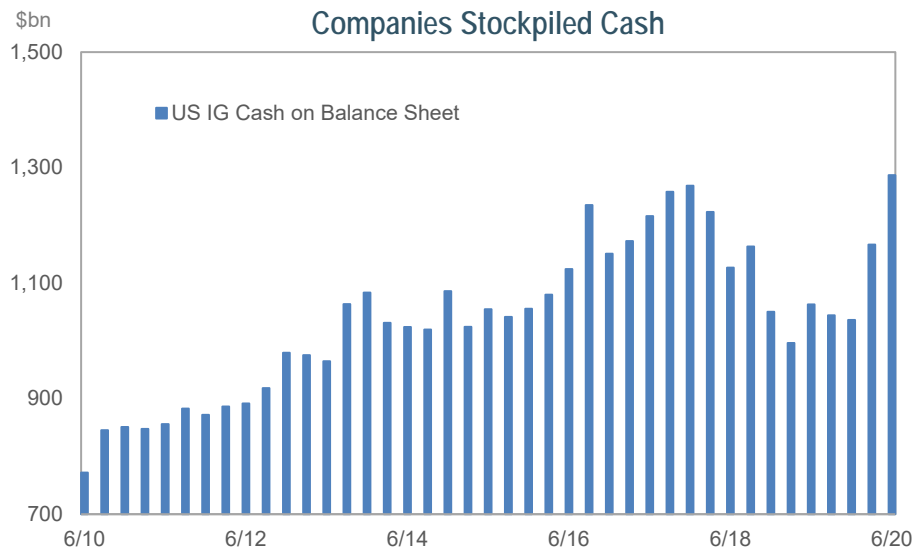
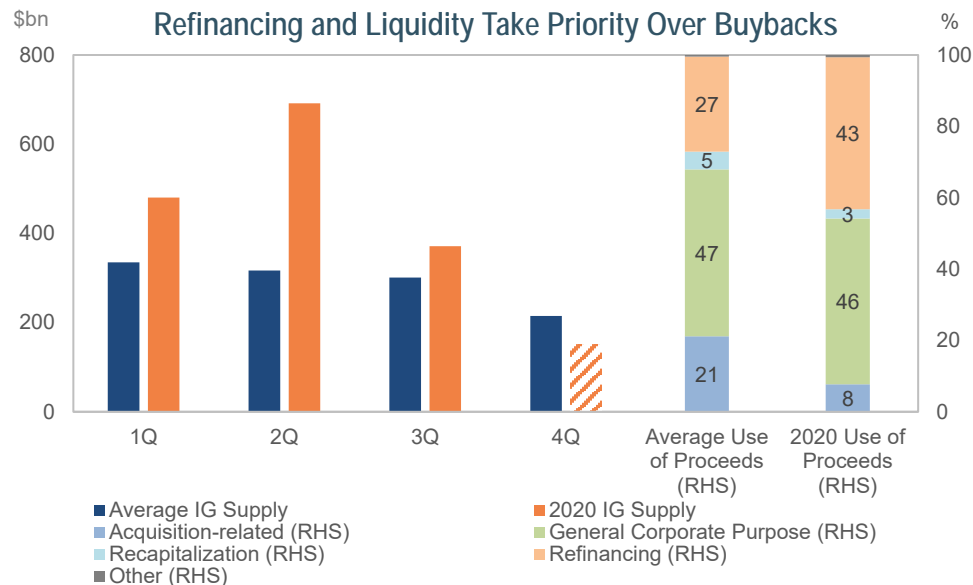
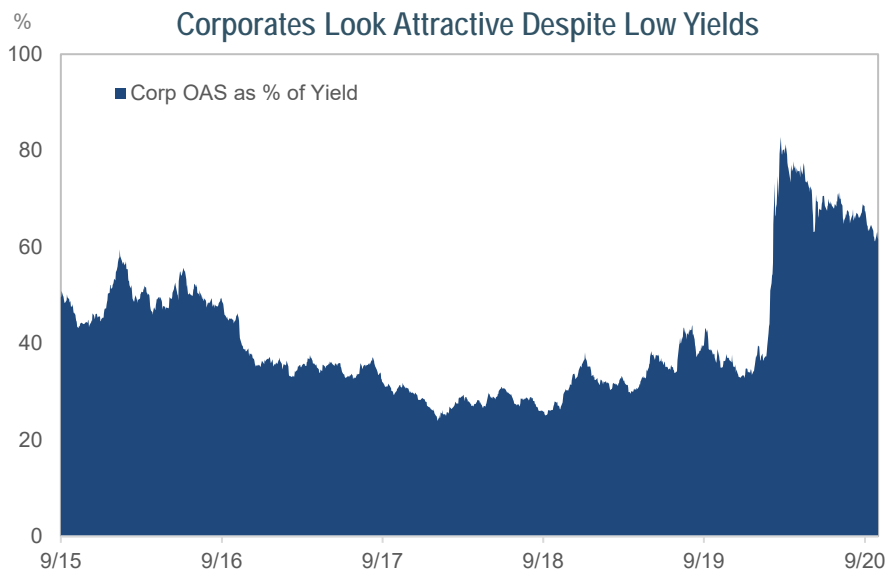
# MARKET UPDATE RISKS ON THE HORIZON



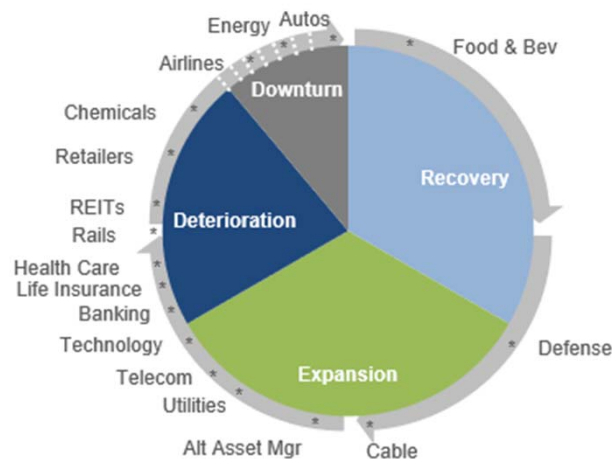
Sources: Bloomberg and IR+M analytics as of 10/31/20. Bottom left chart sourced from JPMorgan as of 9/30/20. Bottom right chart represents bonds with negative outlook from Moodys. The views contained in this report are those of IR+M as of 10/31/20 and are based on information obtained by IR+M from sources that are believed to be reliable.

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# MARKET UPDATE CORPORATE MARKET OUTLOOK



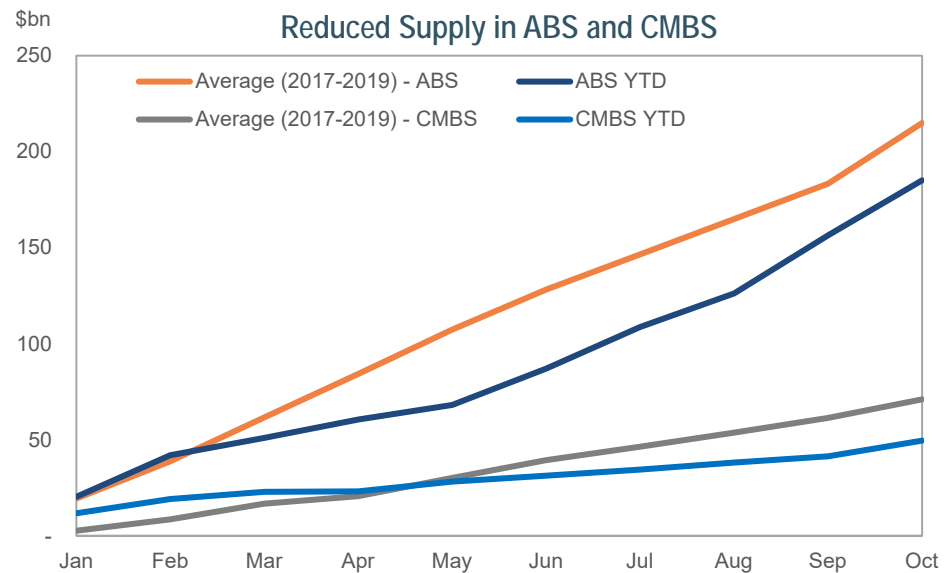
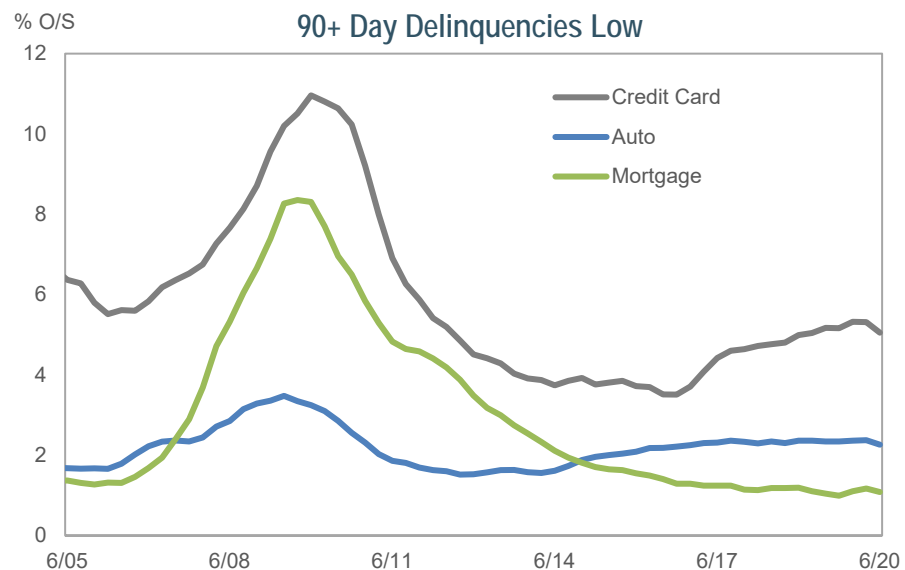
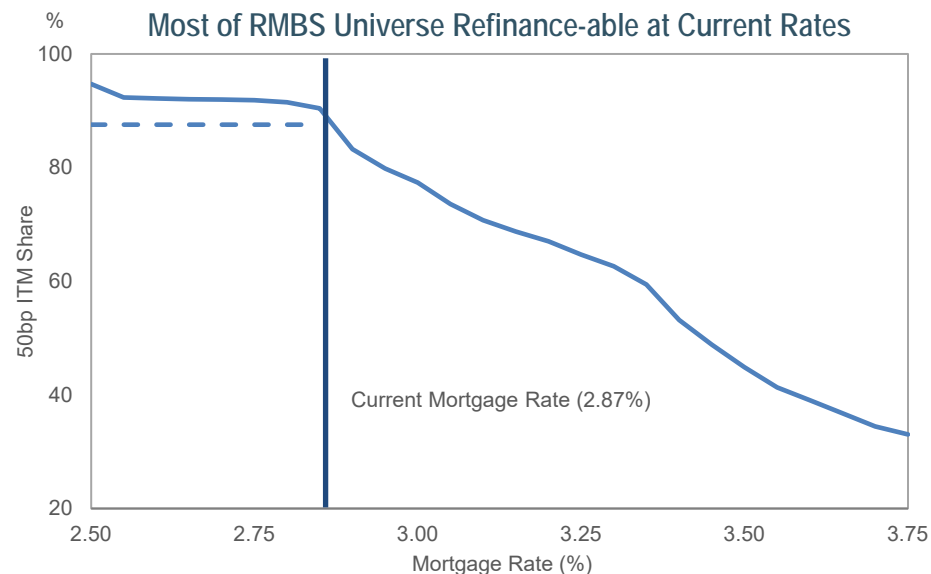
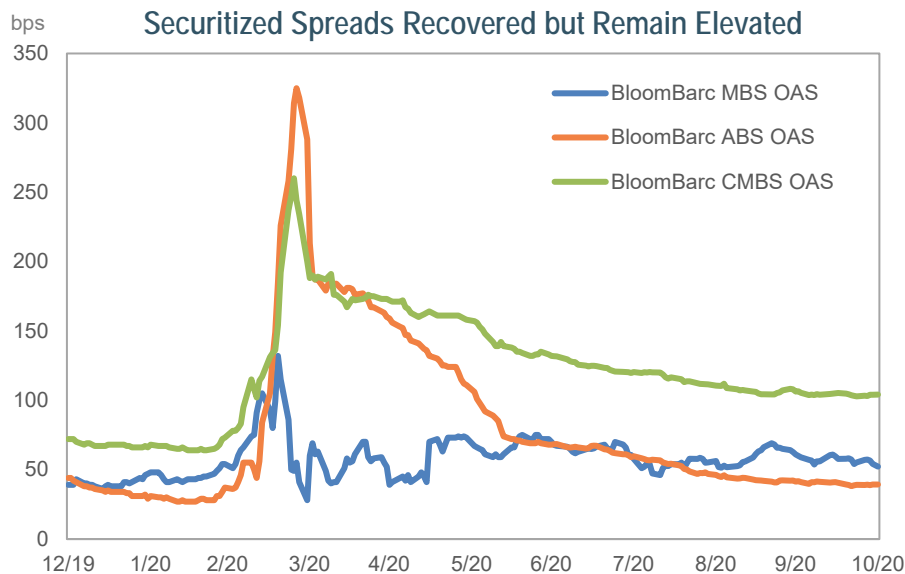
### Fundamental Divergence Across Sectors Provides Opportunity



Sources: Bloomberg and IR+M analytics as of 10/31/20. Source for top right chart is JPMorgan, MS Research, and S&P LCD as of 9/30/20. Shaded orange bar in top right chart represents estimated investment-supply issuance in 4Q20. Average supply and average use of proceeds is the average of 2015 – 2019. Source for bottom left chart is JPMorgan. Bottom right chart as of 9/30/2020. The views contained in this report are those of IR+M as of 10/31/20 and are based on information obtained by IR+M from sources that are believed to be reliable.



# MARKET UPDATE SECURITIZED MARKET RESPONSE



Sources: Bloomberg as of 10/31/20. Top right chart sourced from Citi Research as of 9/21/20. Dashed line in chart represents portion of universe refinance-able at current rates, based on mortgages that have rates 50bps or higher than current rate. Bottom left chart sourced from New York Fed Consumer Credit Panel as of 6/30/20. The views contained in this report are those of IR+M as of 10/31/20 and are based on information obtained by IR+M from sources that are believed to be reliable. For one-on-one use only. Not for public distribution. 39

## IR+M FIXED INCOME CAPABILITIES

## APPENDIX



## PRESENTER BIOGRAPHIES



**Bill O'Malley, CFA**  
*Board Member*  
*Chief Executive Officer, Co-  
Chief Investment Officer, 32  
years of experience*

Bill joined IR+M in September 1994. Prior to IR+M, Bill was a Vice President at Wellington Management Company, LLP. Before joining Wellington in 1989, Bill worked at The Vanguard Group and in Morgan Stanley's Fixed Income Division. Bill has a BA from Amherst College (1984) and an MBA from The Wharton School of the University of Pennsylvania (1989).



**Jim Gubitosi, CFA**  
*Co-Chief Investment Officer*  
*Principal, 16 years of  
experience*

Jim joined IR+M in March 2007. Prior to joining IR+M, he was a Senior Analyst at Financial Architects Partners. Jim has a BSBA from Boston University School of Management (2004).



**Kara Maloy, CFA**  
*Credit Team*  
*Director of Credit Research,  
14 years of experience*

Kara joined IR+M in April 2010. Prior to joining IR+M, Kara was a Securities Valuation Analyst at John Hancock Financial. Kara has a BA from Cornell University (2006).



**Angela Meringoff, CFA**  
*Senior Client Portfolio  
Manager*  
*Principal, 22 years of  
experience*

Angela joined IR+M in September 2010. Prior to joining IR+M, Angela was a Vice President with State Street Bank and Trust Company. Angela has a BA from Western Washington University (1998).



INCOME RESEARCH + MANAGEMENT

ESG in the Investment Industry

- The US Department of Labor (DOL) proposed a rule that ERISA fiduciaries may not invest in ESG vehicles for the purpose of non-financial objectives.
  - The DOL sent enforcement letters to those plan sponsors with ESG funds in their plan lineups, requesting documentation ahead of the possible change.
  - The proposed rule sparked a heated reaction, with 95% of responders opposing the change, according to analysis led by US SIF<sup>1</sup>.
- Hurricane Laura was the seventh named storm to make landfall in the US this year, a new record over the same time period. Studies have shown that storm intensity and water temperature are likely correlated.
  - The remaining 2020 Atlantic hurricane season is expected to be very active, which may result in increased economic damage.
- The US House of Representatives passed the Moving Forward Act, aiming to revitalize federal infrastructure while achieving net-zero emissions goals. The ambitious green bill is expected to face opposition in the Senate.

Characteristics	Bloomberg Barclays US Aggregate (Agg) & MSCI Focused Sub-Indices			
	Standard	ESG-Weighted	SRI	Sustainability
Yield to Worst	1.15	1.07	1.10	1.03
Duration	6.09	6.36	5.91	5.76
Spread	57	50	53	46
Convexity	0.46	0.61	0.40	0.35
1-Yr Return (%)	6.47	6.79	6.50	6.52

As of August 31, 2020

The Connection Between E and S

- Throughout the pandemic, the focus on racial inequality has also highlighted climate injustice, and the connection between the environment and many social issues, which may directly impact certain related credits.
  - Evidence indicates that communities of color are disproportionately impacted by climate change, since some of these communities may live and attend school near polluting facilities.
  - Polluting facilities may impact the surrounding community's health while also resulting in residents missing school or work. Communities' proximity to these facilities could contribute to lower property values and under-funded schools, perpetuating the poverty cycle.



Sources: Bloomberg, Bloomberg Barclays, and S&P Global Market Intelligence as of 9/8/2020

<sup>1</sup> The Forum for Sustainable and Responsible Investment.

<sup>2</sup> Data from Bloomberg Barclays and DOE.

<sup>3</sup> This is not a recommendation to purchase or sell any specific security listed above.

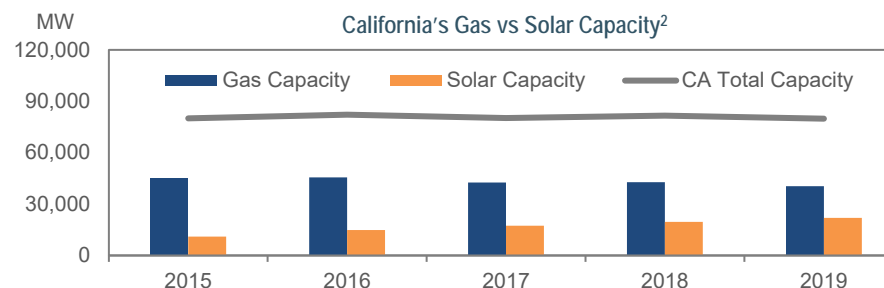
INCOME RESEARCH + MANAGEMENT

ESG MONITOR

THIRD QUARTER 2020

The Complexities of ESG

- California has led the US in Clean Energy Policy and targets 100% renewables and zero carbon by 2045. The recent rolling blackouts, the first since 2001, impacted thousands of California residents and highlight the complexities that these programs can face. Despite recent setbacks, California remains dedicated to their advancement of renewables, reduction of carbon, and other green projects.
  - During record-setting heatwaves, California grid operators shut down electrical power as demand exceeded available power supply. Magnified by the extreme heat and wildfires, the pandemic has changed how people and businesses use electricity, making it harder for grid operators to forecast.
  - To make progress towards their aggressive zero carbon policy, California has retired 10 gas-fired plants since 2010. As a result, there is less available gas supply at peak hours coinciding with the lack of available solar power after sundown. Recent power blackouts highlight the challenge of balancing electric reliability with carbon reduction goals as more renewable energy storage is needed.
- As a leader in Clean Energy Policy, many states will look to California's response to this challenging situation. The far-reaching implications of the regulatory environment is a key consideration in our fundamental research.



ESG Headline Events<sup>3</sup>

- ESG factors influence headlines and can impact credit performance. Social factors continue their prevalence in the media.
  - + Glencore and Tesla have backed a new alliance in the Democratic Republic of Congo in an effort to eradicate child labor and improve working conditions at cobalt mines. The DRC supplies 60% of the world's cobalt, which is a key input for batteries.
  - Employees at Premium Point Investments were charged with inflating asset values, allowing them to collect higher fees and attract investors. Many of these prime jumbo RMBS assets continue to trade on the secondary market.

## PENSIONS & INVESTMENTS BEST PLACES TO WORK FOR 2019

- Income Research + Management (IR+M) was named a Best Place to Work in Money Management for the fourth consecutive year by Pensions & Investments
- Presented by Pensions & Investments, the global news source of money management, the annual survey and recognition program is dedicated to identifying and recognizing the best employers in the money management industry
- One of the cornerstones of IR+M is its unique culture, which is collaborative and collegial, as well as focused on serving its clients and community; the firm's open office environment fosters constant communication across team lines, and empowers employees to freely share ideas
- The firm's commitment to the community is pervasive, with employees frequently volunteering to mentor students or provide meals to those in need; additionally, the firm's benefits program reflects its emphasis on the importance of work/life balance

For a complete list of the 2019 Pensions & Investments' Best Places to Work in Money Management winners, please visit:

<https://www.pionline.com/best-places-work/76-money-managers-go-above-and-beyond>



## IR+M COMPOSITE DISCLOSURES – 12/31/19

### Aggregate Composite

January 1, 1992 through December 31, 2019

Year	Returns (%)			3-Yr St Dev (%)		Number of Portfolios	Dispersion (%)	Y/E Assets (USD, mm)	
	Gross	Net	Benchmark	Composite	Benchmark		Composite	Composite	Firm
1992	8.06	7.69	7.40	N/A	N/A	≤ 5	N/A	9	538
1993	11.95	11.57	9.75	N/A	N/A	≤ 5	N/A	21	803
1994	(1.80)	(2.15)	(2.92)	N/A	N/A	≤ 5	N/A	18	957
1995	18.90	18.50	18.47	N/A	N/A	≤ 5	N/A	97	1,700
1996	4.53	4.17	3.63	N/A	N/A	≤ 5	N/A	100	1,964
1997	9.22	8.85	9.65	N/A	N/A	≤ 5	N/A	108	2,420
1998	7.61	7.24	8.69	N/A	N/A	6	0.10	293	3,041
1999	0.45	0.10	(0.82)	N/A	N/A	6	0.08	239	3,374
2000	10.19	9.81	11.63	N/A	N/A	7	0.63	162	3,620
2001	10.38	10.01	8.44	N/A	N/A	7	0.22	111	3,705
2002	9.32	8.94	10.26	N/A	N/A	7	0.24	181	3,847
2003	6.20	5.84	4.10	N/A	N/A	12	0.40	700	5,108
2004	5.31	4.95	4.34	N/A	N/A	16	0.21	927	6,636
2005	3.05	2.69	2.43	N/A	N/A	33	0.23	1,255	7,480
2006	4.81	4.45	4.33	N/A	N/A	42	0.17	1,845	9,238
2007	6.91	6.54	6.97	N/A	N/A	44	0.27	2,616	11,507
2008	0.23	(0.12)	5.24	N/A	N/A	51	1.47	2,618	13,718
2009	13.49	13.11	5.93	N/A	N/A	69	1.35	3,765	21,252
2010	7.16	6.79	6.54	N/A	N/A	84	0.32	4,885	26,295
2011	7.30	6.93	7.84	3.35	2.78	86	0.25	5,054	30,676
2012	7.39	7.02	4.22	2.49	2.38	84	0.35	5,391	35,466
2013	(1.33)	(1.68)	(2.02)	2.89	2.71	72	0.20	4,528	37,224
2014	7.10	6.73	5.97	2.75	2.63	71	0.19	6,075	48,414
2015	0.59	0.23	0.55	2.91	2.88	62	0.14	6,747	54,887
2016	3.57	3.15	2.65	2.88	2.98	66	0.20	8,290	61,589
2017	3.97	3.56	3.54	2.65	2.78	69	0.13	9,099	69,256
2018	0.09	(0.32)	0.01	2.65	2.84	69	0.09	9,470	71,882
2019	9.32	8.89	8.72	2.76	2.87	66	0.13	10,424	75,105

The three-year annualized ex-post standard deviation of the composite and benchmark is as of year end. Reporting began in 2011.



## IR+M COMPOSITE DISCLOSURES – 12/31/19 (continued)

### Aggregate Composite Continued

Income Research & Management (“IR+M”) is an independent investment management firm with approximately \$75.1 billion in assets under management. IR+M has no subsidiaries or divisions, all business is done at IR+M and all assets are managed by IR+M. A complete list of composite descriptions is available upon request. IR+M claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. IR+M has been independently verified for the period January 1, 2000 through December 31, 2019 by ACA Performance Services. 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 processes and procedures are designed to calculate and present performance in compliance with the GIPS standards. The Aggregate Composite has been examined for the period January 1, 2000 through December 31, 2019. The verification and performance examination reports are available upon request.

Valuations are computed, performance is reported, and fees are based on U.S. dollars. Gross-of-fee performance returns are presented before management and custodial fees but after all trading expenses. Net-of-fee performance returns are calculated using the highest fee of the two scenarios: 1) fee charged to a current portfolio within the composite or 2) the standard fee schedule. Therefore, we use whichever fee is highest for a given year. The fees are deducted quarterly, using one-fourth of the annual fee rate. Fees disclosed are the standard management fee for that strategy. Actual management fees may be different than those illustrated in this disclosure. Additional information regarding valuing portfolios, calculating performance and preparing compliant presentations are available upon request.

Dispersion is calculated using the equal-weighted standard deviation of all portfolios that were included in the composite for the entire year. Dispersion is not calculated for years with five or fewer portfolios in the composite for the entire year.

This composite utilizes a Significant Cash Flow Policy, which is described as follows. Prior to 1/1/10, if cash flows exceeded 5%, IR+M removed the portfolio from the composite, effective as of the last full month of management prior to the cash flow, if the impact to the performance of the composite was greater than the absolute value of 0.02%. For periods beginning 1/1/10 or later, IR+M will remove a portfolio from a composite if an external contribution or withdrawal (flow) is significant. The portfolio will be removed as of the last full month of management prior to the flow. IR+M defines a flow (either cash or securities) as significant by mandate according to the following criteria: Government mandates: No level – all portfolios left in regardless of size of flow; Corporate/Broad market/TIPS: 25% of beginning portfolio value; Convertibles/Municipals: 10% of beginning portfolio value. Portfolios will re-enter the composite according to the Entering Composites criteria detailed in the IR+M GIPS Policy Manual. Additional information regarding the treatment of significant cash flows is available on request.

Derivatives, if used in those accounts whose guidelines permit their use, are primarily engaged as hedging instruments. Interest Rate Swaps and Treasury-bond futures may be used to manage a portfolio’s duration, and Credit Default Swaps may be used in strategies to isolate a particular issuer’s credit risk.

The Aggregate Composite is comprised of separately managed institutional portfolios mainly invested in a diversified range of domestic, investment grade, fixed income securities. The objective of the mandate is to outperform the benchmark on a total return basis while staying within the boundaries of individual client guidelines. The securities’ typical maturity range is between 1-12 years. The benchmark for the composite is the Bloomberg Barclays Aggregate Index. Benchmark returns are not covered by the report of independent verifiers. The standard management fee schedule is 0.30% on the initial \$50mm, 0.25% on the next \$50mm, 0.20% on the next \$100mm, and 0.15% on amounts over \$200mm. The composite was created on 12/31/91.

## IR+M DISCLOSURE STATEMENT

### *Attribution Disclosures:*

#### Market Term Structure Components

Duration - the contribution to relative return due to the difference between the portfolio's and the index's overall duration, assuming a parallel change in interest rates. The basic formula is the (difference in duration between the portfolio and the index) multiplied by the total return of the reference Treasury.

Shape - the contribution to relative return due to the difference between the portfolio's and the index's duration profiles. The basic formula is the [(difference of each key rate duration between the portfolio and the index) multiplied by the total return of the respective key rate Treasury] minus the Duration and Other effects.

Other - the contribution to relative return due to the cumulative differences in carry, rolldown, and convexity.

Asset Allocation - the contribution to relative return due to portfolio's sector overweight or underweight compared to the index. The basic formula is the (difference between the portfolio and index sector weights) multiplied by the (difference between the index sector excess return and the index total excess return).

Security Selection - the contribution to relative return due to the portfolio's security selection compared to the index. The basic formula is (the difference in sector excess return between the portfolio and the index) multiplied by the portfolio sector weight.

#### Price & Intraday Components

Pricing - the contribution to relative return due to changes in the relative prices for securities held in common with the index. IR+M uses ICE as a pricing source for the majority of its portfolios, while indices typically use their own internally calculated prices.

Intraday - the contribution to relative return due to the implementation impact from executing trades. It is generally the performance cost from the differences between execution price of traded positions and the end-of-day prices used for daily valuation.

The IR+M attribution model is a proprietary model that uses data from multiple analytical sources to estimate portfolio attribution and does not claim that outputs are exact measurements. IR+M used the Brinson-Fachler methodology in the attached attribution calculations. Additional detail on calculation methodology can be provided upon request.



## IR+M DISCLOSURE STATEMENT

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It should not be assumed that the yields or any other data presented exist today or will in the future. Past performance is not a guarantee of future results and current and future portfolio holdings are subject to risk. Securities listed in this presentation are for illustrative purposes only and are not a recommendation to purchase or sell any of the securities listed. Forward looking analyses are based on assumptions and may change. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of the securities listed. Some statistics require assumptions for calculations which can be disclosed upon request.

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This presentation was requested by Los Angeles City Employees’ Retirement System.

## IR+M DISCLOSURE STATEMENT

### **Fees:**

Unless otherwise noted, the investment results shown do not reflect the deduction of investment advisory fees. The investment advisory fees charged by Income Research & Management are described in Part 2A of IR+M's Form ADV, which is available upon request. Actual returns will be reduced by advisory fees and any other expenses (custodial, etc.) that may be incurred in the management of an investment account. Investment management fees do have an effect on the investment results achieved by a client. For instance, on a \$100 million portfolio, an example IR+M fee might be 0.39%. A gross hypothetical return of 10.00% in a given year would be reduced to 9.61% if the client's annual investment management fee were 0.39%. Over a 5-year period of annual 10% returns, a gross return of 61.05% would be reduced to 58.82% after the deduction of investment management fees. Different strategies may have different standard fees. Total returns including realized and unrealized gains plus interest and dividends are used to calculate investment performance. Cash is included in performance calculation. All returns are expressed in US\$ terms. Trade date accounting and valuation are used. Past performance is not indicative of future results. Periods over one year are annualized. A similar analysis can be provided for any time period since inception.

Please see additional disclosures for important composite performance information such as inception date and historical index changes.

Please refer to your investment management agreement ("IMA") for additional information including, but not limited to, investment advisory fee information.

### **Characteristics:**

Unless otherwise noted, characteristics and holdings are from the representative portfolio of the applicable composite or specific to the client account included in this presentation. The representative portfolio information is supplemental to the IR+M Composite Disclosures. Some statistics require assumptions for calculations which can be disclosed upon request. Yields are represented as of the aforementioned dates and are subject to change. A similar analysis can be provided for any portfolio we manage. Totals may not sum due to rounding.

### **Sample Portfolios:**

All sample portfolios are represented as of the aforementioned dates. There are limitations in sample results, including the fact that such results neither represent trading nor reflect the impact that economic market factors might have had on the management of the account if the adviser had been managing an actual clients money. Actual results may differ. A similar analysis can be provided of any portfolio we manage.

# J.P. Morgan Core Bond Strategy

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**Los Angeles City Employees' Retirement System | Data as of September 30, 2020**

**Finals Presentation - December 9, 2020**

**Lara Clarke**, Client Advisor, Managing Director  
415-315-5249, [lara.clarke@jpmorgan.com](mailto:lara.clarke@jpmorgan.com)

**Richard Figuly**, Portfolio Manager, Managing Director  
614-213-2234, [richard.figuly@jpmorgan.com](mailto:richard.figuly@jpmorgan.com)

**Susan Parekh**, Portfolio Manager, Executive Director  
614-213-6543, [susan.parekh@jpmorgan.com](mailto:susan.parekh@jpmorgan.com)

**Joseph Hisdorf**, Investment Specialist, Executive Director  
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# Los Angeles City Employees' Retirement System

## J.P. Morgan Asset Management Client Team

### CLIENT ADVISOR

Responsible for understanding goals and objectives in order to provide strategic advice on investment allocation and portfolio structure

### CLIENT ACCOUNT MANAGER

Provides custom service solutions in partnership with your JPMAM coverage team. Serves as the lead contact for all service related matters including operational, ongoing legal, and administrative aspects of the relationship.



### INVESTMENT SPECIALIST

Facilitates connectivity between you and portfolio managers and serves as a specialized source of product strategy, investment process, and market knowledge.

### PORTFOLIO MANAGER

Responsible for implementing the strategy, buying and selling securities to create a portfolio within guideline parameters that maximizes return while minimizing risk.

### CLIENT ADVISORS

**LARA CLARKE** – Client Advisor  
e. lara.clarke@jpmorgan.com  
t. 415.823.1430

**DARREN SMITH** – Client Advisor  
e. darren.f.smith@jpmorgan.com  
t. 415.315.8939

### INVESTMENT SPECIALIST

**JOE HISDORF** – Core Bond  
e. joseph.k.hisdorf@jpmorgan.com  
t. 614.213.1561

### CLIENT ACCOUNT MANAGER

**GAMA BLANCO** – Client Account Manager  
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### PORTFOLIO MANAGERS

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t. 614.213.7533

## JP Morgan Chase's Commitment to Community Engagement:

Our Corporate Responsibility initiatives help identify solutions to some of the most pressing global economic and social challenges. We are leveraging our core strengths, capabilities, data and expertise to create meaningful and sustainable impact in our communities.



### COMMUNITY COMMITMENT

**\$30bn committed**  
to advance racial equity.

### \$500mm Invested

In 2018, JPMorgan Chase launched AdvancingCities, a \$500 million, five-year initiative that will invest in solutions that bolster the long-term vitality of the world's cities and the communities within them that have not benefited from economic growth.



### SMALL BUSINESS

**\$29bn** in financing to small businesses in 2019

### \$75 committed

Commitment over three years to support underserved small business owners by connecting them to critical resources that help them grow faster, create jobs and strengthen local economies.



### NEIGHBORHOOD REVITALIZATION

**\$125mm**

Through initiatives like PRO Neighborhoods, we are working to identify and support solutions for creating economic opportunity in disadvantaged neighborhoods around the country.



### SUPPORTING LOCAL INITIATIVES

**\$1.5mm**

The National Skills Coalition partners with business, education and community leaders to improve federal and state-level workforce policies and education systems. A \$1.5M grant will strengthen their state-level efforts in regions across the country.

# Commitment to Diversity and Inclusion: Enriched by our culture

**50%** of firm's Operating Committee

**25%** of senior leaders globally

**49%** of all employees

- **Women on The Move** program focused on women's careers and financial health. A Women on The Move BRG supports women and allies globally
- The **ReEntry Program** creates a pathway for individuals to return to the workforce after a career break. To date, **132 fellows** have gone through the program

- **LGBT+ Executive Council** serve as a collective senior voice for the LGBT community with a core team of MDs leading the strategy to connect and better engage across the **PRIDE BRG**
- Sponsored the **Human Rights Campaign's** "A Workplace Divided" study and working with Out & Equal to build software solutions through Force for Good
- Currently developing manager / employee transgender educational toolkit

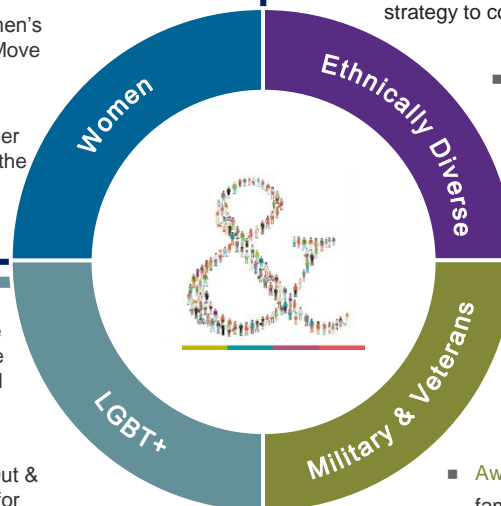


- **51% of all US employee** are ethnically diverse.



- **Black, Hispanic and Asian Executive Forums** serve as a collective senior voice for their respective communities with a core team of MDs leading the strategy to connect and better engage across the BRGs and LOB Forums

- **Advancing Black Leaders** launched in 2016 to focus on developing and sourcing Black talent
- **Advancing Black Pathways** aimed at having sustainable impact on economic development, growth and empowerment externally in the black community



**15,000+** Vets hired by JPMC since 2011

- In addition helped **500,000** veteran hires by 200+ leading firms

- Awarded **1,047** mortgage free homes to military families through **Military Home Awards** Program

- Support veteran-owned small businesses through special financial products at Chase and invest \$4.2 million in organizations that support veteran entrepreneurs



**AccessAbility, NextGen, Sage and Working Families Business Resource Groups** support our employee communities and allies that represent people with disabilities, generations in the workplace, administrative assistants, and families.

Sources: J.P. Morgan Chase & Co. as of June 30, 2020

# Platform Overview

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# Why Fixed Income with J.P. Morgan Asset Management

A powerful combination of expertise, deep resources and time-tested process set us apart

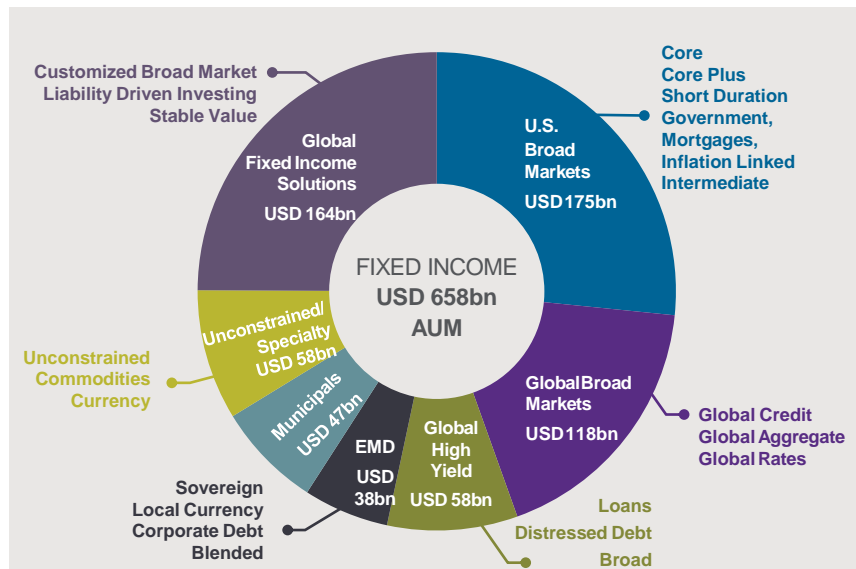
<b>PHILOSOPHY</b> Invest as lenders of our clients' money	<b>APPROACH</b> Globally integrated, research-driven	<b>PROCESS</b> Rigorous, disciplined, proprietary
<ul style="list-style-type: none"> <li>■ Bank-owned asset manager with a <b>fiduciary mindset</b> and a <b>150-year heritage</b></li> <li>■ Team based and transparent approach with a <b>focus on client outcomes</b> and significant <b>access to our investment teams</b></li> <li>■ Strive to deliver consistently <b>strong risk-adjusted returns</b></li> <li>■ <b>Risk management</b>, a critical part of our culture, <b>is embedded on multiple levels</b></li> </ul>	<ul style="list-style-type: none"> <li>■ <b>270+ fixed income investment professionals</b> across 5 countries benefit from <b>diverse views</b> and the best ideas from across the platform</li> <li>■ <b>Common trading platform</b> creates scale and drives our goal of <b>best execution</b></li> <li>■ Process is powered by <b>Spectrum, proprietary technology</b>, which includes optimizers and trading bots</li> <li>■ Centralized research team with <b>65 quantitative and fundamental research analysts</b></li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Fundamental, Quantitative, Technical (FQT)</b> inputs used to underwrite every investment we make</li> <li>■ <b>ESG factors</b> are <b>integrated</b> throughout our investment process</li> <li>■ Continuous collaboration including our weekly strategy meetings and our <b>Investment Quarterly (IQ)</b> form the framework for our process</li> <li>■ <b>Access to key decision makers</b> in government and industry, and strong relationships with financial institutions</li> <li>■ <b>Proprietary insights and data</b> with investments in Artificial Intelligence and machine learning to harness big data</li> </ul>

Source: J.P. Morgan Asset Management; as of June 30, 2020.

# Expertise to deliver superior client outcomes

## J.P. MORGAN CORE BOND STRATEGY (\$72.3B AUM)

## GLOBAL FIXED INCOME, CURRENCY & COMMODITIES ASSETS UNDER MANAGEMENT



## ASSET & WEALTH MANAGEMENT (\$2.19T AUM)

## JPMORGAN CHASE & CO.

Source: J.P. Morgan Asset Management. Data as of September 30, 2020. Due to rounding, data may not always add up to the total AUM. AUM figures are representative of assets managed by the Global Fixed Income, Currency & Commodities group and include AUM managed on behalf of other J.P. Morgan Asset Management investment teams. The manager seeks to achieve the above stated objective. There can be no guarantee the objective will be met.

# Core Bond Strategy

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# What differentiates our approach to Core Bond?

## Differentiated Investment Style

**Expertise in securitized (agency and non-agency) is a strong complement to deep corporate credit resources**

**Rigorous portfolio level stress testing and scenario analysis is done with the goal of mitigating downside risk**

**Portfolios are typically 100% cash securities (i.e. no use of futures or derivatives)**

## Differentiated Results

- Increases portfolio diversification
- Provides high quality out of benchmark opportunities
- Typically a low correlation of excess returns vs. top intermediate fixed income managers\*

- Focus on generating risk adjusted returns
- Long term consistency of performance
  - rolling two-year returns exceeded the Barclays Aggregate Index 78 of the last 80 quarters
  - outperformed the Barclays Aggregate index in 23 out of the last 25 calendar years
- Negative correlation to S&P 500\*

- Risk exposures that are readily understood
- Transparency of portfolio positioning
- Ease of reporting and monitoring

\* Based on top 20 core fixed income managers by AUM as of 9/30/20 over 5 and 10 year investment horizon.

# People

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# Core Bond Investment Team



**Rick Figuly**  
*Lead Portfolio Manager Core Bond Fixed Income*

## PORTFOLIO MANAGERS



**Kent Weber, CFA**  
*Portfolio Manager*



**Tim Eisel**  
*Portfolio Manager*



**Justin Rucker, CFA**  
*Portfolio Manager*



**Daniel Ateru, CFA**  
*Portfolio Manager*



**Andy Melchiorre, CFA**  
*Portfolio Manager*



**Susan Parekh**  
*Portfolio Manager*



**Scott Grimshaw, CFA**  
*Portfolio Manager*



**Michael Pacca**  
*Portfolio Manager*

## COMMON PLATFORM



**Greg Tell\***  
*Head of Investment Specialists*



**Kay Herr, CFA\***  
*Head of Research*



**Vincent Kumaradja\***  
*Head of Risk*



**Brian Lysiak\***  
*Head of Trading*

\* Bob Michele direct report  
As of September, 2020

# Investment Process

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## Fundamental Investment Tenets

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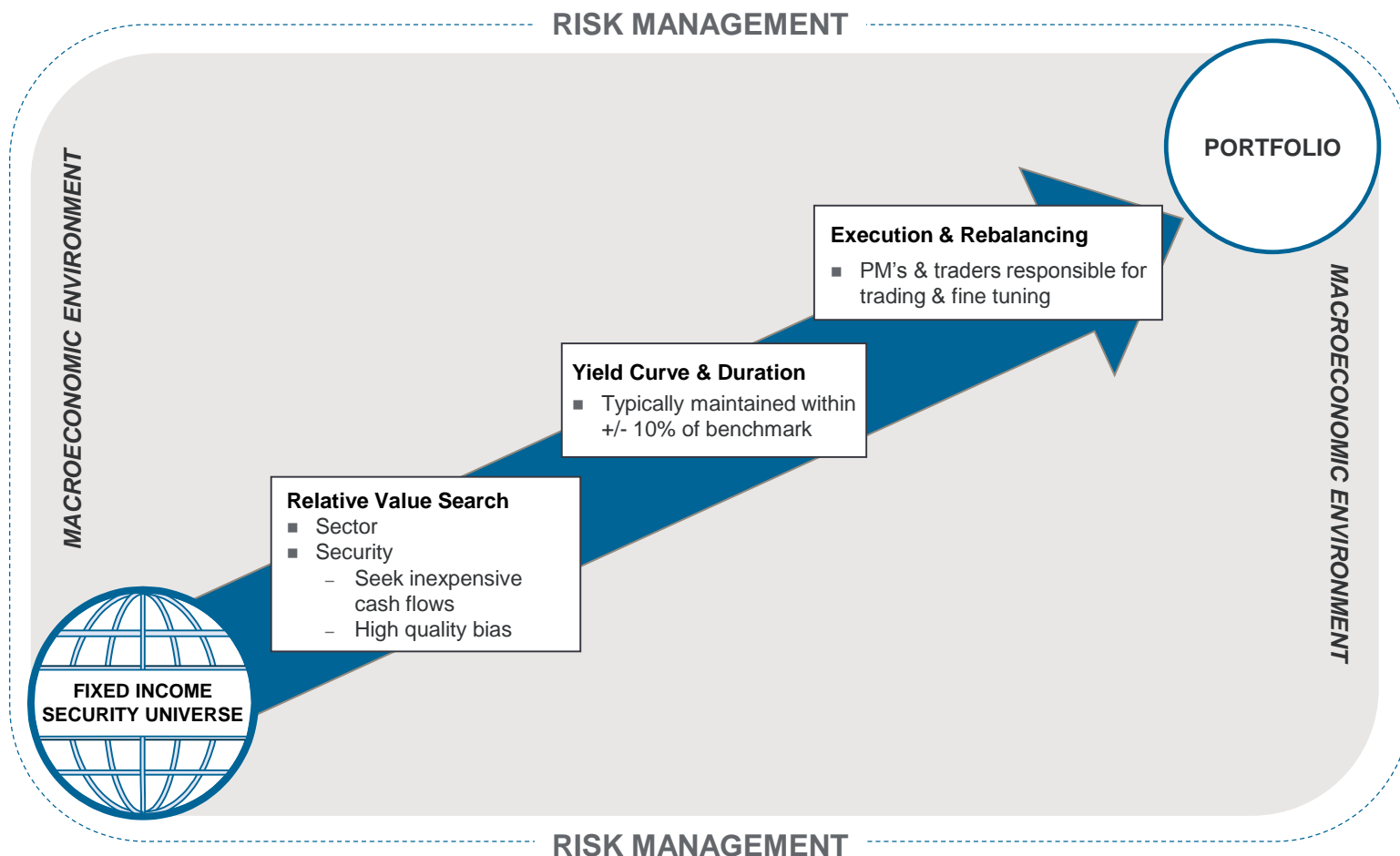
- We believe in a disciplined value-driven approach based on **bottom-up, fundamental analysis**
- **Longer term investing** versus trading mentality
- Style emphasizes research and **individual security analysis**, rather than large macro bets
- Portfolios are **well diversified** and of **high average credit quality**, helping to minimize individual security risk
- Many **small decisions** drive overall portfolio strategy, making us less dependent on a few top-down decisions
- **Low turnover** minimizes trading costs
- Risk management, embedded throughout the process, seeks to **limit downside risk** relative to a benchmark

***This approach has resulted in consistent, long-term outperformance of the benchmark in a variety of market environments***

The manager seeks to achieve the stated objectives. There can be no guarantee the objectives will be met.



# Investment Approach



The manager seeks to achieve the stated objectives. There can be no guarantee the objectives will be met.

# Core Bond Composite Snapshot

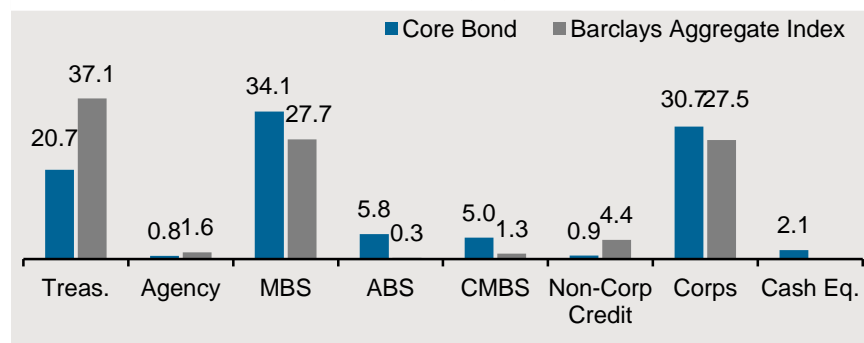
All data as of September 30, 2020

Discretionary assets: USD 66.7

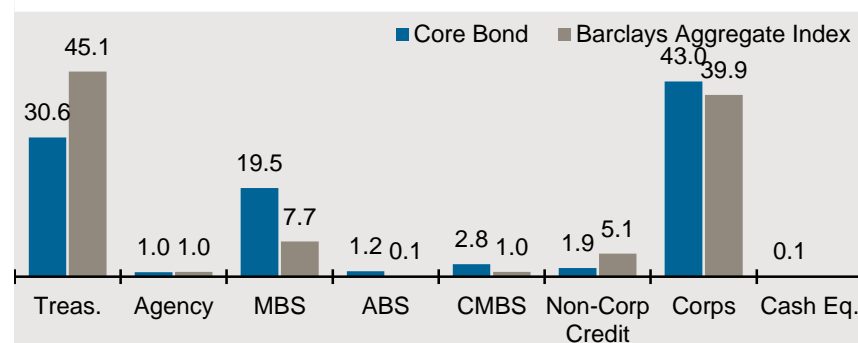
Portfolio statistics	Core Bond	Barclays Agg	Diff.
Yield to Maturity	1.65%	1.06%	+0.59%
OAS (bps)	113	54	+59
Duration (yrs)	6.03	5.95	+0.08
Spread Duration (yrs)	4.40	3.62	+0.78
Convexity	0.71	0.65	+0.06
Average Quality	A+	AA	-
Turnover	23%	-	-
Average # of Holdings	300-500**	11,912	-

Quality Distribution (MV%)*	Core Bond	Barclays Agg
AAA	57.03%	70.32%
AA	6.54%	5.42%
A	16.43%	13.07%
BBB	17.36%	11.19%
BB and Below	0.33%	0.00%
Not Rated	2.32%	0.00%
Total	100.0%	100.0%

## Sector Distribution Market Value (%)



## Sector Distribution Duration Contribution (%)



\*Credit quality distribution compiled using the highest applicable rating from any Nationally Recognized Statistical Rating Organization (NRSRO). Securities that are not rated by any NRSRO are reflected as such.

\*\*Portfolio holdings vary based on account size, tenure, and investment guidelines

Measurements in percent. statistics are compiled by running vendor data through J.P. Morgan's internal analytic models. Please see performance disclosures which accompany this presentation. Actual account characteristics may differ

Since 1/1/17, sector classifications have been updated within Global Fixed Income to provide greater consistency, transparency, granularity, and alignment with current industry conventions.

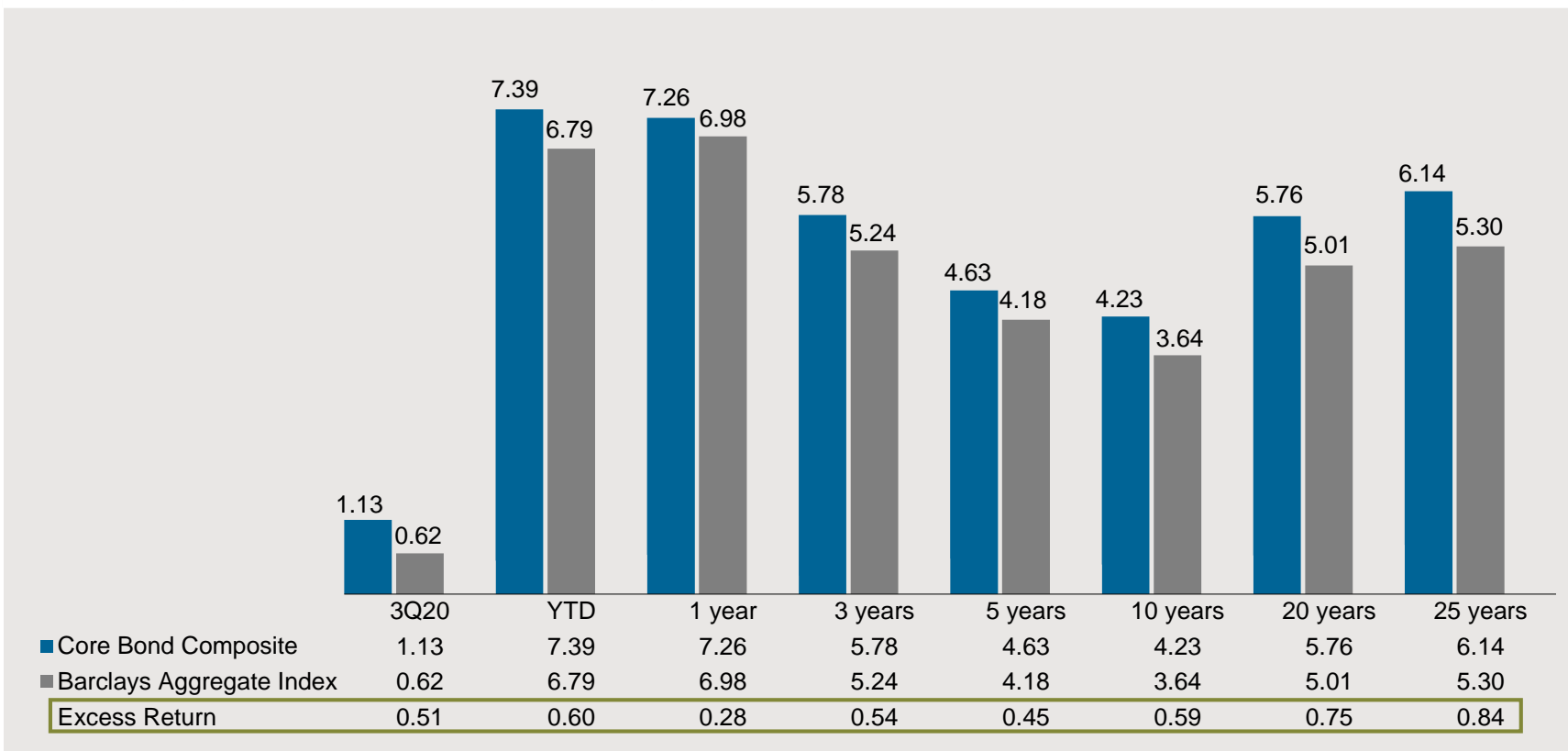
Turnover will vary by account size, tenure, and investment guidelines

# Investment Performance

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## Core Bond Composite Investment Performance

Period Ending September 30, 2020 – Gross of Fees (%) Supplemental to annual performance report



Past performance is not indicative of future returns. Performance includes the reinvestment of income. Inception Date: 12/31/1985

Performance results are gross of investment management fees. The deduction of an advisory fee reduces an investor's return. Actual account performance will vary depending on individual portfolio security selection and the applicable fee schedule. Fees are described in Part II of the Advisor's ADV which is available upon request. (Please see back for additional performance disclosure)

Since 1/1/17, sector classifications have been updated within Global Fixed Income to provide greater consistency, transparency, granularity, and alignment with current industry conventions.

## Core Bond has favorable risk metrics

All data as of September 30, 2020



= top decile



= top quartile

### Performance & Risk Statistics

3 Years

5 Years

10 Years

15 Years

20 Years

25 Years

#### Performance

*Excess Return Ranking*

42

57

44

25

21

9

#### Standard Deviation (vs. Barclays Aggregate Index)

Core Bond

3.60

3.32

2.92

3.06

3.35

3.39

Barclays Aggregate

3.37

3.15

2.96

3.20

3.42

3.42

*Standard Deviation Ranking*

42

44

18

8

10

11

#### Information Ratio (vs. Barclays Aggregate Index)

Core Bond

0.63

0.64

0.98

0.84

0.88

1.02

*Information Ratio Ranking*

30

37

14

8

6

2

#### Sharpe Ratio (using Citigroup 3-Month T-Bill)

Core Bond

1.15

1.05

1.24

1.32

1.27

1.15

Barclays Aggregate

1.07

0.96

1.02

1.02

1.03

0.90

*Sharpe Ratio Ranking*

35

47

20

1

3

1

#### Correlation of Returns (vs. S&P 500)

Core Bond

0.04

(0.02)

(0.08)

0.00

(0.14)

(0.05)

Source: eVestment Alliance (Core Fixed Income Universe) and J.P. Morgan Asset Management. Performance results are gross of investment management fees. Calculations based on monthly returns. The deduction of an advisory fee reduces an investor's return. Actual account performance will vary depending on individual portfolio security selection and the applicable fee schedule. Past performance is not a guarantee of comparable future results. Fees are described in Part II of the Advisor's ADV which is available upon request.

## Core Bond can be a complement or diversifier

Period ending September 30, 2020 - Gross of fees (%)

Excess returns calculated versus the Bloomberg Barclays Aggregate Bond Index

5 Year Correlations of Excess Returns	
	J.P. Morgan Core Bond
Baird Advisors	0.58
CS McKee	0.58
Garcia Hamilton & Associates	0.44
Income Research & Management	0.58
Loomis, Sayles & Company	0.64
Neuberger Berman	0.38
Segall Bryant & Hamill	0.58
S&P 500 (correlation of returns)	(0.02)

10 Year Correlations of Excess Returns	
	J.P. Morgan Core Bond
Baird Advisors	0.47
CS McKee	0.57
Garcia Hamilton & Associates	0.28
Income Research & Management	0.38
Loomis, Sayles & Company	0.50
Neuberger Berman	0.33
Segall Bryant & Hamill	0.29
S&P 500 (correlation of returns)	(0.08)

Source: Managers selected from eVestment Alliance Core Fixed Income peers; calculations using monthly data as of 9/30/20

# Appendix

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## Today's Presenters



### Lara Clarke

**Lara Clarke**, *managing director*, is a Client Advisor within J.P. Morgan Asset Management and is based in Los Angeles. She oversees client and business development efforts providing tailored investment solutions for U.S. institutional investors across public and corporate pension plans. She is also the Client Segment Lead for U.S. public pension funds. Previously, Lara was Director of Marketing and Business Development for Los Angeles Capital Management, an institutional equity investment manager focused on creating customized portfolios to meet client specific needs. She led the firm's marketing strategy for the public pension, corporate plan sponsor, endowment/foundation, and consultant community in the West and Midwest regions. Lara is also the Co-Founder and President of Women in Institutional Investments Network (WIIIN), a 501(c)(3) non-profit organization focused on creating a community for women in institutional investments in Southern California through educational and philanthropic events. Lara received a B.S. in Finance and International Business from Pennsylvania State University and M.B.A. from the UCLA Anderson School of Management. She holds the FINRA Series 7, 63 and NFA Series 3 licenses.



### Richard Figuly

**Richard Figuly**, *managing director*, is Head of Core Strategy within our Global Fixed Income, Currency & Commodities (GFICC) group. Based in Columbus, Rick leads a group of portfolio managers on the Core Strategy team who are responsible for managing institutional taxable bond portfolios and fund vehicles. Rick is the Lead Portfolio Manager on the Core Bond Fund and Mortgaged Backed Securities Fund. An employee since 1993, Rick previously served as a fixed income trader trading all taxable fixed income securities while specializing in structured products. Prior to joining the firm, Rick was a fiduciary tax accountant at the Bank One Ohio Trust Company. Rick is also a retired Major of the Ohio Army National Guard. He holds a B.S. in finance from The Ohio State University.



### Susan Parekh

**Susan Parekh**, *executive director*, is a member of the Global Fixed Income, Currency & Commodities (GFICC) group. Based in Columbus, Susan is a portfolio manager responsible for managing Short Duration, Stable Value, Core and Long Duration Bond institutional taxable bond portfolios and fund vehicles. An employee since 1996, Susan previously worked as a performance analyst and a senior investment fund accountant. Susan holds a B.B.A. in accounting and finance from Western Michigan University.



### Joe Hisdorf

**Joe Hisdorf**, *executive director*, is a member of the Global Fixed Income, Currency & Commodities (GFICC) group. Based in Columbus, Joe is an investment specialist for the U.S. Broad Markets team and is responsible for communicating investment strategy, decisions and performance across various fixed income products to clients, consultants, prospects and internal partners. An employee since 2003, Joe has served in various positions within Asset Management which include business analyst, consultant analyst and project manager. Previously, he worked for Bisy Fund Services as a senior mutual fund accountant. Joe holds a B.B.A in finance from the College of Business at Ohio University and holds FINRA Series 7, 63, and 65 licenses.

As of September 30, 2020.



# Global Fixed Income, Currency & Commodities

## Bob Michele

Head of Global Fixed Income, Currency & Commodities

### INVESTMENT LEADS



**Steve Lear, CFA\***  
U.S. CIO



**Barb Miller\***  
Customized Bond Portfolios  
CIO



**Iain Stealey, CFA\***  
International CIO



**Pierre-Yves Bateau\***  
Emerging Markets CIO

### COMMON PLATFORM



**Greg Tell\***  
Head of Investment  
Specialists



**Kay Herr, CFA\***  
Head of Research



**Vincent Kumaradjaja\***  
Head of Risk



**Brian Lysiak\***  
Head of Trading

### BUSINESS MANAGEMENT



**Rash Bardha**  
Middle Office/Operations



**Niall Byrne, CFA**  
COO



**Josh Ludmer**  
Technology



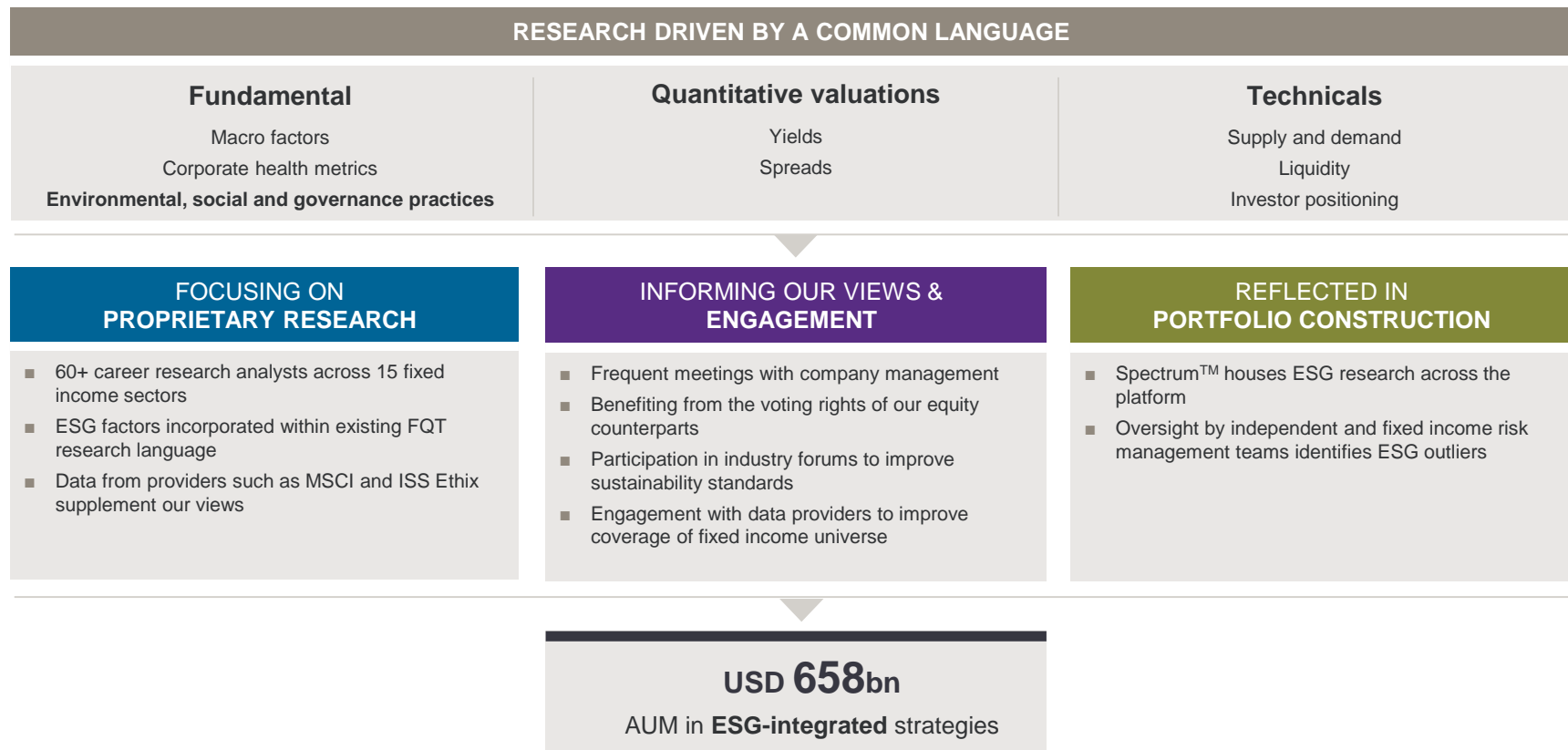
**Silpa Gangavarapu**  
Human Resources

\* Bob Michele direct report

As of September 30th 2020, There can be no assurance that the professionals currently employed by J.P. Morgan Asset Management will continue to be employed by J.P. Morgan Asset Management or that the past performance or success of any such professional serves as an indicator of such professional's future performance or success.

# Integrating ESG factors throughout our investment process

ESG Integration: The explicit consideration of material ESG factors in the investment decision-making process



Source: J.P. Morgan Asset Management. ESG-integrated AUM data as of September 30, 2020. AUM figures are representative of assets managed by the Global Fixed Income, Currency & Commodities group and include AUM managed on behalf of other J.P. Morgan Asset Management investment teams.

# Active management demands active risk management

---

Our risk management discipline is essential to our investment process

## Portfolio Management Team

1

- Responsible for managing portfolios to stated risk management guidelines, and for determining and ensuring risk exposures are deliberate and appropriately scaled
- Accountable for the regular (e.g., daily/weekly/monthly/quarterly) review and monitoring of customized risk data and analytics across portfolios
- Ongoing monitoring of the portfolio's sustainability profile, including ESG outliers

## Investment Director

2

- Provides embedded fiduciary and risk oversight, while independently ensuring portfolios adhere to stated operating and compliance guidelines
- Upholds governance framework through periodic investment reviews, Board reporting and customized risk monitoring within the asset class
- Develop monitoring tools for PM and oversight use

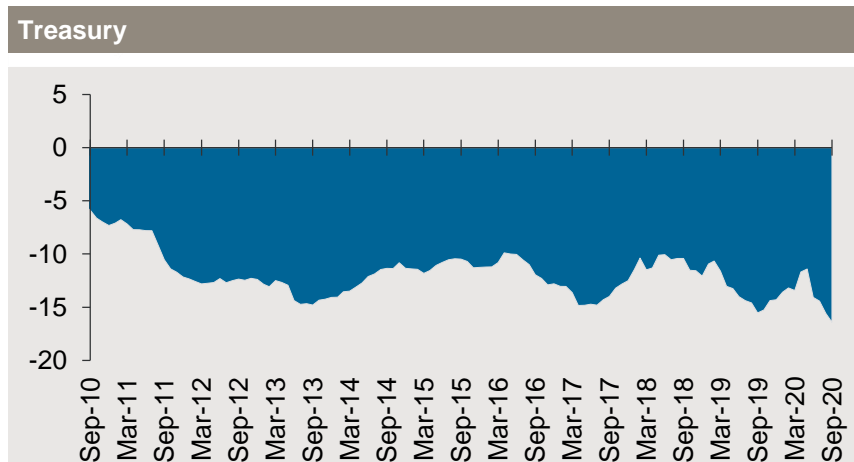
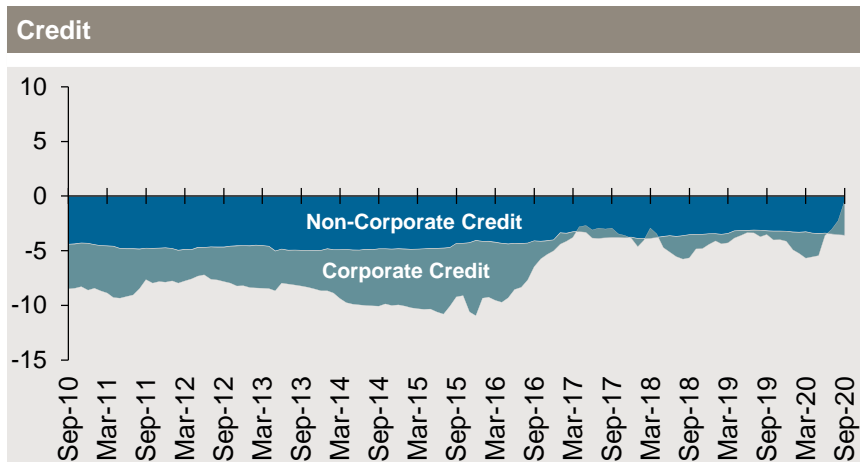
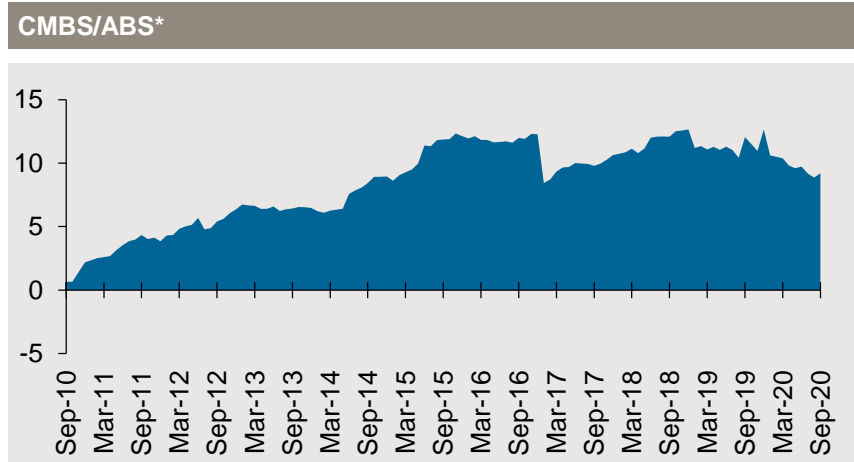
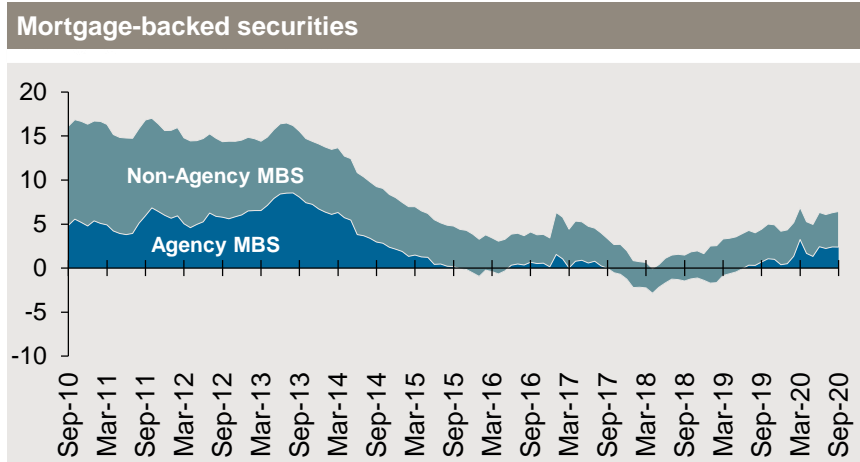
## Independent Risk Management

3

- Provides independent, consolidated view of risks at multiple levels – including investment, counterparty, liquidity and operational risk
- Produces standard weekly global risk packages for senior management summarizing key risk metrics across multiple funds and asset classes and provides credible challenge to the business through review of accounts that trigger risk thresholds

# Sector Weight Comparison

Core Bond composite vs. Barclays Aggregate (% market value)



Source: J.P. Morgan Investment Management Inc. Corporate and MBS graphs display net subsector exposures versus the index. Updated through September 30, 2020.

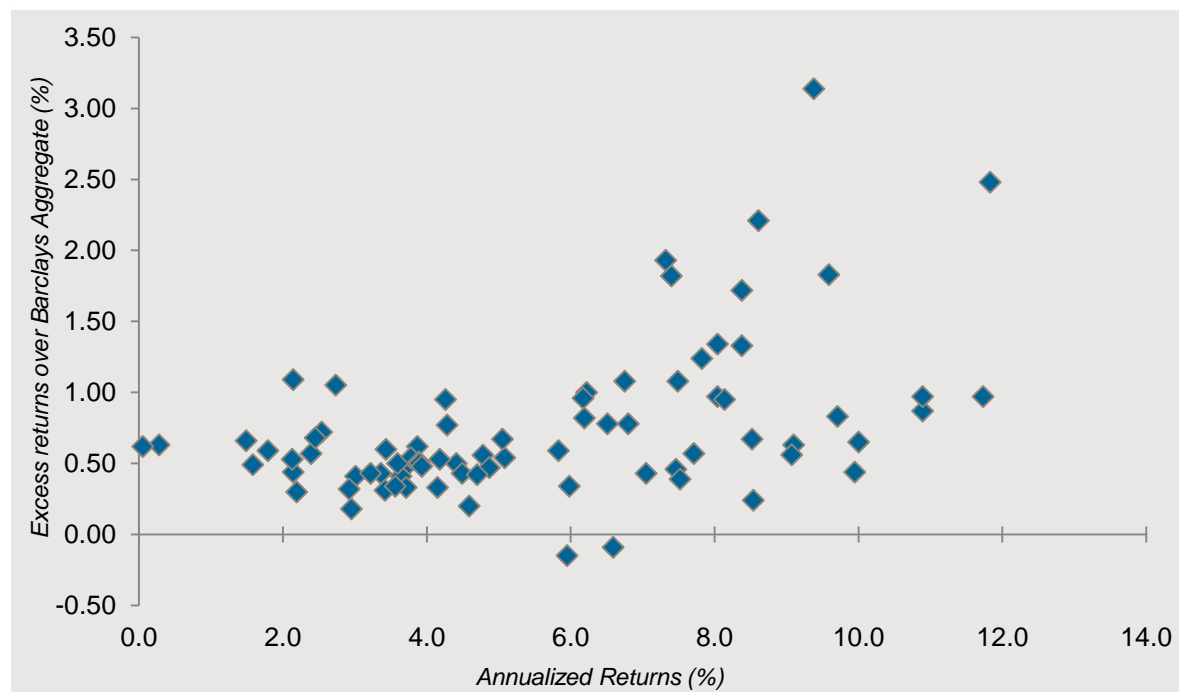
\*CMBS= Commercial Mortgage-Backed Securities; ABS=Asset-Backed Securities

Since 1/1/17, sector classifications have been updated within Global Fixed Income to provide greater consistency, transparency, granularity, and alignment with current industry conventions.

# Consistency is the hallmark of our investment approach

Core bond composite two-year rolling returns (gross of fees) supplemental to annual performance report

Quarterly periods ending 6/30/2000 through 09/30/2020



- Seasoned investment team
- Consistent investment process
- Consistent long-term outperformance versus benchmark
- High peer-group performance

## **Goal: outperform the index by 50-100 bps annually over a full market cycle**

<sup>1</sup> The charts and/or graphs shown above and throughout the presentation are for illustration and discussion purposes only.

<sup>2</sup> Past performance is not indicative of future returns. Performance includes the reinvestment of income.

<sup>3</sup> Performance results are gross of investment management fees. The deduction of an advisory fee reduces an investor's return. Actual account performance will vary depending on individual portfolio security selection and the applicable fee schedule. Fees are described in Part II of the Advisor's ADV which is available upon request. (Please see back for additional performance disclosure)

<sup>4</sup> Because this strategy primarily invests in bonds, it is subject to interest rate risks. Bond prices generally fall when interest rates rise. This may make the strategy more volatile. Please see addition risks on the back disclosure page.

## Core Bond Strategy Attribution

Periods ending September 30, 2020 – Gross of fees returns in basis points (bps)

Performance	YTD Return	1 Year Return	3 Year Return
<b>Strategy</b>	<b>739</b>	<b>726</b>	<b>578</b>
<b>Benchmark</b>	<b>679</b>	<b>698</b>	<b>524</b>
<i>Excess</i>	<i>60</i>	<i>28</i>	<i>54</i>
<i>Benchmark Pricing*</i>	<i>26</i>	<i>17</i>	<i>3</i>
<b>Attribution Excess Return</b>	<b>34</b>	<b>11</b>	<b>51</b>
<b>Duration</b>	<b>9</b>	<b>7</b>	<b>16</b>
<b>Curve</b>	<b>3</b>	<b>(1)</b>	<b>3</b>
<i>Residual*</i>	<i>2</i>	<i>0</i>	<i>8</i>
<b>Alpha Ex-Duration</b>	<b>20</b>	<b>5</b>	<b>24</b>

Sector	YTD			1 Year			3 Years		
	Sector Allocation	Security Selection	Alpha Ex-Duration	Sector Allocation	Security Selection	Alpha Ex-Duration	Sector Allocation	Security Selection	Alpha Ex-Duration
<b>Treasury</b>	(14)	1	(13)	(2)	(0)	(2)	2	1	3
<b>Agency</b>	0	0	0	(0)	1	0	(0)	0	0
<b>Agency Mortgage**</b>	(1)	21	20	(1)	5	3	0	5	5
<b>Non-Agency Mortgage</b>	2	0	2	0	0	0	4	0	4
<b>Commercial Mortgage-Backed Securities</b>	(2)	1	(1)	(4)	2	(3)	(0)	3	2
<b>Asset-Backed Securities</b>	11	(1)	10	5	1	5	2	5	7
<b>Credit</b>	14	(15)	(1)	8	(8)	0	2	1	3
<b>Cash</b>	2	0	2	1	0	1	(1)	0	(1)
<b>Total</b>	<b>12</b>	<b>8</b>	<b>20</b>	<b>6</b>	<b>(1)</b>	<b>5</b>	<b>9</b>	<b>15</b>	<b>24</b>

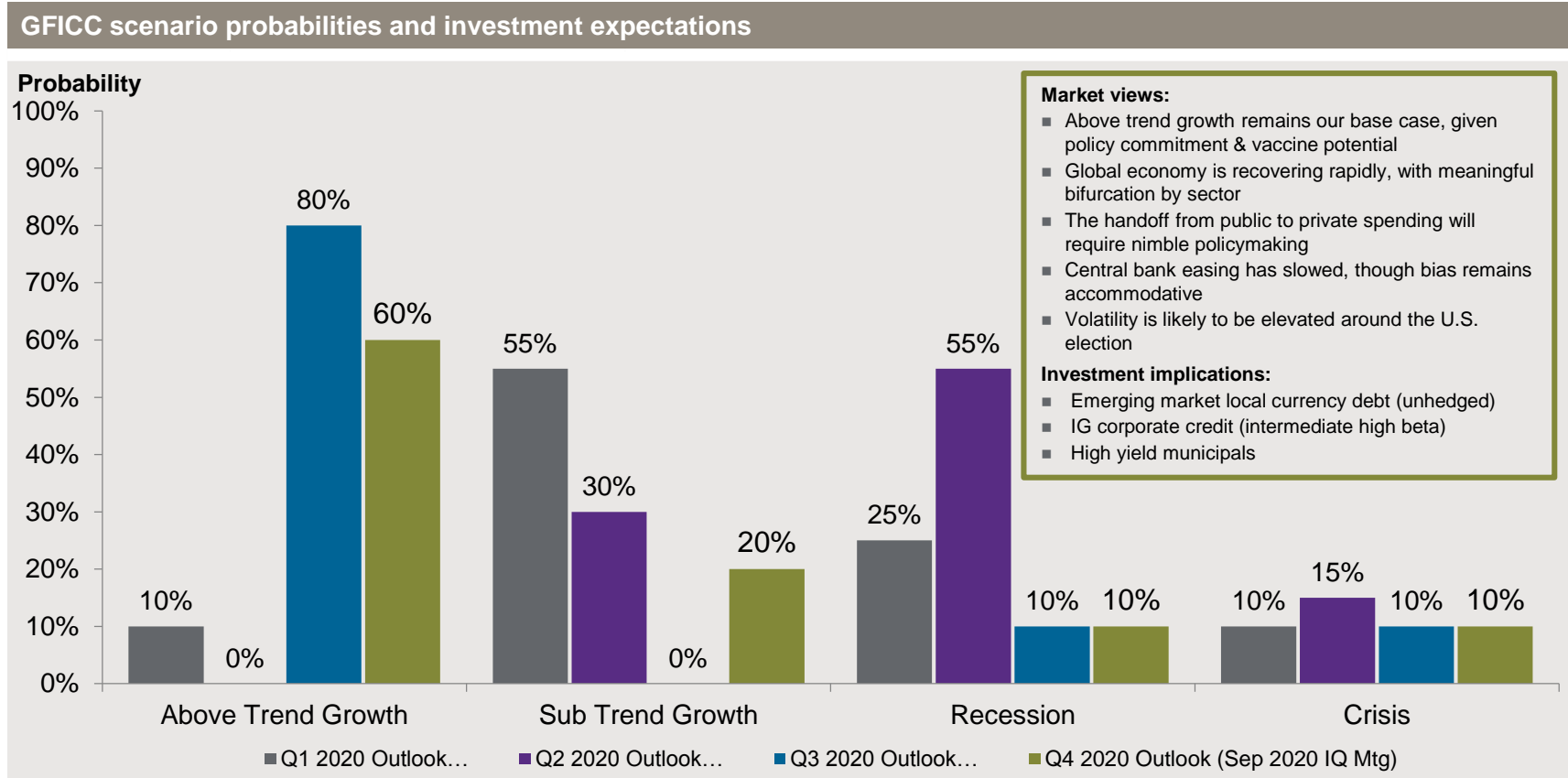
Source: J.P. Morgan Asset Management

The returns in this report are based on PRISM returns and therefore may differ from official returns. The returns are calculated using the PRISM model and excess returns in this report are calculated arithmetically at account level. The returns are gross of fees. Past performance is not indicative of future results.

\*Residual attribution and benchmark pricing includes trading costs, compounding, and pricing discrepancies between benchmark and internal systems.

\*\* Agency Mortgage: Agency RMBS & Agency CMBS

# Output from Investment Quarterly meeting helps inform investment thesis



Source: GFICC Investment Quarterly. As of September 15, 2020. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections and other forward statements, actual events, results or performance may differ materially from those reflected or contemplated. IQ: Investment Quarterly.

# GIPS® Report: Core Bond Composite

## December 31, 2018

Year	Composite Gross of Fees Return %	Composite Net of Fees Return %	Benchmark Return %	Number of Accounts	Internal Dispersion	Composite 3Yr Annualized Std Dev (%)	Benchmark 3Yr Annualized Std Dev (%)	Composite Assets (\$Millions)	Firm Assets (\$ Billions)
2018	0.67	0.37	0.01	35	0.05	2.79	2.88	61,401	1,230
2017	4.26	3.94	3.54	41	0.13	2.77	2.81	61,049	1,165
2016	2.92	2.61	2.65	53	0.15	2.90	3.02	58,229	1,068
2015	1.34	1.03	0.55	65	0.11	2.62	2.92	65,433	834
2014	5.84	5.52	5.97	65	0.10	2.37	2.67	64,279	845
2013	-1.32	-1.61	-2.02	68	0.15	2.42	2.75	55,315	775
2012	5.73	5.41	4.21	66	0.30	2.15	2.42	56,824	701
2011	7.89	7.57	7.84	62	0.20	2.59	2.82	48,729	657
2010	8.35	8.03	6.54	60	0.70	3.71	4.23	41,837	621
2009	10.38	10.05	5.93	38	1.22	3.75	4.17	22,342	617

\*Composite Dispersion is not shown for periods with less than 6 Accounts

Firm Definition: J.P. Morgan Investment Management Inc. (JPMIM or the Firm) consists of the assets of institutional clients invested in US managed products including 1) the Fixed Income and Cash assets formerly part of Chase Asset Management and MDS&Chase Partners, 2) the New York institutional investment division of JPMorgan Chase Bank, N.A., formerly Morgan Guaranty Trust Company of New York, 3) the institutional investment assets of JPMorgan Investment Advisors, Inc. (JPMIA), formerly known as Banc One Investment Advisors Corporation (BOIA), the advisor to institutional assets directly managed by JPMIA or sub-advised by an affiliate institution, and 4) the institutional assets of Bear Stearns Asset Management Inc. The Firm also includes Separately Managed Accounts over which JPMIM has full and sole discretion. JPMIM is marketed under JPMorgan Asset Management.

Internal Dispersion: The internal dispersion of annual returns is measured by the asset-weighted standard deviation of gross account returns included in the composite for the full year. For periods with less than 6 accounts included for the entire year, internal dispersion is not presented (n/a) as it is not considered meaningful.

Standard Deviation: The 3 Year Annualized Standard Deviation measures the variability of the composite and the benchmark returns over the preceding 36-month period. The standard deviation of the Composite and benchmark are not presented (n/a) for periods where the composite does not have a 36-month history.

Composite Listing: A list of composite descriptions and policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

Composite Description: The Core Bond strategy seeks to outperform the Bloomberg Barclays Aggregate Bond Index over a market cycle while maintaining a risk profile similar to the index. The strategy focuses on adding value through a bottom-up, value-oriented approach, that emphasizes security selection. Security selection is generally guided by the benchmark and can include corporate bonds, mortgage-backed securities, asset-backed securities, treasuries and agency bonds. Since July 1, 2018, a composite-specific minimum asset level of \$100 million has been applied. Prior to July 1, 2018, the composite-specific minimum was \$50 million. Prior to April 1, 2005, the composite-specific minimum was \$25 million. Prior to April 1, 2004, the composite-specific minimum was \$10 million. The composite was created in January 1986.

Fee Schedule: Both gross and net returns reflect the reinvestment of income, deduction of transaction costs, and are net of withholding taxes where applicable. All returns are expressed in U.S. dollars. Gross returns do not reflect the deduction of investment advisory fees or any other expenses that may be incurred in the management of the account. The Net-of-fees returns are calculated by deducting composite model management fee ("model fee") from the gross composite return on a monthly basis. The model fee is either the highest tier of the fee schedule in effect for the period, or a higher value, whichever is required to ensure the composite model net of fee return is lower than or equal to the composite net of fee return calculated using actual fees. As of December 31, 2018, the standard annual fee schedule is as follows: 0.30% on the first \$75 million of assets managed; 0.25% on the next \$75 million; 0.225% on the next \$150 million; 0.15% on the balance. Actual advisory fees charged and actual account minimum size may vary by account due to various conditions described in Part IIA of Form ADV.

Compliance Statement: J.P. Morgan Investment Management Inc. claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. J.P. Morgan Investment Management Inc. has been independently verified for the period 2001-2018. 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 Core Bond Composite has been examined for the periods 01/01/1994 to 12/31/2018. The verification and performance examination reports are available upon request.

Benchmark Description: The benchmark is the Bloomberg Barclays Aggregate Bond Index. The index returns are provided to represent the investment environment existing during the time periods shown and are not covered by the report of independent verifiers. For comparison purposes the index is fully invested, which includes the reinvestment of income. The returns for the index do not include any transaction costs, management fees or other costs.

Significant Cash Flow Policy: Beginning January 1, 2005, an account is temporarily removed from the composite if it experiences a cash and/or securities inflow or outflow greater than or equal to 10% of the account's beginning market value.

Past and Future Performance: Past performance is no guarantee of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses.



# Disclosures

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*James D. Dadura, CFA  
Principal, Director of Fixed Income*

*Clark W. Koertner  
Principal, Director of Institutional Sales*

## Los Angeles City Employees' Retirement System (LACERS)

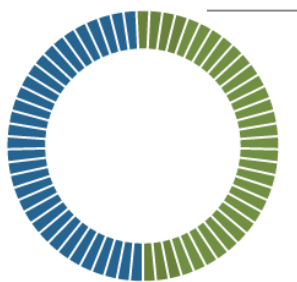
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*A Differentiated Approach to Fixed Income Investing*



# AN INTRODUCTION TO SEGALL BRYANT & HAMILL

## SBH AT-A-GLANCE



**119-person team** with expertise across all aspects of investment management  
**56** investment professionals

**27 YRS**

Average years of experience for portfolio managers

**Over 70%**

Percentage of investment professionals that are **CFA®** charterholders

**\$21.2B**

AUM/AUA\*

## PROVEN INVESTMENT MANAGEMENT EXPERTISE

- Independently managed investment firm founded in 1994
- Majority employee ownership consists of 33 employee Principals and a strong financial partner in Thoma Bravo, LLC
- Partnership culture results in a high degree of continuity among our investment teams and lasting client relationships
- Diversified mix of investment strategies, including domestic and international equities, fixed income and customized solutions
- Signatory of United Nations' Principles for Responsible Investment (UNPRI)

\*Data as of 9/30/20. Model UMA assets of \$148.2 million are included in the AUA portion of the AUM/AUA total. CFA® and Chartered Financial Analyst® are registered trademarks owned by CFA Institute.



# SBH VISION STATEMENT

*Since the firm's inception in 1994, Segall Bryant & Hamill has demonstrated its enduring commitment to the essential values established by its founders Ralph Segall, Al Bryant, Jon Hamill and Jeff Slepian. These include Integrity, Trust, Humility, Curiosity and Inclusion. As we move forward, it is imperative that we have clarity of purpose and vision, and cohesion in our approach to achieve that vision. Ultimately, our goal is to serve clients to the best of our ability through strong investment research, creative investment solutions and a dedication to exceeding their expectations.*

*Overall, we will seek to be a premier investment firm sought out by investors and employees alike. We will be known nationally for providing clients relevant, value-add investment and financial solutions and high touch personalized client service to help them exceed their financial objectives. In doing so, we will provide our employees an inclusive culture in which to thrive, defined by professional growth, diversity of thought, collaboration and integrity.*

Spring 2019

A collection of 33 handwritten signatures in various colors and styles, arranged in approximately four rows. The signatures represent the employee principals of the firm as of 9/30/20.



## SBH GUIDING PRINCIPLES

As we build toward the future, we will do so based on several *Guiding Principles*:

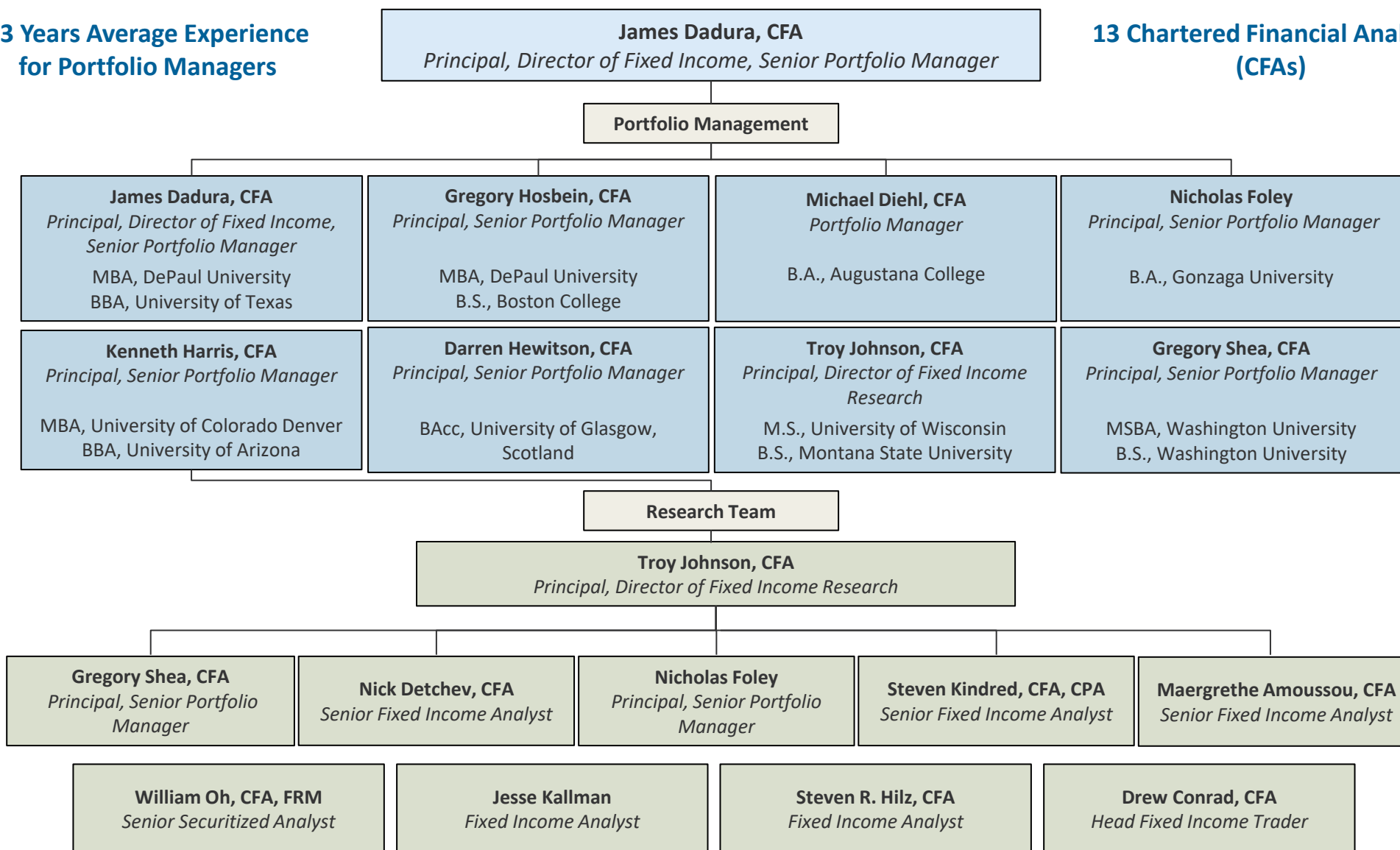
- ***Client Focused*** – We will put our clients first by acting in their best interests, exhibiting the highest ethical standards and serving them through a commitment to excellence. We will enlist our collective intellectual talents to think creatively and seek out unique investment and financial solutions for our clients. We will strive to exceed their expectations in every possible way.
- ***Value-Added Investment Solutions*** – We will remain committed to providing our clients with world class investment research delivered through effective investment strategies and customized solutions. We will be disciplined, consistent and intensely research focused. We will continue to integrate environmental, social and governance (ESG) factors into our research to ensure our investment decisions take into consideration the risks that unsustainable business practices pose to economic outcomes.
- ***Autonomy and Accountability*** – We will hire talented professionals, provide concise, clear job responsibilities, trust that they will act in the best interests of our clients and hold them accountable for the results. This Guiding Principle must be established and reinforced at every level of our organization.
- ***Decentralized Management*** – While structure is necessary to maintain a stable business environment, we will avoid unnecessary bureaucracy and strive to maintain simplicity. Decision making will continue to be pushed down, consistent with our principles of autonomy and accountability. This will allow us to remain nimble and encourage our employees to think creatively. We will acknowledge when our employees achieve success and coach them when decisions they make are not within the spirit of our vision.
- ***Diversity and Inclusion*** – We believe diverse thinking and inclusive principles will allow us to find the best outcomes for both our clients and our employees. As a result, we will seek the best talent from diverse employment sources and provide an open environment free of any biases based on race, gender, sexual orientation, disability or harassment.
- ***Employee Development*** – We will work to develop our diverse talent by providing our employees the opportunity to show initiative and assume responsibility. We will invest in our employees through training, direct feedback and mentoring. We will encourage and incent them to remain curious and stretch the boundaries of their potential.



# AN INTRODUCTION TO SBH FIXED INCOME

23 Years Average Experience  
 for Portfolio Managers

13 Chartered Financial Analysts  
 (CFAs)





# AN INTRODUCTION TO SEGALL BRYANT & HAMILL

## DIVERSE CLIENT LIST\*

### CORPORATE

- The ACT Reserve Fund
- Ameren Corporation
- Avangrid
- Bemis Manufacturing Company
- Blue Cross & Blue Shield of Nebraska
- Cox Enterprises
- Eversource Energy\*\*
- Exelon Corporation
- First Financial Insurance Company
- Kentucky Insurance Guaranty Authority
- Kinder Morgan, Inc.
- Pinnacle West Capital Corporation
- Valero Energy Corporation

### TAFT-HARTLEY

- Boilermakers National Health & Welfare Fund
- Central Laborers Pension Fund
- Central Pennsylvania Teamsters
- Chicago Carpenters Welfare Fund
- Indiana Electrical Workers Pension Trust
- International Painters Pension Fund
- IUOE Local 825 Pension Fund
- Massachusetts Laborers' Annuity Fund
- Michigan Laborers' Annuity Fund
- NECA IBEW Welfare Trust Fund
- New York Hotel and Motel Trades Council\*\*
- Northern California Cement Masons
- Screen Actors Guild-Producers Pension Plan\*\*

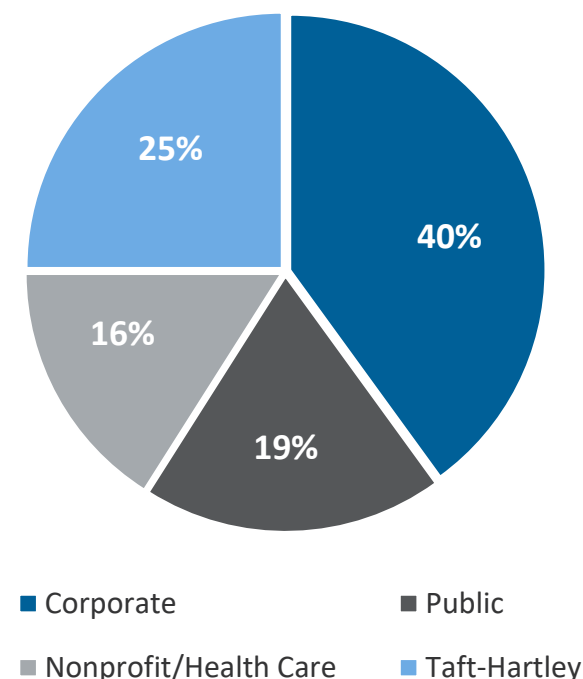
### PUBLIC

- Adams County Retirement Plan
- Anne Arundel County
- City of Aurora General Employees' Retirement System
- City of Ocala General Employees' Retirement System
- City of Phoenix
- Dallas Fort Worth International Airport\*\*
- Frederick County Employees' Retirement Plan
- Lexington-Fayette Urban County Govt.
- Michigan Municipal Risk Management Authority
- Municipal Employees' Annuity & Benefit (Chicago)
- New Hampshire Retirement System
- Omaha Police & Fire Retirement System
- Retirement System of Tulsa County Employees

### NONPROFIT/HEALTH CARE

- ADV Midwest Radiology
- Baptist Health
- Bronson Healthcare
- Delta Upsilon
- Denver Kids
- Dominican Sisters of Springfield, IL
- Hawaii Medical Service Association
- Illinois College of Optometry
- Indian Community School of Milwaukee
- Jewish Community Foundation
- Lake Health
- Sisters of St. Francis
- The Archdiocese of San Francisco

Institutional Client Profile



\* Partial client list shown. Clients were selected based upon a combination of several criteria including Assets Under Management/Assets Under Advisement (AUM/AUA) geographical location, strategy and industry. Total AUM/AUA as of 9/30/20. This list contains a representative sample of Segall Bryant & Hamill's clients that have investment agreements in force as of September 30, 2020. Account performance was not a factor in compiling this list. It is not known whether the listed clients approve or disapprove of Segall Bryant & Hamill or the advisory services provided.

\*\* SEI Trust Company (the "Trustee") serves as the Trustee of the Fund and maintains ultimate fiduciary authority over the management of, and the investments made, in the Fund. The Fund is part of a Collective Investment Trust (the "Trust") operated by the Trustee. The Trustee is a trust company organized under the laws of the Commonwealth of Pennsylvania and wholly owned subsidiary of SEI Investments Company (SEI). The Segall Bryant & Hamill International Small Cap Trust and the Segall Bryant & Hamill Emerging Markets Trust (the "SBH Trusts") are trusts for the collective investment of assets or participating tax qualified pension and profit sharing plans and related trusts, and governmental plans as more fully described in the Declaration of Trust. As bank collective trusts, the SBH Trusts are exempt from registration as an investment company. The SBH Trusts are managed by SEI Trust Company, the trustee, based on the investment advice of Segall Bryant & Hamill, the investment adviser to the trusts.



## SOLUTIONS-BASED FIXED INCOME PLATFORM

We believe that Fixed Income portfolios should be **high quality** and **tailored** to meet the **liquidity**, **income** and **capital preservation** needs of each of our clients.



- Solutions cover the entire maturity spectrum
- Ability to customize solutions based on client's specific needs and requirements
- Team manages more than \$11 billion in fixed income assets\*

\*Data as of 9/30/20. Model UMA assets of \$0 million are included in the AUA portion of the AUM/AUA total.





# INVESTMENT PHILOSOPHY & PROCESS

## INVESTMENT PHILOSOPHY

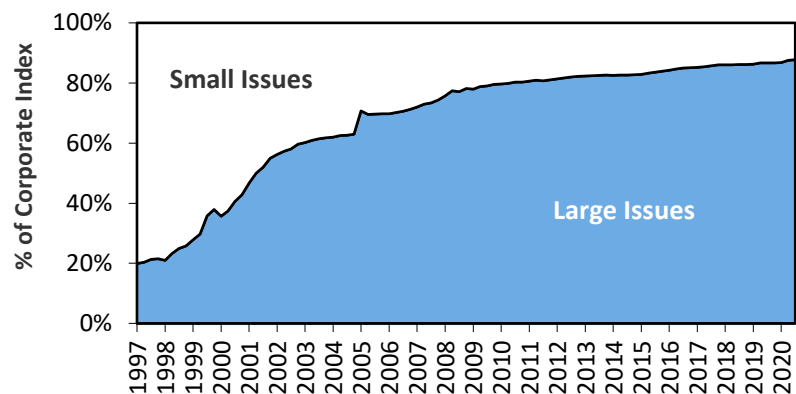
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- We seek to take advantage of inefficiencies in the fixed income market by identifying high quality, overlooked issues that offer a measurable return advantage.
- We focus on fundamental analysis and disciplined risk controls rather than market timing.
- Our consistent process seeks to perform well in all periods with an emphasis on downside preservation.



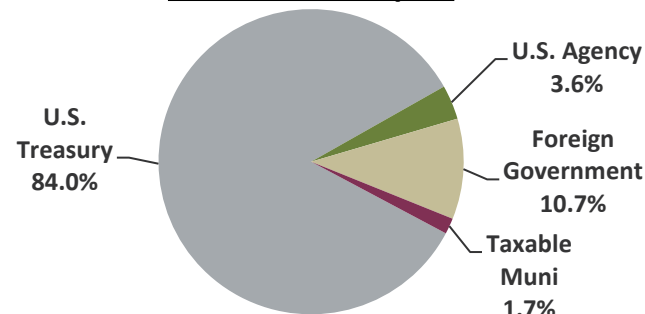
# EXAMPLES OF MARKET INEFFICIENCIES – TAXABLE

## Small Issue Corporate Bonds



As of 9/30/20.  
 Source: ICE BofAML U.S. Large Cap Corporate Index, ICE BofAML U.S. Corporate Small Cap Index, SBH

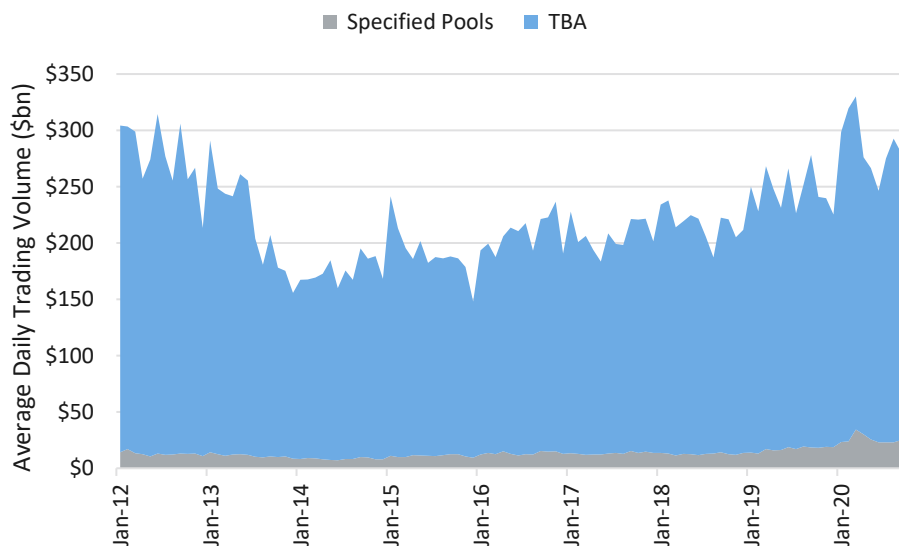
## Taxable Municipals



Sector	Yield	Avg. Quality
5-10 year U.S. Foreign Govt. & Supranational	1.50%	A1
5-10 year Taxable Municipal	1.70%	AA3
5-10 year U.S. Agency	0.88%	AAA
5-10 year U.S. Treasury	0.45%	AAA

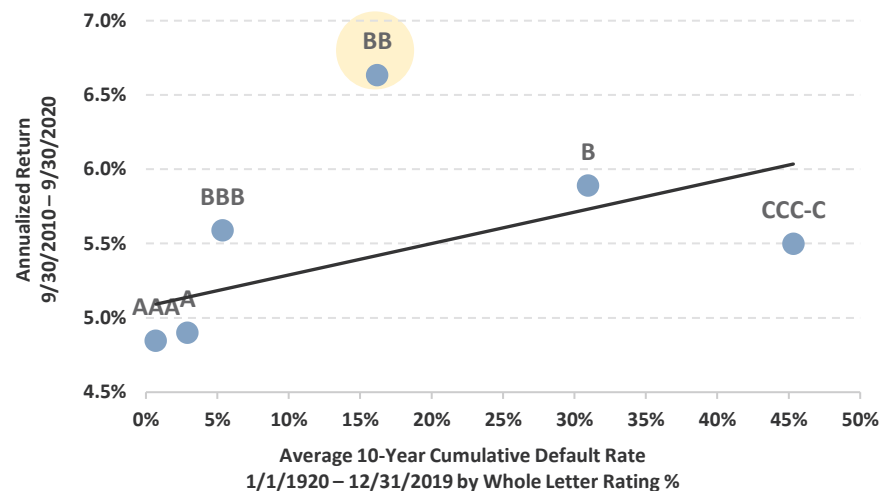
As of 9/30/20. Source: Barclays Live and ICE BofAML Indices

## Specified Pools



As of 9/30/20. Source: SIFMA.

## Ratings

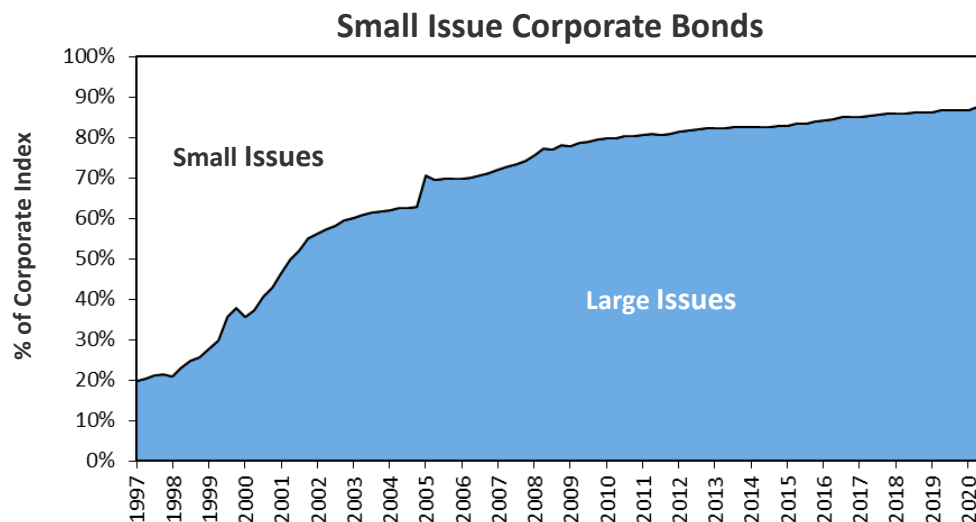


Source: ICE BofAML, Moody's Investors Service Global Credit Research.



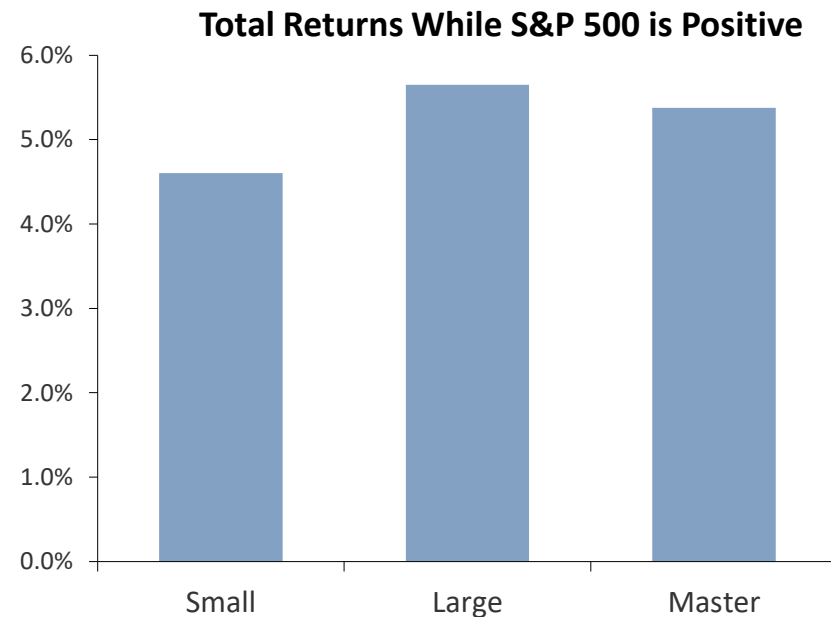
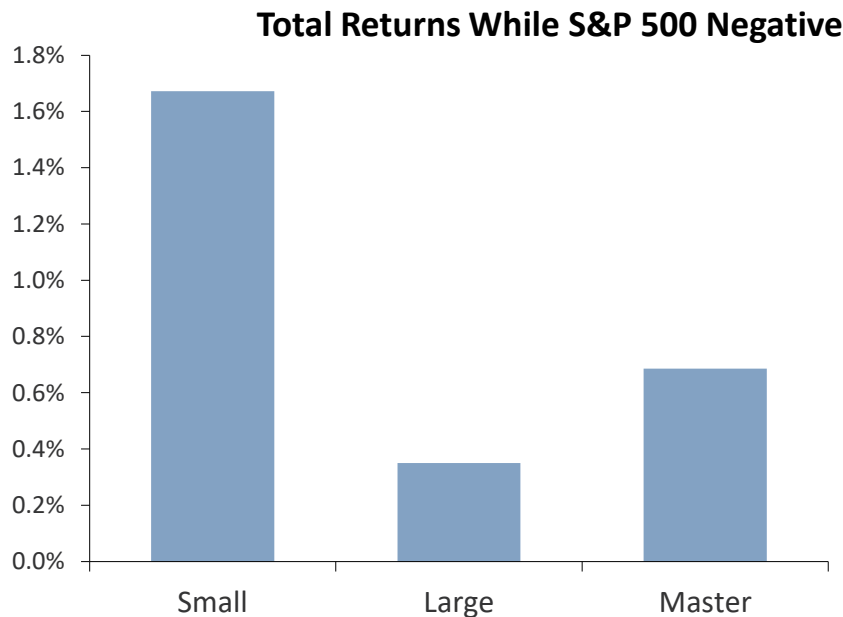
# SMALL ISSUE VS. LARGE ISSUE

(As of 9/30/20)



### Small Issue Characteristics

	Yield	# of Issues	Avg, Deal Size
Small Issues	2.35%	2,531	\$347MM
Large Issues	2.01%	6,180	\$1,033MM



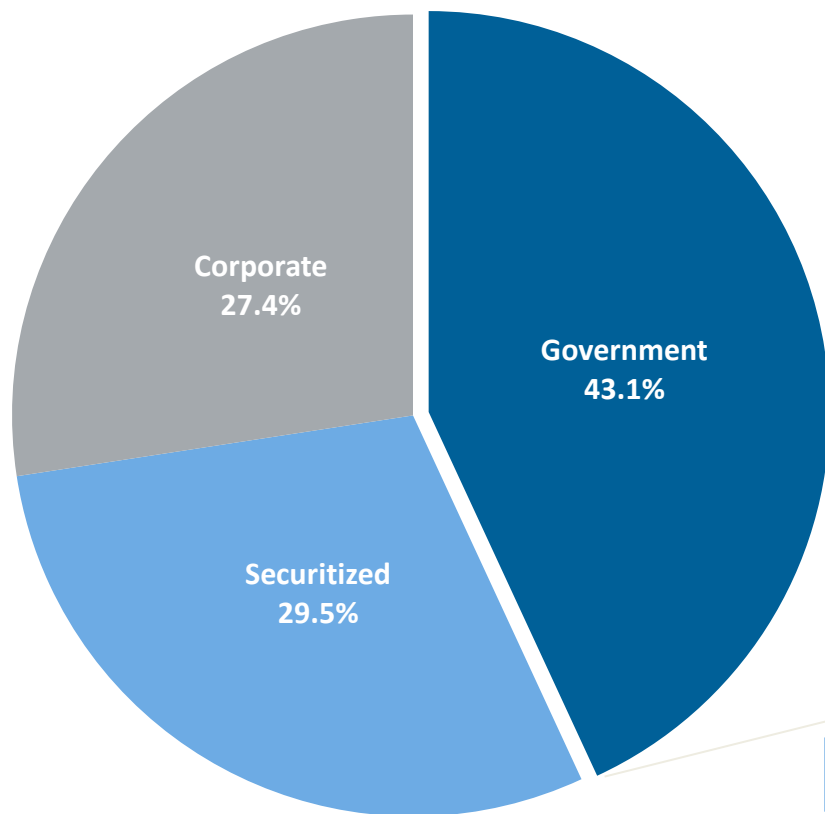
"YTW" = Yield to worst, data on S&P 500 since 12/31/1996. Historical performance cannot guarantee future results. See specific performance disclosure pages at the end of the presentation.

Source: ICE BofAML U.S. Large Cap Corporate Index, ICE BofAML U.S. Corporate Small Cap Index, Merrill Lynch/ICE Corporate Master Index (all small issue and large issue corporate bonds).Bloomberg, SBH

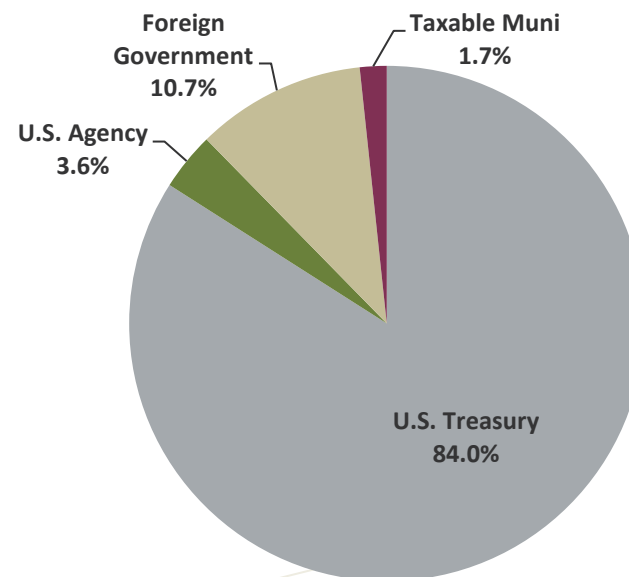


# EXAMPLES OF MARKET INEFFICIENCIES

Bloomberg Barclays U.S. Aggregate Index  
 Sector Breakdown



Government  
 Sector Breakdown



Government Sector Characteristics

Sector	Yield	Avg. Quality
5-10 year U.S. Foreign Govt. & Supranational	1.50%	A1
5-10 year Taxable Municipal	1.70%	AA3
5-10 year U.S. Agency	0.88%	AAA
5-10 year U.S. Treasury	0.45%	AAA

As of 9/30/20  
 Source: BarclaysLive and Merrill Indices



# EXAMPLES OF MARKET INEFFICIENCIES

## OUR APPROACH: STRUCTURED SECURITIES

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### Residential Mortgage-Backed Securities

Specified Agency Mortgage Pools vs. TBA Mortgages

- Specified Agency Mortgage Pools allow selection of favorable loan characteristics such as loan size, issue date and geographic concentration.
- TBA Mortgages suffer from adverse selection.

### Commercial Mortgage-Backed Securities

Freddie Mac K-Bonds vs. Private Label CMBS

- Freddie Mac K-Bonds are backed by the U.S. Government agency FHLMC.
- Support for Private Label CMBS is dependent on commercial defaults rates.



# FUNDAMENTAL ANALYSIS AND RISK CONTROLS

## 1. SCREENS

## 2. SECURITY SELECTION & PORTFOLIO CONSTRUCTION

## 3. RISK MANAGEMENT

- Initial screens rank all U.S. companies with public debt based on financial and credit strength
- Screens analyze operating cash flow, free cash flow stability, interest coverage, leverage ratios, and ESG factors

### Quality Screen Ranking

Issuer Name	Ticker	Moody Rating	S&P Rating	Adj. EBIT / Interest	Debt / Adj. EBITDA	Total Assets	% Rank
PROCTER & GAMBLE CO	PG	Aa3	AA-	29.3x	2.1x	\$ 120,406	100%
ALTRIA GROUP INC	MO	A3	A-	14.1x	1.4x	\$ 43,202	98%
UNILVER CAPITAL CORP	UNANA	A1	A+	17.0x	2.2x	\$ 72,475	96%
REYNOLDS AMERICA INC	BATSUN	Baa2	BBB+	6.6x	1.5x	\$ 190,740	94%
PEPSICO INC	PEP	A1	A+	9.4x	3.0x	\$ 79,804	92%

### Event Risk Screen Ranking

Ticker	Issuer Name	CUR RANK	EQTY VAL	RISK VAL	Risks	Mit.	vs. Russell 3000			EV/1 yr est	Avg
							6 mo	1 yr	3 yr	EBITDA	Comps
JBHT	HUNT (JB) TRANSPRT SVCS Inc	10.0	0.0	0.0			20.6%	-2.4%	-0.4%	11.2x	6.9x
PCAR	PACCAR INC	10.0	0.0	0.0			8.0%	30.1%	2.0%	7.6x	8.3x
ADP	AUTOMATIC DATA PROCESSING	10.0	0.0	0.0			-5.7%	-0.3%	7.7%	20.5x	21.2x
UPS	UNITED PARCEL SERVICE-CL B	9.0	0.0	1.0	AM		11.2%	4.0%	-8.0%	13.0x	11.3x
CBOE	CBOE GLOBAL MARKETS INC	9.0	0.0	1.0	IA RI		10.2%	-9.7%	7.8%	16.5x	18.9x

### Credit Momentum Screen Ranking

Ticker	Issuer Name	YoY Chg Equity Dist/CFO	YoY Chg Liab./TEV	6 Mos Equity Rel to S&P	YoY Chg EBIT/Assets	Percentile Rank
EL	ESTEE LAUDER CO	-38.1%	-42.9%	29.6%	12.5%	97%
DGELN	GRAND METRO INV	43.7%	-27.4%	-6.6%	11.5%	64%
MO	ALTRIA GROUP INC	-2.3%	11.1%	-5.8%	13.9%	48%
RBLN	RECKITT BEN TSY	-33.0%	-47.1%	-20.6%	-42.4%	44%
PEP	PEPSICO INC	-9.3%	5.4%	-7.3%	-7.1%	35%

### ESG Screen Ranking

Ticker	Issuer Name	Environmental Score	Social Score	Governance Score	Percentile Rank
BNFP	DANONE	87%	97%	97%	99%
CL	COLGATE-PALMOLIVE	96%	93%	91%	98%
UNA NA	UNILEVER	96%	99%	75%	96%
HSY	HERSHEY CO	85%	89%	90%	95%
NESNVX	NESTLE	72%	95%	93%	94%

Source: Bloomberg. For illustrative purposes only.



# FUNDAMENTAL ANALYSIS AND RISK CONTROLS



MODELS/STRESS TESTS	SECURITY SELECTION	PORTFOLIO CONSTRUCTION/ CUSTOMIZATION	RISK CONTROLS
<ul style="list-style-type: none"> <li>Models are hand-built and dynamic, allowing team to stress test company financials under a variety of scenarios, including worst-case outcomes</li> <li>Team utilizes SEC and company data rather than sell-side or third-party research</li> </ul>	<ul style="list-style-type: none"> <li>Security selection is based on valuation and risk analysis conducted through initial screens/models</li> <li>Team members have research responsibilities and present thesis to team for debate</li> <li>Potential security transactions are analyzed to evaluate impact on entire portfolio</li> </ul>	<ul style="list-style-type: none"> <li>Portfolios are diversified among issuers and industries</li> <li>Portfolios tailored to meet client’s specific needs and customized to individual investment policies</li> <li>Portfolio manager makes final buy/sell decision on securities in each portfolio</li> </ul>	<ul style="list-style-type: none"> <li>Team conducts ongoing review of holdings and continuous risk analysis</li> <li>Catalysts for exiting positions include drop in quantitative ranking, deteriorating credit fundamentals, narrow break-even spreads and relative value versus other high-quality investments</li> </ul>



# FUNDAMENTAL ANALYSIS AND RISK CONTROLS



- We analyze risk by monitoring:
  - Contribution to duration, interest rate duration, spread duration, option risk, yield curve exposure, key rate duration, pre-payment risk and ESG factors
- We utilize various software systems in order to monitor and measure risk, including:
  - BondEdge, APX, proprietary models
- Three independent teams monitor risk:
  - Portfolio Team, Compliance Team and Institutional Client Service Team

**Sector/Maturity Matrix**  
(% by Market Value)

Sector	0 - 2 yr		2 - 4 yr		4 - 8 yr		8 - 10 yr		10 - 20 yr		>20 yr		TOTAL	
	Portfolio	Index	Portfolio	Index	Portfolio	Index	Portfolio	Index	Portfolio	Index	Portfolio	Index	Portfolio	Index
Treasury	0.5	6.4	1.1	9.7	1.4	12.2	2.2	3.0	0.0	0.7	7.9	5.5	13.1	37.4
Agency	0.6	0.9	0.2	0.8	0.6	0.3	2.5	0.1	0.0	0.2	0.0	0.1	3.8	2.5
Corporate	5.4	2.7	14.2	4.5	12.6	7.2	3.5	3.1	4.1	2.0	3.4	5.8	43.2	25.4
Securitized														
- Pass-throughs	0.5	0.0	4.7	4.8	25.0	22.1	0.0	0.0	0.0	0.0	0.0	0.0	30.2	26.9
- Non-index (CMO)	0.7	0.0	0.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0
- CMBS	0.0	0.2	0.0	0.3	0.0	0.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	1.7
- ABS	2.3	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.5
Sovereign/Supra/Foreign	0.0	0.7	0.0	1.4	0.0	1.3	0.0	0.5	0.0	0.7	0.0	0.9	0.0	5.6
Municipal/Other	0.4	0.0	1.2	0.0	1.0	0.0	0.0	0.0	0.2	0.0	0.4	0.0	3.3	0.0
Cash	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0
<b>TOTAL</b>	<b>12.8</b>	<b>11.3</b>	<b>22.2</b>	<b>21.5</b>	<b>40.7</b>	<b>44.0</b>	<b>8.2</b>	<b>7.2</b>	<b>4.4</b>	<b>3.6</b>	<b>11.8</b>	<b>12.4</b>	<b>100.0</b>	<b>100.0</b>

Note: For illustrative purposes only.

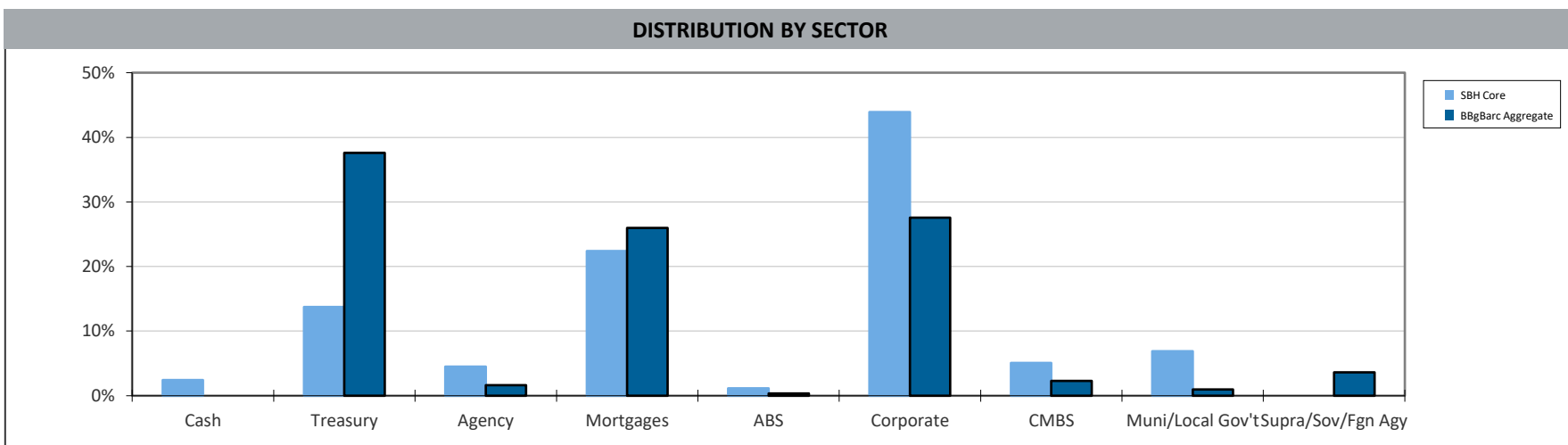
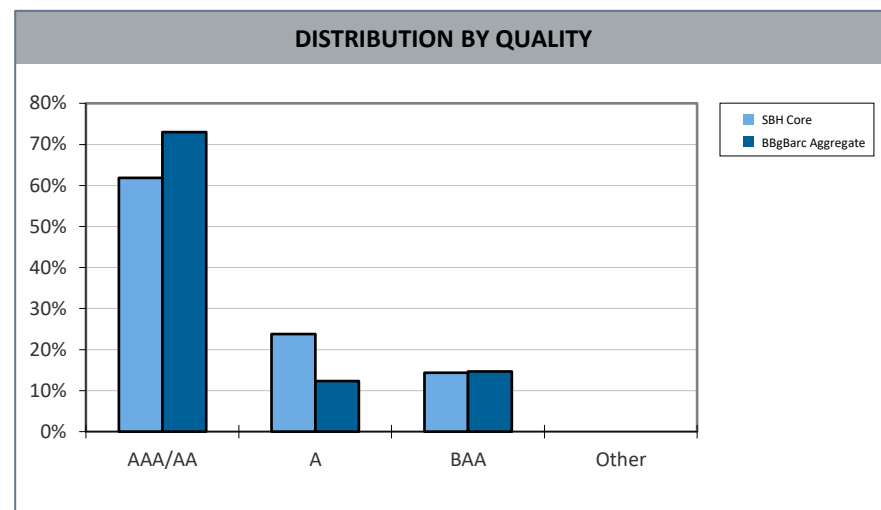




# CORE FIXED INCOME COMPOSITE STRUCTURE\*

(As of 9/30/20)

SUMMARY STATISTICS				
	SBH Core	BBgBarc Aggregate	Difference	% of Index
Yield To Maturity (%)	1.27%	1.22%	0.05%	104%
Current Yield (%)	2.65%	2.66%	-0.01%	100%
Quality	Aa2	Aa2	-	-
Coupon (%)	2.90%	2.93%	-0.02%	99%
Maturity Years	7.81	8.31	-0.50	94%
Duration	6.12	6.21	-0.09	99%



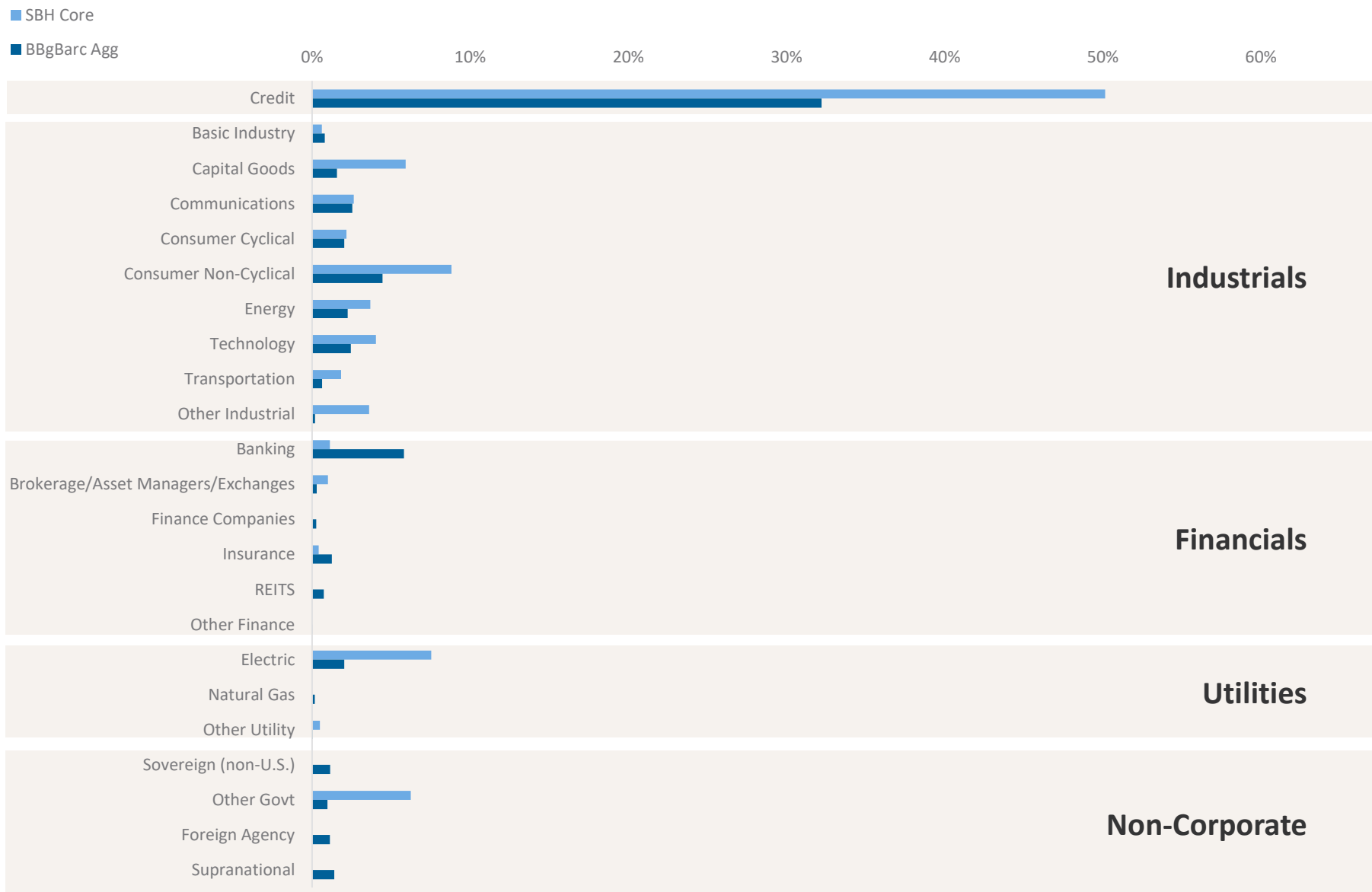
\* This information is supplemental to the fully compliant presentation.

Source: CMS BondEdge



# CREDIT SECTOR DETAIL – CORE FIXED INCOME COMPOSITE\*

(As of 9/30/20)



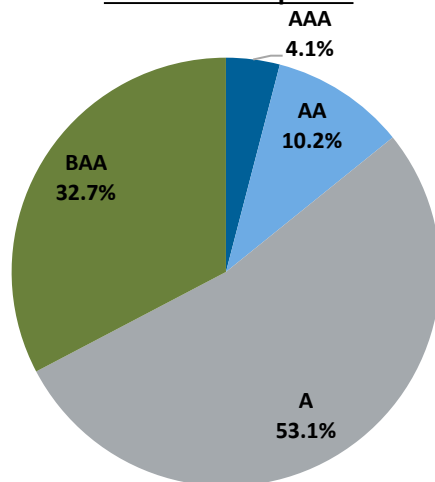
\* This information is supplemental to the fully compliant presentation. Source: CMS BondEdge.



# CORPORATE CREDIT SECTOR DETAIL – CORE FIXED INCOME COMPOSITE

(As of 9/30/20)

**SBH Core Composite**

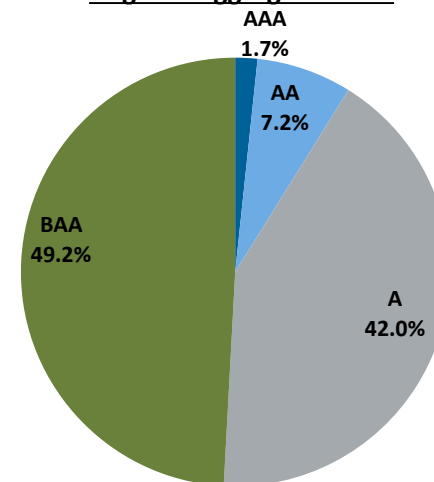


**SBH Corporate Duration: 6.52**

**SBH Top 10 Corporate Holdings**

MERCK & CO INC
FEDEX CORP
UNION PACIFIC CORP
WILLIAMS COS INC/THE
APPLE INC
AMPHENOL CORP
EXELON CORP
MICROSOFT CORP
BEST BUY CO INC
PEPSICO INC

**BBgBarc Aggregate Index**



**BBgBarc Agg. Corporate Duration: 8.67**

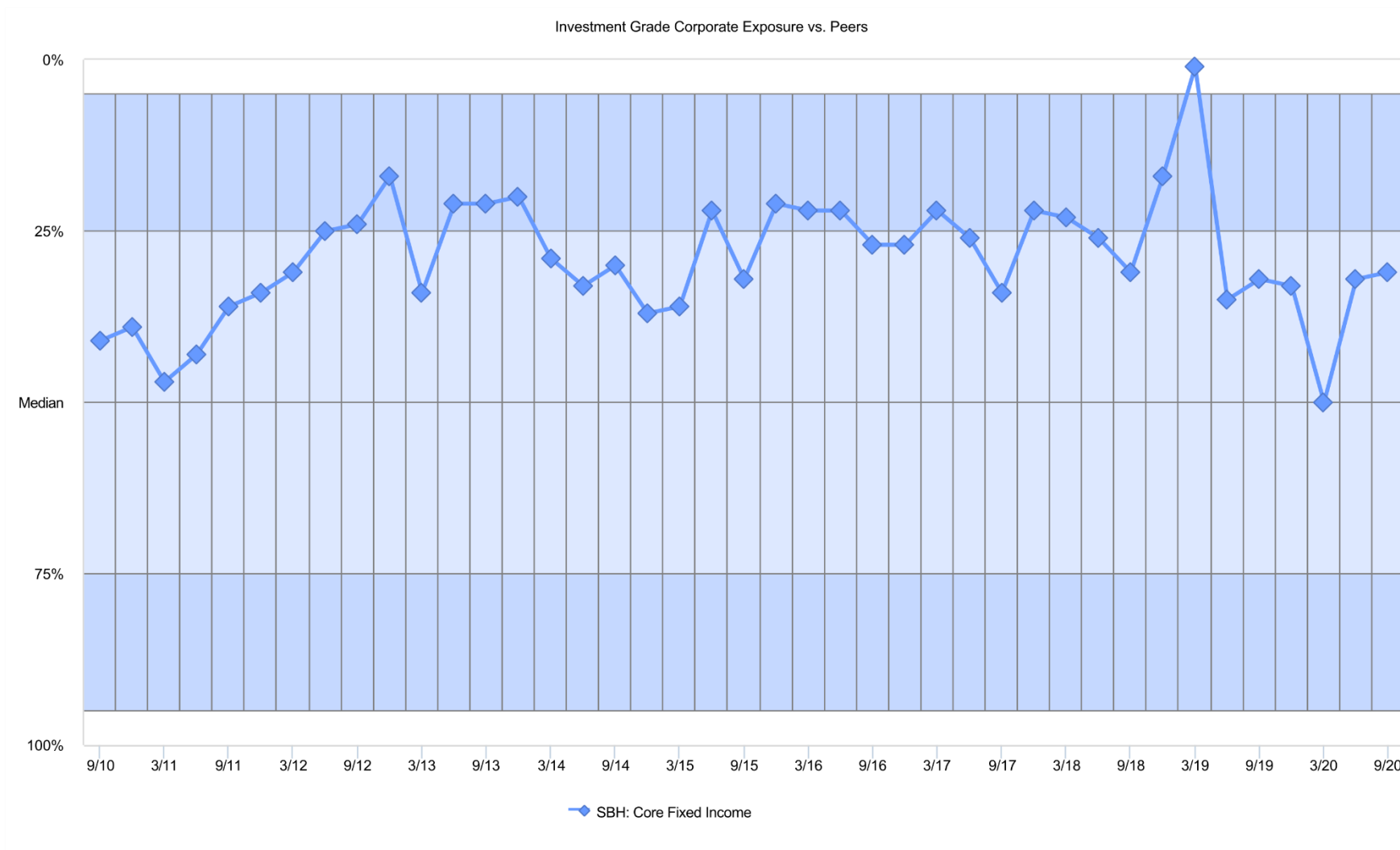
**BBgBarc Agg. Top 10 Corporate Holdings**

BANK OF AMERICA CORP
JPMORGAN CHASE & CO
WELLS FARGO & CO
AT&T INC
CITIGROUP INC
COMCAST CORP
GOLDMAN SACHS GROUP INC/THE
APPLE INC
MORGAN STANLEY
VERIZON COMMUNICATIONS INC

Source: CMS BondEdge. Ratings breakouts are determined based on the lower of either Moody's or S&P issue level credit ratings. Totals may not sum to 100% due to rounding.



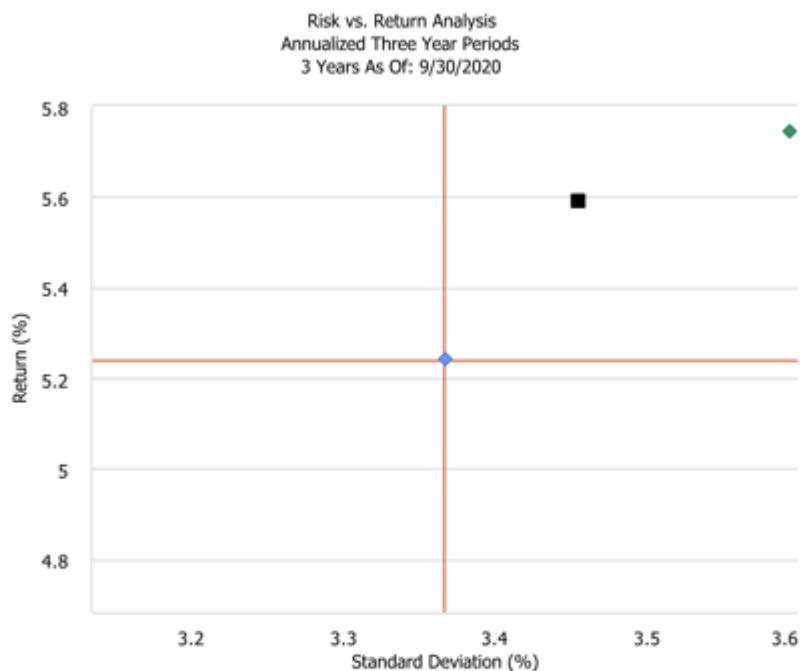
# CONSISTENT CREDIT EXPOSURE



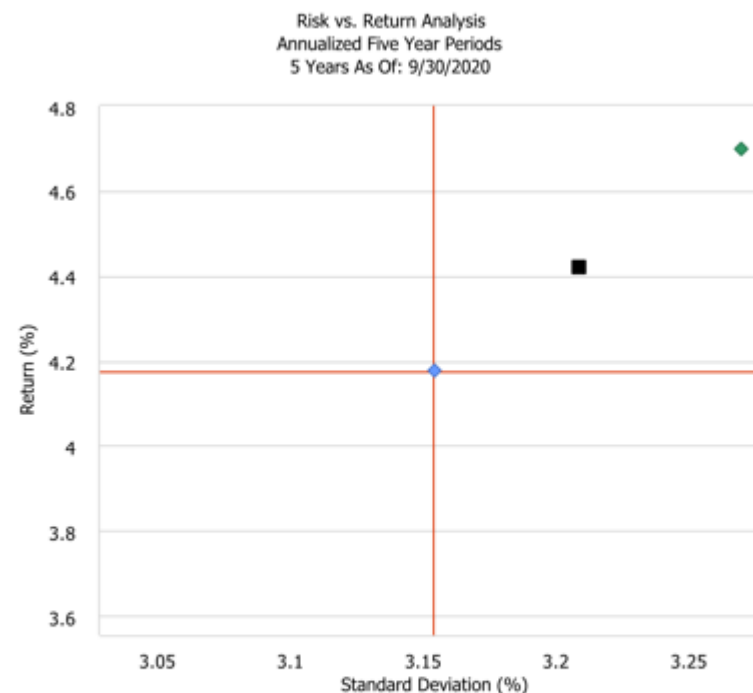
Universe: eVestment US Core Fixed Income



# CORE FIXED INCOME RISK/RETURN PROFILE\*



- SBH: Core Fixed Income
- ◆ eVestment: US Core Fixed Income
- ◆ Bloomberg Barclays Index: Bloomberg Barclays US Aggregate
- + Bloomberg Barclays US Aggregate



- SBH: Core Fixed Income
- ◆ eVestment: US Core Fixed Income
- ◆ Bloomberg Barclays Index: Bloomberg Barclays US Aggregate
- + Bloomberg Barclays US Aggregate

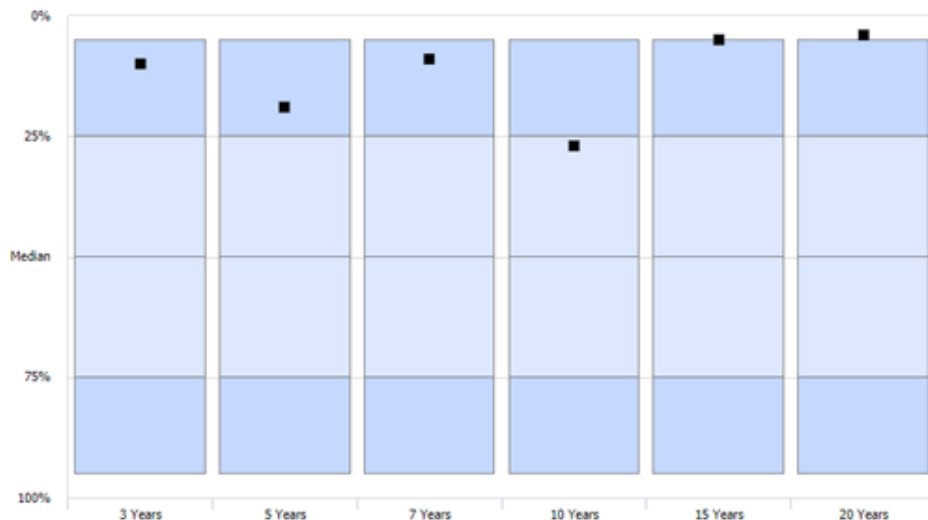
Market Capture	3 Years		5 Years	
	Upside Capture Ratio	Downside Capture Ratio	Upside Capture Ratio	Downside Capture Ratio
SBH Core Fixed Income	103.6	96.4	102.7	97.0
BBgBarc U.S. Aggregate Bond	100.0	100.0	100.0	100.0

\*As of 9/30/20; Returns are gross of fees. Historical performance cannot guarantee future results. See specific performance disclosure pages at the end of the presentation.  
Source: eVestment. Based on monthly data.



# CONSISTENT RETURNS AND DIVERSIFICATION

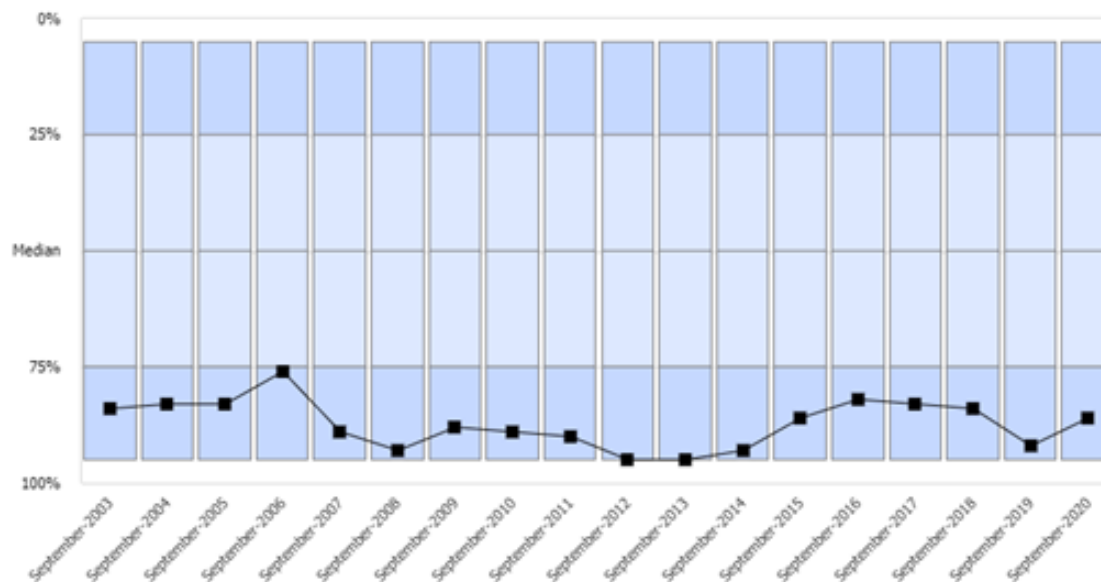
Rolling Information Ratio\*



*The strategy has consistently delivered superior risk-adjusted returns versus its peer universe.*

*Relative to peers, the strategy offers superior diversification benefits as measured by its correlation to the S&P 500.*

Correlation to S&P 500



\* The Information Ratio is the excess return for the strategy relative to its benchmark divided by the standard deviation of those excess return. Put differently, the ratio divides a strategy's active return by the risks the strategy has taken relative to the benchmark to achieve the active return.

Returns are gross of fees. Historical performance cannot guarantee future results. See specific performance disclosure pages at the end of the presentation

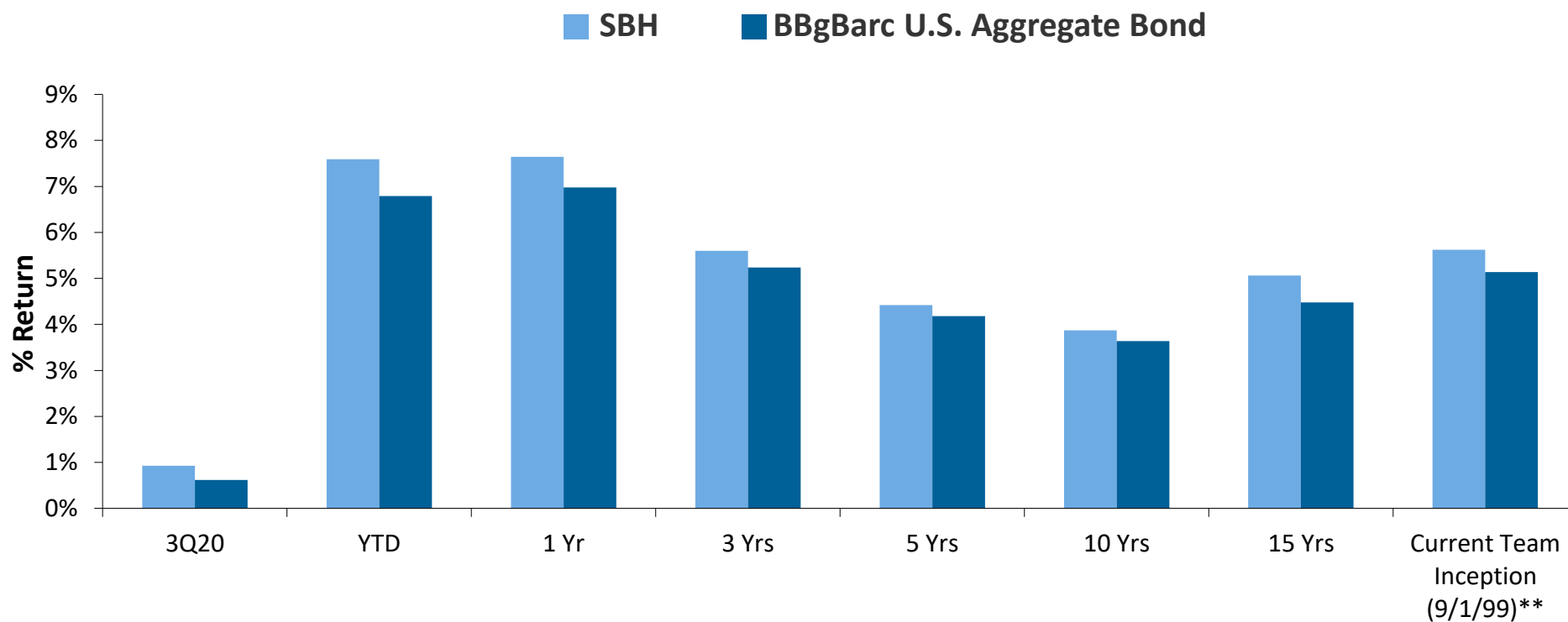
As of 9/30/20 Universe: eVestment US Core Fixed Income Source: eVestment. Based on monthly data.



# CORE FIXED INCOME COMPOSITE PERFORMANCE

(As of 9/30/20)

Annualized Returns \*



<b>SBH</b>	0.93%	7.59%	7.64%	5.60%	4.42%	3.87%	5.06%	5.62%
<b>BBgBarc U.S. Aggregate Bond</b>	0.62%	6.79%	6.98%	5.24%	4.18%	3.64%	4.48%	5.14%

\*Preliminary. Periods greater than one year are annualized. Performance is gross of fees. Historical performance cannot guarantee future results. See specific performance disclosure pages at the end of the presentation. Core Fixed Income inception 1/1/1987.

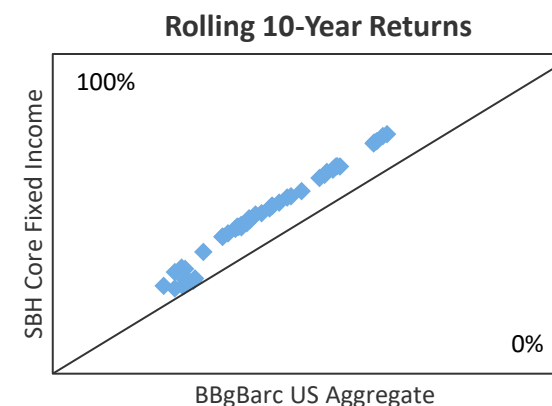
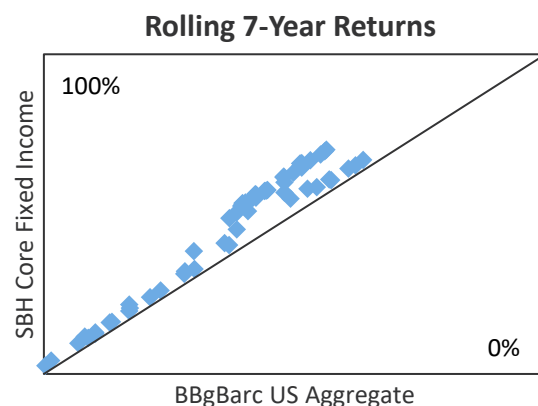
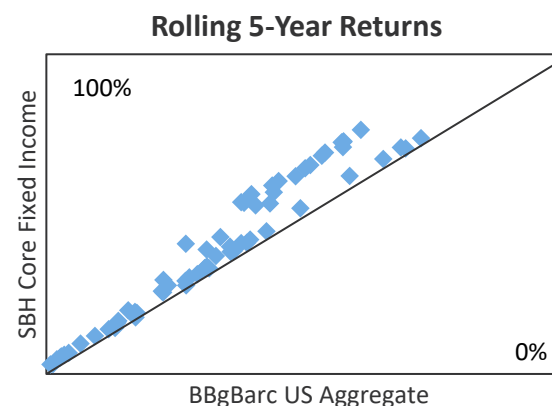
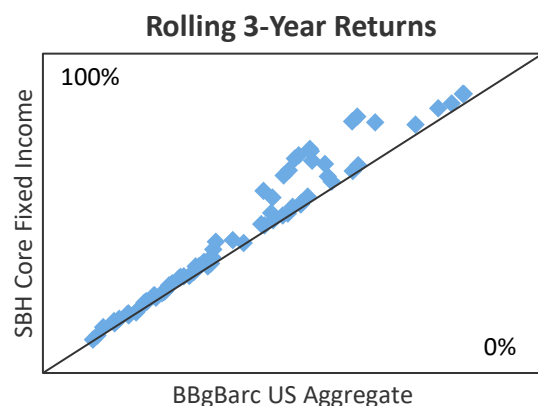
\*\*Track record of current team begins 9/1/1999 when current portfolio managers began managing strategy.



# CORE FIXED INCOME COMPOSITE PERFORMANCE

(As of 9/30/20)

## LONG-TERM TRACK RECORD OF CURRENT INVESTMENT TEAM\*



\* Data beginning 9/1/1999 when current portfolio managers began managing strategy. Returns are gross of fees. Historical performance cannot guarantee future results. See specific performance disclosure pages at the end of the presentation. Source: eVestment





# FEE SCHEDULE

## LACERS Proposed Fee Schedule

\$625 Million
<u>Proposed Fee:</u> First \$10 million @ 0.20% Next \$90 million @ 0.10% Balance @ 0.08%
<u>Standard Fee:</u> First \$10 million @ 0.25% Next \$15 million @ 0.20% Balance @ 0.15%
<u>Annual \$ Savings:</u> \$425,000



# Appendix



## SBH DIVERSITY & INCLUSION

**Purpose/Mission:** Foster a diverse and inclusive workforce and work environment in which individuals from varied backgrounds are brought together, supported, and valued so that the firm and its employees, clients and community benefit from a strong culture, diversity of thought and robust decision making.

**Vision:** Firm leadership fosters a culture that embraces and encourages unique differences in which employees seek to add to the diversity of our firm at every level because we believe that diversity and inclusion are the cornerstone of high organizational performance.

### **D&I Committee Comprised of:**

- Top Leadership
- Principals and Non-Principals
- Investment Professionals and Other Professionals
- Women and Men
- Minorities and Majorities

### **Proof Point:**

- SBH is the founder of the Workplace Equality Index (in 2001) and manages a mutual fund which provides investors with the opportunity to own publicly traded shares of corporations doing business in the U.S. with progressive workplace policies that treat all employees equally—regardless of sexual orientation, gender, ethnicity, religion and other preferences.



# SBH DIVERSITY & INCLUSION PROGRAMS

## BEING A PART OF THE SOLUTION

### EMPOWERMENT NETWORK

- Speakers and employee engagement around Diversity & Inclusion topics such as Unconscious Bias and Avoiding Stereotypes.
- Colorado Women's Chamber of Commerce, LGBTQ Chamber of Denver, Hispanic Chamber of Denver & Denver Metro Chamber of Commerce Speakers, Workshops and development events.
- WIP (Women Investment Professionals of Chicago) and WIIN (Women in Institutional Investments Network of Los Angeles) events.

### EMPLOYEE DEVELOPMENT

- Diversity & Inclusion training for Principals at annual retreat.
- Diversity & Inclusion employee survey.
- Coming soon "SBH Financial Literacy Events".

### RECRUITING EFFORTS

- Internship program giving students with diverse socioeconomic and academic backgrounds a chance to explore a career in investment management.
- Expanded recruiting to more diverse organizations and schools.
- More inclusive job descriptions.

### EDUCATIONAL OUTREACH

- GOAL: To introduce the investment industry, investment career paths and SBH to students with varied interests and backgrounds while promoting a culture of inclusion and community involvement to SBH employees.
- SBH "Career Day" for college, high school and middle school students.
- SBH Investment Professional presentations at local schools and universities.
- CEO presentations at historically black colleges.

### CULTURAL EVENTS

- Events intended to share, experience and celebrate diversity such as Día de Los Muertos and Chinese New Year celebrations.

### COMMUNITY OUTREACH

- Tutor elementary school students in underserved schools through Reading Partners Denver and Working in the Schools Chicago.
- Habitat for Humanity.
- Pride Parade – Denver.
- Provide employees two days of paid leave to volunteer in the community.
- Significant employee and Principal involvement with non-profit organizations through volunteering and Board appointments.



## RECRUITING AND RETENTION AT SBH

**Competitive Compensation and Incentive Program.** Employee compensation includes multiple components and is designed to attract and retain superior investment talent and to align the teams' incentives with client interests. Compensation for investment professionals generally consists of base salary, incentive bonus, and profit sharing, as well as possible equity ownership in the firm. Non-investment professionals are compensated with a salary and discretionary incentive bonus based on their performance.

**Equity Ownership.** A unique aspect of the firm's compensation program is the offering of equity ownership. Eligible employees include those who create long-term value for the firm and its clients. The firm believes this is a key competitive differentiator in the ability to attract and retain superior talent.

**Career Development.** The firm's senior management team is dedicated to developing employee talent and providing opportunities for personal growth. As stated in our values, we strongly believe in autonomy and accountability for our employees. Through mentorship, we encourage our employees to be critical thinkers and develop intellectual curiosity.

**Professional Development Opportunities.** Management encourages and supports all employees to further their professional development with the firm's education assistance program. The program provides employees with tuition reimbursement and reimbursement for attendance at relevant workshops and conferences. In addition, the SBH Professional Qualification Program provides financial assistance to employees who aspire to higher levels of skills and professional competencies. This program covers professional qualifications such as the Chartered Financial Analyst (CFA) and the Chartered Financial Planner (CFP) as well as other position-specific designations.



# FIRM APPROACH TO ESG INVESTING

## ESG INTEGRATION

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- Across the management of all client accounts, our research teams have integrated ESG factors into the firm’s research process to ensure our investment decisions are conscious of the risk that unsustainable business practices pose to economic outcomes.
- The firm understands that a company’s relationships with its stakeholders—customers, suppliers, employees, communities, governments, creditors, shareholders, and the broader environment—can have meaningful implications on its financial profile and future investment value. As such, we methodically review the existing and potential externalities resulting from the corporate behavior of companies within the investable market.
- SBH is a signatory of the United Nations’ Principles for Responsible Investment (PRI). Signing the internationally recognized PRI shows our commitment to responsible investment within a global community, seeking companies that exhibit positive stewardship in their environmental, social, and corporate governance practices.



# SBH FIXED INCOME APPROACH TO ESG INVESTING

## ESG FACTORS

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- Our philosophy of investing in quality issuers drives the inclusion of ESG factors in the investment process. We believe responsible corporate citizenship is additive to the creditworthiness of underlying issuers and contributes to our quality determination and assessment of risks.
- Analysts evaluate issuers across ESG factors to account for the company’s historical activities and the current messaging and actions of the management team.
- Analysts create separate ESG screens, which use qualitative and quantitative factors across each “E,” “S” and “G” section. The companies are then ranked against their peers which allows the team to identify the highest quality companies in which to invest, consistent with the fundamental investment process.
- Analysts discuss ESG screens, observations and rankings with portfolio managers during initial credit reviews and credit updates. Portfolio managers use this ESG research to aid them in evaluating the appropriateness of the investment and risk factors associated with the credit.



## PRESENTERS



**James D. Dadura, CFA**

Principal, Director of Fixed Income

Jim Dadura is Principal and Director of Fixed Income for Segall Bryant & Hamill. He leads SBH's Fixed Income group. In addition, his responsibilities include the management of Core and Intermediate Fixed Income products. Prior to joining SBH, Mr. Dadura served as a mortgage-backed security, portfolio structure and quantitative analyst at The Chicago Trust Company from 1994 to 1999. He holds a BBA from the University of Texas and an MBA from DePaul University. Mr. Dadura started in the investment industry in 1994 and has earned the Chartered Financial Analyst (CFA) designation.



**Clark W. Koertner**

Principal, Director of Institutional Sales

Clark Koertner is a Principal for Segall Bryant & Hamill and leads SBH's Institutional Relations efforts. His primary responsibilities include all external facing communication channels, including Client Service, Sales and Consultant Relations. Prior to joining SBH in 2004, Mr. Koertner was a consultant at Stratford Advisory Group and Mercer Investment Consulting, concentrating on asset allocation and manager research decisions. Mr. Koertner is a graduate of Miami University's Robert T. Farmer School of Business, where he attained a B.S. in Finance and Management Information Systems. Mr. Koertner is also a graduate of the University of Chicago Booth School of Business CMI program. He has been in the institutional investment industry since 2001 and holds Series 6 and 63 securities licenses. Mr. Koertner is active in his local Cystic Fibrosis Foundation, and is on the Big Shoulders Fund Chairmen's Council, whose mission is to provide support to inner-city schools which provide a quality, values-based education for Chicago's children.





# CORE FIXED INCOME COMPOSITE PERFORMANCE\*

(As of 9/30/20)

## Core Fixed Income

Quarterly & Annual Returns  
Period Ending 9/30/2020

### Annualized Cumulative Returns

Annualized	SBH	SBH	Barclays
	Gross	Net	Agg
1 Year	7.64%	7.40%	6.98%
3 Years	5.60%	5.36%	5.24%
5 Years	4.42%	4.20%	4.18%
10 Years	3.87%	3.66%	3.64%

### 3 Year Ex-Post Standard Deviation

	Barclays	
	SBH	Agg
2011	2.86%	2.78%
2012	2.53%	2.39%
2013	2.73%	2.71%
2014	2.60%	2.63%
2015	2.88%	2.88%
2016	3.00%	2.98%
2017	2.80%	2.78%
2018	2.84%	2.84%
2019	2.90%	2.87%
2020	3.41%	3.32%

Period		1Q	2Q	3Q	4Q	YTD	# of Accounts	Std Dev.	Composite Market Value (\$ mil)	Total Firm Market Value
2010	Gross of Fee	1.91%	3.53%	2.42%	-1.67%	6.26%	29	0.16%	\$889.3	\$7,237.0
	Net of Fee	1.86%	3.48%	2.37%	-1.72%	6.05%				
	Barclays Capital Agg	1.78%	3.49%	2.48%	-1.30%	6.54%				
2011	Gross of Fee	0.67%	2.22%	4.38%	1.10%	8.59%	43	0.10%	\$1,272.0	\$7,866.5
	Net of Fee	0.63%	2.17%	4.33%	1.05%	8.39%				
	Barclays Capital Agg	0.42%	2.29%	3.82%	1.12%	7.84%				
2012	Gross of Fee	0.36%	2.12%	1.56%	0.26%	4.36%	55	0.20%	\$1,347.5	\$8,936.6
	Net of Fee	0.31%	2.07%	1.51%	0.21%	4.15%				
	Barclays Capital Agg	0.30%	2.06%	1.58%	0.22%	4.21%				
2013	Gross of Fee	0.03%	-2.47%	0.51%	-0.03%	-1.97%	41	0.10%	\$940.3	\$9,468.1
	Net of Fee	-0.02%	-2.52%	0.46%	-0.08%	-2.17%				
	Barclays Capital Agg	-0.13%	-2.33%	0.57%	-0.14%	-2.04%				
2014	Gross of Fee	2.01%	2.15%	0.35%	1.90%	6.55%	37	0.08%	\$1,072.7	\$9,729.0
	Net of Fee	1.96%	2.10%	0.30%	1.84%	6.33%				
	Barclays Capital Agg	1.84%	2.04%	0.17%	1.79%	5.96%				
2015	Gross of Fee	1.70%	-1.78%	1.30%	-0.40%	0.78%	37	0.06%	\$986.2	\$9,592.2
	Net of Fee	1.65%	-1.83%	1.25%	-0.45%	0.58%				
	Barclays Capital Agg	1.61%	-1.68%	1.23%	-0.57%	0.55%				
2016	Gross of Fee	2.86%	2.36%	0.48%	-2.97%	2.65%	39	0.09%	\$875.6	\$11,171.6
	Net of Fee	2.81%	2.30%	0.43%	-3.02%	2.44%				
	Barclays Capital Agg	3.03%	2.21%	0.46%	-2.98%	2.65%				
2017	Gross of Fee	0.83%	1.51%	0.75%	0.29%	3.42%	43	0.07%	\$1,472.3	\$12,466.3
	Net of Fee	0.77%	1.46%	0.70%	0.24%	3.20%				
	Barclays Capital Agg	0.82%	1.44%	0.85%	0.39%	3.54%				
2018	Gross of Fee	-1.38%	0.04%	-0.04%	1.87%	0.46%	40	0.04%	\$999.1	\$18,587.0
	Net of Fee	-1.43%	-0.01%	-0.09%	1.81%	0.24%				
	Barclays Capital Agg	-1.46%	-0.16%	0.02%	1.64%	0.01%				
2019	Gross of Fee	2.98%	3.00%	2.36%	0.05%	8.63%	36	0.05%	\$910.0	\$19,653.3
	Net of Fee	2.92%	2.94%	2.31%	-0.01%	8.38%				
	Barclays Capital Agg	2.94%	3.08%	2.27%	0.18%	8.72%				
2020	Gross of Fee	3.08%	3.41%	0.93%		7.59%	39	0.15%	\$1,038.0	\$21,083.6
	Net of Fee	3.03%	3.35%	0.87%		7.41%				
	Barclays Capital Agg	3.15%	2.90%	0.62%		6.79%				

nm: composite held five or fewer accounts for the entire year. Internal dispersion (standard deviation) is not presented for this period.

\*Preliminary



## CORE FIXED INCOME COMPOSITE PERFORMANCE

*Segall Bryant & Hamill (SBH) is a Registered Investment Adviser established in 1994. SBH provides fee-based management of fixed income and equity portfolios for institutional clients and high net worth individuals. On June 30, 2015, SBH acquired Philadelphia International Advisors (PIA). Prior to the acquisition, PIA was a privately held investment management firm whose sole focus was the management of international equities. The group that was formerly PIA manages all SBH's international composites which have been a part of SBH since the acquisition. On May 1, 2018, SBH acquired Denver Investment Advisors LLC (aka Denver Investments). As a result of the Denver Investments acquisition, SBH added several new Portfolio Managers and composites to the overall firm. The Core Fixed composite was created in October, 1994. The Core Fixed composite is a fixed income strategy which consists of domestic investment grade fixed income securities, the majority of which have a maturity of 10 years or less. Accordingly, the composite is benchmarked against the Barclays Capital Aggregate Bond Index. The Barclays Capital Aggregate Bond Index is a broad-based benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS, and CMBS. The Barclays Capital Aggregate Bond Index has a duration of 5.92 years and a maturity of 7.97 years. The Core Fixed composite is comprised of all fee paying, discretionary, tax-exempt, institutional accounts managed to this investment approach which have assets greater than \$1 million and one full quarter of returns. Accounts falling below the \$1 million threshold are not eligible for inclusion in the composite. In addition, accounts that have a significant cash flow, defined as 25% of the market value prior to 10/1/2012 and 10% of the market value beginning 10/1/2012, will be removed from the composite until the next reconciliation and calculation period. Prior to January 1, 2010, SBH carved out the fixed income segments and the equity segments of balanced portfolios by adjusting end-of-period cash according to target allocations. Due to new GIPS guidelines effective 1/1/2010, Balanced portfolio segments are no longer included which resulted in several accounts leaving the composite. Gross results are shown net of trading costs and include the reinvestment of all dividends and interest. Net results are shown net of management fees as well as trading costs and include the reinvestment of all dividends and interest. Net results reflect actual fees paid. The current fee schedule applicable to the Core Fixed composite accounts is 0.25% on the first \$25 million of assets, 0.20% on the next \$25 million of assets and 0.15% over \$50 million of assets. Actual fees will vary. Prior to October 1994, performance results reflect returns generated by the investment manager using this investment strategy at another firm. All information is based on US dollar values. Returns are calculated on a capitalization and time weighted basis and linked quarterly. Dispersion of returns is measured by an equal weighted standard deviation of all the accounts in the composite for a full year period. Neither the composite nor the benchmark returns reflect the withholding of any taxes for ordinary income or capital gains. Segall Bryant & Hamill claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Segall Bryant & Hamill has been independently verified for the periods January 1, 2000 through December 31, 2017. The verification report is available upon request. 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. Verification does not ensure the accuracy of any specific composite presentation. It should be noted that principal risk is taken and that historical performance can not guarantee future results. A complete list and description of the firm's composites, as well as additional information regarding policies for valuing portfolios, calculating returns and preparing compliant presentations, is available upon request from SBH.*



## 3Q20 MARKET COMMENTARY

### CORE FIXED INCOME

#### Market Overview

Encouraged by aggressive Federal Reserve (Fed) stimulus and low interest rates, corporations have issued over \$2 trillion in new debt in 2020 (\$1.7 trillion of investment grade and over \$300 billion of high yield), already more than any full calendar year in history. This towering wave of new debt is generally viewed as a credit positive as it provides much needed liquidity for many corporations to ride out the impacts from COVID-19 and wait for the economy to normalize. While the extra balance sheet cash may be beneficial in the short term, the longer-term impact of the added debt remains to be seen. Notwithstanding these concerns, yield-hungry investors were very receptive to all the new corporate debt. In the third quarter, corporate bonds posted strong returns with riskier credits outperforming higher quality credits and Treasuries.

#### Performance

The Segall Bryant & Hamill Core strategy returned 0.9%\* in the third quarter versus a return of 0.6% for its benchmark, the Bloomberg Barclays U.S. Aggregate Bond Index. For the year-to-date period through third quarter, the strategy returned 7.6% versus 6.8% for the index. The drivers of relative performance for the quarter and year-to-date period are outlined in the table on the following page.

\*Preliminary returns.

*Continued on next page...*



# 3Q20 PERFORMANCE ATTRIBUTION

## CORE FIXED INCOME

Return Attribution	QTD	YTD	Notes
Security Selection	-0.06%	0.83%	Security selection had a slightly negative impact on relative performance during the third quarter of 2020. Specifically, during the quarter the composite's corporate securities returned 1.43% vs. 1.54% for the corporate's included in the benchmark. The composite's higher quality bias was the primary driver of this relative performance. The composite was underweight BBB corporate securities (32% vs. 49% for the benchmark). BBB corporates returned 2.00% vs. 1.09% for AAA corporate securities in the benchmark. Offsetting this was a positive contribution from the composite's mortgage backed securities, which returned 0.41% vs. 0.11% for the mortgage-backed securities in the benchmark.
Sector Selection	0.30%	-0.25%	Sector selection had a positive impact on performance during the third quarter. During the quarter, the composite was overweight corporate securities vs. the benchmark (43% vs. 28%) and underweight U.S. Treasury securities vs. the benchmark (15% vs. 37%). This helped relative performance as corporate securities returned 1.54% in the quarter vs. 0.17% for U.S. Treasuries.
Parallel Duration Shift	0.00%	-0.15%	During the quarter, the composite's duration was slightly shorter than the duration of the benchmark (98.5%). This had a neutral impact on performance during the quarter.
Yield Curve Positioning	0.06%	0.37%	Yield curve positioning had a slightly positive impact on performance during the quarter. During the quarter 2-year Treasury yields decreased by 2 basis points, 3-year Treasury yields decreased by 2 basis points, 5-year Treasury yields decreased by 1 basis points, 10-year Treasury yields increased by 3 basis points, and 30-year Treasury yields increased by 5 basis points.
<b>TOTAL*</b>	<b>0.31%</b>	<b>0.80%</b>	

\* Totals may not add exactly due to rounding. Source: Bloomberg Barclays, BondEdge



## 3Q20 MARKET COMMENTARY

### CORE FIXED INCOME

#### **Outlook and Positioning**

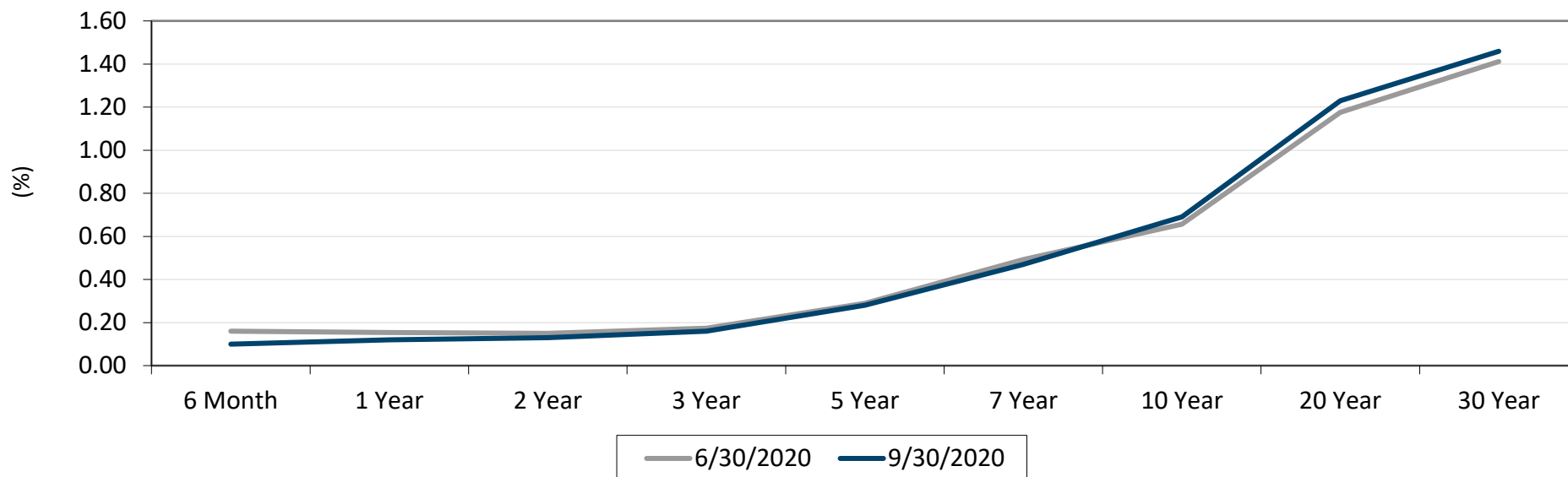
There are several major crosscurrents that could potentially influence the trajectory of the bond market in the coming months. First, the economy continues to limp along as the world waits for a vaccine or other positive virus-related news. Second, against this backdrop, the Federal Reserve continues to take a very active role in shaping the U.S. economy and market functions. It has pledged to keep interest rates low and to bolster market liquidity via a variety of new and/or expanded programs, all of which are designed to facilitate purchases of securities not traditionally thought of as in the Fed's domain. The Fed is also still engaged in more traditional quantitative easing strategies via its continued purchases of Treasuries and mortgage-backed securities (MBS). These efforts have combined to keep spreads tight and yields low on all short-term securities. It has also allowed many corporate issuers to access the market at favorable rates, which we expect to continue. Finally, for the next month the nation's attention will be focused on the culmination of a contentious election cycle. Against that backdrop, there are several pockets of concern: the high yield default rate continues to tick up, mortgage prepayments continue to creep higher, and further fiscal stimulus is in question. The net impact of these points is to highlight our strategy of diligent credit analysis and thoughtful portfolio construction. We will focus on securities we expect to perform well under the many scenarios that could unfold in the coming months, with a continued emphasis on higher quality corporate bonds and taxable munis.



# INTEREST RATES AND RETURNS: QUARTER-TO-DATE

(As of 9/30/20)

## Treasury Yield Curves



## Quarter-to-date Returns

Short Term		Intermediate (1-10yr)		Broad Market (1-30yr)	
0-3 Year U.S. High Yield*	4.11%	Intermediate High Yield	4.41%	U.S. High Yield	4.60%
1-3 Year Aggregate	0.16%	Intermediate Aggregate	0.48%	U.S. Aggregate	0.62%
1-3 Year Gov't/Credit	0.23%	Intermediate Gov't/Credit	0.61%	EM Aggregate	2.37%
1-3 Year U.S. Treasury	0.10%	Intermediate U.S. Treasury	0.19%	U.S. Treasury	0.17%
1-3 Year U.S. Corporate	0.60%	Intermediate U.S. Corporate	1.33%	U.S. Corporate	1.54%

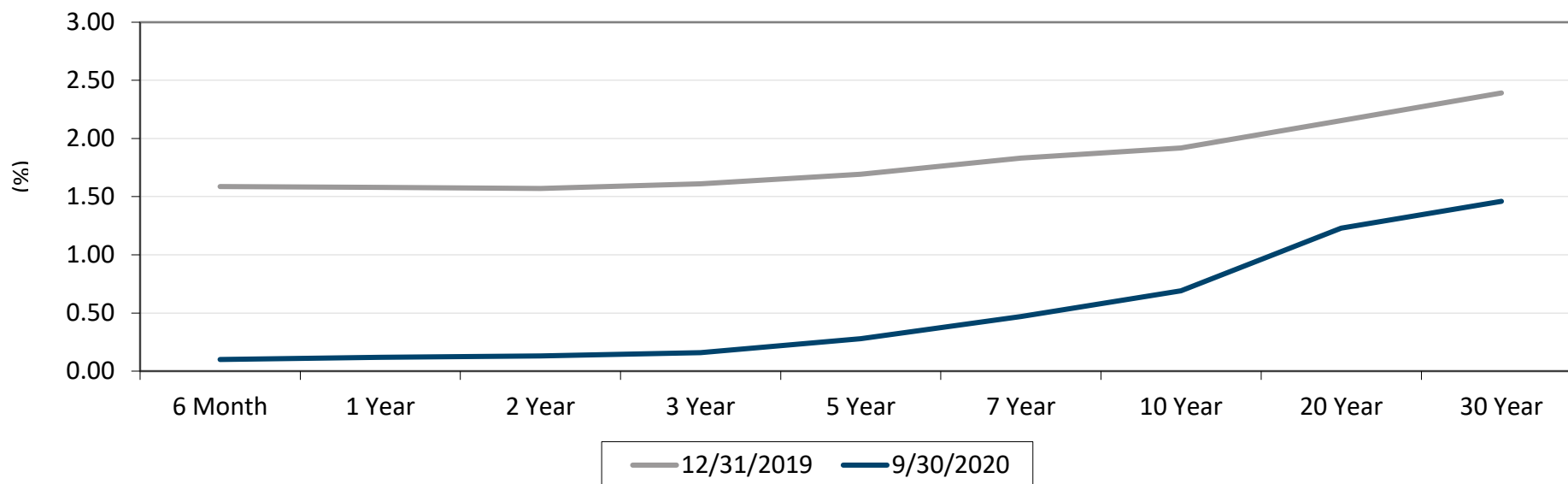
Sources: Barclays, Bloomberg, Bank of America Merrill Lynch



# INTEREST RATES AND RETURNS: YEAR-TO-DATE

(As of 9/30/20)

## Treasury Yield Curves



## Year-to-date Returns

Short Term		Intermediate (1-10yr)		Broad Market (1-30yr)	
0-3 Year U.S. High Yield*	-1.61%	Intermediate High Yield	-0.19%	U.S. High Yield	0.62%
1-3 Year Aggregate	2.85%	Intermediate Aggregate	5.16%	U.S. Aggregate	6.79%
1-3 Year Gov't/Credit	3.12%	Intermediate Gov't/Credit	5.92%	EM Aggregate	1.93%
1-3 Year U.S. Treasury	3.11%	Intermediate U.S. Treasury	6.02%	U.S. Treasury	8.90%
1-3 Year U.S. Corporate	3.10%	Intermediate U.S. Corporate	5.61%	U.S. Corporate	6.64%

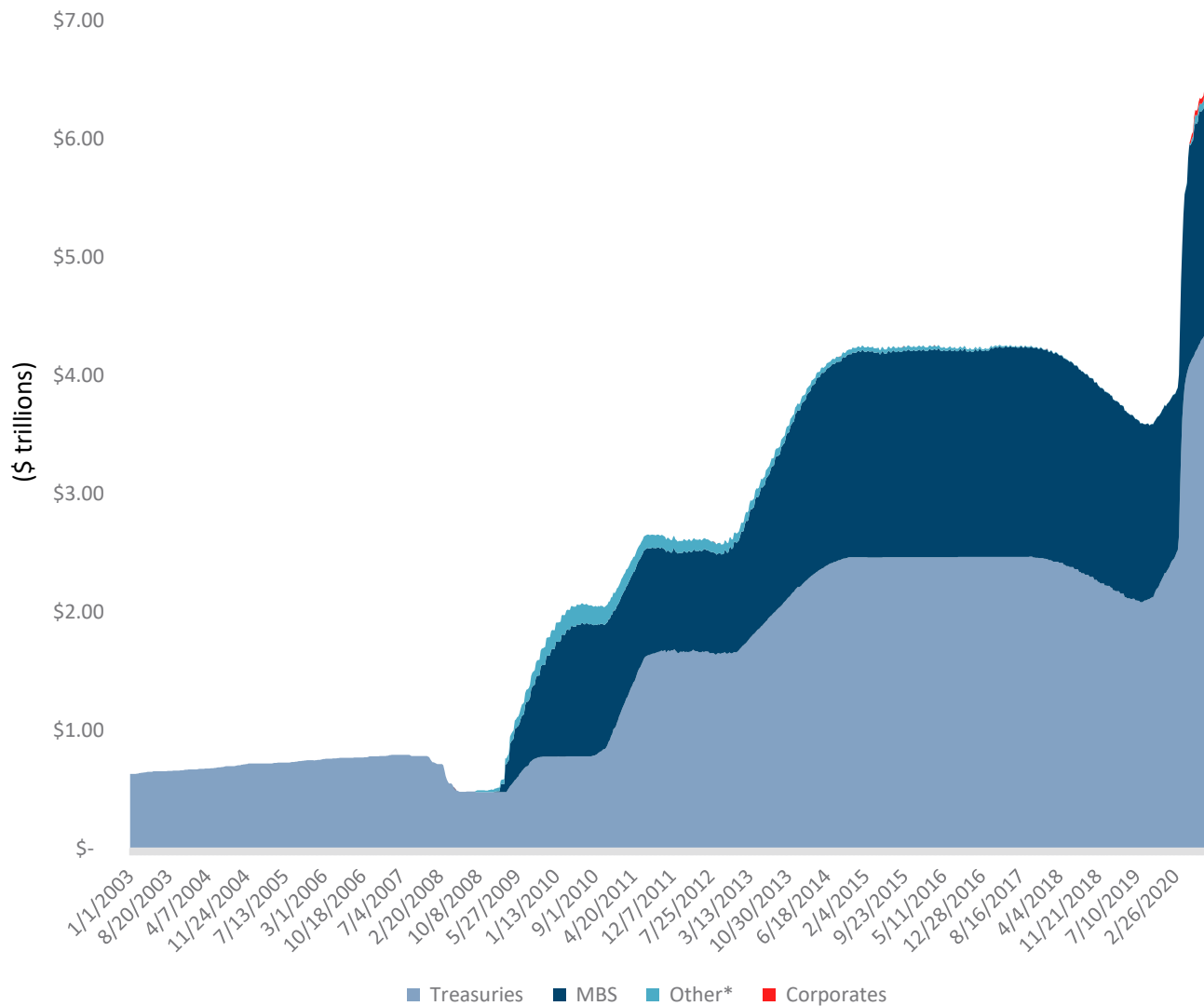
Sources: Barclays, Bloomberg, Bank of America Merrill Lynch



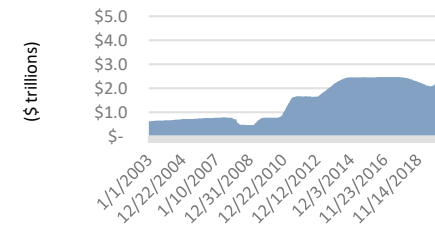
# SECURITIES HELD BY FEDERAL RESERVE

(As of 9/30/20)

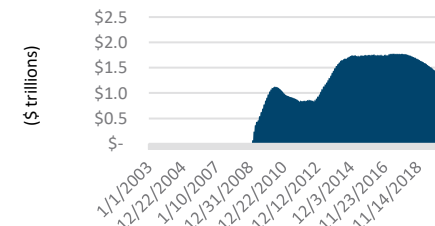
## Securities Held by Federal Reserve



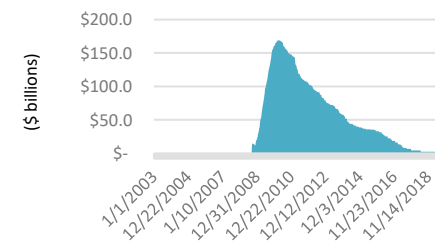
### Treasuries



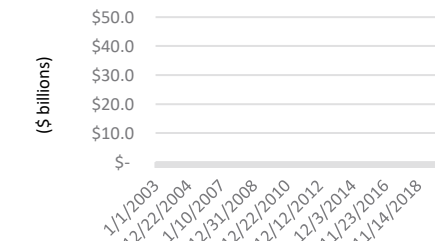
### MBS



### Other\*



### Corporates



Source: St. Louis Federal Reserve Bank

\* Other is a combination of Agencies, Commercial Paper Facility and Municipal Facility



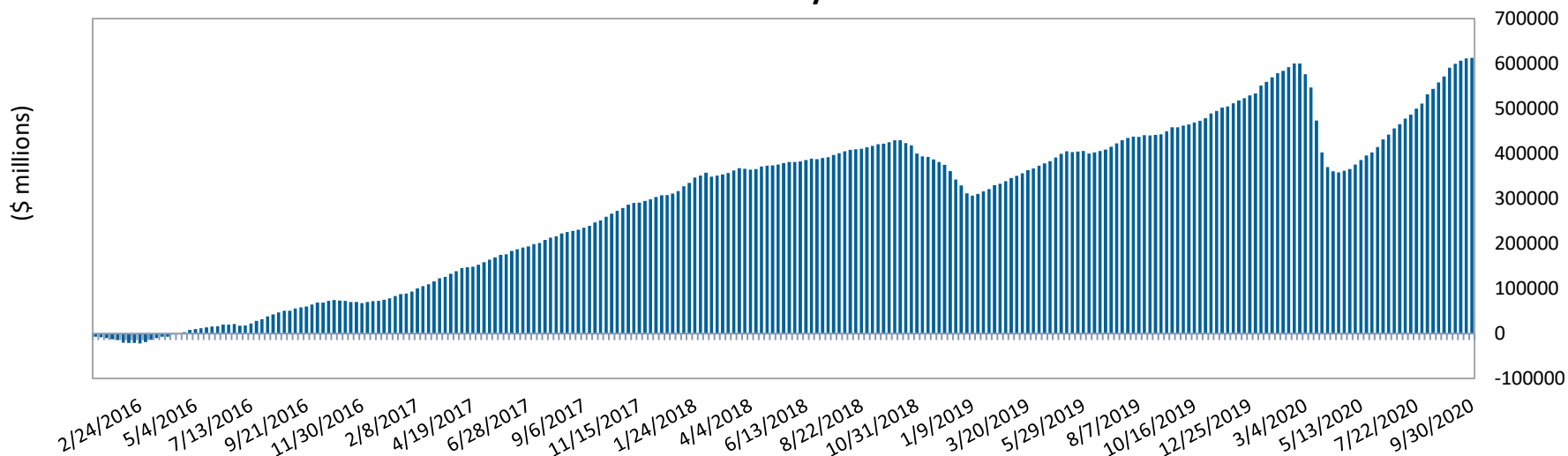


# FUND FLOWS AND EXCESS RETURNS

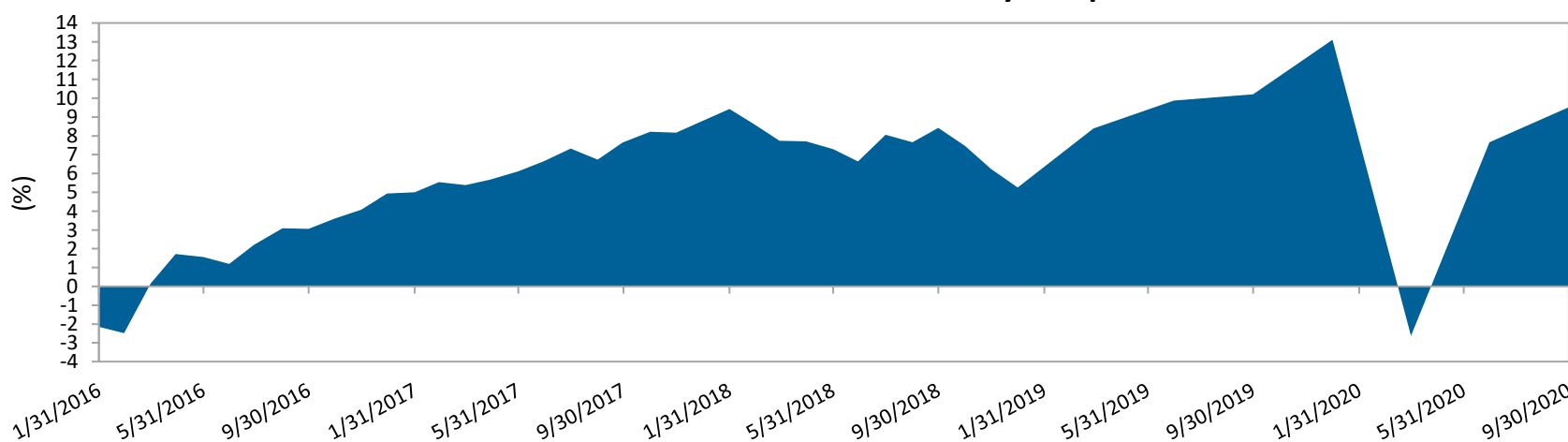
(As of 9/30/20)

Strong demand for the safety of U.S. Treasuries has helped them outperform most other asset classes so far in 2020.

**ICI Taxable Bond Est. Weekly Cumulative Cash Flow**



**2016-2020 Excess Return on Barclays Corporate Index**



Sources: Barclays, Bloomberg, Bank of America Merrill Lynch



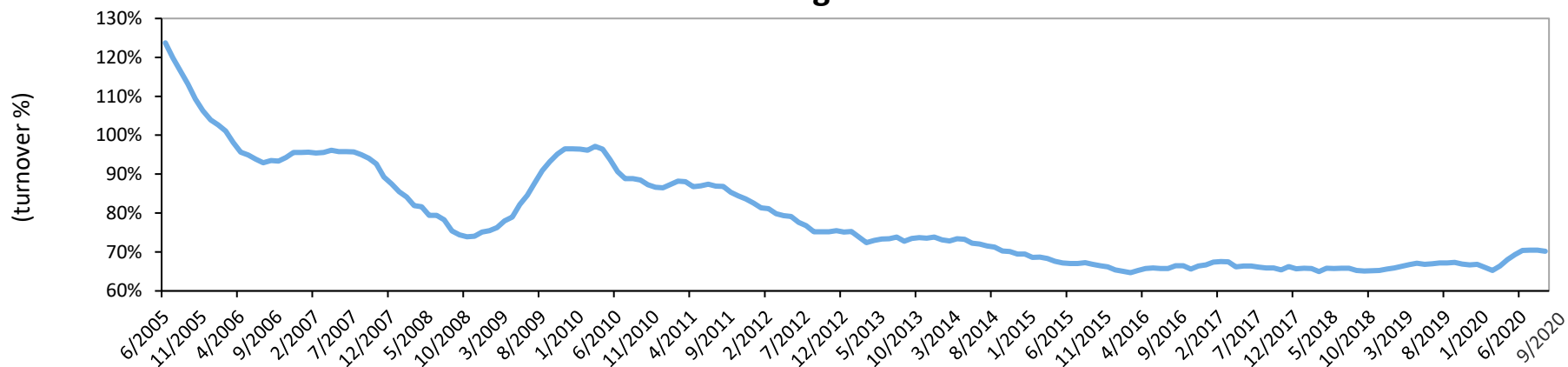
# BOND MARKET LIQUIDITY

(As of 9/30/20)

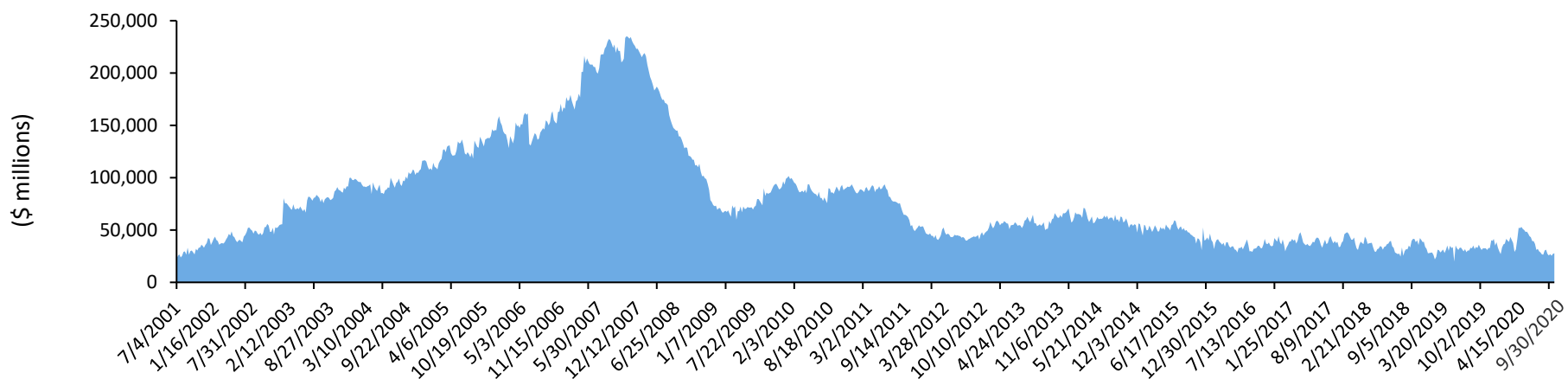
## Market Liquidity is at a 10-Year Low

Market liquidity has dropped steadily over the past decade as dealers reduce their inventories.

### 12-Month Rolling Investment Grade Turnover



### Dealer Inventories



Sources: FINRA Trace, Federal Reserve Bank of New York

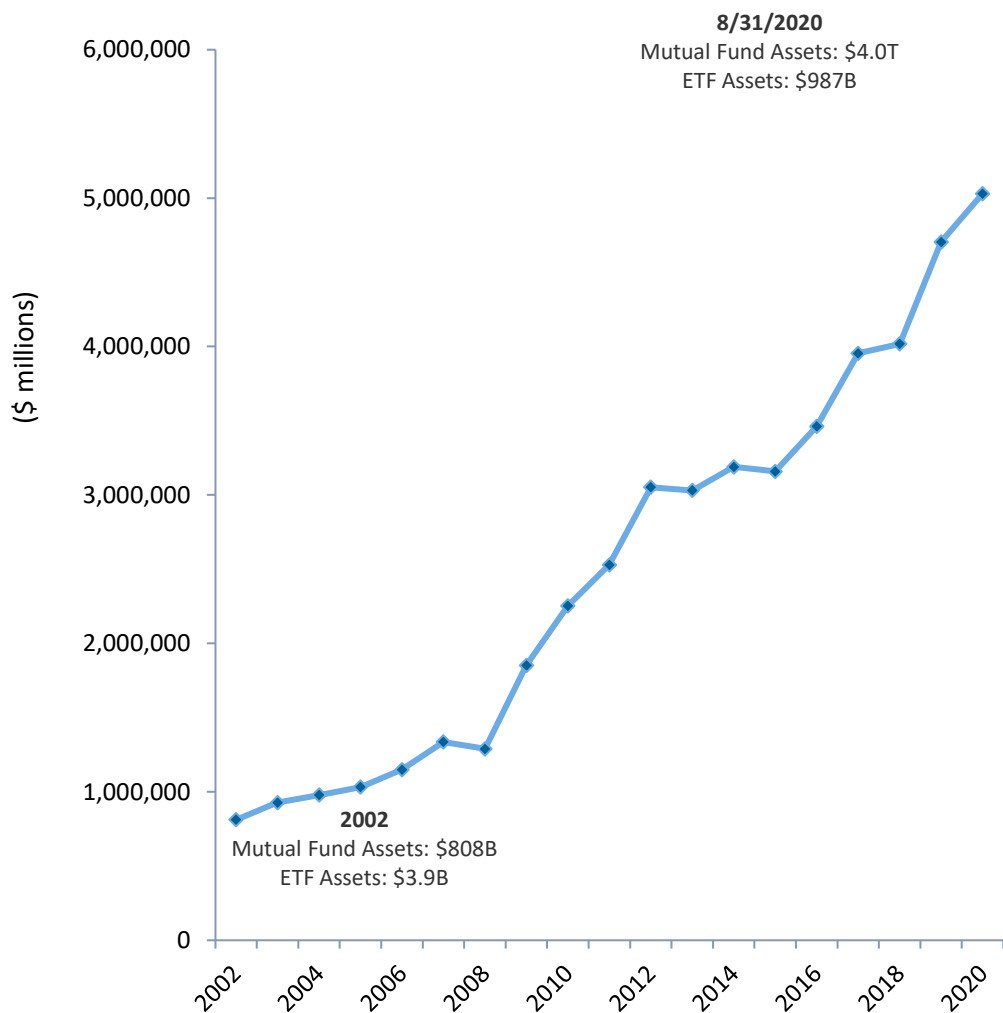


# FUND FLOWS

Flows into bond mutual funds have been generally strong in 2020, aided by the Federal Reserve's commitment to purchasing corporate bonds.

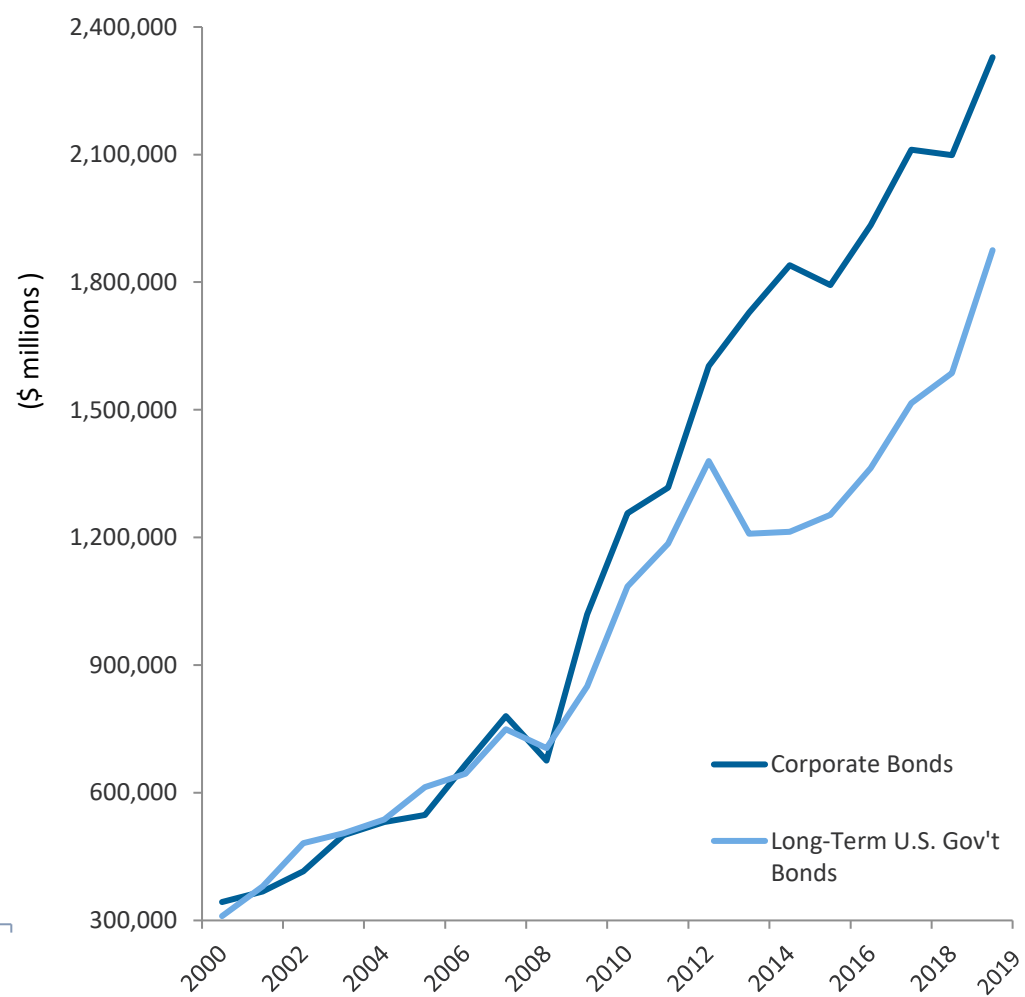
## Assets in Bond Mutual Funds and Bond ETFs

As of August 31, 2020



## Securities Held by Long-Term Mutual Funds

As of December 31, 2019



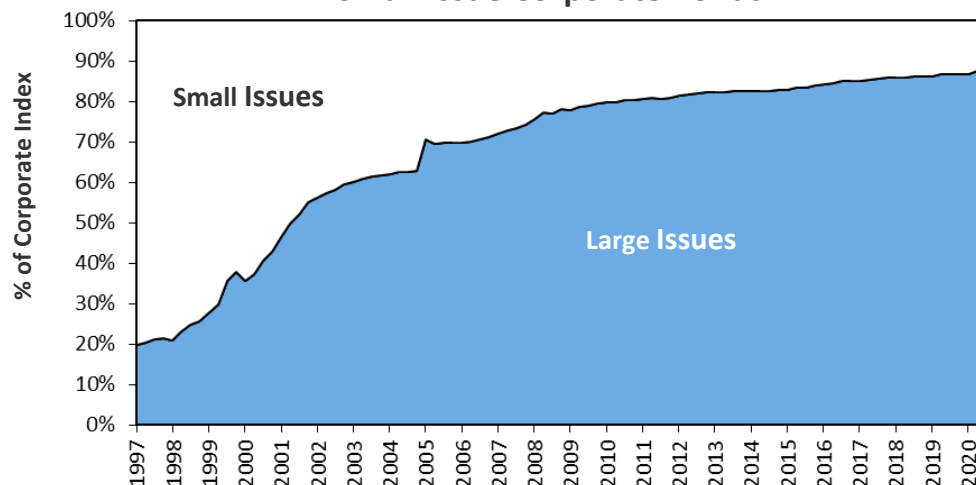
Source: Investment Company Institute.



# SMALL ISSUE VS. LARGE ISSUE

(As of 9/30/20)

### Small Issue Corporate Bonds

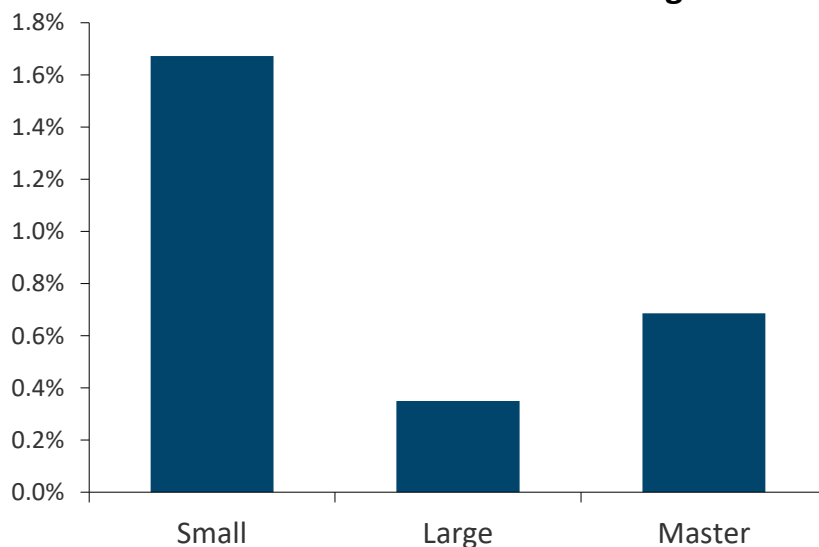


Small issue corporate bonds continue to produce higher returns to large issues.

### Small Issue Characteristics

	Yield	# of Issues	Avg. Deal Size
Small Issues	2.35%	2,531	\$347MM
Large Issues	2.01%	6,180	\$1,033MM

### Total Returns While S&P 500 Negative



### Stress Characteristics

	Small	Large	Master
Return	1.67%	0.35%	0.69%
Standard Deviation	6.62%	6.46%	6.39%
Information Ratio	0.25	0.05	0.11

"YTW" = Yield to worst, data on S&P 500 since 12/31/1996

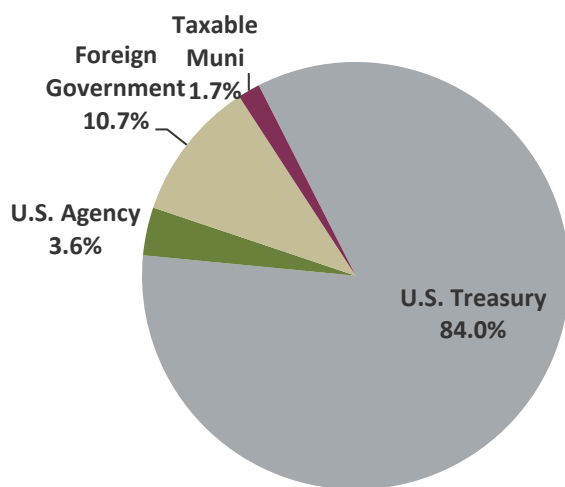
Source: ICE BofAML U.S. Large Cap Corporate Index, ICE BofAML U.S. Corporate Small Cap Index, Bloomberg, SBH



# TAXABLE MUNICIPAL BONDS

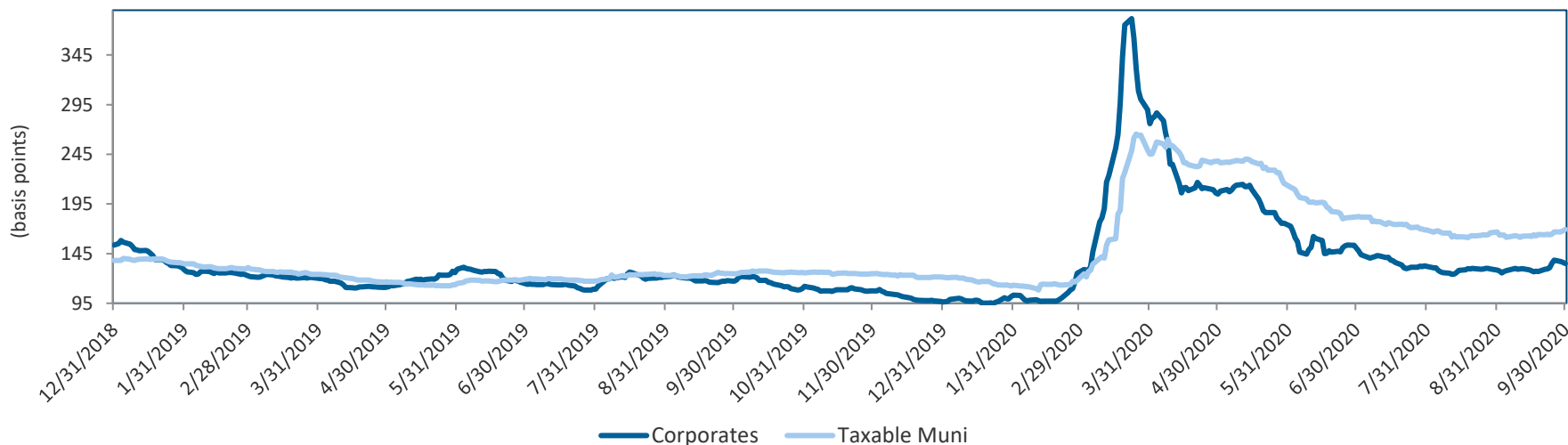
(As of 9/30/20)

## Government Securities



Sector	Yield	Avg. Quality
5-10 Year Taxable Municipal	1.50%	A1
5-10 Year U.S. Foreign Govt. & Supranational	1.70%	AA3
5-10 Year U.S. Agency	0.88%	AAA
5-10 Year U.S. Treasury	0.45%	AAA

## Ten Year Spreads



As of 9/30/20

Source: ICE BofAML U.S. Large Cap Corporate Index, ICE BofAML U.S. Corporate Small Cap Index, SBH

Source: ICE BofAML, Moody's Investors Service Global Credit Research.

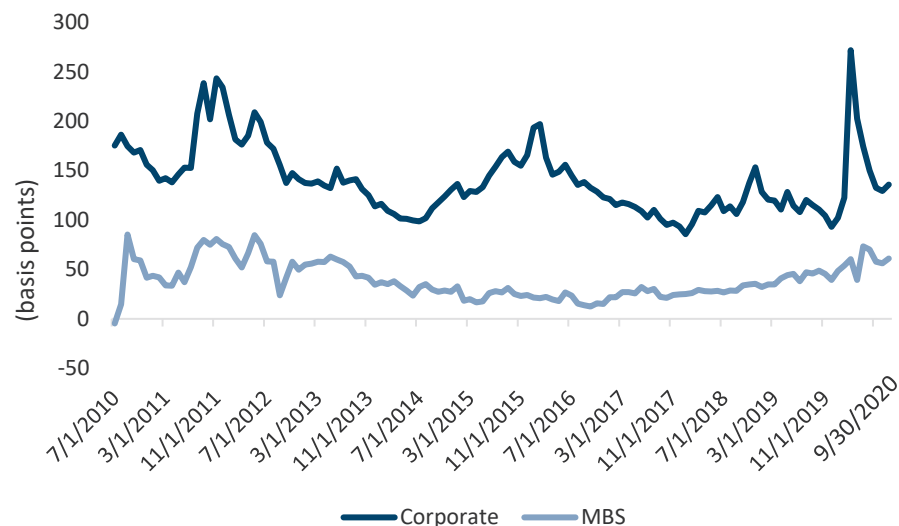


# MORTGAGE BACKED SECURITIES

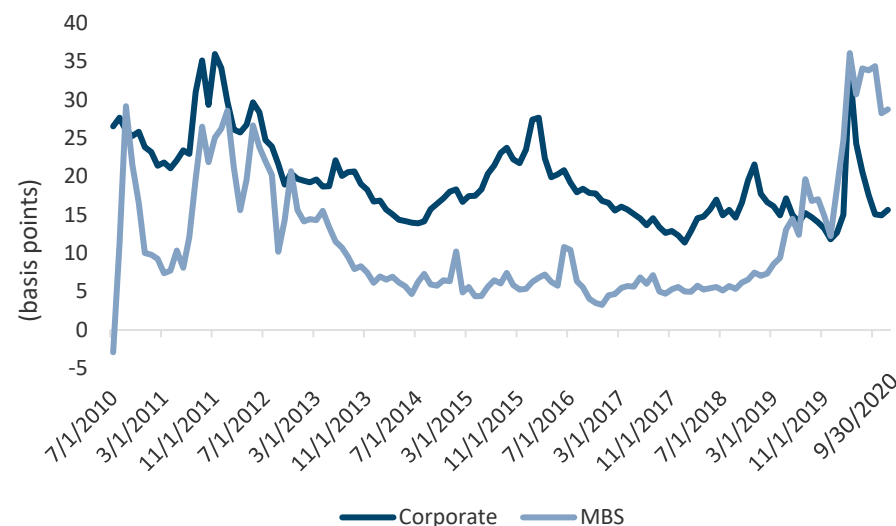
(As of 9/30/20)

Spreads on corporate bonds and mortgage-backed securities made a strong move tighter in the second quarter but remain wide of where they began 2020.

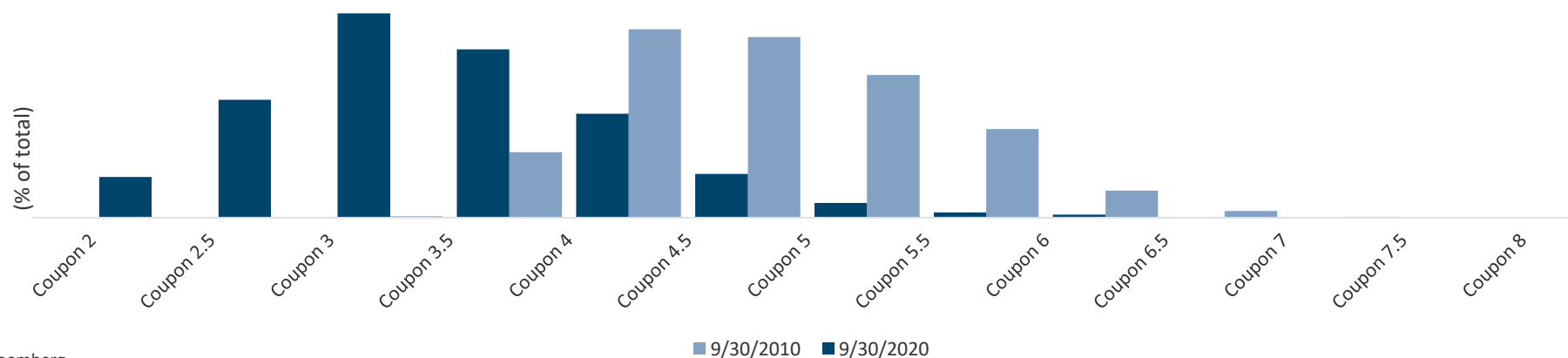
**Option Adjusted Spread (OAS)**



**Duration Adjusted Spread**



**Mortgage Coupons**



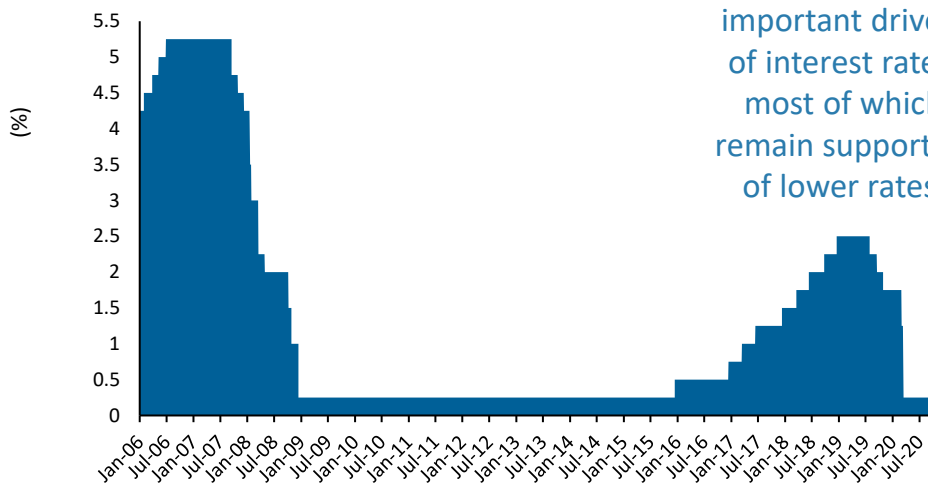
Source: Bloomberg



# FOUR FACTORS THAT AFFECT INTEREST RATES

(As of 9/30/20)

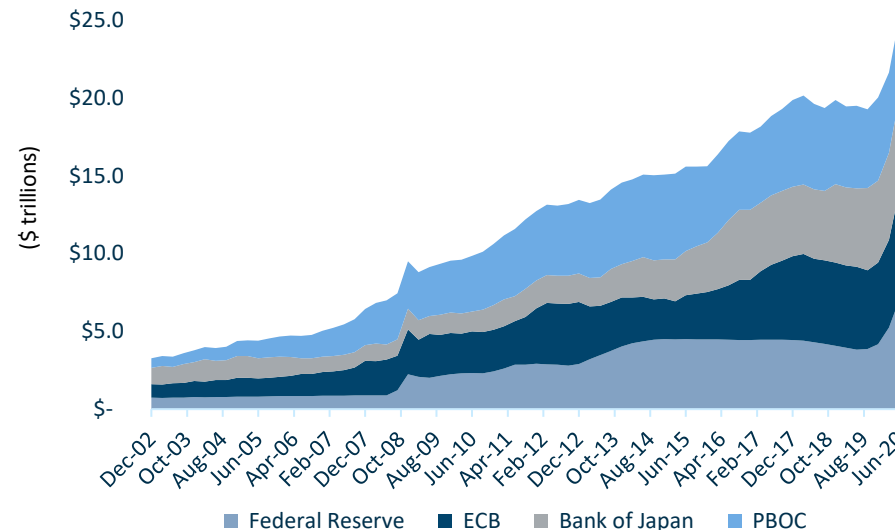
## Federal Funds Target Rate



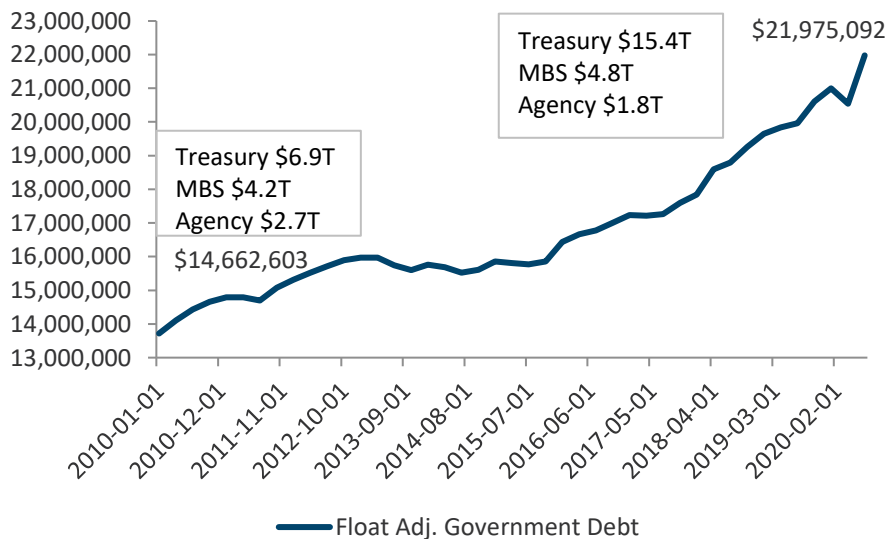
Source: Bloomberg

We pay close attention to four important drivers of interest rates, most of which remain supportive of lower rates.

## Global Central Bank Assets

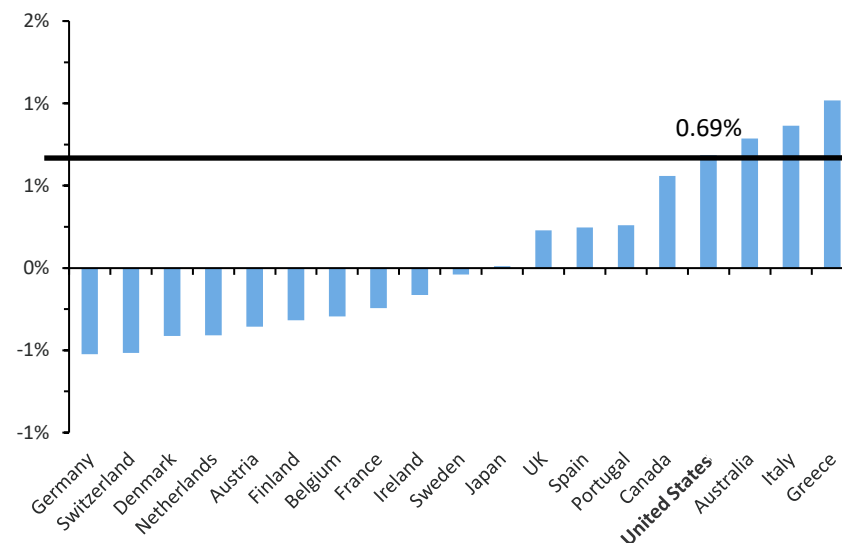


Source: St. Louis Federal Reserve Bank.



\* Total outstanding U.S. government and agency guaranteed debt adjusted for securities held at the Federal Reserve and US Depository Institutions. Sources: St. Louis Federal Reserve Bank, Barclays

## 10-Year Government Rates



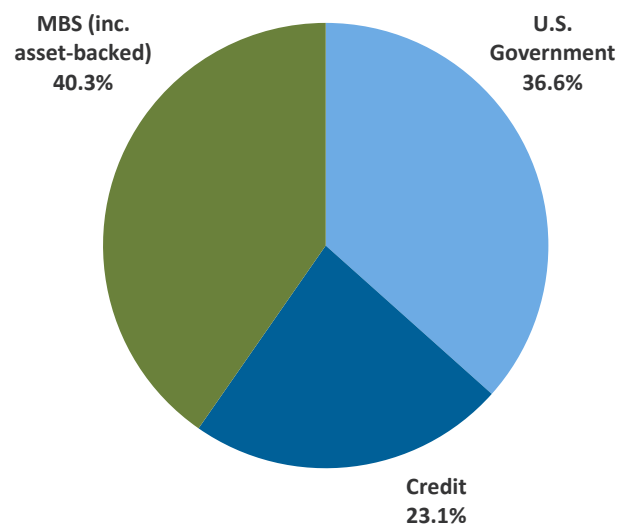
Source: Bloomberg



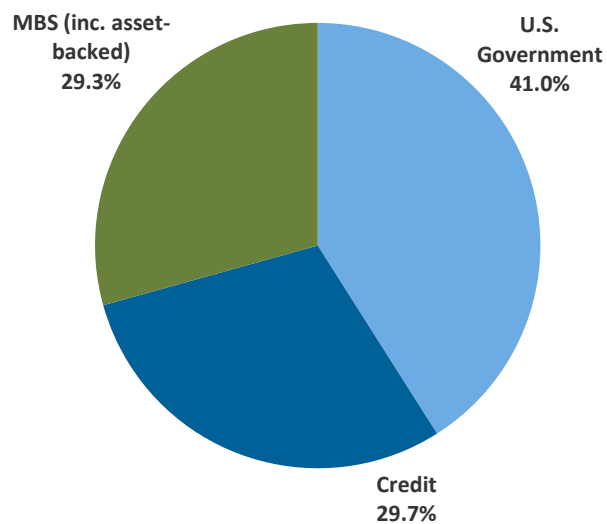
# CHANGE IN INDEX COMPONENTS

(As of 9/30/20)

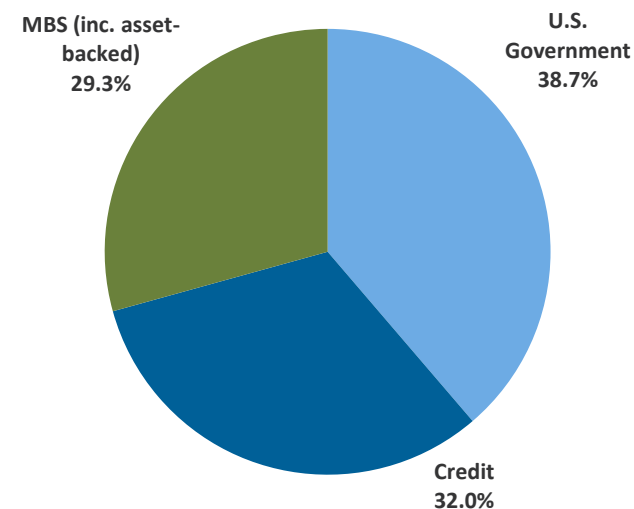
**12/31/2009**



**12/31/2019**



**9/30/2020**



Components of BBgBarc U.S. Aggregate Index	12/31/2009	12/31/2019	9/30/2020
U.S. Government Market Value (Millions)	\$4,970,177	\$9,462,117	\$9,513,462
U.S. Government % of Total	36.6%	40.8%	38.7%
U.S. Government Duration	4.7	6.4	7.0
Credit Market Value (Millions)	\$3,131,491	\$6,862,598	\$7,854,452
Credit % of Total	23.1%	29.6%	32.0%
Credit Duration	6.2	7.7	8.3
MBS Market Value (Millions)	\$5,475,474	\$6,861,235	\$7,198,182
MBS (inc. asset-backed) % of Total	40.3%	29.6%	29.3%
MBS (inc. asset-backed) Duration	4.6	4.3	3.4

Source: Bloomberg Barclays. Due to rounding, totals may not add to 100%.





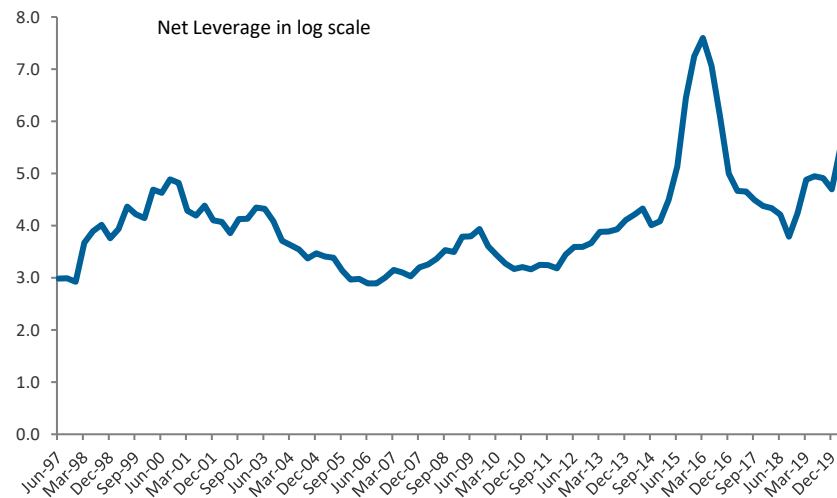
# CORPORATE CREDIT FUNDAMENTALS

**U.S. Investment Grade Non-Financial Issuers Net Leverage**



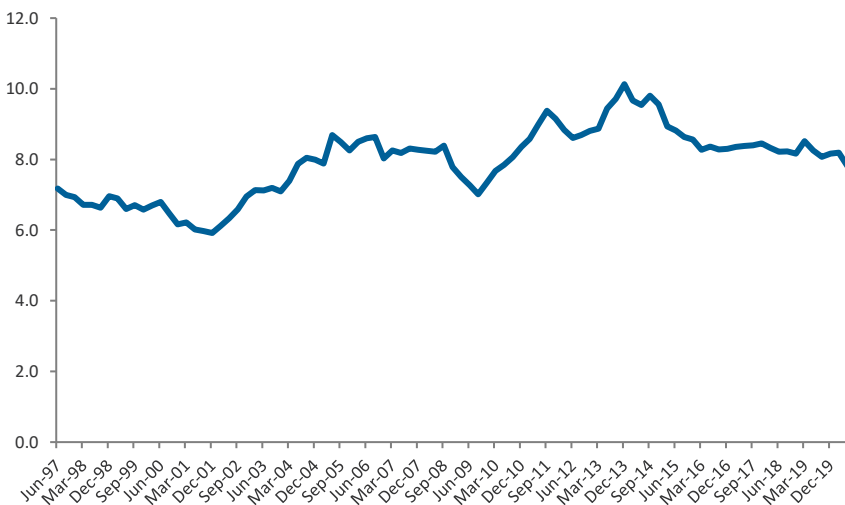
Source: BofA Merrill Lynch Global Research, ICE Data Indices LLC. Data series from 6/30/1997 to 6/30/2020

**ICE BofAML U.S. High Yield Index Leverage**



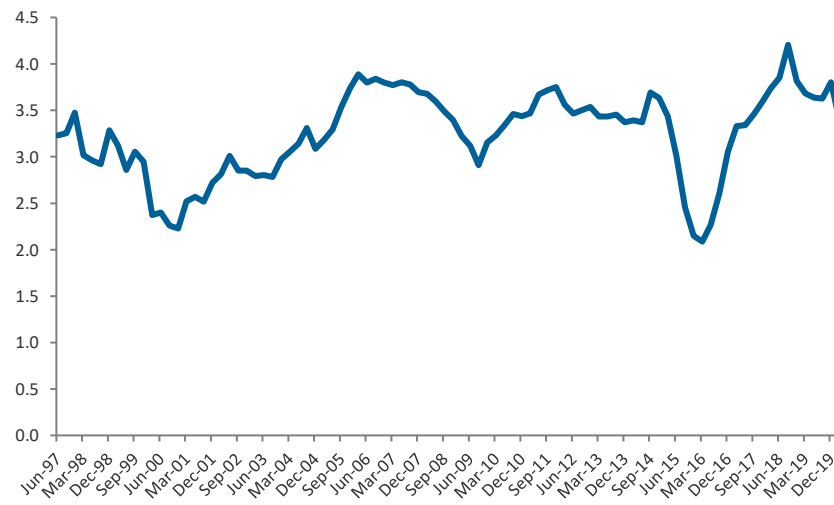
Source: BofA Merrill Lynch Global Research, ICE Data Indices LLC. Data series from 6/30/1997 to 6/30/2020

**U.S. Investment Grade Non-Financial Issuers Coverage**



Source: BofA Merrill Lynch Global Research, ICE Data Indices LLC. Data series from 6/30/1997 to 6/30/2020

**ICE BofAML U.S. High Yield Index Coverage**



Source: BofA Merrill Lynch Global Research, ICE Data Indices LLC. Data series from 6/30/1997 to 6/30/2020



# CORPORATE RETURNS BY LEVERAGE ENVIRONMENT

## Period Information

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	YTD Q2 2020
Fed, ECB, BOJ and PBOC Policy Rate Hikes	1	3	0	0	0	1	1	3	4	0	0
“ “ Policy Rate Cuts	0	0	2	0	3	3	2	0	0	3	2
“ “ Balance Sheets, in \$B	\$ 10,619.65	\$ 12,789.44	\$ 13,450.09	\$ 14,551.20	\$ 15,069.81	\$ 15,610.78	\$ 17,352.74	\$ 20,033.70	\$ 19,867.25	\$ 20,020.55	\$ 25,258.47
\$ Change, in Billions		\$ 2,169.79	\$ 660.65	\$ 1,101.11	\$ 518.60	\$ 540.98	\$ 1,741.96	\$ 2,680.96	\$ (166.45)	\$ 153.30	\$ 3,618.64
U.S. GDP Growth	2.60%	1.60%	2.20%	1.80%	2.50%	2.90%	1.60%	2.40%	2.90%	2.30%	-32.9%
U.S. CPI Average	1.64%	3.14%	2.07%	1.47%	1.62%	0.12%	1.27%	2.14%	2.44%	1.81%	-1.0%
S&P 500 Change	15.06%	2.11%	15.99%	32.37%	13.68%	1.37%	11.95%	21.82%	-4.39%	31.48%	-3.09%
<b>Corporate Returns</b>											
10+ Year Most Levered	10.71%	14.12%	13.17%	-4.56%	16.22%	-5.62%	13.53%	11.19%	-2.11%	24.14%	2.12%
10+ Year Least Levered	11.46%	18.77%	11.08%	-6.18%	15.06%	-2.27%	8.31%	12.25%	-2.36%	22.12%	9.25%
<i>Difference</i>	<b>-0.75%</b>	<b>-4.65%</b>	<b>2.09%</b>	<b>1.62%</b>	<b>1.16%</b>	<b>-3.35%</b>	<b>5.22%</b>	<b>-1.06%</b>	<b>0.25%</b>	<b>2.03%</b>	<b>-7.13%</b>
7-10 Year Most Levered	10.78%	7.52%	12.25%	-2.67%	7.90%	-0.39%	6.67%	5.80%	-2.33%	14.77%	
7-10 Year Least Levered	10.01%	10.73%	8.92%	-2.81%	8.35%	2.00%	4.00%	5.60%	-2.17%	13.86%	7.01%
<i>Difference</i>	<b>0.78%</b>	<b>-3.21%</b>	<b>3.32%</b>	<b>0.14%</b>	<b>-0.46%</b>	<b>-2.39%</b>	<b>2.67%</b>	<b>0.20%</b>	<b>-0.16%</b>	<b>0.91%</b>	<b>-3.71%</b>
5-7 Year Most Levered	9.46%	5.00%	13.40%	1.04%	4.82%	0.36%	6.35%	4.51%	-0.51%	11.70%	3.18%
5-7 Year Least Levered	8.44%	7.86%	7.56%	-0.08%	4.58%	2.03%	3.80%	4.38%	-0.65%	10.71%	6.97%
<i>Difference</i>	<b>1.01%</b>	<b>-2.86%</b>	<b>5.83%</b>	<b>1.12%</b>	<b>0.24%</b>	<b>-1.67%</b>	<b>2.56%</b>	<b>0.12%</b>	<b>0.13%</b>	<b>0.99%</b>	<b>-3.79%</b>
3-5 Year Most Levered	7.03%	3.31%	9.31%	1.76%	2.72%	1.03%	3.94%	3.22%	0.35%	8.11%	2.75%
3-5 Year Least Levered	6.02%	5.32%	5.73%	0.86%	2.76%	1.71%	2.86%	2.84%	0.35%	7.89%	5.04%
<i>Difference</i>	<b>1.01%</b>	<b>-2.01%</b>	<b>3.58%</b>	<b>0.89%</b>	<b>-0.04%</b>	<b>-0.68%</b>	<b>1.08%</b>	<b>0.39%</b>	<b>0.00%</b>	<b>0.22%</b>	<b>-2.29%</b>
1-3 Year Most Levered	4.84%	1.35%	5.45%	1.80%	1.15%	0.86%	2.66%	1.89%	1.48%	4.93%	1.61%
1-3 Year Least Levered	3.77%	2.34%	2.58%	1.30%	1.11%	1.07%	1.92%	1.54%	1.49%	4.59%	3.03%
<i>Difference</i>	<b>1.07%</b>	<b>-0.98%</b>	<b>2.86%</b>	<b>0.49%</b>	<b>0.04%</b>	<b>-0.20%</b>	<b>0.74%</b>	<b>0.35%</b>	<b>-0.01%</b>	<b>0.34%</b>	<b>-1.42%</b>



# EXCESS RETURNS BY SECTOR

(As of 9/30/20)

## Excess Returns by Sector

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 YTD
2.29% IG Corp	0.52% ABS	7.34% IG Corp	2.86% IG Corp	0.93% Non Corp	0.44% ABS	4.93% IG Corp	3.46% IG Corp	0.13% ABS	6.76% IG Corp	0.70% ABS
2.25% MBS	0.00% Treasury	5.39% Non Corp	0.98% MBS	0.53% ABS	0.00% Treasury	2.05% Non Corp	2.78% Non Corp	0.00% Treasury	3.31% Non Corp	0.00% Treasury
1.69% ABS	-1.06% MBS	2.46% ABS	0.24% ABS	0.40% MBS	-0.05% MBS	0.95% ABS	0.92% ABS	-0.59% MBS	0.71% ABS	-0.52% MBS
0.48% Non Corp	-1.49% Non Corp	0.91% MBS	0.03% Non Corp	0.00% Treasury	-1.61% IG Corp	0.00% Treasury	0.52% MBS	-1.01% Non Corp	0.61% MBS	-3.86% Non Corp
0.00% Treasury	-3.67% IG Corp	0.00% Treasury	0.00% Treasury	-0.48% IG Corp	-2.02% Non Corp	-0.11% MBS	0.00% Treasury	-3.15% IG Corp	0.00% Treasury	-3.94% IG Corp



# EXCESS RETURNS BY MATURITY

(As of 9/30/20)

## Excess Returns by Maturity

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 YTD
3.38% 5-7 years	0.13% 1-3 years	5.09% 10+ years	1.59% 10+ years	0.55% 5-7 years	0.14% 3-5 years	5.51% 10+ years	3.44% 10+ years	0.00% 1-3 years	6.32% 10+ years	0.15% 3-5 years
2.08% 3-5 years	-0.29% 3-5 years	4.06% 7-10 years	1.07% 5-7 years	0.49% 3-5 years	0.08% 1-3 years	1.64% 7-10 years	1.30% 7-10 years	-0.36% 3-5 years	2.49% 7-10 years	-0.14% 5-7 years
1.99% 7-10 years	-1.17% 5-7 years	2.61% 5-7 years	0.97% 3-5 years	0.30% 7-10 years	-0.36% 7-10 years	0.55% 3-5 years	0.74% 3-5 years	-0.75% 5-7 years	1.37% 5-7 years	-0.15% 1-3 years
0.90% 10+ years	-1.71% 7-10 years	1.56% 3-5 years	0.59% 7-10 years	0.18% 1-3 years	-0.37% 5-7 years	0.52% 5-7 years	0.72% 5-7 years	-0.94% 7 - 10	1.26% 3-5 years	-1.53% 7 - 10
0.51% 1-3 years	-4.10% 10+ years	0.89% 1-3 years	0.33% 1-3 years	-1.76% 10+ years	-2.78% 10+ years	0.40% 1-3 years	0.39% 1-3 years	-3.27% 10+ years	0.43% 1-3 years	-5.04% 10+ years

**BAIRD**

*Prepared for*  
**LACERS**

December 10, 2020



## Representing Baird Advisors



**Mary Ellen Stanek, CFA**

Managing Director  
Chief Investment Officer



**Charles B. Groeschell**

Managing Director  
Senior Portfolio Manager



**M. Sharon deGuzman**

Managing Director  
Senior Portfolio Manager

# Table of Contents

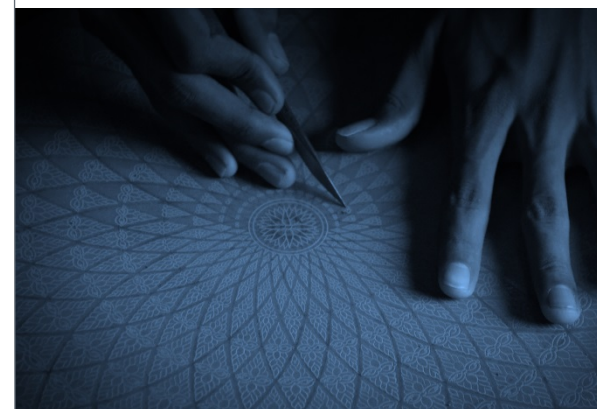
# Section

Firm/Team Overview.....1

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Baird Aggregate Bond Fund.....3

Appendix



# Section 1

## Firm/Team Overview



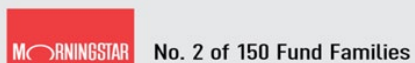
# Baird Advisors Update



**1919** founded in Milwaukee

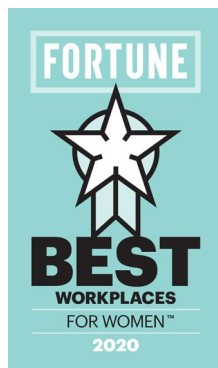
**2004** Baird becomes employee-owned

**4,500** Associates (More than two thirds are shareholders)



## Morningstar recognizes Baird Funds

- Baird Aggregate and Baird Short-Term Bond Funds receive **Morningstar's highest gold rating**
- Mary Ellen Stanek again named 1 of 5 Nominees for 2020 **Morningstar Outstanding Portfolio Manager Award**
- Baird Core Plus, Aggregate, and Short-Term Bond Funds selected for Morningstar's **Thrilling 36** mutual fund list out of more than 8,000 mutual funds
- Baird Funds recognized as the **Top 2 Fund Family** out of the Largest 150 Fund Families



## Refinitiv Lipper Fund Awards

Baird Short-Term Municipal Bond Fund was rated **Best Fund** for the past 3 years in the Short Municipal Debt category.

**Pensions & Investments'** "Best Places to Work in Money Management" for 8 Straight Years

## Barron's

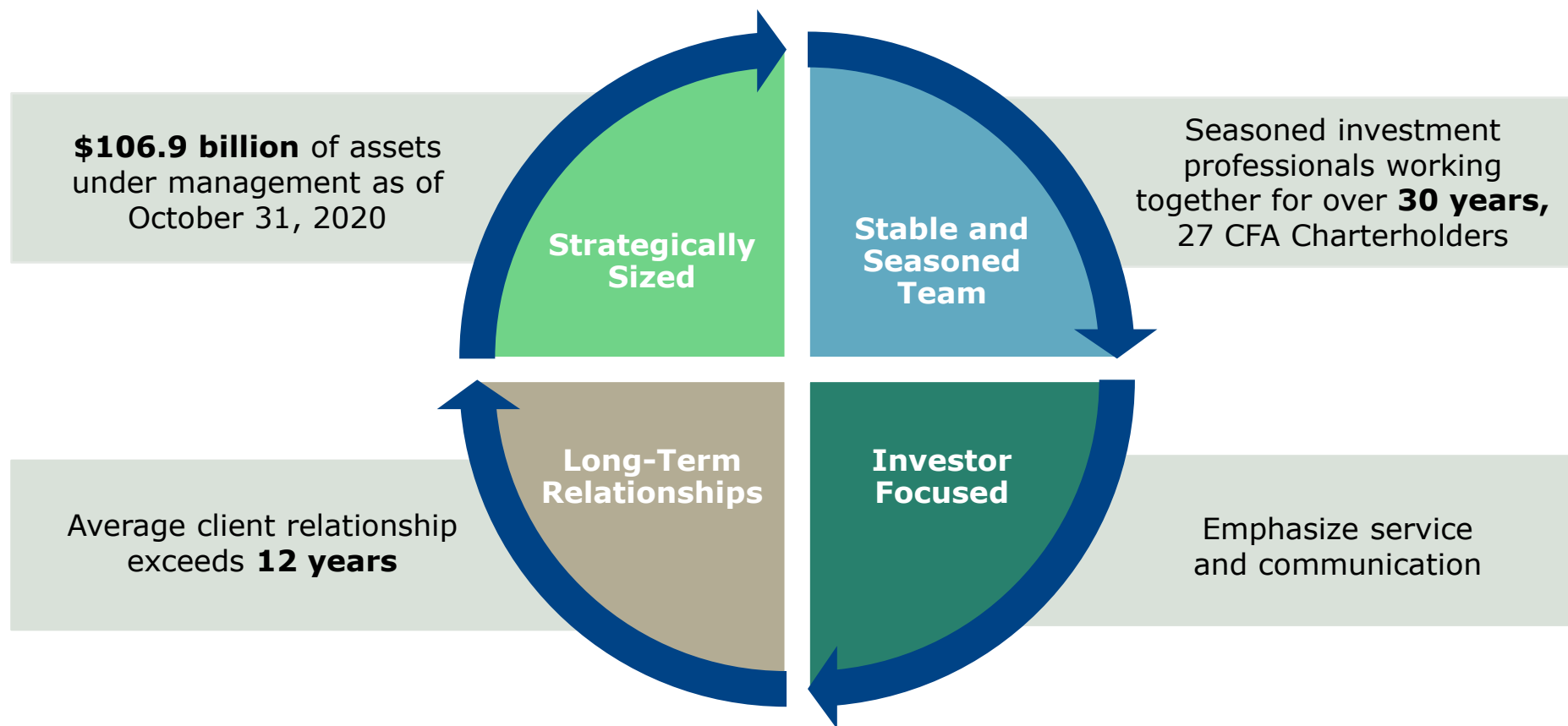
- 100 Most Influential Women in U.S. Finance: Mary Ellen Stanek
- June 2020 Baird Short-Term Municipal Bond Fund Profile: A Muni-Bond Fund That Lets You Sleep at Night



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# Baird Advisors Overview

Experienced Team with a Competitive Track Record in High-Quality Fixed Income Management



# Baird Advisors

## Competitive Advantages

- Stable team of experienced investment professionals
- Risk-controlled discipline delivering over 30 years of competitive returns
- Consistency of returns versus peers
- Strategically sized, emphasizing bottom-up versus top-down approach
- All cash bonds, all U.S. dollar-denominated, no derivatives, no leverage
- Attractive expense ratio benefits future returns (30 bps Institutional Class)
- Employee-owned, strong financial services firm



# Baird Advisors - Representative Clients

Average client relationship exceeds 12 years

The image displays a large collection of logos for representative clients, organized into four main categories:

- Insurance & Healthcare:** Includes logos for Great River Health Systems, Quartz, Mack, Baylor Scott & White Health, Texas Mutual, WPS Health Solutions, BlueCross BlueShield of North Carolina, Maryland Auto Insurance, UAW, UnityPoint Health Meriter, Northwestern Medicine, Advocate Aurora Health, Security Health Plan, Trinity Health, Anthem, UW Health, University of Wisconsin Hospital and Clinics, Gundersen Health System, Boulder Community Hospital, Guthrie, Premera Blue Cross, Hamilton Health Care System, LACERS (LA City Employees' Retirement System), and others.
- Retirement Plans:** Includes logos for North Central States Regional Council of Carpenters' Benefit Funds, Goodyear, Milwaukee ERS (Employees' Retirement System), Amalgamated Transit Union, Nebraska Public Power District, SFERS (San Francisco Employees' Retirement System), thyssekrupp, ATI, Memorial Hermann, MedStar Health, CERA, Harley-Davidson, MTA, Kohl's, Johnson Controls, Colgate-Palmolive, and Publix Super Markets.
- Foundation / Endowment:** Includes logos for University of Colorado Boulder, Vidant Health, Marquette University, Christian Church Foundation, Tuskegee University, Charter School Growth Fund, City of Hope, Presence Health, University of Georgia, Wayne State University, C-Span, Sam Houston State University, National Christian Foundation, The Catholic Community Foundation, The University of New Hampshire, and others.
- Customized:** Includes logos for Delphi Technologies, Gavi (The Vaccine Alliance), West Bend (A Mutual Insurance Company), VML (Virginia Municipal League), WELS (Christ's Love, Our Calling), Green, IAGo (Virginia Association of Counties), Ancilla Systems, Engineers Local 139, Diocese of Joliet-In-Illinois, Children's Hospital of Wisconsin, Ascension Health, Eastern Michigan University, The Saint Paul Foundation, GMF Greater Milwaukee Foundation, Medical College of Wisconsin, The Pension Fund, Texas Trust (Texas Treasury Safekeeping Trust Company), KERA, KXT 91.7, Intermountain Healthcare, and Summa Health.

Note: The clients listed above represent various industry groups and geographic locations and were not selected based upon performance. Their appearance is not an indication of approval or disapproval of the investment management services provided.

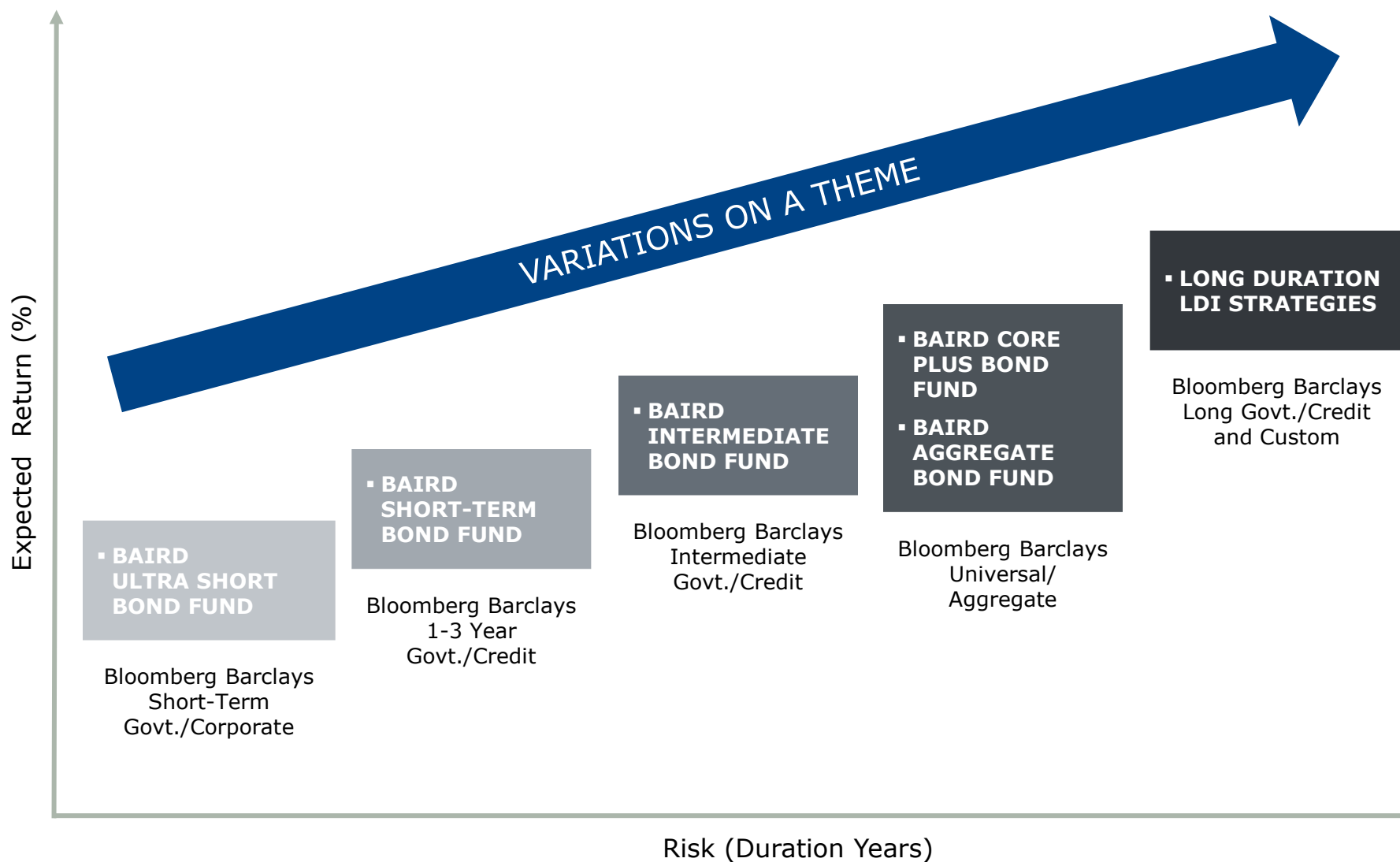
# Strategy Assets Under Management

As of October 31, 2020

Strategy Description	Market Value	Market Value %
Core (AGG + GC)	\$43.7	40.9%
Core Plus	\$30.6	28.6%
Intermediate	\$11.6	10.8%
Short	\$9.9	9.3%
Tax-Exempt	\$5.0	4.7%
Ultra Short	\$4.4	4.1%
LDI Long Duration	\$1.4	1.3%
Other	\$0.3	0.3%
<b>Total</b>	<b>\$106.9</b>	<b>100.0%</b>

# Structured, Risk-Controlled Taxable Portfolio Management

Consistent Approach Applied Across Risk Spectrum



# Baird Taxable Bond Funds

## Total Net Returns as of October 31, 2020

	Annualized						Since Inception Lipper Rank & Percentile
	YTD 2020	1-Year	3-Year	5-Year	10-Year	Since Inception <sup>1</sup>	
<b>Baird Core Plus Bond Fund – Institutional</b>	<b>7.02%</b>	<b>7.14%</b>	<b>5.55%</b>	<b>4.92%</b>	<b>4.50%</b>	<b>5.92%</b>	7 of 53
Bloomberg Barclays Universal Bond Index	5.82%	5.96%	4.98%	4.35%	3.83%	5.20%	<b>13%</b>
<b>Baird Aggregate Bond Fund – Institutional</b>	<b>7.11%</b>	<b>7.09%</b>	<b>5.46%</b>	<b>4.59%</b>	<b>4.36%</b>	<b>5.47%</b>	12 of 130
Bloomberg Barclays Aggregate Index	6.32%	6.19%	5.06%	4.08%	3.55%	4.97%	<b>10%</b>
<b>Baird Intermediate Bond Fund – Institutional</b>	<b>6.36%</b>	<b>6.38%</b>	<b>4.60%</b>	<b>3.73%</b>	<b>3.44%</b>	<b>4.88%</b>	3 of 45
Bloomberg Barclays Intermediate Govt/Credit Index	5.69%	5.67%	4.36%	3.37%	2.84%	4.44%	<b>7%</b>
<b>Baird Short-Term Bond Fund – Institutional</b>	<b>3.71%</b>	<b>3.97%</b>	<b>3.24%</b>	<b>2.67%</b>	<b>2.31%</b>	<b>2.88%</b>	25 of 117
Bloomberg Barclays 1-3 Year Govt/Credit Index	3.14%	3.39%	2.85%	2.10%	1.54%	2.48%	<b>22%</b>
<b>Baird Ultra Short Bond Fund – Institutional</b>	<b>1.54%</b>	<b>1.91%</b>	<b>2.27%</b>	<b>1.87%</b>	n/a	<b>1.60%</b>	18 of 87
Bloomberg Barclays Short-Term Govt/Corporate Index	1.28%	1.55%	2.03%	1.54%	n/a	1.19%	<b>21%</b>

Performance data quoted represents past performance. Past performance does not guarantee future results. Investment return and principal value of an investment in the fund will fluctuate so that an investor's shares when redeemed may be worth more or less than their original cost. The funds' current performance may be lower or higher than the performance data quoted. For performance current to the most recent month-end, please visit [www.bairdfunds.com](http://www.bairdfunds.com).

Expense Ratio for the Institutional Share Classes is 0.30%; for the Investor Share Classes is 0.55%. The Advisor has contractually agreed to waive management fees for the Baird Ultra Short Bond Fund in an amount equal to an annual rate of 0.15% of the average daily net assets for the Fund until April 30, 2021. The agreement may only be terminated prior to the end of this term by or with the consent of the Board of Directors of Baird Funds, Inc.

Returns shown include the reinvestment of all dividends and capital gains.

<sup>1</sup> The Baird Core Plus, Aggregate and Intermediate Bond Funds Since Inception net returns are based on performance from September 30, 2000 through October 31, 2020. The Baird Short-Term Bond Fund Since Inception net return is based on performance from August 31, 2004 through October 31, 2020. The Baird Ultra Short Bond Fund Since Inception net return is based on performance from December 31, 2013 through October 31, 2020.

# Baird Taxable Bond Funds

## Lipper Rankings as of October 31, 2020

	YTD Lipper Rank & Percentile	1 Yr Lipper Rank & Percentile	3 Yr Lipper Rank & Percentile	5 Yr Lipper Rank & Percentile	10 Yr Lipper Rank & Percentile	Since Inception Lipper Rank & Percentile
<b>Baird Core Plus Bond Fund – Institutional</b> (BCOIX) Fund Inception 9/29/00	92 of 291 <b>32%</b>	75 of 290 <b>26%</b>	44 of 248 <b>18%</b>	36 of 199 <b>18%</b>	27 of 148 <b>19%</b>	7 of 53 <b>13%</b>
<b>Baird Aggregate Bond Fund – Institutional</b> (BAGIX) Fund Inception 9/29/00	102 of 491 <b>21%</b>	97 of 490 <b>20%</b>	66 of 451 <b>15%</b>	66 of 403 <b>17%</b>	20 of 307 <b>7%</b>	12 of 130 <b>10%</b>
<b>Baird Intermediate Bond Fund – Institutional</b> (BIMIX) Fund Inception 9/29/00	20 of 166 <b>12%</b>	20 of 166 <b>12%</b>	3 of 150 <b>2%</b>	7 of 141 <b>5%</b>	5 of 87 <b>6%</b>	3 of 45 <b>7%</b>
<b>Baird Short-Term Bond Fund – Institutional</b> (BSBIX) Fund Inception 8/31/04	46 of 357 <b>13%</b>	44 of 354 <b>13%</b>	37 of 321 <b>12%</b>	65 of 283 <b>23%</b>	28 of 186 <b>15%</b>	25 of 117 <b>22%</b>
<b>Baird Ultra Short Bond Fund – Institutional</b> (BUBIX) Fund Inception 12/31/13	49 of 156 <b>32%</b>	42 of 155 <b>27%</b>	25 of 128 <b>20%</b>	30 of 97 <b>31%</b>	N/A	18 of 87 <b>21%</b>

Lipper rankings are based on average annual total returns for the 1, 3, 5, 10-year life periods for each respective Lipper category. Each fund is ranked based on average annual total returns assuming reinvestment of dividends and capital gains distributions, at net asset value and the deduction of all fund expenses. Since inception Lipper rankings are calculated from the month end following the fund's inception. Past performance is no guarantee of future returns.



# Consistency is Key

## Baird Taxable Bond Funds – Institutional Shares

Percentage of Time the Funds Outperform Their Morningstar Category Average					
Rolling Time Periods	Baird Ultra Short Bond	Baird Short-Term Bond	Baird Intermediate Bond	Baird Aggregate Bond	Baird Core Plus Bond
1 Year	79%	87%	52%	90%	84%
2 Year	88%	92%	57%	94%	92%
3 Year	100%	99%	59%	100%	100%
5 Year	100%	100%	64%	100%	100%

Source: Morningstar Direct as of October 31, 2020.

Performance numbers used are through each month end period from each fund's inception date.

The Baird Core Plus, Aggregate and Intermediate Bond Funds Since Inception net returns are based on performance from September 30, 2000 through October 31, 2020. The Baird Short-Term Bond Fund Since Inception net return is based on performance from August 31, 2004 through October 31, 2020. The Baird Ultra Short Bond Fund Since Inception net return is based on performance from December 31, 2013 through October 31, 2020.

All supporting information available upon request.  
Past performance does not guarantee future results.

## Section 2

### Philosophy/Process Overview

# Investment Philosophy & Process:

## A Two-Fold Approach

### Step 1: Structure Portfolio to Achieve Return of the Benchmark

<p><b>Complete Understanding of the Benchmark</b></p>	<ul style="list-style-type: none"> <li>▪ Quantify duration, sector and subsector weightings</li> <li>▪ Evaluate pricing, turnover and projected changes to benchmark</li> <li>▪ Purchase only U.S. dollar-denominated securities</li> </ul>
<p><b>Remain <i>Duration Neutral</i> to Control Portfolio Risk</b></p>	<ul style="list-style-type: none"> <li>▪ Precisely match duration to index at all times</li> <li>▪ Immediately adjust portfolio as contributions and withdrawals occur</li> <li>▪ Rebalance at month-end to match benchmark changes</li> </ul>
<p><b>Maintain Strict Adherence to Portfolio Guidelines</b></p>	<ul style="list-style-type: none"> <li>▪ Continuously monitor risk-control measures</li> <li>▪ Use scenario analysis</li> <li>▪ Compliance systems for all portfolio trades</li> </ul>
<p><b>Emphasis on Security Structure/Credit Research</b></p>	<ul style="list-style-type: none"> <li>▪ Evaluate specific security covenants, cash flows and liquidity concerns</li> <li>▪ Assess company financials and management</li> <li>▪ Consider prospects for sector and position in industry</li> </ul>

# Investment Philosophy & Process:

## A Two-Fold Approach

### Step 2: Add Incremental Value through Bottom-Up, Risk-Controlled Process

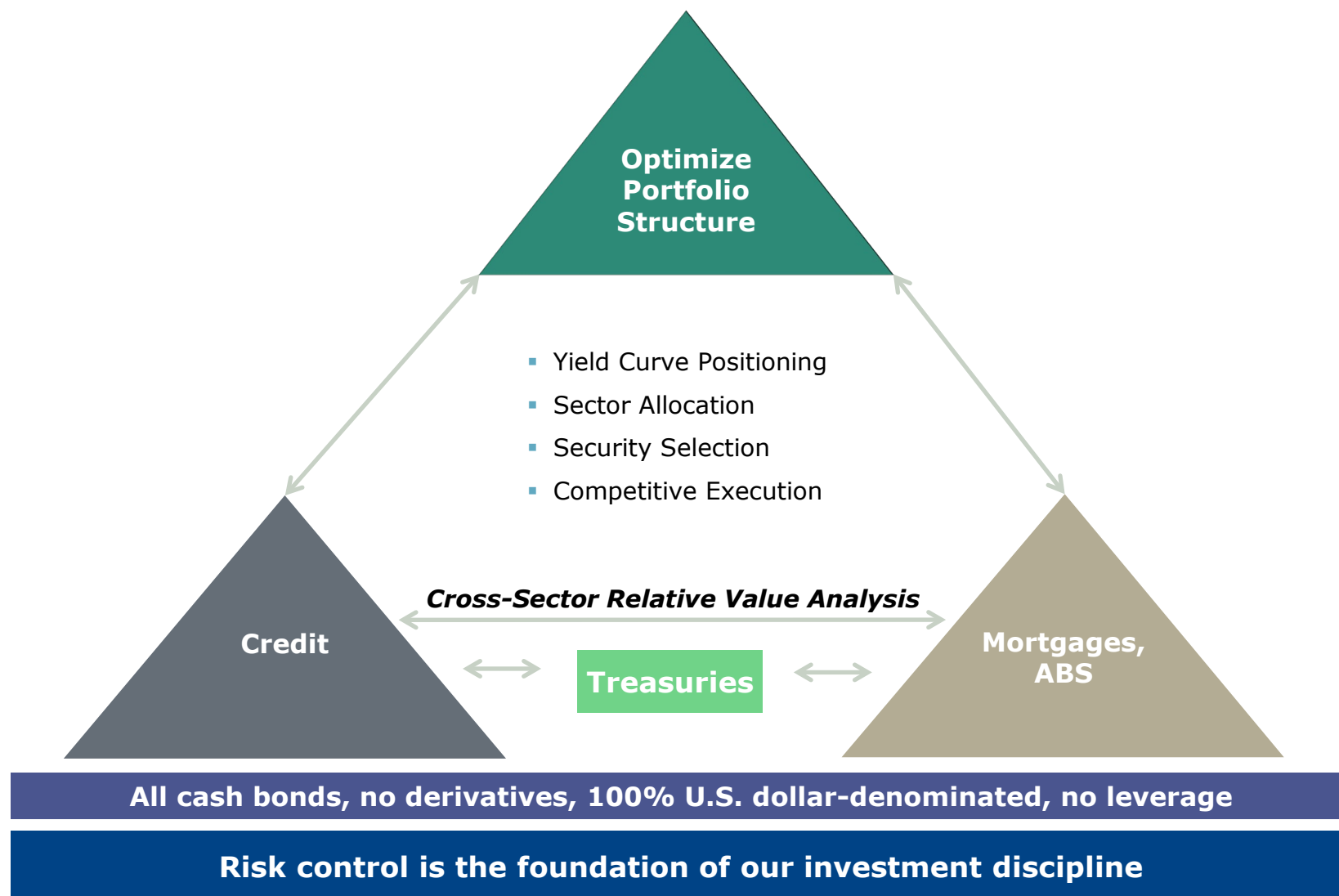
#### Sources of Added Value:

<b>Yield Curve Positioning</b>	<ul style="list-style-type: none"> <li>▪ Optimize yield and “roll down”</li> <li>▪ Analyze yield curve on a continual basis</li> </ul>
<b>Sector Allocation</b>	<ul style="list-style-type: none"> <li>▪ Evolve sector allocations around long-term biases</li> <li>▪ Focus on relative value</li> <li>▪ Yield spreads and underlying risks change constantly</li> </ul>
<b>Security Selection</b>	<ul style="list-style-type: none"> <li>▪ Structure</li> <li>▪ Attributes</li> <li>▪ Liquidity</li> </ul>
<b>Competitive Execution</b>	<ul style="list-style-type: none"> <li>▪ Capitalize on market inefficiencies</li> <li>▪ Receive timely market information</li> <li>▪ Utilize long-standing dealer relationships</li> </ul>

Consistent,  
Competitive  
Performance Over  
Complete Market  
Cycles

**We seek to consistently add 15-50 basis points of incremental return**

# Implementation – A Holistic Approach



# Baird Advisors Approach to ESG/Sustainable Investing

- ESG considerations integrated into overall investment process for decades
- 30+ years of experience managing socially screened portfolios
  - The team currently manages over 50 portfolios totaling \$13 billion.
- Bottom-up approach to research and investing considers all potential opportunities and risks of issuers including the following ESG factors:

## Environmental

- Climate change
- Land use
- Water use
- Waste management
- Energy management
- Air quality/emissions

## Social

- Human rights
- Diversity and inclusion
- Consumer protection
- Fair labor practices
- Values (e.g. tobacco, gambling, landmines)

## Governance

- Management structure
- Executive compensation
- Board independence
- Employee relations
- Transparency and disclosure
- Data protection and privacy

- Seek to invest in companies that are leaders in their industries and focused on long-term sustainability
  - Assess management's attentiveness (or lack thereof) to ESG challenges and opportunities
  - Consider reputational risk associated with very severe controversies in areas such as environment, customers, human rights, labor rights, governance
  - Analyze the long-term ESG track record of companies with particular attention to recent actions
  - Assess a company's ESG performance relative to its peers
- Use ISS, Bloomberg and proprietary pre-trade and post-trade compliance testing to monitor portfolios' structure and risk profile as well as compliance to investment guidelines, and specific ESG guidelines if applicable, on a daily basis
  - We regularly engage ISS as we continue to refine our process for incorporating their tools into our portfolio management process.
- We also review individual issuers to determine if a significant percentage of their revenues are derived from and/or their business practices may be considered sensitive to socially conscious investors.
  - Tobacco, gambling, controversial weapons, nuclear power, private prisons; religious screens available

# Research

## Internal Research Drives Our Investment Process

### Internal Expertise: Identifying Value from the Bottom Up

#### Yield Curve Positioning

- Optimize yield
- Search for roll-down opportunities
- Maintain neutral duration

#### Mortgages/ABS

- Analyze both structure and collateral
- Prefer senior secured with limited cash flow timing risk, lower LTV
- Top-tier originators and servicers

#### Credit

- Look at specific issues by structure
- Review issuers by fundamentals, management and benchmark weighting
- Consider sector trends, regulatory environment and benchmark weighting

### External Tools:

- **Interactive Data BondEdge:** Portfolio and benchmark analysis, guideline compliance
- **Barclays Live:** Benchmark analysis
- **Bloomberg:** Benchmark analysis, Security analysis, company research
- **MarketAxess:** Corporate trading platform and TRACE data market monitor
- **TradeWeb:** Treasury and agency trading platform, historical curve information
- **Intex Solutions and Bond Studio:** Residential and commercial loan analysis
- **Yield Book:** Option-adjusted spread (OAS) and scenario analysis
- **CreditSights:** Independent credit research from a team of highly ranked analysts
- **Investor Tools Perform:** Municipal portfolio management and analytics system
- **Custom Index Manager:** Municipal portfolio risk and attribution system
- **Access to Baird equity and credit analysts and other Wall Street-leading fixed income and equity research**

## Section 3

### Baird Aggregate Bond Fund



# Risk Controls in Taxable Portfolio Construction



## **DURATION NEUTRAL TO BENCHMARK**



## **U.S. TREASURY AND GOVERNMENT AGENCY SECURITIES**

- Emphasized for long duration exposures
- Used to match duration



## **CREDIT SECURITIES**

- Overall credit positioning generally shorter on the yield curve versus respective benchmark
- Emphasize sectors and industries that give high priority to stable credit rating
- Broad issuer diversification overall; increases for lower credit quality



## **MORTGAGE-BACKED AND ASSET-BACKED SECURITIES**

- Favor more prepayment protection than U.S. Government Agency MBS (positive convexity “tilt”)
- Focus on most senior class in deal structure if Non-U.S. Government guaranteed



## **CASH BONDS**

- No foreign currency
- No derivatives
- No leverage



## **ONGOING PORTFOLIO MONITORING**

- Continuous review of portfolios for adherence to stated guidelines and objectives

**RISK CONTROL IS THE FOUNDATION OF OUR INVESTMENT DISCIPLINE**

# Portfolio Positioning

**Attractive portfolio yield advantage over benchmark**

**Maintain sufficient liquidity for uncertain environment**

**Portfolio positioned to benefit from spread sector outperformance**

- Maintain nominal underweight to U.S. Treasury sector
- Opportunities across spread sectors attractive on a selective basis
- Modest overweight to spread sectors

**Portfolio positioned fairly neutral to yield curve**

- Duration neutral overall
- Yield curve likely to remain steep in the long end
- Maintain positive convexity tilt

**Continued focus on risk control**

- Importance of fundamental credit analysis
- Emphasize diversification
- Maintain coupon advantage

**Experienced team and risk-controlled process key to long-term success**

# Baird Aggregate Bond Fund

## Portfolio Characteristics as of October 31, 2020

<b>Yield to Maturity</b>	<b>1.45%</b>	<b>1.24%</b>	<b>Portfolio Yield Advantage +0.21% to the Bloomberg Barclays Aggregate Index</b>
Average Coupon	<b>3.23%</b>	2.85%	
Duration	<b>6.12 years</b>	6.12 years	
Average Maturity	<b>7.86 years</b>	8.07 years	

	<b>Baird Aggregate Bond Fund</b>	<b>Bloomberg Barclays Aggregate Index</b>	<b>Baird Aggregate Bond Fund</b>	<b>Bloomberg Barclays Aggregate Index</b>
	<b>Nominal Weighted Composition</b>		<b>Duration Weighted Composition</b>	
<b>Quality Breakdown (%)</b>				
U.S. Treasury	<b>21.2</b>	37.1	<b>36.8</b>	43.3
U.S. Agency	<b>23.4</b>	29.4	<b>12.4</b>	12.1
Aaa	<b>11.2</b>	3.8	<b>5.0</b>	3.1
Aa	<b>3.7</b>	3.1	<b>4.3</b>	4.5
A	<b>16.2</b>	12.0	<b>16.8</b>	16.6
Baa	<b>23.4</b>	14.6	<b>24.2</b>	20.4
Below Baa	<b>0.9</b>	0.0	<b>0.5</b>	0.0
	<b>100.0%</b>	100.0%	<b>100.0%</b>	100.0%
<b>Sector Breakdown (%)</b>				
U.S. Treasury	<b>21.2</b>	37.1	<b>36.8</b>	43.3
U.S. Agency (Non-MBS)	<b>0.0</b>	1.6	<b>0.0</b>	1.0
Other Govt. Related	<b>1.5</b>	4.7	<b>1.2</b>	5.1
Industrials	<b>22.7</b>	16.8	<b>26.8</b>	25.6
Utilities	<b>1.6</b>	2.2	<b>2.6</b>	4.0
Financials	<b>18.1</b>	8.2	<b>15.4</b>	8.8
U.S. Agency RMBS	<b>19.7</b>	26.8	<b>9.2</b>	10.2
Non-Agency RMBS	<b>2.2</b>	0.0	<b>0.9</b>	0.0
U.S. Agency CMBS	<b>3.7</b>	1.0	<b>3.2</b>	0.9
Non-Agency CMBS	<b>4.6</b>	1.2	<b>3.1</b>	1.0
ABS	<b>1.9</b>	0.4	<b>0.8</b>	0.1
Cash	<b>2.8</b>	0.0	<b>0.0</b>	0.0
	<b>100.0%</b>	100.0%	<b>100.0%</b>	100.0%
Number of Issues	<b>1,455</b>	11,971		
Market Value	<b>\$31,028,928,763</b>			

The Yield to Maturity represents the weighted average Yield to Worst of each individual holding in the portfolio. Yield to Worst is the lower of:  
1) Yield to Maturity or 2) Yield to Call, if applicable.

SEC 30-day Yields Institutional Class = 1.46%, Investor Class = 1.21% as of 10/31/20

Below Baa category includes non-rated bonds.

# Key Drivers of Performance – YTD 2020

## Baird Aggregate Bond Fund

### **Credit Positioning – Positive overall**

- Positive – Overweight to Investment Grade Credit (increased exposure post widening)
- Positive – Active positioning within Investment Grade Credit
  - Positive – Favoring credit shorter on the curve versus the benchmark and positive security selection
  - Modest Negative – Overweight to BBB Credit

### **MBS & ABS Positioning – Positive overall**

- Positive – Active positioning within MBS & ABS
  - Positive – Active positioning within Agency RMBS was a positive factor YTD as exposure was opportunistically increased in March in specified pools which have outperformed more generic, faster-paying pools at record low mortgage rates
  - Positive – Exposure to Agency CMBS & Non-Agency RMBS
  - Positive - Within Non-Agency CMBS investing in only the most senior classes which outperformed subordinated classes

### **Yield Curve Positioning – Positive overall**

- Positive – Positive convexity tilt of overall portfolio versus the benchmark
- Modest Positive – Modest underweight to the long end of the yield curve as well as favoring 20yr over 30yr maturities as the yield curve steepened

# Appendix

# Outlook Improving but Still Cloudy

## Weak Economy Supported by Massive Government Policy Response

### Uncertain Economy

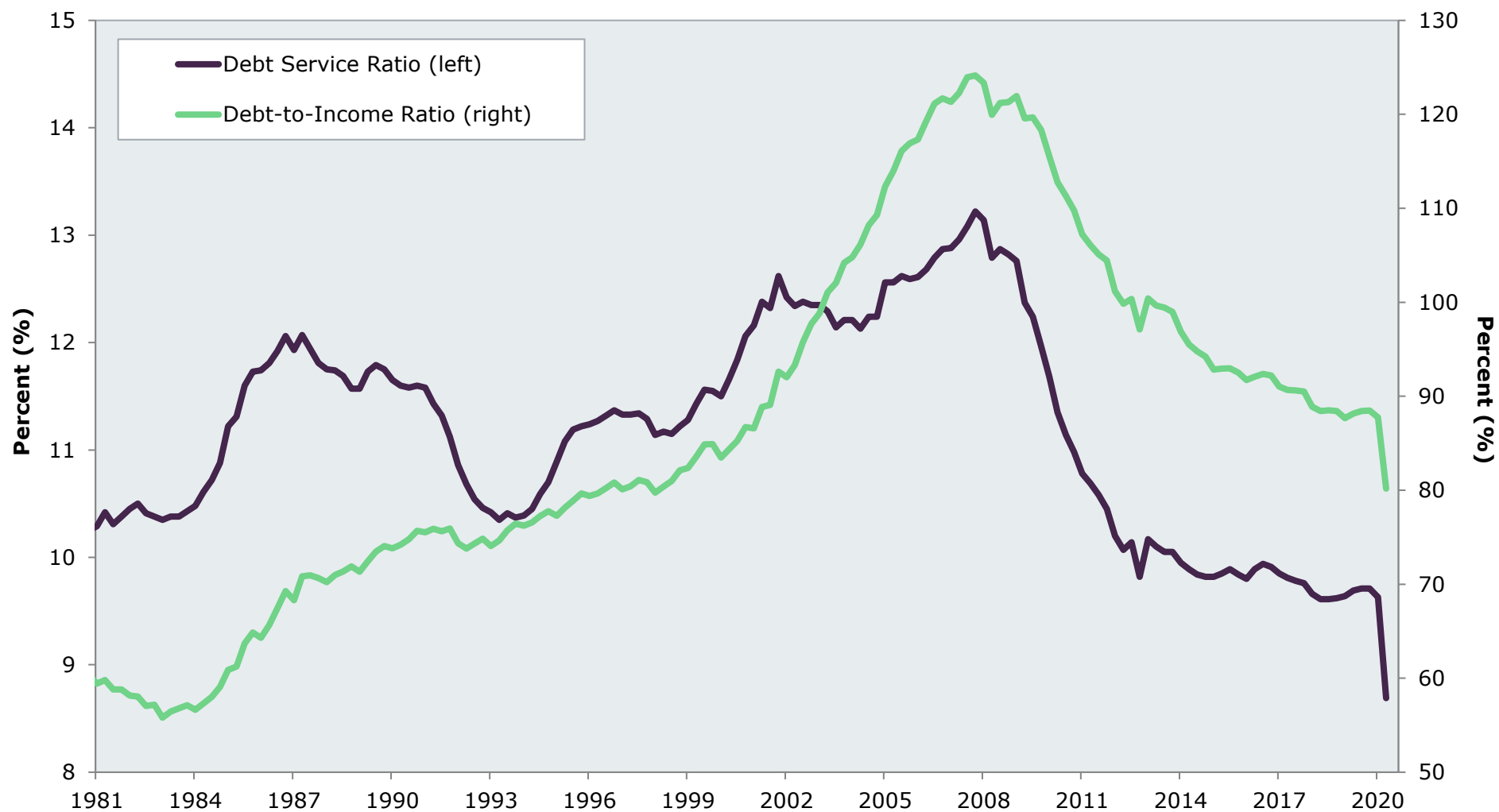
- Calendar 2020 GDP -2 to -5%
- Calendar 2021 GDP ~ +2 to +3%  
(base case estimates)
- Resurgent COVID-19 is slowing economic recovery
- Unemployment is falling, but still stands at 6.9% versus 3.5% pre-COVID
- Upward pressure on marginal Federal, corporate and individual tax rates
- Material long-term changes to business and economy developing
  - Some definite winners and losers

### Coordinated Policy Response

- Monetary Policy
  - Fed continues to provide unprecedented liquidity and backstop credit markets
  - Balance sheet stays above \$7T and grows further
- Fiscal Policy
  - \$2.2T CARES Act benefits to affected businesses and workers are soon expiring
  - Second fiscal package needed

# Consumer Balance Sheets in Good Shape

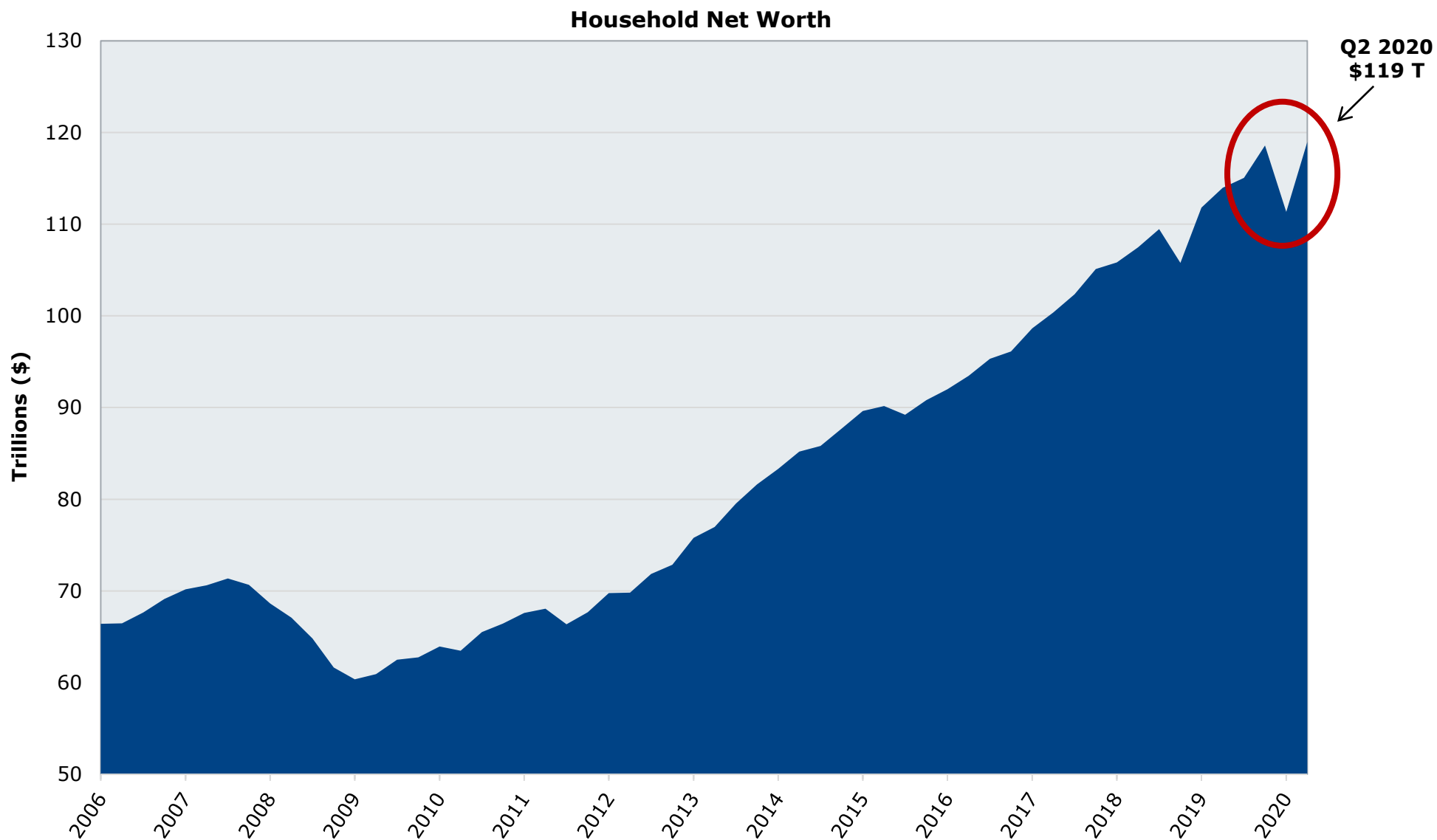
Debt Ratios Have Fallen Sharply



Source: FRB, BEA, Goldman Sachs Global Investment Research  
Data as of: 6/30/20

# Household Net Worth is Strong

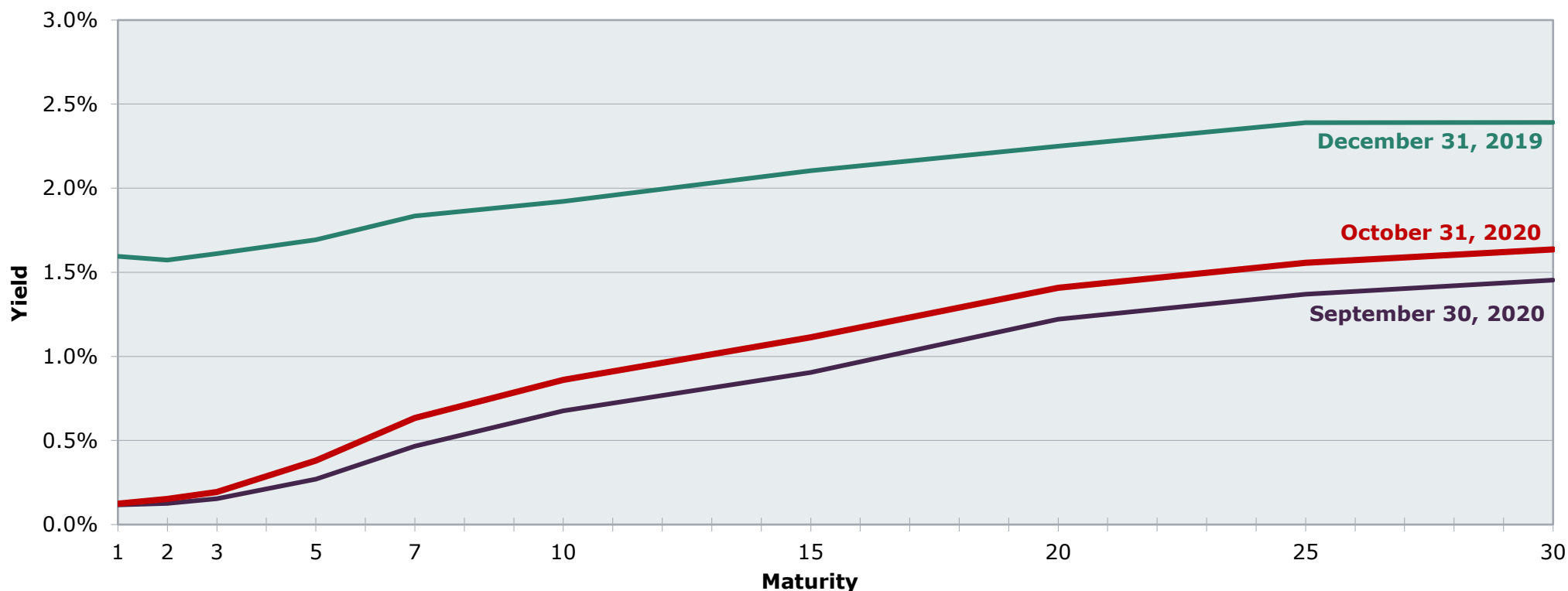
## Helped by Rise in Housing and Equity Markets



Source: Federal Reserve Bank of St. Louis, Board of Governors of the Federal Reserve System (US)  
Data as of: 6/30/20 (Next Release: 12/10/20)



# Treasury Yields Edge Up in October



Maturity	December 31, 2019	September 30, 2020	October 31, 2020	1 Mo. Change	YTD Change
1	1.60%	0.12%	0.12%	0.00%	-1.48%
2	1.57%	0.13%	0.15%	0.02%	-1.42%
3	1.61%	0.15%	0.19%	0.04%	-1.42%
5	1.69%	0.27%	0.38%	0.11%	-1.31%
7	1.83%	0.47%	0.63%	0.16%	-1.20%
10	1.92%	0.68%	0.86%	0.18%	-1.06%
20	2.25%	1.22%	1.41%	0.19%	-0.84%
30	2.39%	1.45%	1.64%	0.19%	-0.75%

Source: Bloomberg  
Data as of: 10/31/20

# Yield Spreads Tighten Again in October

Option-Adjusted Spreads (bps)									
	11/30/08	2/11/16	12/31/19	9/30/20	10/31/20	March Wides	1 Mo. Change	YTD Change	Post Crisis Avg. <sup>2</sup>
<b>U.S. Aggregate Index</b>	239	68	39	60	54	127 (3/20)	-6	15	54
<b>U.S. Agency Sector (Non-MBS)</b>	154	21	10	16	13	53 (3/25)	-3	3	19
<b>MBS and ABS Sectors</b>									
U.S. Agency Pass-Throughs	157	21	39	61	52	132 (3/19)	-9	13	38
U.S. Agency CMBS	N/A	56	53	62	56	144 (3/23)	-6	3	N/A
Non-Agency CMBS	1298	178	85	139	140	348 (3/25)	1	55	173
Consumer ABS	935	68	44	41	39	325 (3/26)	-2	-5	65
<b>Investment Grade Credit Sectors</b>									
U.S. Corporates	607	214	93	136	125	373 (3/23)	-11	32	145
Industrials	546	235	99	140	131	383 (3/23)	-9	32	139
Utilities	545	165	97	141	131	298 (3/24)	-10	34	137
Financials	697	185	80	126	112	378 (3/23)	-14	32	157
Other Govt. Related	218	135	72	84	79	180 (3/23)	-5	7	97
<b>High Yield Credit Sectors</b>									
U.S. High Yield Corporates	1833	839	336	517	509	1100 (3/23)	-8	173	501
Emerging Market Debt <sup>1</sup>	1229	846	573	638	638	1370 (3/23)	0	65	585

<sup>1</sup> Emerging Market Debt is a subindex of the Bloomberg Barclays U.S. Universal Index and is primarily rated below Investment Grade.

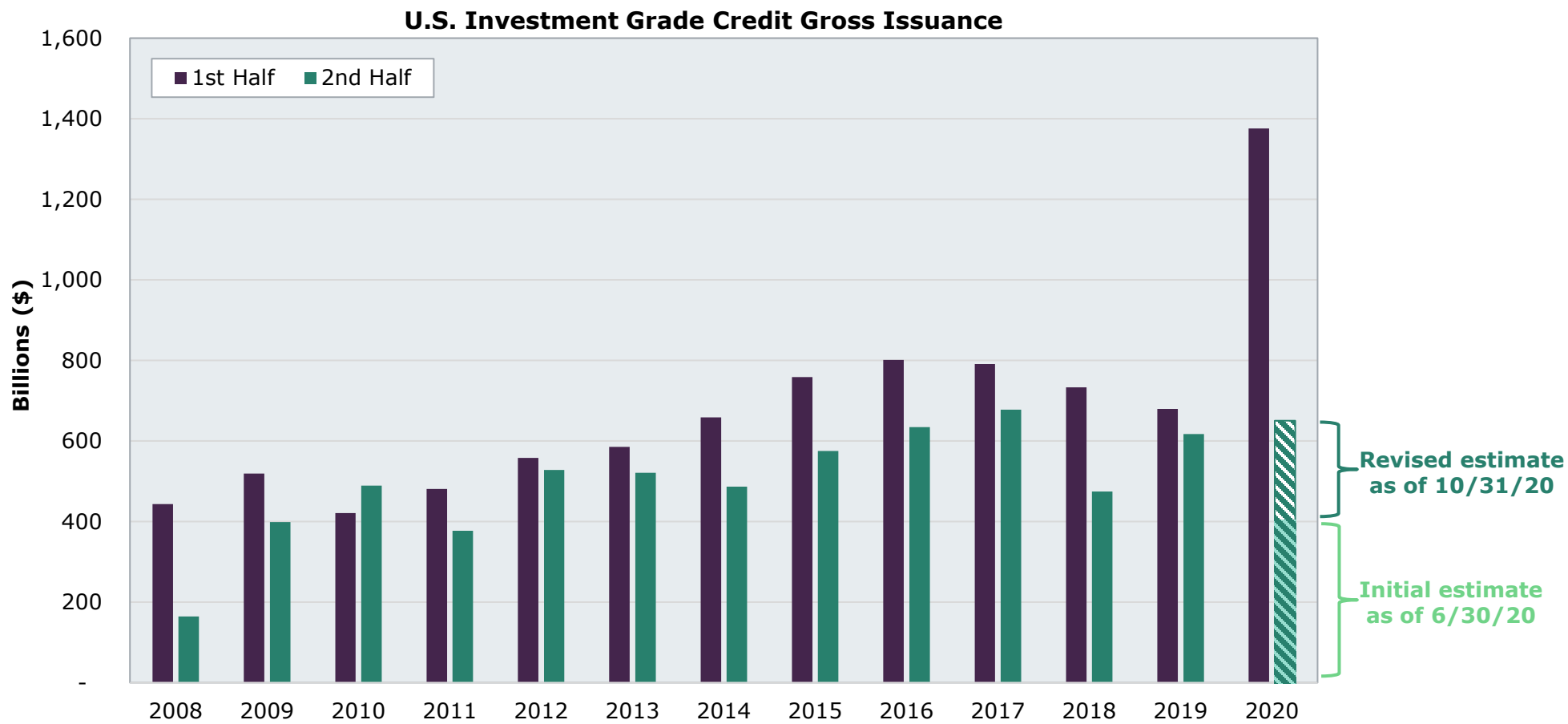
<sup>2</sup> Average since 6/30/09.

Source: Bloomberg Barclays

Data as of: 10/31/20

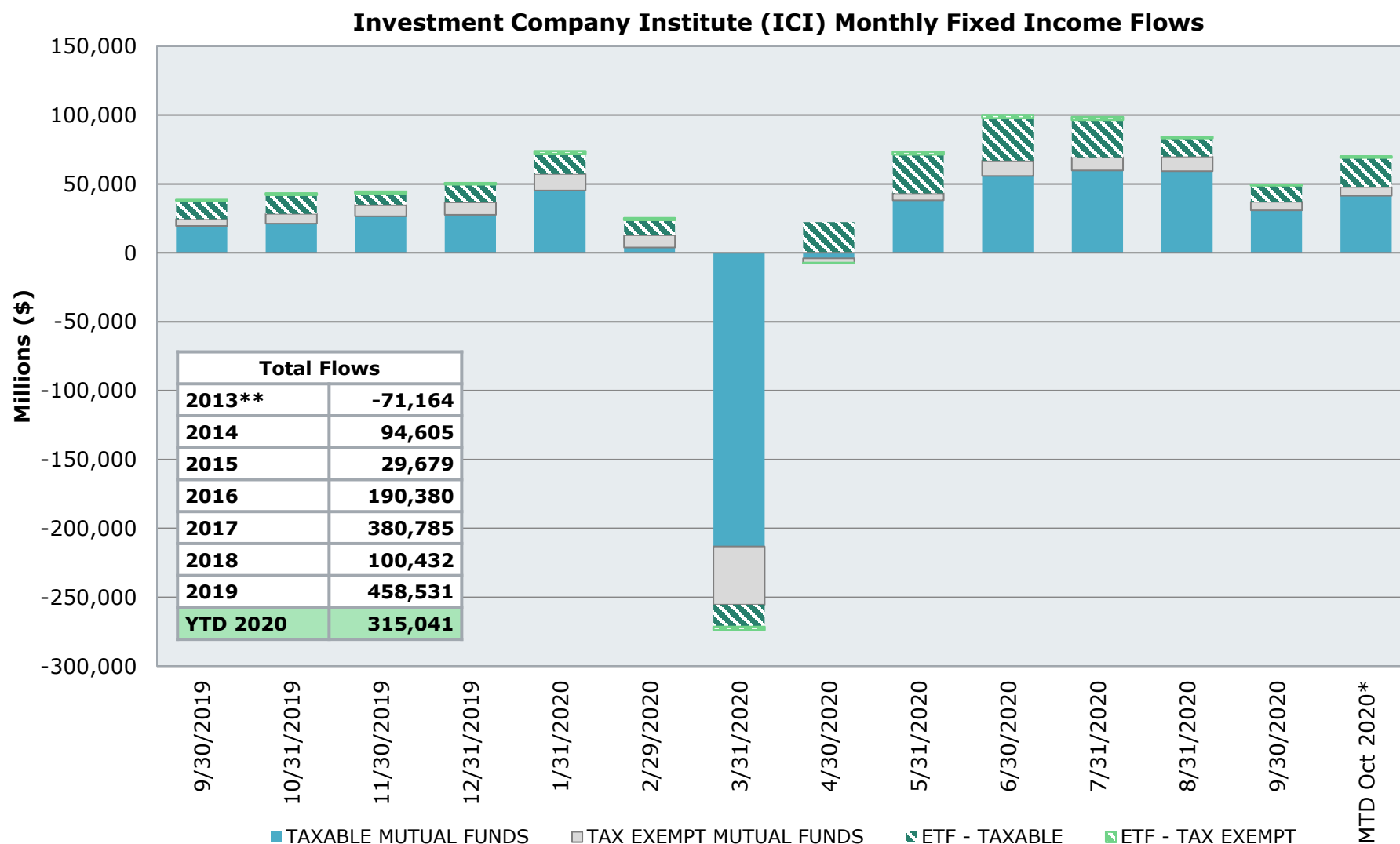
# Record Issuance Absorbed by Strong Demand

## 2<sup>nd</sup> Half Supply Not as Weak as Expected



Credit Supply Through 10/31 (\$Billions)			
	YTD 2020	YTD 2019	YoY% Change
<b>Gross Supply</b>	1,943.2	1,172.6	66%
<b>Net Supply</b>	1,068.6	349.7	206%

# Domestic Fixed Income Flows are Strongly Positive Again



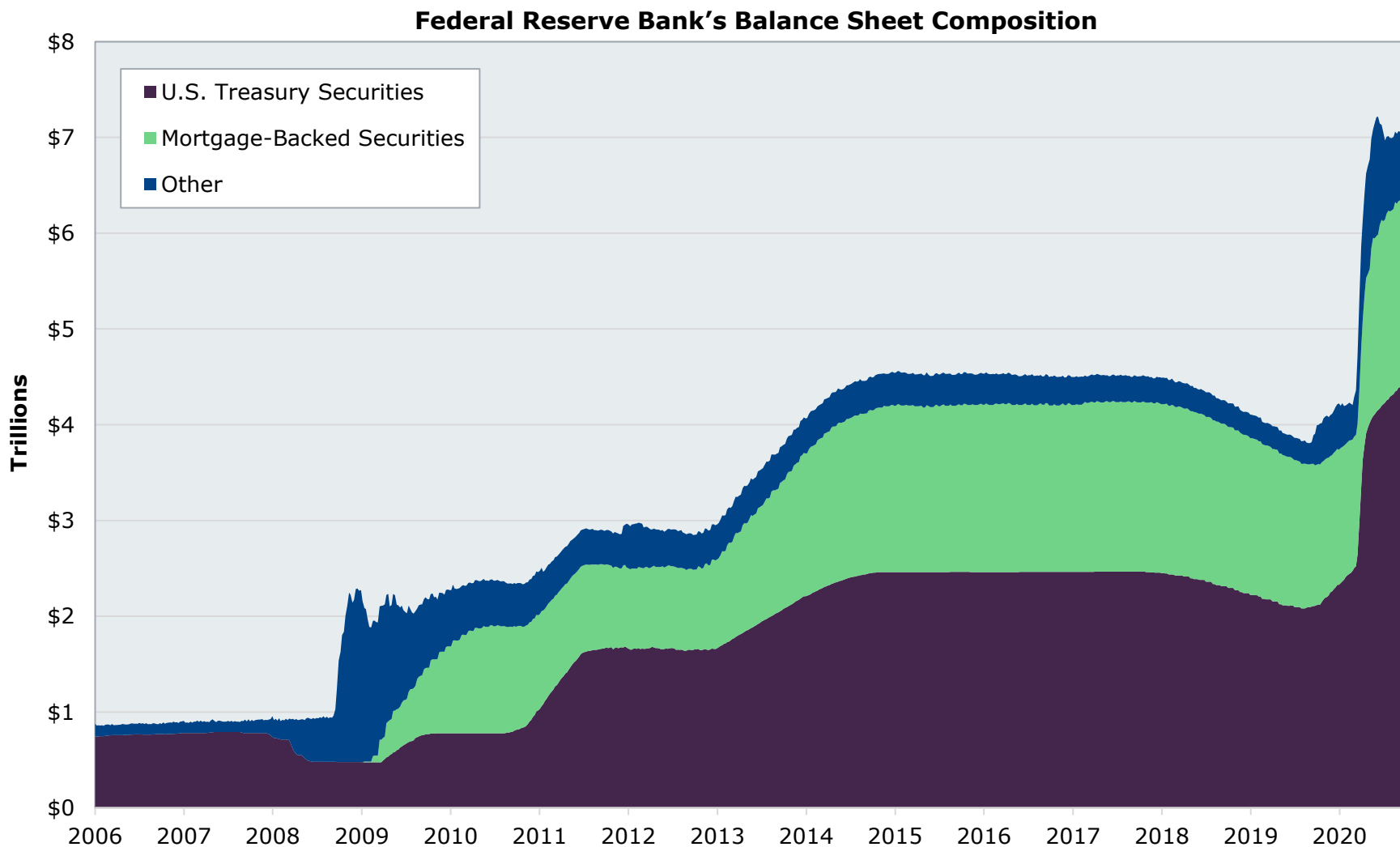
\*Weekly data ending 10/28/20 (October 2020 numbers are estimated)

\*\* 2013 Flows are only Mutual Fund flows, ETF Flows are not available

Source: Investment Company Institute, Bloomberg

Data as of: 10/31/20

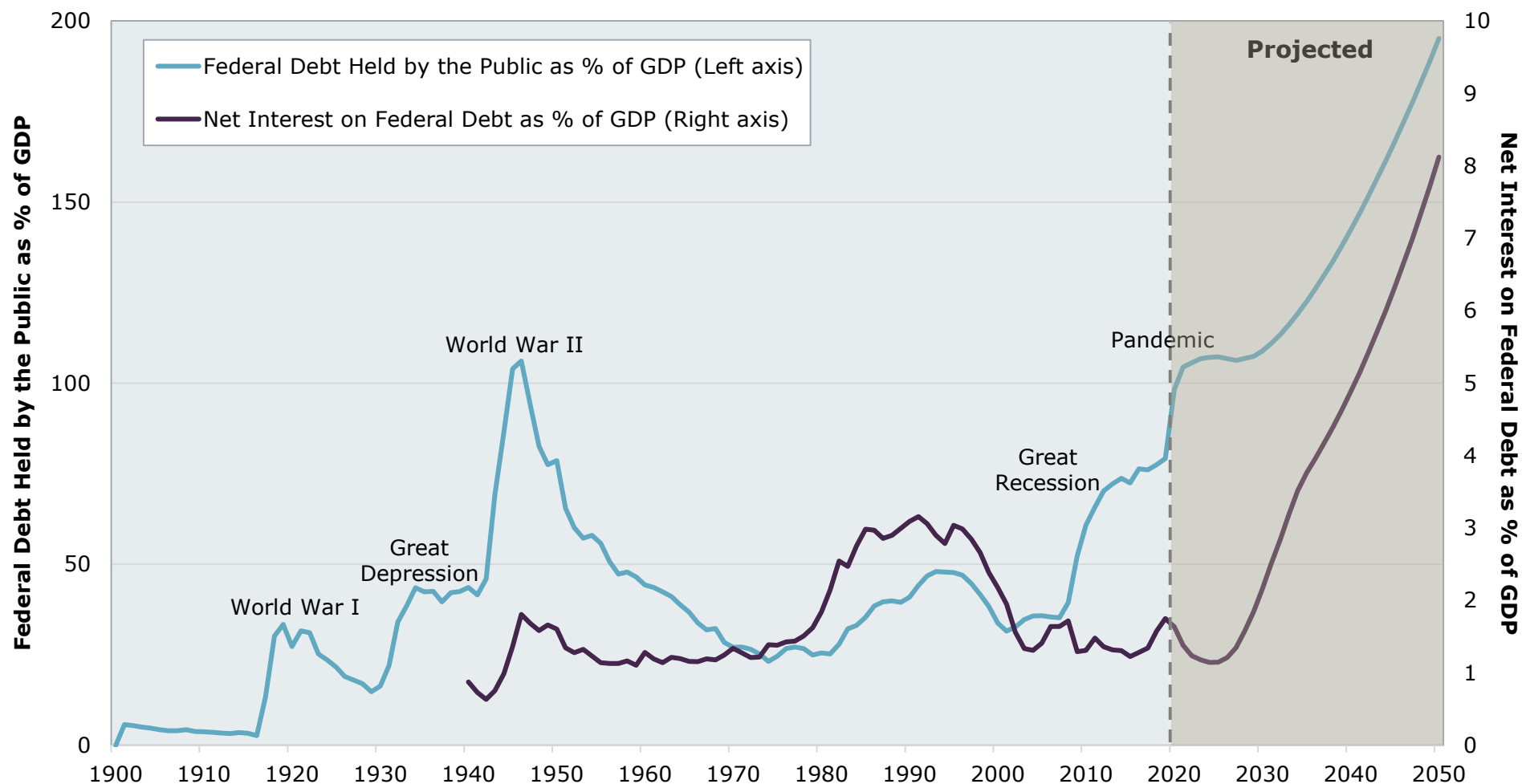
# Fed's Balance Sheet Expands to New Records



Source: Strategas  
Data as of: 11/4/20

# Federal Debt up Sharply

Interest Cost Steady For Now



Source: Congressional Budget Office and Federal Reserve Bank of St. Louis

# Baird Advisors

Formulation of Investment Outlook & Portfolio Strategy

- Mary Ellen Stanek, CFA
- Gary Elfe, CFA
- Charles Groeschell
- Jay Schwister, CFA
- Warren Pierson, CFA
- Duane McAllister, CFA
- Lyle Fitterer, CFA
- Jeffrey Simmons, CFA

**Key Areas of Focus:**

- Portfolio Construction & Risk Monitoring
- Credit
- MBS/ABS

- Daniel Tranchita, CFA
- Sharon deGuzman
- Jeffrey Schrom, CFA
- Patrick Mutsune, CFA
- Meghan Dean, CFA
- Patrick Brown, CFA
- Andrew O’Connell, CFA
- Abhishek Pulakanti, CFA, FRM
- Ian Elfe, CFA
- Alice Ambrowiak, CFA, CPA
- Gabriel Diederich, CFA
- Erik Schleicher, CFA
- Joseph Czechowicz, CFA
- Jed Bruss, CFA
- John Cremer, CFA
- Donald Smiley, CFA
- Lauren Vollrath, CFA
- Allison Parra, CFA
- Kristiyan Trukov, CFA
- Jaclyn Godwin

**Portfolio Management Team**

MD, Chief Investment Officer	41 years
MD, Research Director Emeritus	41 years
MD, Senior Portfolio Manager	41 years
MD, Research Director	36 years
MD, Deputy Chief Investment Officer	34 years
MD, Senior Portfolio Manager-Muni	33 years
MD, Senior Portfolio Manager-Muni	31 years
MD, Senior Portfolio Manager	33 years
MD, Senior Portfolio Manager	31 years
MD, Senior Portfolio Manager	29 years
MD, Senior Portfolio Manager	26 years
MD, Senior Investment & Systems Analyst	23 years
MD, Senior Portfolio Manager	20 years
MD, Senior Investment Analyst	17 years
SVP, Senior Investment Analyst	13 years
SVP, Senior Investment Analyst	12 years
SVP, Senior Investment Analyst	12 years
SVP, Investment Analyst	18 years
SVP, Portfolio Manager-Muni	17 years
SVP, Portfolio Manager-Muni	16 years
SVP, Portfolio Manager-Muni	13 years
VP, Investment Analyst	11 years
VP, Investment Analyst	8 years
VP, Investment Analyst	7 years
VP, Investment Analyst	5 years
VP, Investment Analyst	4 years
Investment Analyst	3 years
Investment Analyst	3 years

**Baird Resource Partners**

Legal & Compliance  
(81)

Information Technology  
(227)

Human Resources  
(60)

Finance  
(69)

Research (Equity & Credit)  
(118)

## Baird Advisors

### Portfolio Management Support Team

Mary Hoppa	MD, Operations Manager	33 years
Amy Johnson	MD, Portfolio Analyst	19 years
Tara Haley	SVP, Portfolio Analyst	22 years
Janna Goihl	SVP, Portfolio Analyst	18 years
Janet Kube	VP, Portfolio Analyst	42 years
Monica Augustine	VP, Portfolio Manager Specialist	40 years
Mary Walters	VP, Portfolio Manager Specialist	34 years
Erika Haska	VP, Portfolio Manager Specialist	26 years
Carisa Oppermann	VP, Portfolio Analyst	18 years
Bridget Kempf	VP, Portfolio Analyst	12 years
Alyssa Dahms	VP, Portfolio Analyst	9 years
Alvin Nevels	AVP, Portfolio Manager Specialist	37 years
Margaret Lynn	AVP, Portfolio Manager Specialist	14 years
Nate Robertstad	AVP, Data Analyst	9 years
Carla Teat	Portfolio Manager Specialist	36 years
Elaine Skenadore	Portfolio Analyst	28 years
Adela Ortiz	Portfolio Analyst	17 years
Candace Watson	Portfolio Manager Specialist	8 years
Allison Mayer	Portfolio Analyst	6 years
Nicholas Krueger	Portfolio Analyst	1 year
Brianna Hogans	Portfolio Analyst	
Julie Asher	Portfolio Analyst	

### Client Service Team

Richard Whittow, CEBS	Managing Director	41 years
Randall North	Managing Director	32 years
Peter Hammond	Managing Director	27 years
Heidi Schneider, CFA, CPA	Managing Director	25 years
Dustin Hutter, CPA	Managing Director	21 Years
Michael Possley	Managing Director	20 years
Mandy Hess, CPA	Senior Vice President	27 years
Adrienne Limjoco	Senior Vice President	20 years
Devon Norwood	Senior Vice President	15 years
Kathleen Ruidl	Vice President	15 years
Caroline Murphy	Vice President	8 years
Madelynn Wallen, CFA	Vice President	6 years
Rebekah Bozich	Assistant Vice President	16 years
Tiaira Johnson	Client Service Specialist	10 years
Kayla Hollenbeck	Portfolio Analyst	10 years
Brett Dawsey	Client Service Specialist	4 years
Brian Jacobs, CPA	Business Analyst	3 years
Anna Lucius	Portfolio Analyst	1 year

### Baird Resource Partners

Legal & Compliance  
(81)

Information Technology  
(227)

Human Resources  
(60)

Finance  
(69)

Research (Equity & Credit)  
(118)



## Representing Baird Advisors



**Mary Ellen Stanek, CFA**  
 Managing Director  
 Chief Investment Officer – Baird Advisors  
 President of Baird Funds

Education: B.S. Political Science – Marquette University (1978)  
 M.B.A – University of Wisconsin–Milwaukee (1984)

Professional Designation: Chartered Financial Analyst (1983)

Mary Ellen Stanek, CFA, has over 41 years of investment management experience. She currently serves as Managing Director of Robert W. Baird & Co. and Chief Investment Officer of Baird Advisors responsible for over \$96 billion in assets under management. Additionally, she serves as President of the Baird Funds. Previously she had served as President and CEO of Firststar Investment Research & Management Company.

In 2019 and 2020, Mary Ellen was a finalist for Morningstar’s Outstanding Portfolio Manager Award. Under her leadership, the Baird Advisors team was also named a finalist for the Morningstar, Inc.’s 2016 Fixed Income Fund Manager of the Year Award and has also been recognized multiple times as a “Best Place to Work in Money Management” by Pensions & Investments. In 2020, she was named to Barron’s inaugural list of the 100 Most Influential Women in U.S. Finance.

Mary Ellen is a member of The CFA Institute, the CFA Society of Milwaukee, the Greater Milwaukee Committee (past Board Chair), Milwaukee 7 (past Co-Chair), Tempo (past President), Professional Dimensions and Milwaukee Women Inc.

Mary Ellen serves on the boards of Baird Financial Group, Northwestern Mutual, and WEC Energy Group (NYSE:WEC). She also serves on the boards of All-In Milwaukee, Boys and Girls Clubs (past Board Chair), Children's Hospital Foundation, Faith In Our Future Trust, Froedtert Health, Greater Milwaukee Committee, Greater Milwaukee Foundation, Medical College of Wisconsin (past Board Chair), and Milwaukee World Festival. She served on the Board of Marquette University where she chaired the Board and was elected Trustee Emerita. She has co-chaired annual campaigns for the United Performing Arts Fund and the United Way.

Mary Ellen has received the Marquette University Alumna of the Year (2010) recognition, the Marquette University College of Arts and Sciences Person for Others Award, Marquette University High School’s Spirit of St. Ignatius Award, The St. Francis Children's Service Award, The Tempo Mentor Award, The Business Journal Women of Influence Award, The Point of Light Award, Professional Dimensions Sacagawea Award, Wisconsin Business Hall of Fame Distinguished Executive Award, Baird’s Brenton H. Ruppel Citizenship Award and the Herb Kohl Champion Award. She and her husband were named “Parents of the Year” by COA Youth and Family Centers (2011). In 2012, she received the MVP Award from Boys & Girls Clubs.

She received her undergraduate degree from Marquette University (Magna Cum Laude, Phi Beta Kappa) and her graduate degree from the University of Wisconsin, Milwaukee. She is a Chartered Financial Analyst.

Mary Ellen and her husband, Scott, have three children: Peter (Erin), Katie (Tim), and Patrick and four grandchildren: Emme, Abigail, Kathryn and Henry.

## Representing Baird Advisors



**Charles B. Groeschell**  
Managing Director  
Senior Portfolio Manager  
Baird Funds Vice President

Education: B.A. - Texas Christian University (1976)

M.B.A. - University of Milwaukee (1979)

Charlie has 41 years of investment experience managing various types of fixed income portfolios. He plays a lead role in the overall management and distribution of fixed income investment management services at Baird Advisors. His primary responsibilities include client servicing and setting investment policy with a major portion of his time allocated to security analysis, credit research and implementing the long-term investment strategy of the team.

Charlie serves as the Chairman of the Board for Prevent Blindness Wisconsin. He is currently on the Board of the Boys & Girls Clubs of Greater Milwaukee; in 2008, Charlie successfully co-chaired the annual campaign for the Clubs to raise \$3.8 million. Again in 2019, he will co-chair the annual campaign for the Clubs with a goal to raise over \$5 million. Charlie is the Chair of the Club's Endowment Committee and is a member of the Finance Committee. Charlie was also the annual campaign Co-chair of Sharp Literacy in 2009.

Charlie has received Baird's G. Frederick Kasten, Jr. Award for Asset Management and Baird's Brenton H. Ruppel Citizenship Award.

Charlie and his wife, Beverly, have two children: Scott and Leigh.

## Representing Baird Advisors



**M. Sharon deGuzman**  
Managing Director  
Senior Portfolio Manager

Education: B.A. – Eastern Illinois University (1988)

Sharon has 29 years of investment experience managing various types of fixed income portfolios. She is a Managing Director and Senior Portfolio Manager for Baird Advisors, Robert W. Baird & Co's institutional fixed income management group. Sharon has been a named portfolio manager on all of the Baird Bond Fund offerings since their inception dates. She plays a lead role on portfolio construction and focuses on managing short and intermediate taxable portfolios and tax-exempt portfolios.

Prior to joining Baird Advisors, Sharon was an Assistant Vice President and Portfolio Manager with Firststar Investment Research and Management Company (FIRMCO) where she did quantitative fixed income analysis and portfolio management.

Sharon is a member of the CFA Institute and the CFA Society of Milwaukee. She serves on the boards of Divine Savior Holy Angels High School, the American Lung Association of Wisconsin, the Wauwatosa Public Library Foundation and TEMPO Milwaukee. Sharon is a member of Milwaukee Women Inc. and Professional Dimensions. Sharon is a former member of the Finance Committee and the former assistant treasurer for United Way of Greater Milwaukee. She is the past co-chair of Baird's Women Associate Resource Group.

Sharon received the Milwaukee Business Journal's Women of Influence Award – Mentor category in 2015.

Sharon is also an active volunteer at Christ King Parish and School in Wauwatosa, WI. Sharon and her husband Jim served as co-chairs in 2015 and 2016 for the Soles for Catholic Education Walk for the Archdiocese of Milwaukee.

Sharon and her husband, Jim, have five children: Nicole, Mara, Luke, William and Olivia.

## Benefits

- Long-term relationships focused on client and direct communication
- Experienced management team implementing proven investment discipline
  - Structured, risk-controlled process
  - No derivatives, no non-\$ currency exposure, no leverage
  - Focus on **bottom-up** added value from sector allocation and security selection
- Total focus on fixed income management
- Culture and resources key to future success
- Importance of the relationship to Baird Advisors

## Important Disclosures

**Investors should consider the investment objectives, risks, charges and expenses of the fund carefully before investing. This, and other information can be found in the prospectus or summary prospectus. A prospectus or summary prospectus may be obtained by visiting [www.bairdfunds.com](http://www.bairdfunds.com). Please read the prospectus or summary prospectus carefully before you invest or send money.**

Performance data quoted represents past performance. Past performance does not guarantee future results. Investment return and principal value of an investment in the fund will fluctuate so that an investor's shares when redeemed, may be worth more or less than their original cost. The funds' current performance may be lower or higher than the performance data quoted. For performance current to the most recent month-end, please visit [www.bairdfunds.com](http://www.bairdfunds.com).

Funds may invest in U.S. dollar denominated foreign securities which involve additional risks such as the potential for political and economic instability and less strict regulation. The Fund may also invest in mortgage and asset-backed securities which include interest rate and prepayment risks more pronounced than those of other fixed income securities.

*Baird Funds are offered through Robert W. Baird & Co., a registered broker/dealer, member NYSE and SIPC. Robert W. Baird & Co. also serves as investment advisor for the Fund and receives compensation for these services as disclosed in the current prospectus.*

Lipper rankings are based on average annual total returns for the 1, 3, 5, 10-year/life periods for each respective Lipper category. Baird Core Plus Bond Fund is ranked among the Core Plus Bond Funds, Baird Aggregate Bond Fund is ranked among the Core Bond Funds, Baird Intermediate Bond Fund is ranked among Short-Intermediate Investment Grade Debt Funds, Baird Short-Term Bond Fund is ranked among the Short Investment Grade Debt Funds, Baird Ultra Short Bond Fund is ranked among the Ultra-Short Obligations Funds, Baird Quality Intermediate Municipal and Baird Core Intermediate Municipal Bond Funds are ranked among the Intermediate Municipal Debt Funds, Baird Municipal Bond Fund is ranked among the General & Insured Municipal Debt Funds, Baird Strategic Municipal Bond Fund is ranked among the Short-Intermediate Municipal Debt Funds and Baird Short-Term Municipal Bond Fund is ranked among the Short Municipal Debt Funds. Each fund is ranked based on average annual total returns assuming reinvestment of dividends and capital gains, distributions, at net asset value and the deduction of all fund expenses. Past performance is no guarantee of future results.

Morningstar categories: Baird Core Plus Bond Fund is ranked within the Intermediate Core-Plus Bond Fund category (Overall: 540 funds, 3-year period: 540, 5-year period: 458, 10-year period: 340). Baird Aggregate and Baird Intermediate Bond Funds are ranked within the Intermediate Core Bond Fund category (Overall: 378 funds, 3-year period: 378, 5-year period: 333, 10-year period: 253). Baird Short-Term Bond Fund is ranked within the Short-Term Bond Fund category (Overall: 512 funds, 3-year period: 512, 5-year period: 455, 10-year period: 297). Baird Ultra Short Bond Fund is ranked within the Ultrashort Bond Fund category (Overall: 170 funds, 3-year period: 170, 5-year period: 130). Baird Quality Intermediate, Baird Core Intermediate, and Baird Strategic Municipal Bond Funds are ranked within the Municipal National Intermediate Bond Fund category (Overall: 242 funds, 3-year period: 242, 5-year period: 218, 10-year period: 160). Baird Short-Term Municipal Bond Fund is ranked within the Municipal National Short Bond Fund category (Overall: 196 funds, 3-year period: 196, 5-year period: 178). Baird Municipal Bond Fund is ranked within the Municipal National Long Bond Fund category.

The quality profile is calculated on a market value-weighted basis using the highest credit quality rating given by S&P, Moody's or Fitch for each security in the fund. Per the Baird Funds prospectus, each security in the bond fund is assigned the highest credit quality rating provided by a nationally recognized statistical rating organization (e.g. S&P, Moody's, Fitch). Per the Bloomberg Barclays index controlling rating methodology, each security in the index is assigned a rating using S&P, Moody's, and Fitch (middle of three ratings, lower of two ratings, or singular rating if rated by one rating agency).

*This presentation is for institutional investors and registered investment advisors use only. Not approved for use with the public.*



## LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

PRESENTED BY:

John Hyll  
Vice President, Portfolio Manager

Neil A. Burke  
Vice President, Portfolio Manager

Stephanie S. Lord, CFA, CIC  
Vice President, Relationship Manager



December 10, 2020

# presented by:



**JOHN HYLL**  
Vice President, Portfolio Manager



**NEIL A. BURKE**  
Vice President, Portfolio Manager



**STEPHANIE S. LORD, CFA, CIC**  
Vice President, Relationship Manager

# loomis sayles at a glance

Firm Overview

Serving clients with integrity and a global perspective since **1926**



BOSTON • CHICAGO • DETROIT • SAN FRANCISCO

LONDON • SINGAPORE • UTRECHT

Slide is as of 9/30/2020. The Utrecht office opened on November 1, 2020.

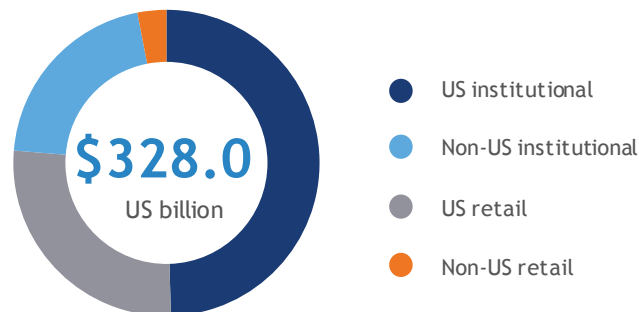
Due to rounding, pie chart total may not equal 100%.

Other includes cash & equivalents and derivatives.

Total AUM includes the assets of both Loomis, Sayles & Co., LP, and Loomis Sayles Trust Company, LLC. (\$30.5 billion for the Loomis Sayles Trust Company).

Loomis Sayles Trust Company is a wholly owned subsidiary of Loomis, Sayles & Company, L.P.

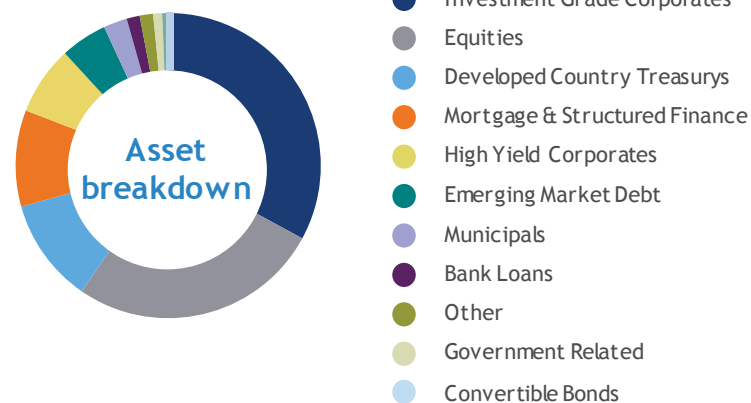
## AUM by client base



## Investment expertise across asset classes

Fixed income: \$241.4 B








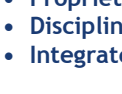


Equity: \$86.7 B





# foundation for alpha

Firm Overview

CREDIT RESEARCH	EQUITY	MACRO STRATEGIES	MORTGAGE & STRUCTURED FINANCE	QUANTITATIVE RESEARCH & RISK ANALYSIS
<i>Alpha generation through differentiated insights</i>	<i>Driving alpha through independent thinking</i>	<i>Focused insights for investment team impact</i>	<i>Opportunities outside traditional asset classes</i>	<i>Bringing together the art and science of investing</i>
Providing insight and differentiated perspectives across the credit classes, risk spectrum, and capital structure	Active long-term strategies built on differentiated non-consensus insight	Tailor-made research and data driven assessments of global macro investment conditions, opportunities and risks	Uncovering hidden alpha in complex structured markets	Generating signals that can identify risk patterns and opportunities
				
TRADING	ESG	INVESTMENT RISK OVERSIGHT	TECHNOLOGY	BUSINESS INFRASTRUCTURE
<i>Beyond trade execution</i>	<i>Integrate and engage</i>	<i>Ensuring investment teams are meeting client needs &amp; expectations</i>	<i>Translating data into insight</i>	<i>Allowing investors to remain focused on alpha generation</i>
+50 trading professionals integrated within all investment processes every step of the way	Training and tools for investment teams to assess material ESG factors	A common foundation underlying all strategies: <ul style="list-style-type: none"> <li>• Sound philosophy</li> <li>• Rigorous, repeatable process</li> <li>• Proprietary research</li> <li>• Disciplined portfolio construction</li> <li>• Integrated risk management</li> </ul>	Tapping the power of our proprietary In2! technology platform, integrating more than 5 billion data points each day	Legal, compliance, distribution, marketing, relationship management, & client services
				

# alpha engines

Firm Overview

## FIXED INCOME

ALPHA STRATEGIES	BANK LOANS	DISCIPLINED ALPHA	EMERGING MARKET DEBT	EURO CREDIT†	FULL DISCRETION	GLOBAL	MORTGAGE & STRUCTURED FINANCE	MUNICIPAL	RELATIVE RETURN
Credit Asset	Senior Loans	Core	Corporate	Euro IG Credit	Multisector	Global Bond	Agency MBS	Short	Short Duration
Emerging Market Debt Blended	Senior Floating Rate and Fixed Income	Intermediate Corporate	Local Currency	Euro Sustainable IG Credit	Core Plus Full Discretion	Global Credit	Core Securitized	Intermediate	Inter. Duration
World Credit Asset	CLOs	Long Corporate	Short Duration	Euro High Yield	High Yield Full Discretion	Global Debt Unconstrained	IG Securitized Credit (ERISA)	Medium	Core
Multi-Asset Income		Long Gov't Corp	Asia Credit		Global High Yield	Global Disciplined Alpha**	High Yield Securitized Credit	Crossover**	Core Plus
Inflation Protected (TIPS)		Long Credit			US High Yield		Private Debt and Equity		IG Corporate
Systematic Investment Strategies		Global Disciplined Alpha**			High Yield Conservative				IG Inter. Corp
					Strategic Alpha				Long Corporate
									Long Credit
									Long Gov't/Credit
									Custom LDI
<b>\$9.2 B*</b>	<b>\$4.1 B</b>	<b>\$16.6 B</b>	<b>\$3.1 B</b>	<b>-</b>	<b>\$64.9 B</b>	<b>\$34.3 B</b>	<b>\$12.1 B*</b>	<b>\$7.8 B</b>	<b>\$102.3 B</b>

## EQUITY

GROWTH EQUITY STRATEGIES	GLOBAL EMERGING MARKETS EQUITY	GLOBAL EQUITY OPPORTUNITIES	SPECIALTY GROWTH STRATEGIES	SMALL CAP VALUE
All Cap Growth	Global Emerging Markets Equity	Global Allocation	Small Cap Growth	Small Cap Value
Global Growth	Global Emerging Markets Equity Long/Short	Global Equity Opportunities	Small/Mid Cap Growth	Small/Mid Cap Core
International Growth			Mid Cap Growth	
Large Cap Growth				
Long/Short Equity				
<b>\$71.6 B</b>	<b>\$30.4 M***</b>	<b>\$7.1 B</b>	<b>\$5.6 B</b>	<b>\$2.3 B</b>

As of 9/30/2020.

\*Includes accounts that may also be counted as part of other strategies \*\*Co-managed investment strategy \*\*\*Assets include seed money from our parent company.

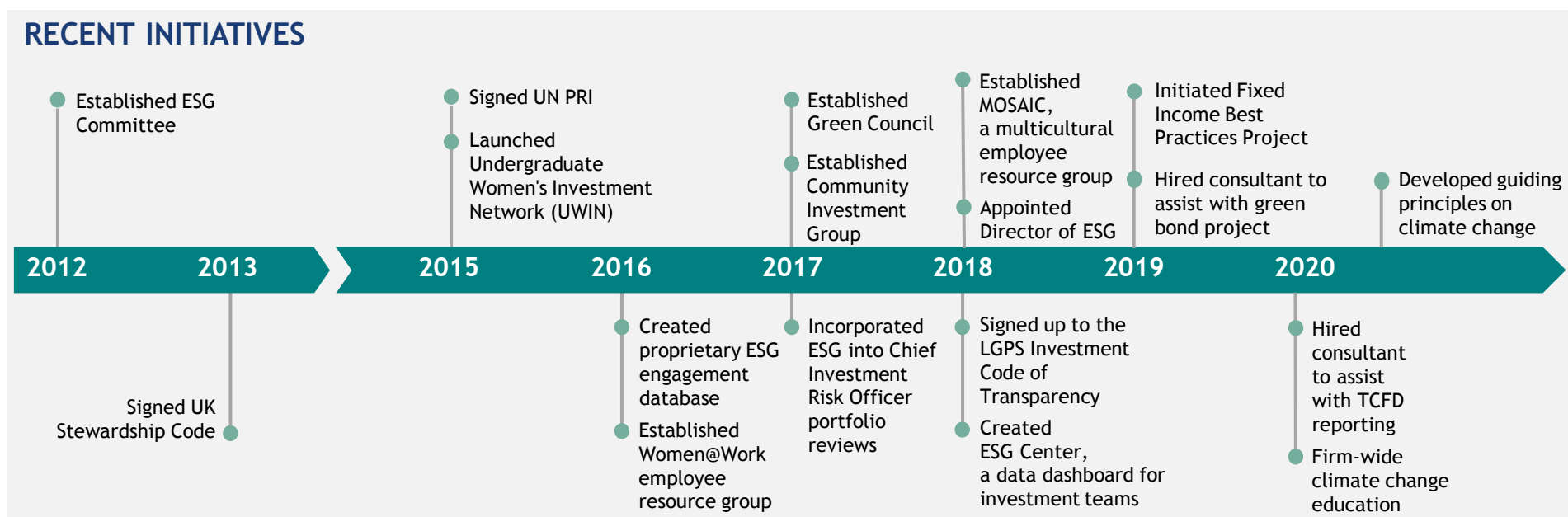
†The Euro Credit team joined Loomis Sayles on November 1, 2020. Funding is anticipated by year end.

# ESG at loomis sayles

## OUR RESEARCH AND ACTIVE INVESTMENT MANAGEMENT CULTURE INHERENTLY EMBED ESG FACTORS

Our ultimate goal is superior, long-term risk adjusted performance

- Assessment of material ESG elements is an intrinsic part of our long-term fundamental, proprietary research
- Support the investment teams with ESG research tools and training
- Prioritization of the recruitment, development, and retention of exceptional talent
- Ongoing commitment to the local communities in which we live and work



As of 8/31/2020.

# our approach

PRACTICAL, AUTHENTIC AND ASPIRATIONAL

LOOMIS SAYLES  
"THE FIRM"



Governance

Fiduciary Duty

ESG Values

ESG WITHIN OUR INVESTMENT  
PROCESS



Integration

Infrastructure

Engagement

ESG RELATED REQUESTS



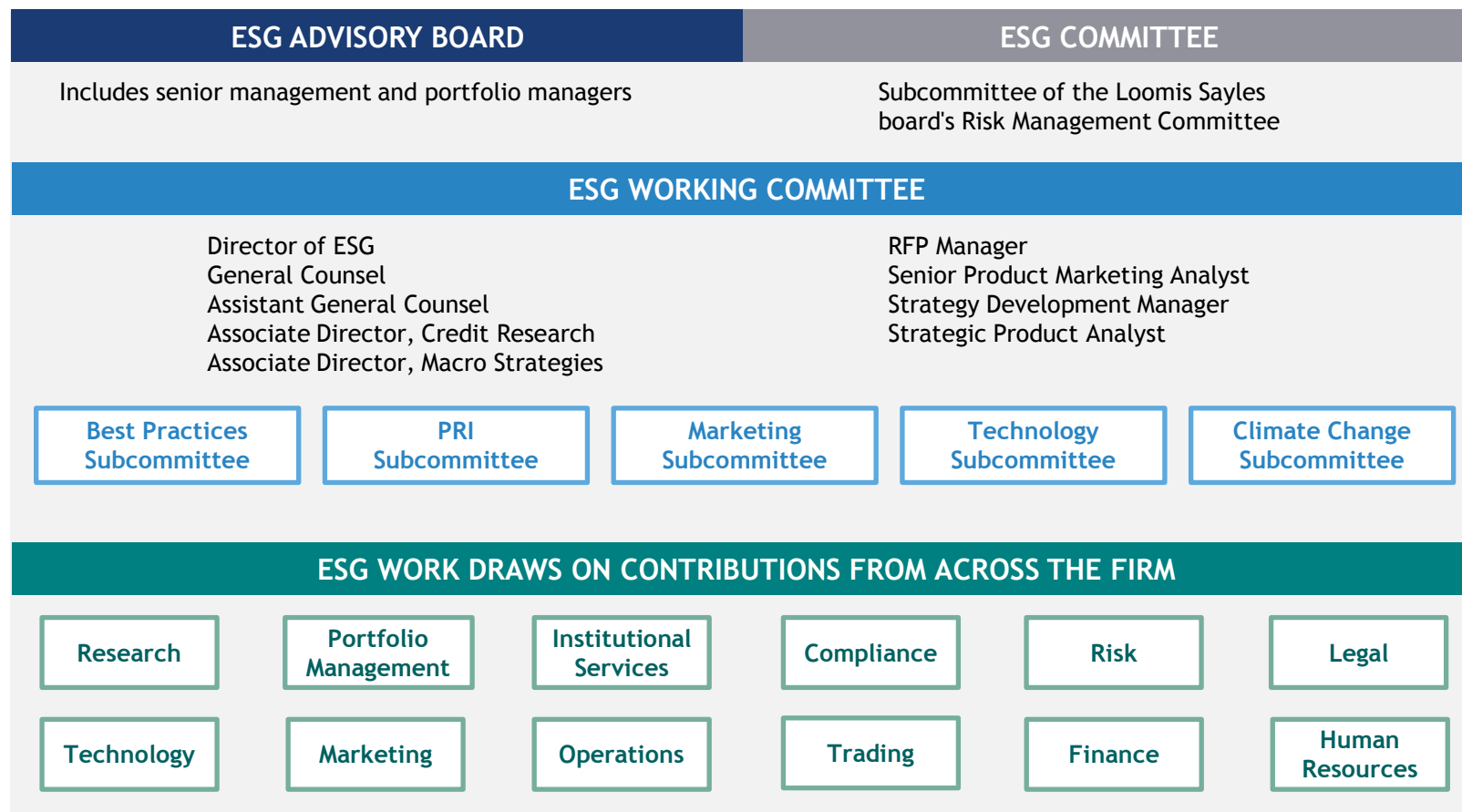
Clients

Prospects

Collaboration

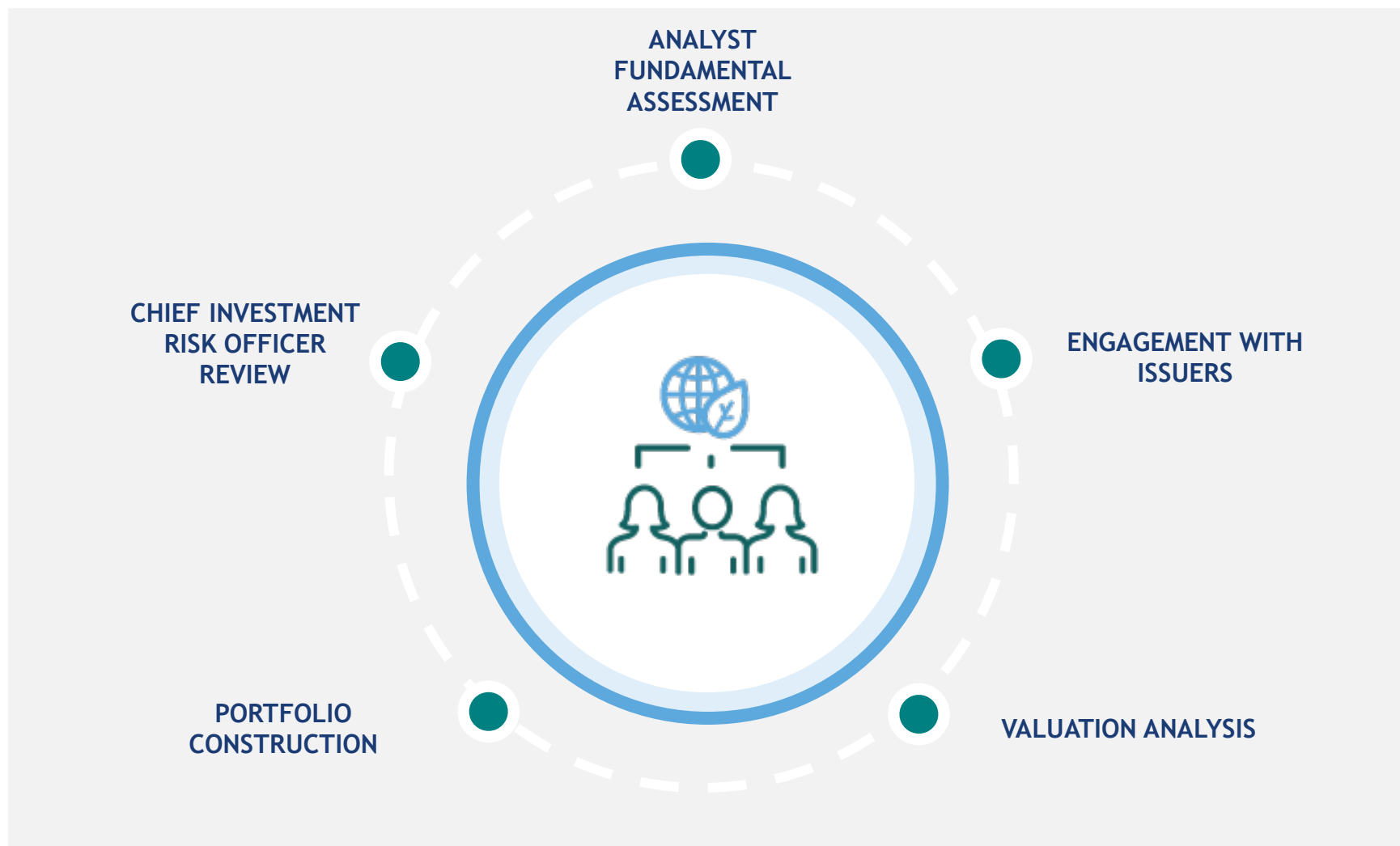
# loomis sayles ESG structure

## STRATEGIC DECISION TO EMBED ESG THROUGHOUT THE ORGANIZATION



# ESG integration

AT LOOMIS SAYLES ESG CAN BE INTEGRATED WITHIN ALL STEPS OF AN INVESTMENT PROCESS



# ESG research

## LOOMIS SAYLES INTEGRATES ESG INTO FUNDAMENTAL RESEARCH ACROSS ALL ASSET CLASSES

We recognize the important role that environmental, social and governance (ESG) issues play in the global economy, financial markets and society at large.

- We inherently consider ESG issues as part of our investment analysis and recommendations.
- Our analysts strive to develop a thorough understanding of an issuer's track record, governance, management strength and strategy, its use of, and impact on, human and natural resources, as well as regulatory and political risks.
- We draw on discussions with company management teams and sovereign officials regarding ESG issues, as well as subscribing to and utilizing third party ESG Research.
- Analysts develop independent views of material factors impacting fundamentals in their valuation assessments of equity, credit, sovereign, municipal, and securitized assets.



# portfolio management team

## HIGHLY EXPERIENCED TEAM SUPPORTED BY DEEP FIRM RESOURCES

Portfolio Management Team

<b>PRODUCT TEAM</b>	<b>JOHN HYLL</b> Portfolio Manager		<b>NEIL BURKE</b> Portfolio Manager		
	Yrs of industry experience:	37	29		
	Yrs with firm:	33	23		
<b>KEY SUPPORT</b>	<b>LDI SOLUTIONS</b> Justin Teman, ASA, CFA* Srinivas Andra, PhD Xinjia Liu		<b>PRODUCT MANAGEMENT</b> Gene Morrison, CFA EJ Tateosian, CFA Kristy Hergrueter Stephanie Abeland		
	<b>INVESTMENT ANALYSTS</b> Devon McKenna** Anna Wang**	<b>PORTFOLIO SPECIALIST</b> Peter Obermann	<b>QUANTITATIVE RISK</b> Michael Crowell		
<b>SECTOR TEAMS</b>	<b>US Yield Curve</b>		<b>Global Asset Allocation</b>		<b>Developed Non-US Markets</b>
	Inv Grade / Global Credit	Mortgage & Structured Finance	US Government	High Yield / Bank Loans	Emerging Markets Convertibles
<b>FIRM RESOURCES</b>	<b>Macro Strategies</b> 2 Directors Associate Director Economist Senior Quantitative Analyst Senior Commodities Analyst 2 Senior Research Analysts 3 Senior Research Associates	<b>Credit Research</b> Director 2 Associate Directors Head of Municipal Research Head of Convertibles Research 37 Senior Analysts 12 Analysts 7 Research Senior Associates 7 Research Associates	<b>Mortgage &amp; Structured Finance</b> Head Portfolio Manager 4 Strategists 4 Senior Analysts 1 Research Analyst 2 Research Associates Director, MSF Trading 4 MSF Traders/TAs	<b>Fixed Income Trading</b> 24 Traders/TAs Director, Portfolio Implementation 15 Portfolio Specialists Director, Operational Trading Risk Mgt. Risk Analyst	
	<b>Quant. Research &amp; Risk Analysis</b> Director 2 Associate Directors Director, LDI Solutions Senior Quantitative Analyst 7 Quantitative Analysts	<b>Equity Research</b> 12 Senior Analysts 9 Analysts 3 Research Associates	<b>Sovereign Research</b> 2 Senior Analysts 3 Analysts		

As of 9/30/2020.

\*Director of LDI Solutions.

\*\*Senior Investment Analyst



# aum summary

AS OF 9/30/2020

## ASSETS UNDER MANAGEMENT (billions)

Relative Return	PM Team*	Firm
\$102.3	\$17.6	\$328

## ACCOUNTS GAINED/LOST

	Relative Return	PM Team*	Firm
Gains 3Q20	10	2	62
Losses 3Q20	5	1	36
Total	5	1	26

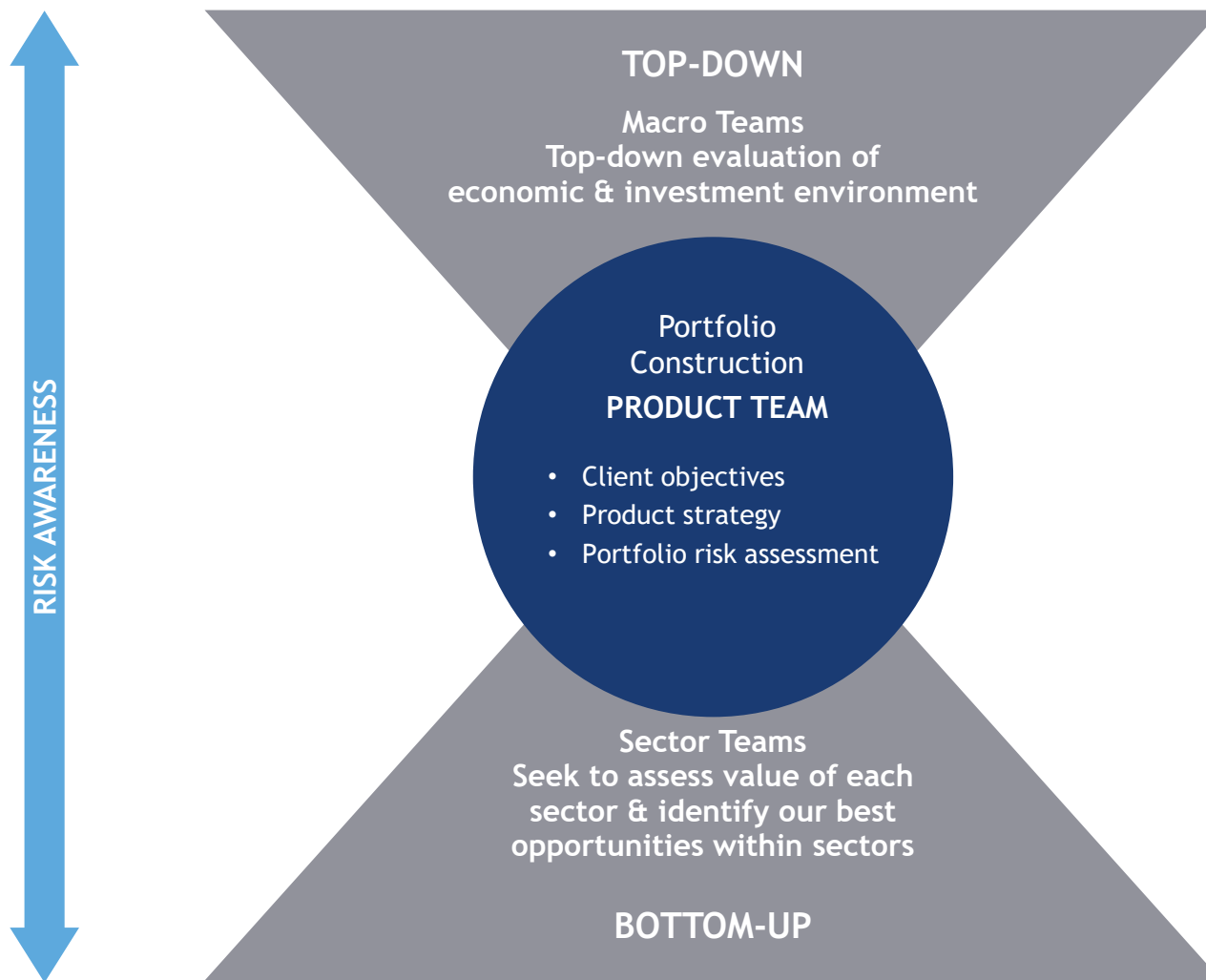
## LACERS ACCOUNT AS A PERCENT OF STRATEGY AUM (RELATIVE RETURN)

3Q20	2Q20
0.86	0.90

\*PM Team refers to assets managed by John Hyll and Neil Burke

LACERS originally hired Loomis Sayles in July of 1980 for Long Duration Fixed Income. The benchmark was the Bloomberg Barclays Govt/Credit. In August of 1993 the benchmark was changed to the Bloomberg Barclays LT Gov Credit. In June of 2000 it was changed to the Bloomberg Barclays US Universal and remained with the management team of John Hyll and Kent Newmark. In June of 2013 it was changed to the Bloomberg Barclays Aggregate and become a Core mandate but remained with the same portfolio management team of John Hyll and Neil Burke.

# investment process

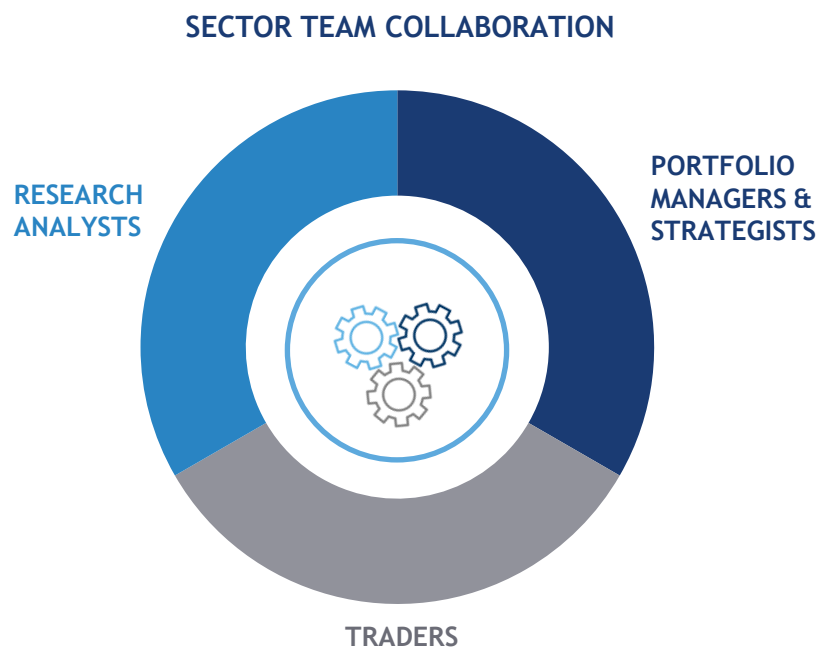


# sector teams

## COLLABORATION OF PORTFOLIO MANAGERS, STRATEGISTS, RESEARCH ANALYSTS AND TRADERS

Discuss, debate and generate investment ideas and themes to enhance our investment decision making process

- Develop top-down and bottom-up valuation framework and market analysis
- Identify where investment value may lie in various markets and/or what we view as the most attractive securities in each sector
- Monitor and measure sector performance and trends including secular changes, corporate events, and ESG factors

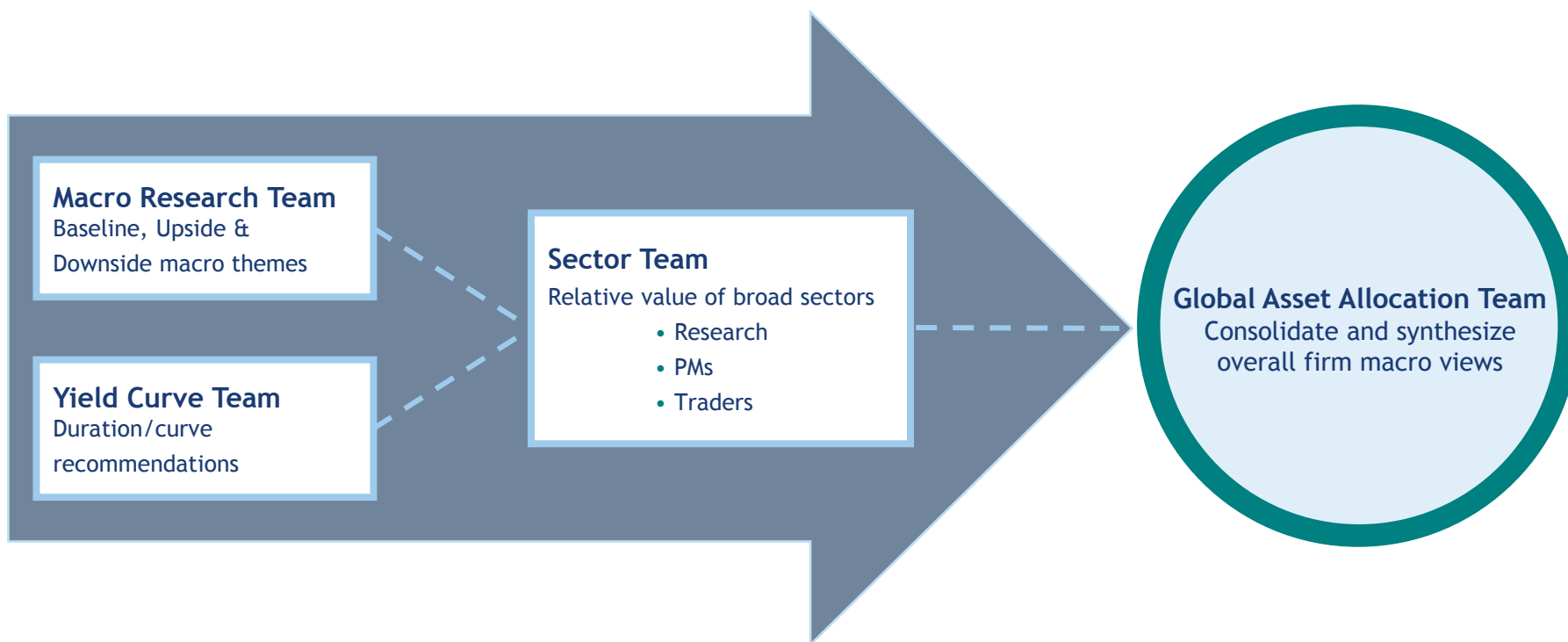


SECTOR TEAMS	
<b>MACRO-FOCUSED</b>	<b>MARKET-FOCUSED</b>
<ul style="list-style-type: none"> <li>• Global Asset Allocation</li> <li>• US Yield Curve</li> <li>• Developed Non-US Markets</li> </ul>	<ul style="list-style-type: none"> <li>• Bank Loans</li> <li>• Commodities</li> <li>• Convertibles</li> <li>• Emerging Markets</li> <li>• Equity</li> <li>• Global Credit</li> <li>• High Yield</li> <li>• Investment Grade Corporate</li> <li>• Municipals</li> <li>• Mortgage &amp; Structured Finance</li> <li>• US Government</li> </ul>

# investment process

## OUR BEST TOP-DOWN IDEAS

Portfolio Managers gain insight into macro themes and sector preferences leveraging the broader Loomis Sayles macro research effort



# investment process

## SOPHISTICATED RISK TOOLS USED TO IMPLEMENT & MONITOR TOP DOWN VIEWS

Analyze sources of risk and beta sensitivity while leveraging GAAT sector forecasts

Sector	Base		Bull		Bear	
	Tot Rtrn	Exc Rtrn	Tot Rtrn	Exc Rtrn	Tot Rtrn	Exc Rtrn
Bank Loans	4.85%	4.55%	5.99%	5.69%	-1.56%	-1.86%
RMBS	3.36%	3.95%	3.30%	6.89%	-2.28%	-3.84%
Equity	8.90%	8.90%	16.20%	16.20%	-17.80%	-17.80%
EUR IG					3.94%	-2.44%
HY					-5.60%	-7.57%
ABS Fixed & Floating					-0.04%	-0.42%
Converts					-13.43%	-13.43%
MBS					2.32%	0.35%
CEMBI	3.93%	5.20%	3.36%	6.70%	-14.36%	-17.30%
CMBS	1.56%	1.57%	1.20%	3.18%	-3.57%	-4.03%
EMBI	2.44%	4.60%	0.51%	6.10%	-5.33%	-11.90%
US IG Corporate	0.38%	2.30%	-1.13%	4.08%	-0.11%	-6.58%
Treasuries	-1.01%	0.00%	-5.14%	0.00%	3.12%	0.00%

GAAT Sector Return Forecasts provide base, bull and bear projections

What are our views?

	Total	USD Term Structure	USD IG Credit	USD Securitized	USD Emerging	USD Treas/Agcy	Residual	All Foreign (cys)
90 Rec. (8/90 - 10/90)	-1.93	-0.81	-0.82	0.11	0.00	0.00	0.00	-0.04
90 Recov. (2/91 - 4/91)	0.83	-0.43	0.87	-0.05	0.00	-0.02	0.00	0.05
94 Fed Hike (2/94 - 1/95)	-1.50	-0.68	0.12	-0.21	0.00	0.01	0.00	-0.90
Asian Crisis (7/97 - 5/98)	-0.32	-0.09	-0.36	-0.03	0.00	-0.01	0.00	0.16
LTCM (8/98 - 10/98)							0.01	-0.18
Sept 11 (9/01)							0.00	-0.08
WorldCom (4/02 - 7/02)							0.00	-0.07
WCom Recov. (11/02 - 4/03)							0.00	0.30
03 Rapid Selloff (7/03)							0.00	-0.10
04 Fed Hike (6/04 - 12/04)							-0.01	0.36
Leverage (12/06 - 5/07)	-0.16	-0.73	0.38	-0.12	-0.13	0.00	0.00	0.13
Subprime (7/07 - 8/07)	-1.20	-0.36	-0.85	0.21	0.13	0.02	0.00	-0.01
Equity Selloff (11/07 - 2/08)	-3.61	-1.59	-2.15	0.43	0.20	0.05	0.01	0.03
Black Swan (9/08 - 11/08)	-5.74	-0.09	-5.42	1.26	0.76	0.11	0.01	-0.54
Euro Sovereign Concerns (5/10)	-1.36	0.29	-1.29	0.06	0.14	0.00	0.00	-0.14

Scenario Returns examines the impact to the portfolio of past known market events and GAAT forecasts

What if scenarios?

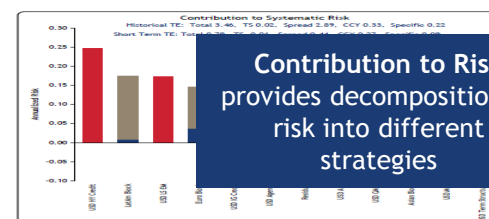
	100-day	Full/Partial
β to Total Bench Return (bps)	0.16	
β to Spread Excess Return (bps)	-0.35 / 0.23	
β to Corp Excess Return (bps)	-0.03 / 0.36	
β to US Treasury Curv		
β to MBS Excess Ret		
β to ABS Excess Ret		
β to CMBS Excess Re		

Beta Analytics measures the sensitivities of the portfolio to changes in yield curves, spreads, and currencies

What are our sensitivities?

Key Rate Durations	Account	Benchmark	Relative	Conv
6 Month	0.10	0.11	-0.01	Canad
2 year	0.43	0.68	-0.25	Inter
5 Year	1.07	1.43	-0.38	EMER
10 Year	1.15	1.39	-0.24	MUN
20 Year	1.72	0.77	0.94	Bank
30 Year	1.73	0.64	1.09	cash
	6.20	5.04	1.16	

Key Rate Durations provide curve sensitivities of the portfolio



Contribution to Risk provides decomposition of risk into different strategies

What are the sources of risk?

Charts are illustrative for presentation purposes only as a sampling of risk management tool output. Some or all of this information on these charts may be dated, and, therefore, should not be the basis to purchase or sell any securities. The information is not intended to represent any actual portfolio. Scenario analysis has inherent limitations and should not be viewed as predictive of future events. It relies on opinions, assumptions and mathematical models, which can turn out to be incomplete or inaccurate. Actual results will be different.

# investment process

## PROPRIETARY RESEARCH: THE CORNERSTONE OF OUR BUSINESS

Objective: Generate good investment ideas and help get them into the portfolios

Integral to our investment process

- Rigorous fundamentally-driven credit analysis
- Career Analysts
- Team structure provides deep support to Senior Analysts
- Mixture of global and regional industry coverage, depending upon competitive structure and markets served
- Analysts cover their industries/sectors across the credit spectrum
- Analysts integrated into sector teams

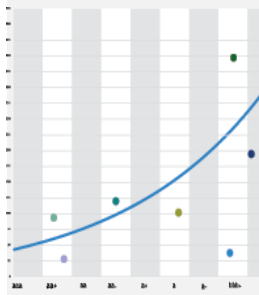
# investment process

## OUR BEST BOTTOM-UP IDEAS

Portfolio Managers gain insight into individual credits using the broader Loomis Sayles research effort:

FUNDAMENTAL RESEARCH	SECTOR TEAM	TRADING	QUANTITATIVE RESEARCH RISK ANALYSIS (QRR)
<ul style="list-style-type: none"> <li>Solvency analysis</li> <li>Business outlook</li> <li>Management/political</li> </ul>	<ul style="list-style-type: none"> <li>Value of sector</li> <li>Subsector preference</li> <li>Preferred securities</li> </ul>	<ul style="list-style-type: none"> <li>Liquidity</li> <li>Issuer rating/volatility</li> <li>Specific security volatility</li> </ul>	<ul style="list-style-type: none"> <li>Fair value</li> <li>Portfolio construction</li> <li>Risk awareness</li> </ul>

Each credit is viewed based on the following framework:

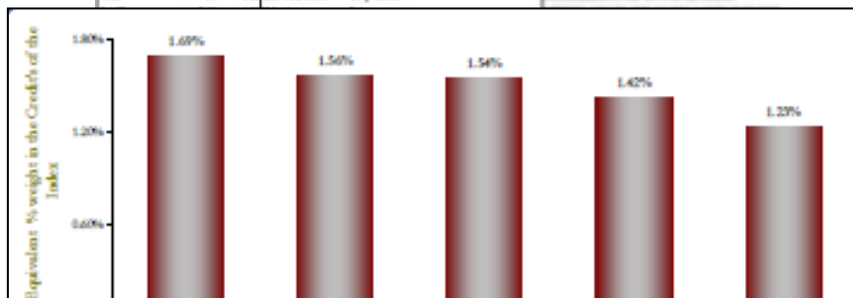
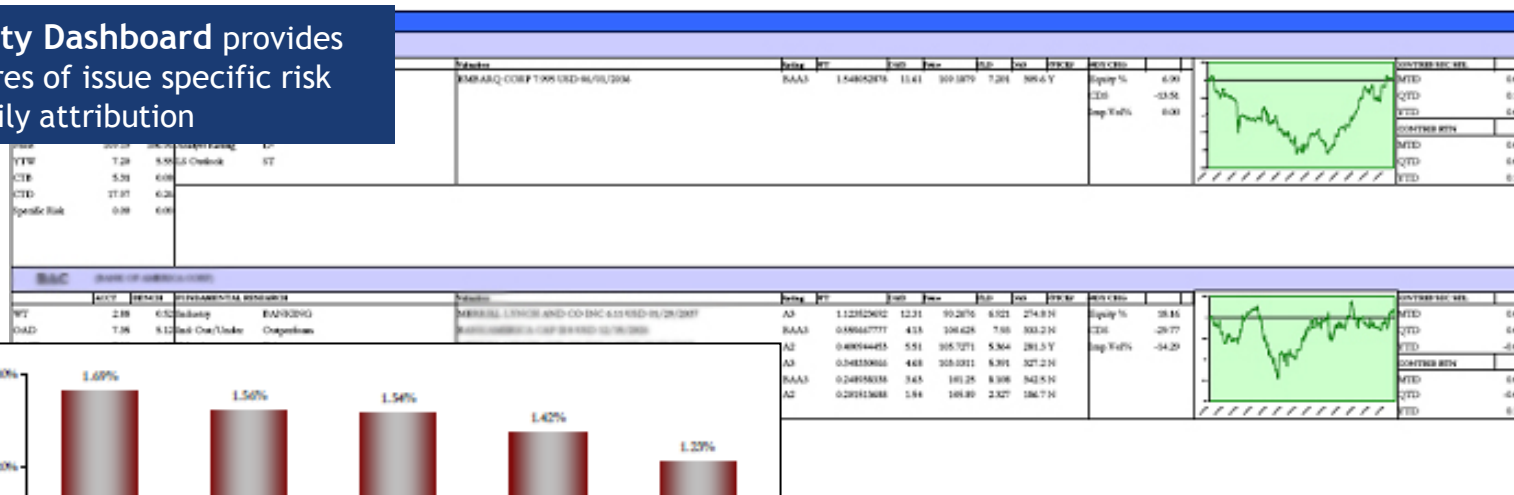
LS ISSUER RATING	INDUSTRY VALUATION	VALUATION BY ISSUER	ISSUER VOLATILITY	ISSUER LIQUIDITY	URV VALUATION
<b>Higher:</b> aaa aa a <b>Lower:</b> bbb	Overperform Market Underperform	Undervalued: 1 2 3 Overvalued: 4	Core Opportunistic Speculative	Very Liquid: 4 3 2 Less liquid: 1	

# investment process

## SOPHISTICATED RISK TOOLS USED TO IMPLEMENT & MONITOR BOTTOM UP VIEWS

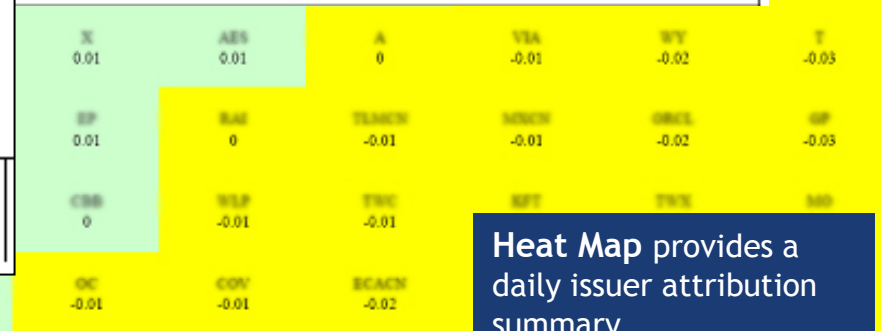
Issuer exposures and attribution versus customized or standard benchmarks

Security Dashboard provides measures of issue specific risk and daily attribution



Issuer Decomposition provides multiple measures of issuer relative contribution to risk

Issuer	Relative Contribution (%)
EMBARQ INC	1.60%
MERRILL LYNCH AND CO INC	1.50%
ALCOA INC	1.54%
SPG	1.40%
AA	1.20%



Heat Map provides a daily issuer attribution summary

Charts are illustrative for presentation purposes only as a sampling of risk management tool output. Some or all of this information on these charts may be dated, and, therefore, should not be the basis to purchase or sell any securities. The information is not intended to represent any actual portfolio.



# guideline summary

## BENCHMARK

- Bloomberg Barclays Aggregate Index

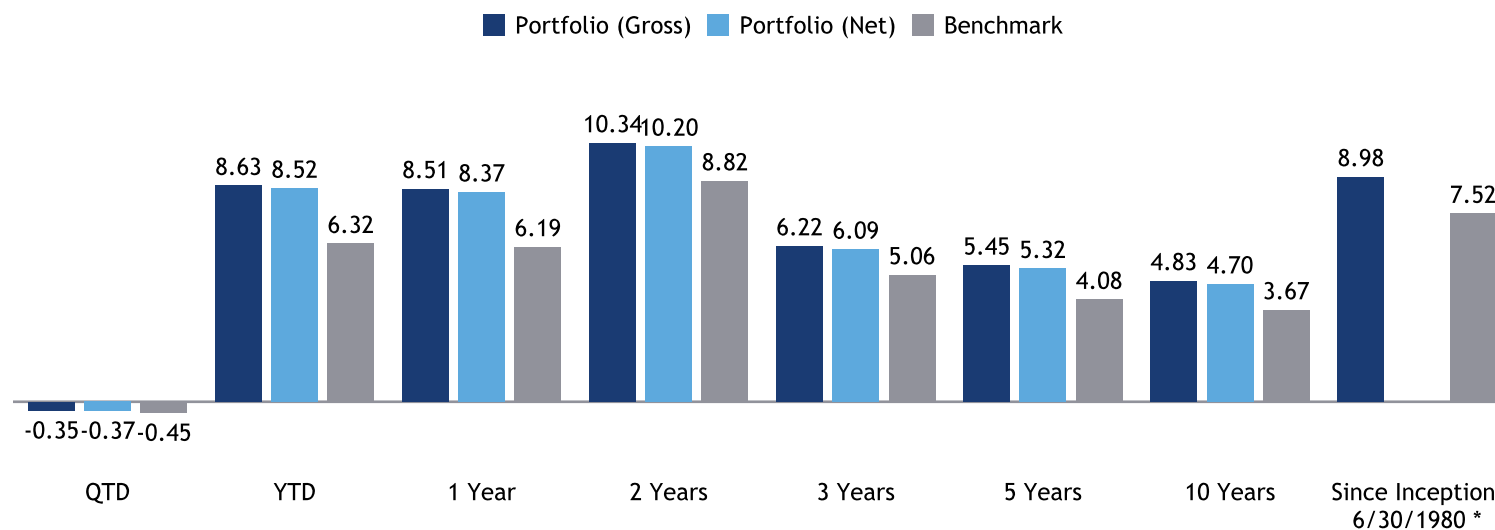
## DIVERSIFICATION & LIMITATIONS

- Minimum Credit Quality: Account may not hold securities rated below B3/B- by Moody or S&P.
- Split Rated Securities: Higher rating will govern split-rated securities.
- Issuer: Account may not hold more than 5% MV in any one issuer at time of purchase, excluding U.S. Gov't and Agencies.
- Issuer: Account may not hold more than 10% MV in non-benchmark issuers, excluding 144a's U.S. Gov't and Agencies, at time of purchase.
- Account may hold no more than 10% MV in cash & cash equivalents.
- Bank Loans: Account may invest up to 12.5% MV in the Loomis Sayles Senior Loan Fund, LLC at the time of purchase.
- Private Placements: Account may not hold Private Placement Securities (non-144a).
- Non-dollar: Non-U.S. sovereign debt and non-dollar investment grade corporate bonds are authorized.
- Duration: Maximum spread duration is +30% of the Bloomberg Barclays Aggregate Index.

*Guideline summary is not a complete restatement of guidelines. The slide is intended to be a summary to aid in the review process.*

# performance

## TRAILING RETURNS AS OF 10/31/2020 (%)



Excess Return (Gross)	QTD	YTD	1 Year	2 Years	3 Years	5 Years	10 Years	Since Inception 6/30/1980 *
	+0.09	+2.32	+2.32	+1.52	+1.16	+1.37	+1.16	+1.47

### PORTFOLIO VALUATION (USD)

	Portfolio
Total	880,916,900

Benchmarks: BBG B-ARC Govt Credit (6/30/1980 - 8/31/1993). BBG B-ARC LT Govt Credit (8/31/1993 - 6/30/2000). BBG B-ARC U.S. Universal (6/30/2000 - 6/30/2013). BBG B-ARC Aggregate (6/30/2013 - 10/31/2020).

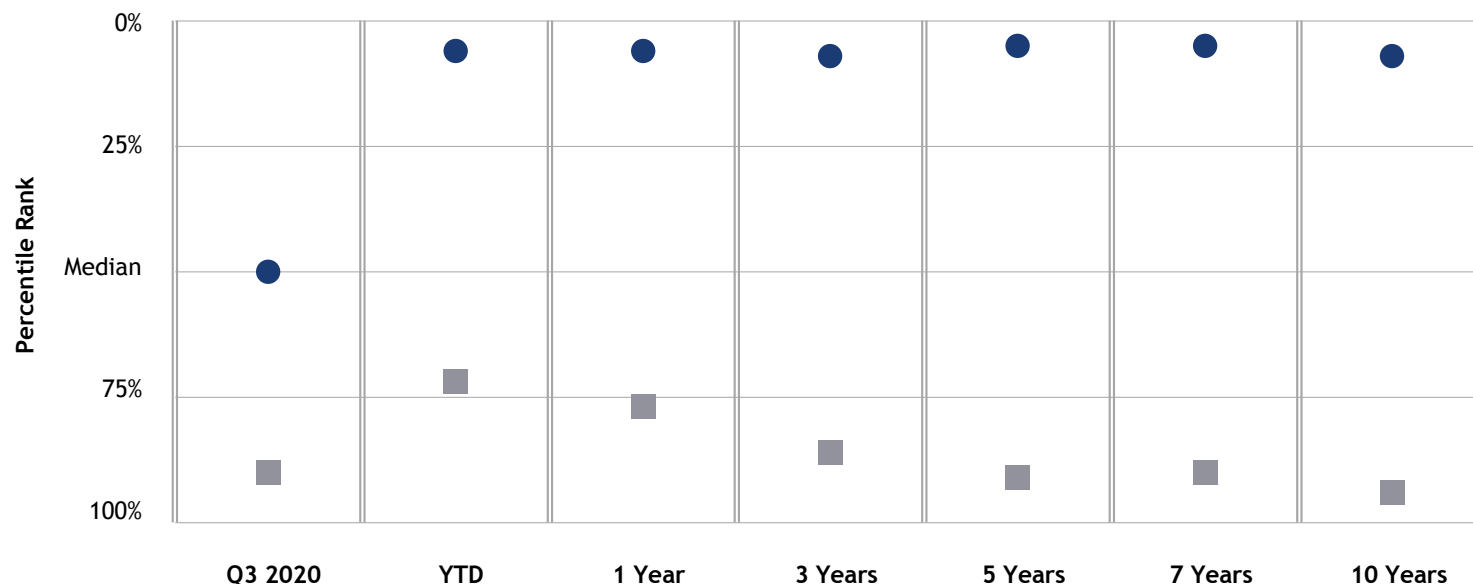
The current benchmark is Bloomberg Barclays U.S. Aggregate Index.

\* Net returns only available from 12/31/2000.

# investment performance - supplemental

## LOS ANGELES CITY EMPLOYEES RETIREMENT SYSTEM AS OF 9/30/2020

### Trailing Returns (Gross) & Rankings vs Index



	Q3 2020	YTD	1 Year	3 Years	5 Years	7 Years	10 Years
● LA City Employees Retirement System Income	1.10	9.02	9.20	6.39	5.63	5.29	4.90
<b>% Ranking</b>	<b>50<sup>th</sup></b>	<b>6<sup>th</sup></b>	<b>6<sup>th</sup></b>	<b>7<sup>th</sup></b>	<b>5<sup>th</sup></b>	<b>5<sup>th</sup></b>	<b>7<sup>th</sup></b>
■ Bloomberg Barclays US Aggregate Index	0.62	6.79	6.98	5.24	4.18	3.97	3.63
<b>% Ranking</b>	<b>90<sup>th</sup></b>	<b>72<sup>nd</sup></b>	<b>77<sup>th</sup></b>	<b>86<sup>th</sup></b>	<b>91<sup>st</sup></b>	<b>90<sup>th</sup></b>	<b>94<sup>th</sup></b>
<b>Median</b>	<b>1.11</b>	<b>7.46</b>	<b>7.65</b>	<b>5.68</b>	<b>4.69</b>	<b>4.43</b>	<b>4.18</b>
<b>Observations</b>	<b>241</b>	<b>241</b>	<b>241</b>	<b>237</b>	<b>231</b>	<b>226</b>	<b>218</b>

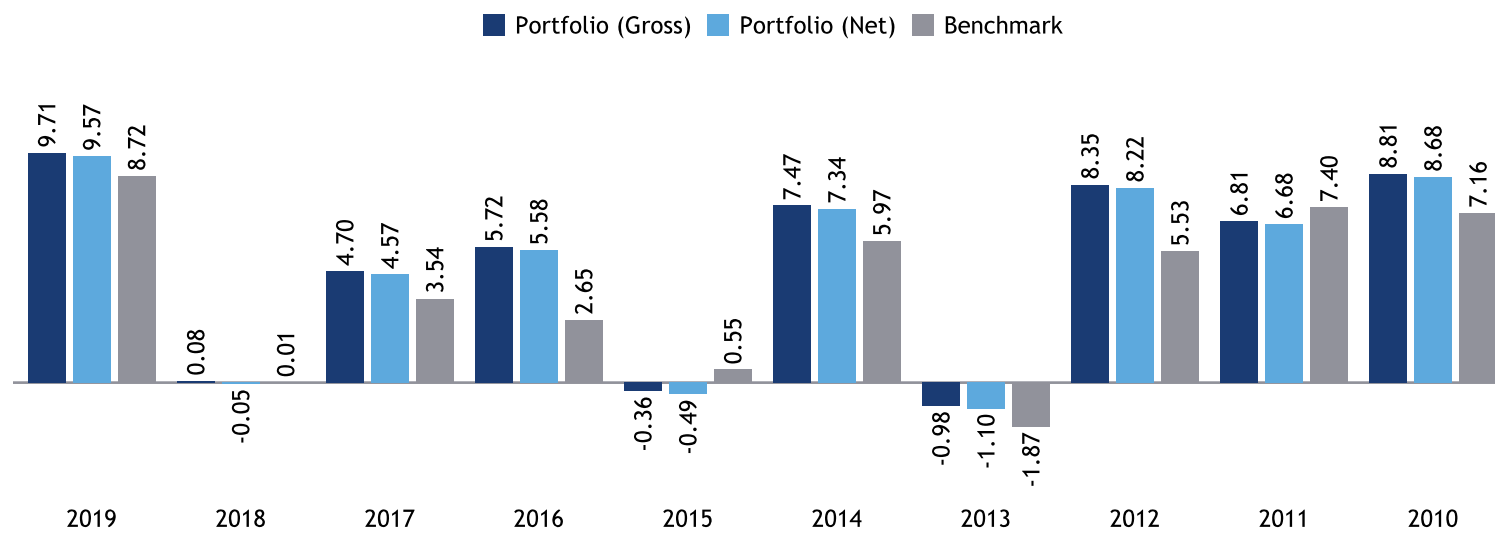
Source: eASE Analytics System; eVestment Alliance is the ranking agency. Universe: eA US Core Fixed Income. This material is provided as supplemental to a full product presentation book. Annualized performance is calculated as the geometric mean of the product's returns with respect to one year. Returns are gross of management fees and net of trading costs. If management fees were included, returns would be lower. Median is the middle value for the observations as of the end of each period shown. Although we believe it is reliable, we cannot guarantee the accuracy of data from a third party source. This information cannot be copied or redistributed in any form.

For additional information, including performance, please request a full presentation book.

**Past performance is no guarantee of future results.**

# performance

## CALENDAR YEAR RETURNS AS OF 10/31/2020 (%)



Year	Excess Return (Gross)
2019	+0.99
2018	+0.07
2017	+1.16
2016	+3.07
2015	-0.91
2014	+1.51
2013	+0.89
2012	+2.82
2011	-0.59
2010	+1.65

Benchmarks: BBG BARC Govt Credit (6/30/1980 - 8/31/1993). BBG BARC LT Govt Credit (8/31/1993 - 6/30/2000). BBG BARC U.S. Universal (6/30/2000 - 6/30/2013). BBG BARC Aggregate (6/30/2013 - 10/31/2020).  
 The current benchmark is Bloomberg Barclays U.S. Aggregate Index.

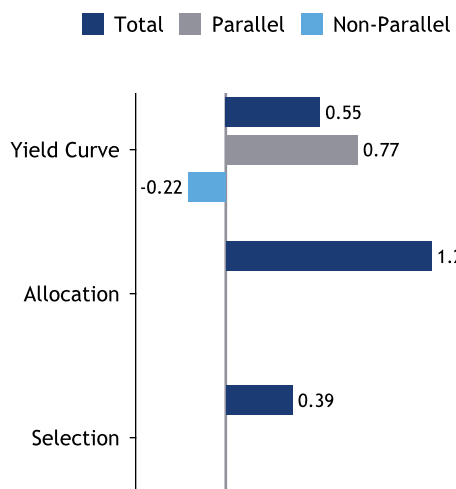
# performance attribution by sector

12/31/2019 TO 10/31/2020 (%)

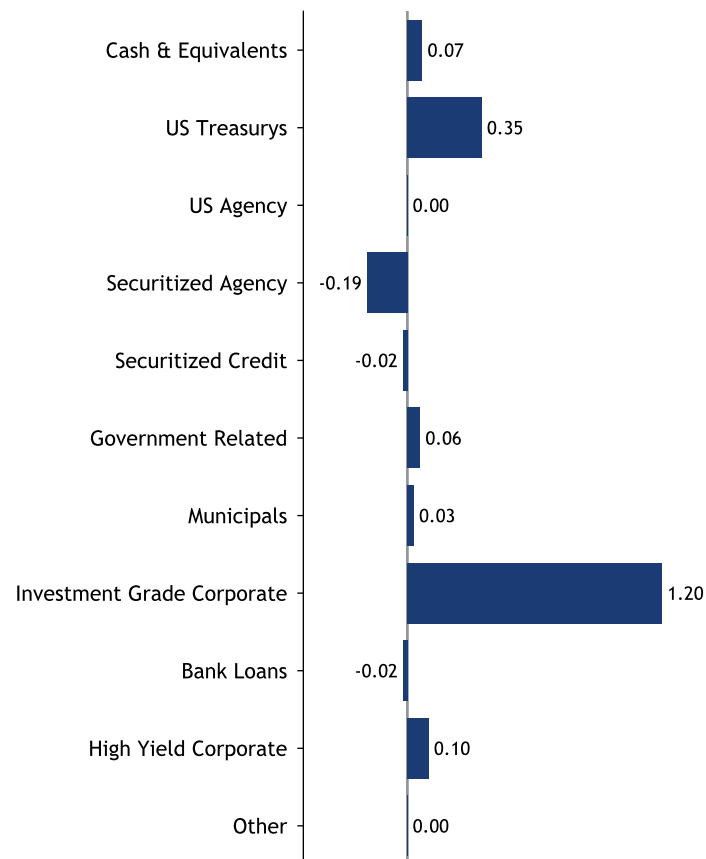
## TOTAL RETURNS

	Total Return
Portfolio Return	8.63
Benchmark Return	6.31
Excess Return	2.32

## EXCESS RETURN ATTRIBUTION



## EXCESS RETURN ATTRIBUTION BY SECTOR



Figures on the bar chart may not add up to total excess return as they exclude impact of trading, pricing and currency differences. Excess Return by sector excludes yield curve impact. Values shown include impact of hedging if utilized. Unless otherwise noted, the performance shown is gross of management fees. The current benchmark is Bloomberg Barclays U.S. Aggregate Index.

# attribution analysis

12/31/2019 TO 10/31/2020 (%)

Sector Distribution	Portfolio Final Weight	Benchmark Final Weight	Portfolio Average Weight	Benchmark Average Weight	Total Effect
Cash & Equivalents	3.18	0.00	5.11	0.00	0.07
US Treasurys	48.25	36.94	44.60	38.47	0.35
US Agency	0.00	1.59	0.00	1.37	0.00
Securitized Agency	12.48	27.81	13.26	27.60	-0.19
Securitized Credit	0.29	1.61	0.31	1.67	-0.02
Government Related	1.17	3.97	1.23	3.92	0.06
Municipals	0.00	0.72	0.00	0.70	0.03
Investment Grade Corporate	31.29	27.35	32.40	26.26	1.20
Bank Loans	1.60	0.00	1.56	0.00	-0.02
High Yield Corporate	1.74	0.01	1.52	0.00	0.10
Other	0.00	0.00	0.01	0.00	0.00

*Total Effects are impacted by sector returns and allocation shifts. Returns reflect the entire period. Total Effect excludes yield curve impact. Values shown include impact of hedging if utilized. Unless otherwise noted, the performance shown is gross of management fees.  
 The current benchmark is Bloomberg Barclays U.S. Aggregate Index.*

# portfolio summary

12/31/2019 TO 10/31/2020

## PORTFOLIO SUMMARY

	12/31/2019			10/31/2020		
	Portfolio	Benchmark	Difference	Portfolio	Benchmark	Difference
Yield to Worst (%)	2.33	2.31	0.02	1.30	1.24	0.06
Maturity (years)	8.24	7.93	0.31	8.02	8.00	0.02
Effective Duration (years)	5.96	5.82	0.14	5.98	6.06	-0.08
Coupon (%)	2.46	3.18	-0.72	2.13	2.90	-0.77
Average Quality	AA3	AA2	-	AA3	AA2	-
OAS (bps)	42	39	3	61	55	6

## QUALITY SUMMARY (% OF TOTAL MARKET VALUE)

	12/31/2019			10/31/2020		
	Portfolio	Benchmark	Difference	Portfolio	Benchmark	Difference
AAA	71.25	72.05	-0.80	65.42	69.92	-4.50
AA	1.65	3.93	-2.28	3.16	4.19	-1.03
A	10.50	11.69	-1.19	13.11	12.52	0.59
BAA	13.74	11.90	1.84	15.52	13.04	2.48
BA	2.09	0.05	2.05	2.22	0.00	2.22
B & Below	0.77	0.00	0.77	0.56	0.00	0.56
NR	0.00	0.39	-0.39	0.00	0.33	-0.33

OAS is option adjusted spread.

Client Guideline Quality Methodology presented.

Maturity distribution is calculated using the years to effective maturity, which takes into account the bonds call date.

The current benchmark is Bloomberg Barclays U.S. Aggregate Index.

# sector allocation

12/31/2019 TO 10/31/2020 (%)

	12/31/2019			10/31/2020			Relative Change		12/31/2019			10/31/2020			Relative Change
	Portfolio	Bench	Relative	Portfolio	Bench	Relative			Portfolio	Bench	Relative	Portfolio	Bench	Relative	
Cash & Equivalents	7.46	0.00	7.46	3.18	0.00	3.18	-4.28								
US Treasurys	48.61	39.46	9.15	48.25	36.94	11.31	2.16	High Yield Corporate	1.19	0.01	1.18	1.74	0.01	1.73	0.55
US Inflation Protected Treasurys	1.70	0.00	1.70	1.65	0.00	1.65	-0.05	Financial Institutions	0.00	0.01	-0.01	0.11	0.01	0.10	0.10
US Treasurys	46.92	39.46	7.45	46.60	36.94	9.65	2.20	Industrial	1.19	0.00	1.19	1.64	0.00	1.63	0.45
US Agency	0.00	1.18	-1.18	0.00	1.59	-1.59	-0.41								
Securitized Agency	13.56	27.79	-14.23	12.48	27.81	-15.33	-1.09								
Agency CMBS	3.80	0.82	2.98	0.97	0.93	0.04	-2.93								
CMO	9.25	0.00	9.25	2.61	0.00	2.61	-6.64								
MBS Passthrough	0.51	26.97	-26.46	8.89	26.88	-17.99	8.48								
Securitized Credit	0.33	1.70	-1.37	0.29	1.61	-1.31	0.06								
ABS	0.00	0.46	-0.46	0.00	0.34	-0.34	0.11								
Covered	0.00	0.02	-0.02	0.00	0.00	0.00	0.02								
Non Agency CMBS	0.33	1.22	-0.89	0.29	1.26	-0.97	-0.07								
Government Related	1.20	3.93	-2.73	1.17	3.97	-2.80	-0.07								
Agencies	0.87	1.28	-0.41	0.85	1.05	-0.19	0.22								
Local Authorities	0.00	0.29	-0.29	0.00	0.32	-0.32	-0.03								
Sovereign	0.06	1.02	-0.95	0.06	1.15	-1.09	-0.14								
Supranational	0.27	1.35	-1.08	0.25	1.46	-1.20	-0.13								
Municipals	0.00	0.65	-0.65	0.00	0.72	-0.72	-0.08								
Tax Exempt Muni	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
Taxable Muni	0.00	0.65	-0.65	0.00	0.72	-0.72	-0.07								
Investment Grade Corporate	25.95	25.27	0.68	31.29	27.35	3.93	3.25								
Financial Institutions	5.20	7.94	-2.73	5.59	8.28	-2.69	0.05								
Industrial	18.67	15.47	3.21	23.20	16.84	6.35	3.15								
Utility	2.07	1.86	0.21	2.50	2.23	0.27	0.06								
Bank Loans	1.69	0.00	1.69	1.60	0.00	1.60	-0.09								
Financial Institutions	0.17	0.00	0.17	0.18	0.00	0.18	0.01								
Industrial	1.50	0.00	1.50	1.40	0.00	1.40	-0.10								
Utility	0.02	0.00	0.02	0.02	0.00	0.02	0.00								

The current benchmark is Bloomberg Barclays U.S. Aggregate Index.

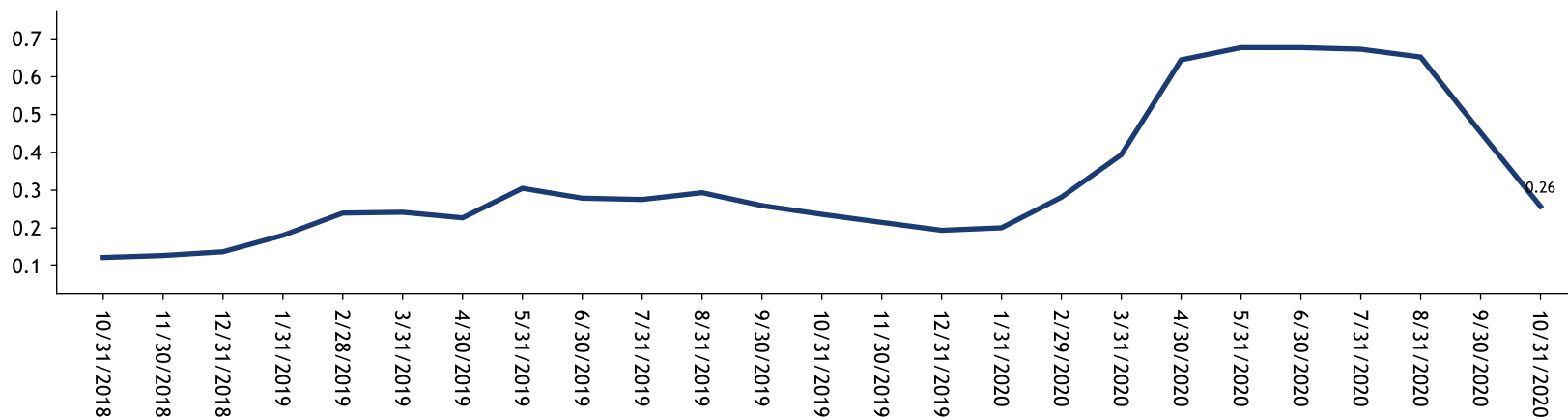


# portfolio history

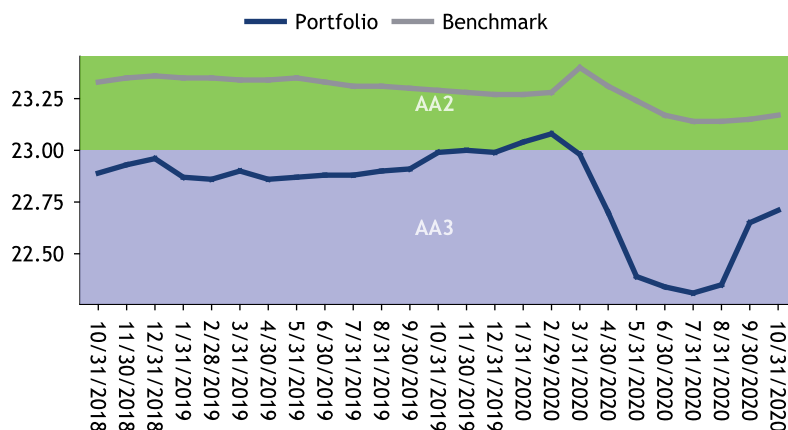
AS OF 10/31/2020

Los Angeles City Employees Retirement System - N40881/

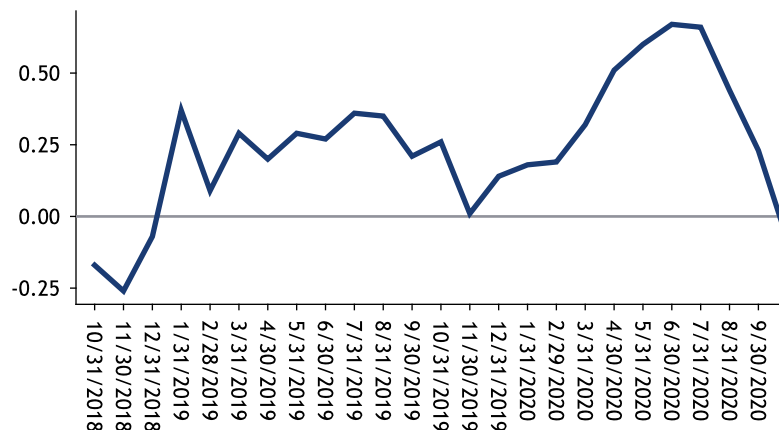
TOTAL SPREAD SECTOR EXCESS RETURN BETA



AVERAGE QUALITY



RELATIVE DURATION



Total Spread Sector Beta capture risk from spread changes to all asset classes.  
 The current benchmark is Bloomberg Barclays U.S. Aggregate Index.



Sources: Loomis, Sayles & Company, L.P. and others

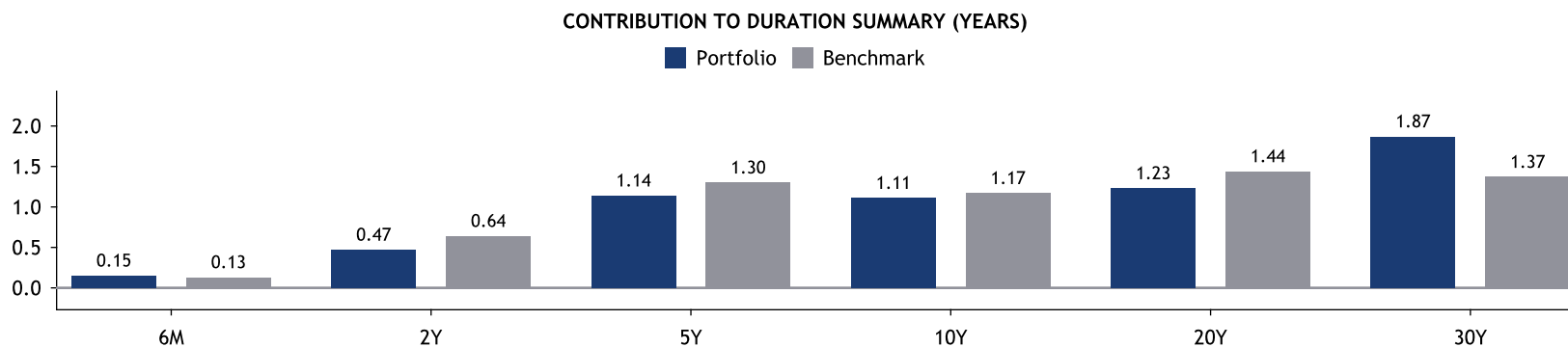
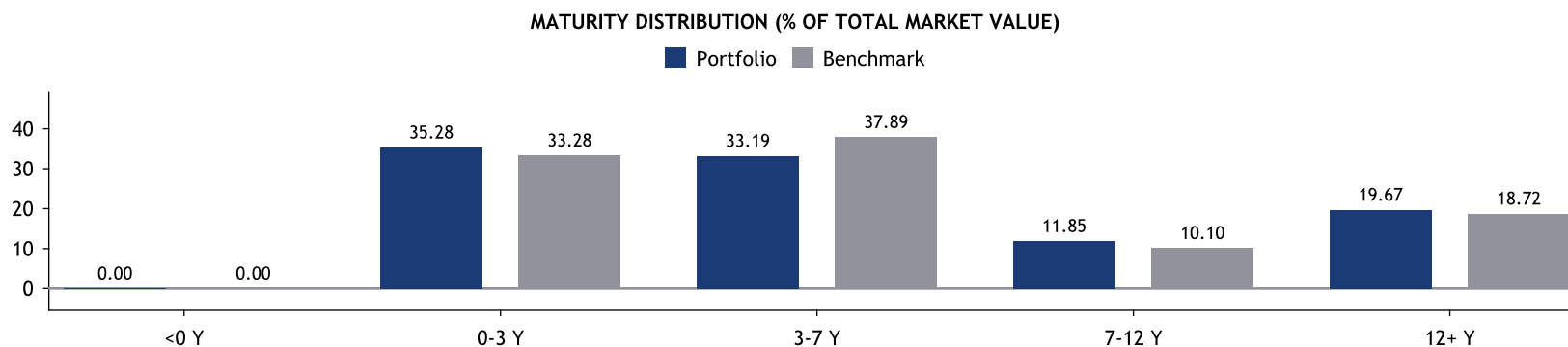
For Institutional Investor Use Only. Not for Further Distribution

October 31, 2020

# maturity & duration break-down

AS OF 10/31/2020

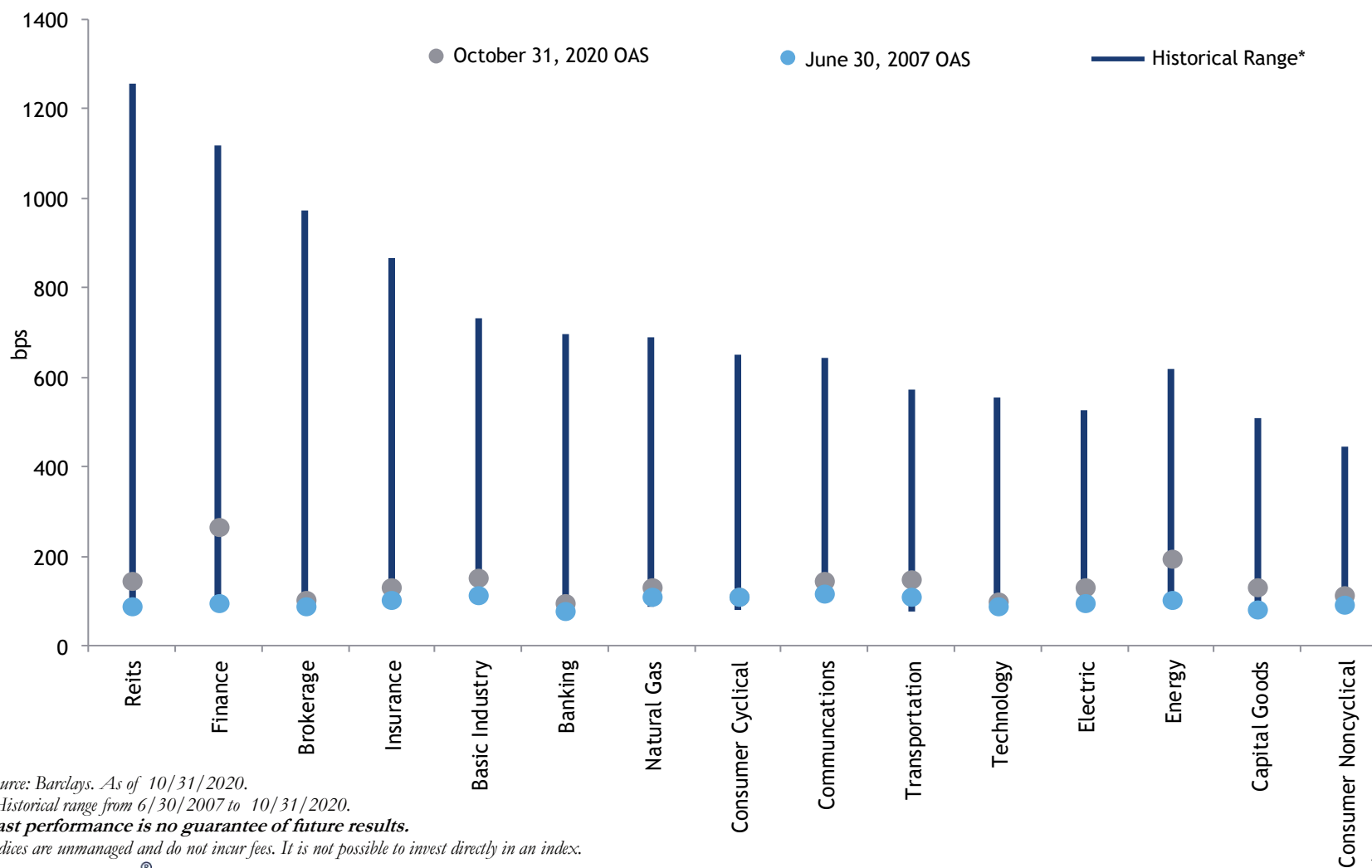
Los Angeles City Employees Retirement System - N40881/



*Maturity distribution is calculated using the years to effective maturity, which takes into account the bonds call date.  
 The current benchmark is Bloomberg Barclays U.S. Aggregate Index.*

# bond market environment

## US IG CREDIT SECTORS: CURRENT SPREAD LEVELS VS HISTORICAL HIGH AND LOW



Source: Barclays. As of 10/31/2020.

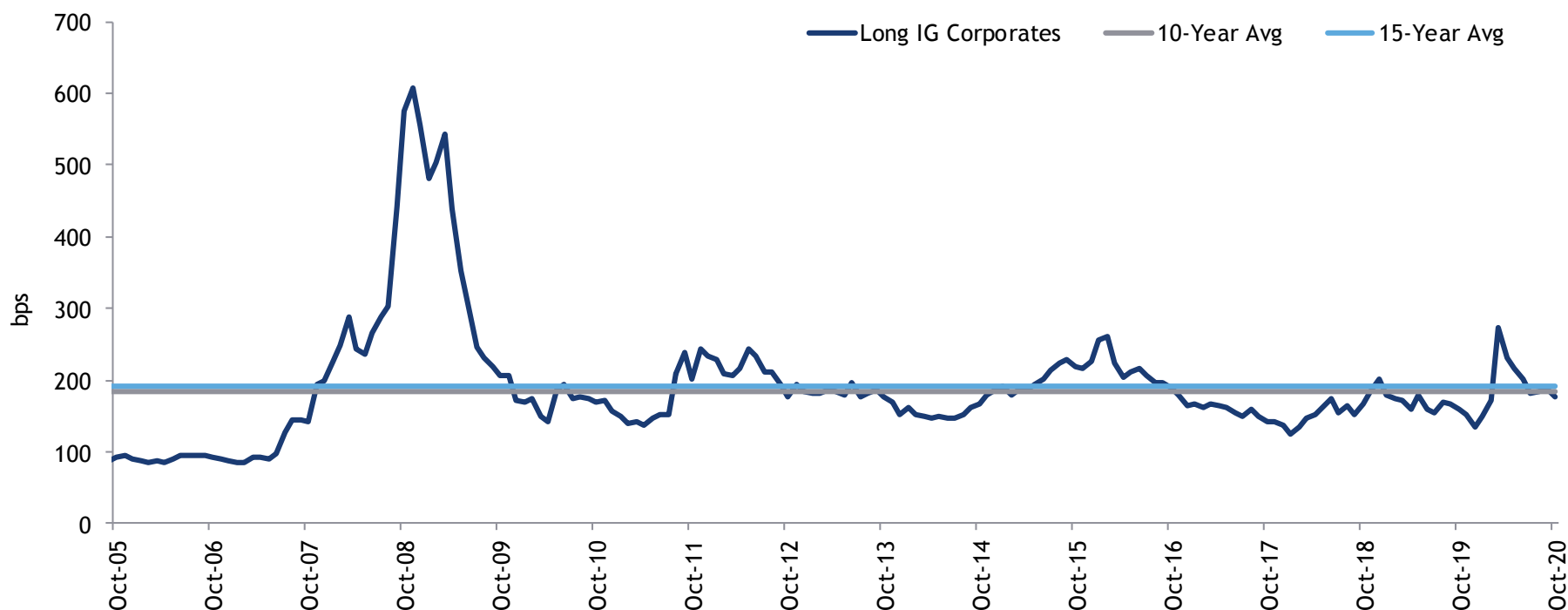
\*Historical range from 6/30/2007 to 10/31/2020.

**Past performance is no guarantee of future results.**

Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.

# bond market environment

## LONG-TERM INVESTMENT GRADE SECTOR SPREADS



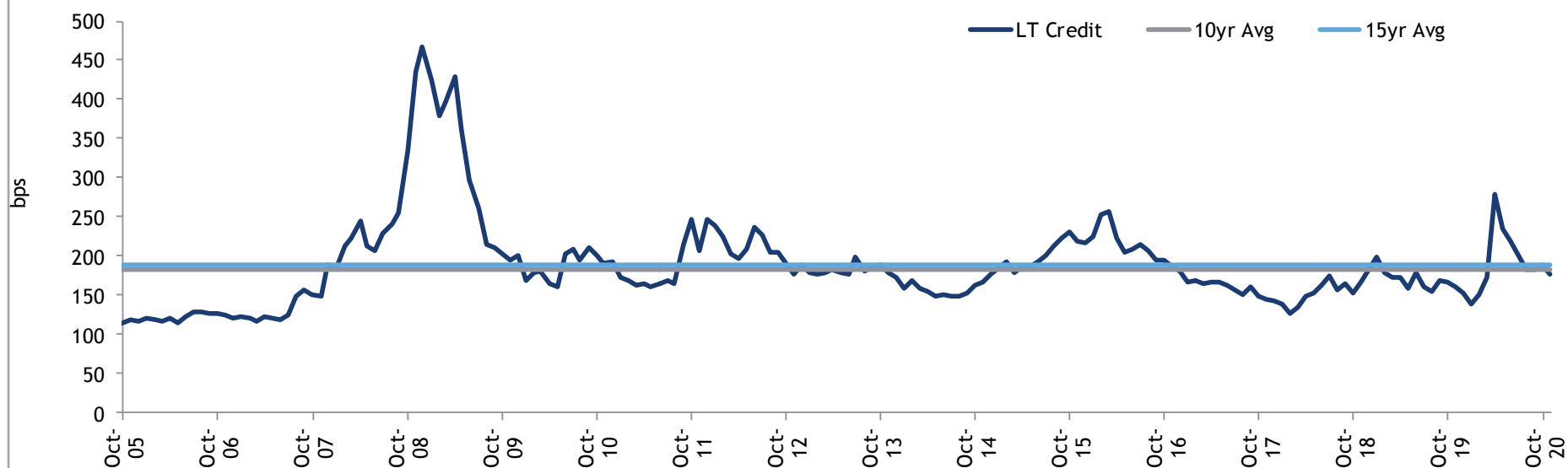
	10/30/2020	10 YR AVG	15 YR AVG	CURRENT SPREAD TO 10 YR AVG	CURRENT SPREAD TO 15 YR AVG
Long IG Financials	169	199	214	(30)	(45)
Long IG Industrials	181	184	191	(3)	(9)
Long IG Utilities	161	152	166	9	(5)
Long IG Corporates	177	183	192	(6)	(15)

Source: Barclays. As of 10/31/2020.  
 Averages computed by Loomis Sayles.

**Past performance is no guarantee of future results.**  
 Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.

# bond market environment

## LONG-TERM CREDIT SPREADS



	10/30/2020	10-YEAR AVG	15-YEAR AVG	CURRENT SPREAD TO 10-YEAR AVG	CURRENT SPREAD TO 15-YEAR AVG
LT Credit	177	183	189	(6)	(11)
LT Aaa	90	92	96	(2)	(6)
LT Aa	131	129	134	2	(2)
LT A	144	155	168	(12)	(24)
LT Baa	217	224	229	(6)	(11)

Source: Barclays. As of 10/31/2020.

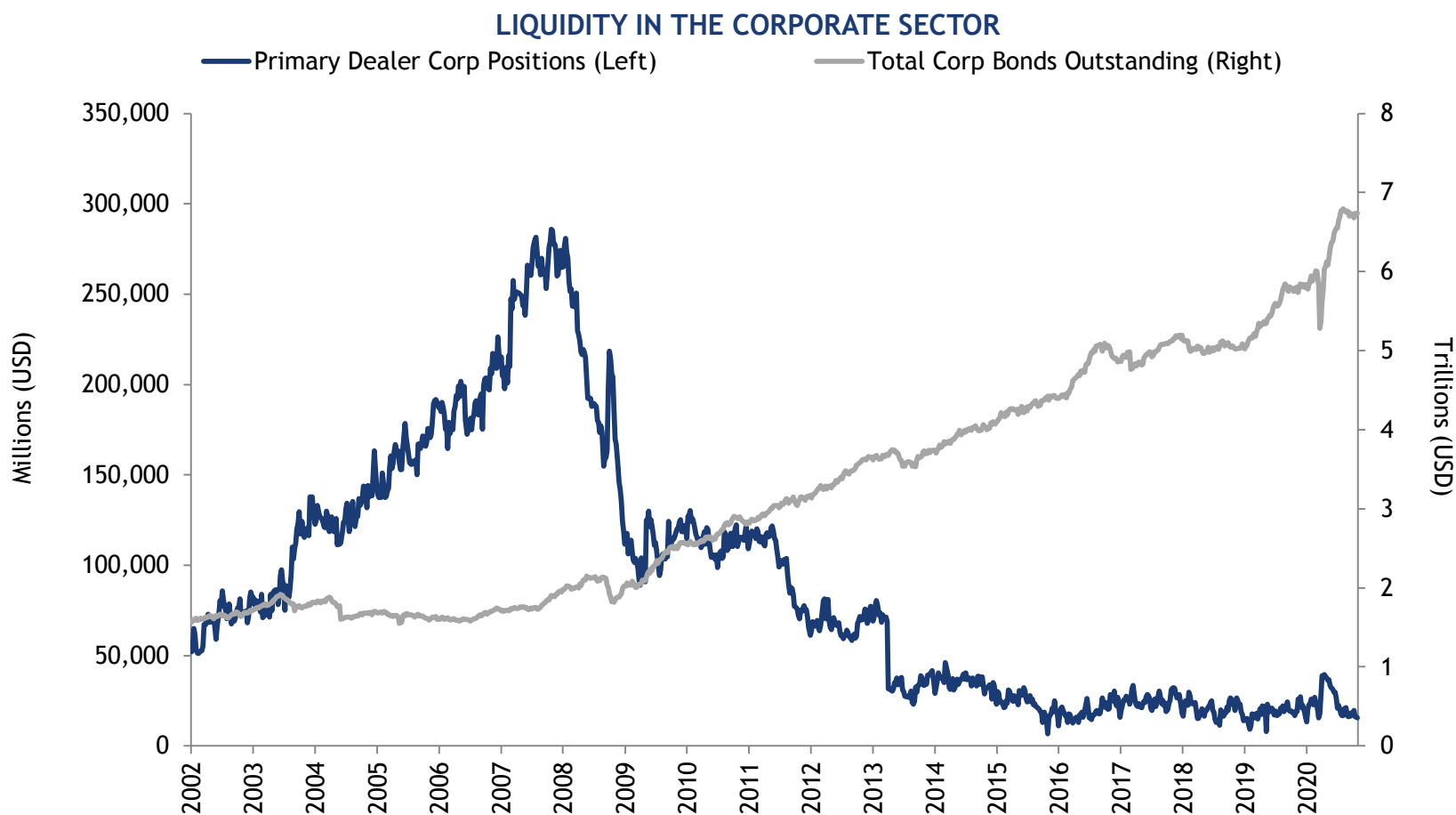
Averages computed by Loomis Sayles.

**Past performance is no guarantee of future results.**

Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.

# liquidity in the corporate sector

## MARKET ILLIQUIDITY REMAINS A CONCERN

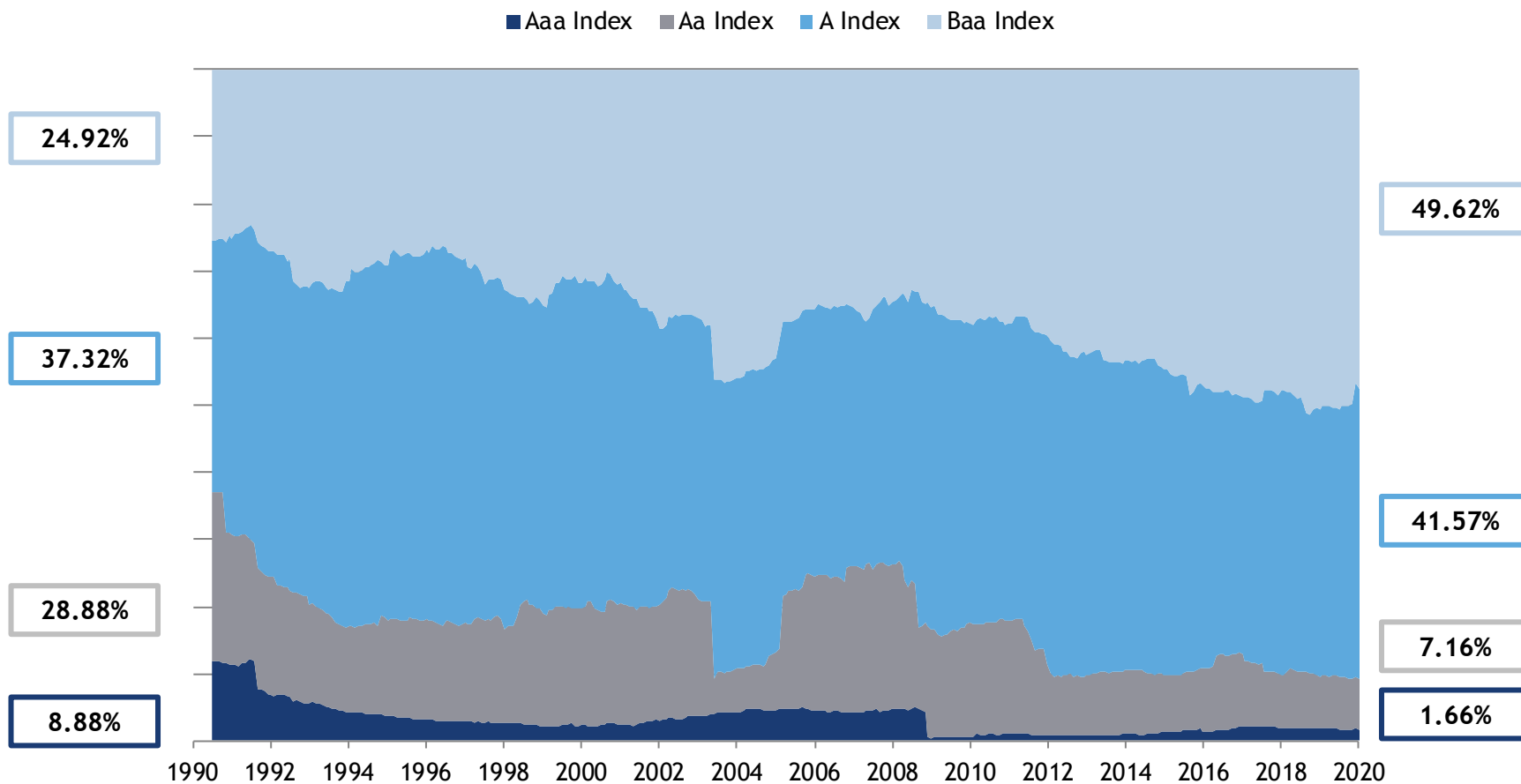


Data: Bloomberg, as of 10/28/2020.

Past market experience is no guarantee of future results.

# the case of the shrinking AA bucket

## QUALITY ANALYSIS OF BARCLAYS CREDIT INDEX, 1989 - 2020\*



*Data: Bloomberg, \*data from 1/31/1990 through 10/31/2020.*

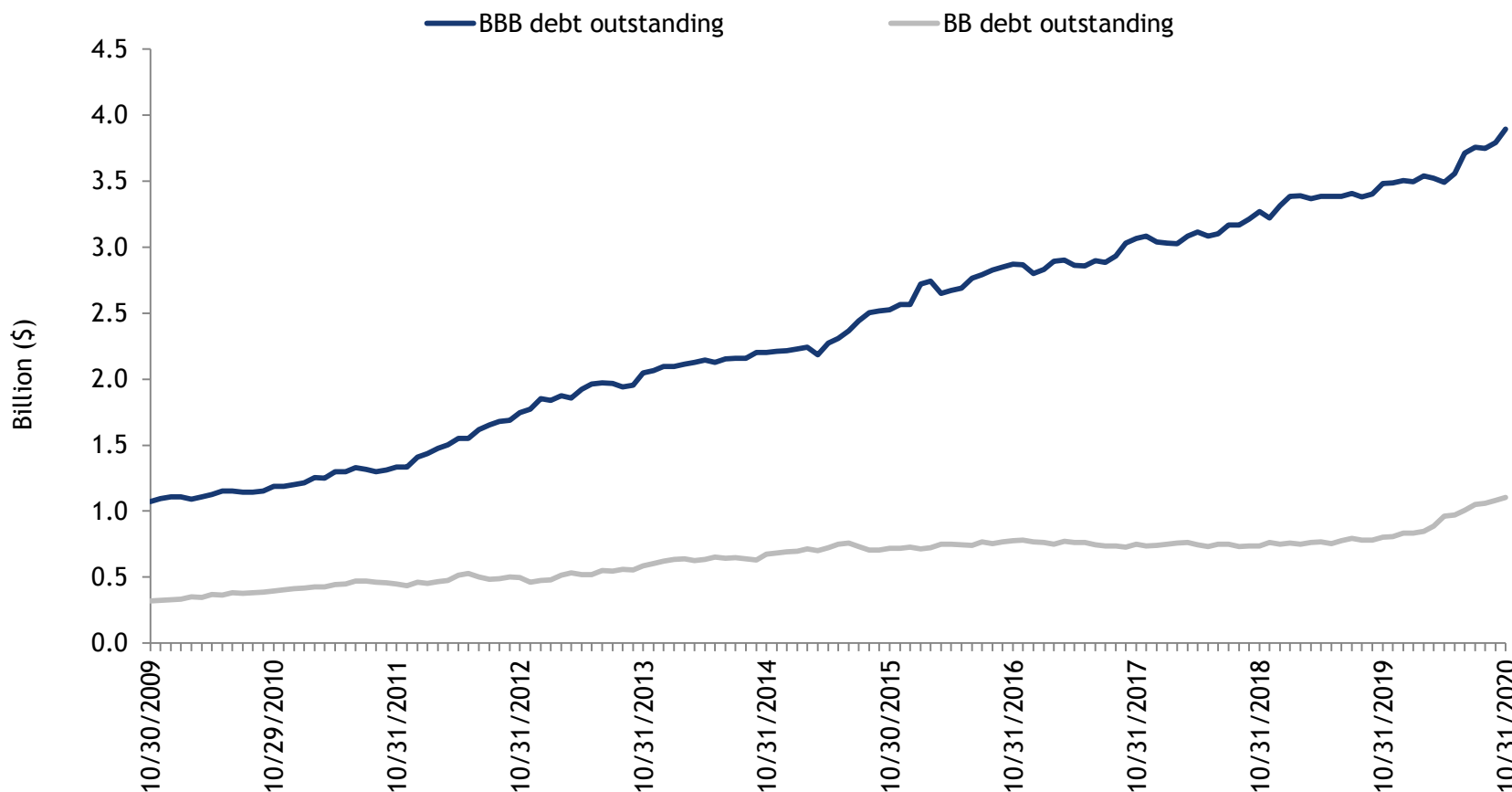
*The percentages on the left of the chart represent the start date and the percentages on the right represent the end date. Each side totals 100%.*

*Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.*

*Past performance is no guarantee of future results.*

# growth in BBB debt significantly outpaced BB's over the last 10 years

BBBS VS BBS DEBT OUTSTANDING



Data: Barclays Point, as of 10/31/2020

Note: BBB debt is based on BBB rated bonds in Barclays US Credit Corp +144A index. BB debt is based on BB rated bonds in Barclays US HY +144A index.

Past market experience is no guarantee of future results.



# macroeconomic environment and outlook

YEAR-END FORECAST	US DOMESTIC		GLOBAL		WESTERN EUROPE		ASIA PACIFIC		LATIN AMERICA	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Real GDP Growth	-3.5%	3.5%	-3.9%	5.1%	-7.7%	5.0%	-0.6%	4.7%	-7.0%	4.3%
Headline CPI Inflation	1.2%	1.9%	2.2%	2.6%	0.4%	1.1%	1.8%	2.1%	7.7%	8.5%
Current Account Balance (% GDP)	-3.2%	-3.3%	-	-	-	-	-	-	-	-
Interest Rates (10-year); End Of Year	0.9%	1.4%	-	-	-	-	-	-	-	-

## US EXITING A SHARP, BUT SHORT-LIVED DOWNTURN

- 2020 real GDP could be around -3.5%, after a stronger than expected Q3 (+33.1% q/q saar). Growth should remain positive as we look towards the end of 2020 and move into 2021.
- Unemployment peaked at almost 15% in April. However, it dropped more quickly than expected and is now below 7%. We expect continued improvement as we push forward in the cycle.
- Easing of lockdowns helped data bounce back, but the recovery could be tempered as virus cases rise through the Fall and Winter.
- The virus negatively impacted prices given the drop in demand. We expect inflation to remain limited in the near term, keeping the Fed on hold.

## COVID-19 REMAINS TOP-OF-MIND

- Virus spread has been rampant throughout much of Europe, causing major economies like Germany, France and UK to reinstate lockdowns, though they are not quite as severe as the ones we saw in the Spring.
- Covid-19 cases continue to pick up in the US as well; strict national lockdowns are not currently expected, but localized or regionalized lockdowns are not unfeasible.
- Positive vaccine news from Pfizer and Moderna could help investors feel more confident about the “light at the end of the tunnel” as 2021 rolls on.
- Manufacturing PMIs point towards ongoing recovery, but services have been (and will likely be) hit harder by containment measures.

## CORPORATE PROFIT GROWTH HELPS DRIVE THE ECONOMIC CYCLE

- A revival in corporate profits is integral for the economic recovery. We saw earnings estimates plunge earlier in the year, but things have been turning up since then.
- Profits are set to tumble in 2020 with Q2 being the worst quarter. A strong earnings recovery (+ 20% to 30% for S&P 500) is anticipated in 2021, bringing earnings back near 2019 levels.
- Risks to small businesses with less access to capital markets are prevalent, but we do not believe the impact will be large enough to bring down the economy.

## MONETARY POLICY, FISCAL POLICY, AND VACCINE HOPES ARE KEY

- The Fed cut rates to zero and announced unlimited QE in an effort to mitigate the negative impacts. Other global central banks have pursued aggressive monetary policy as well, which helps provide liquidity and support the global market. We expect monetary support to continue.
- We’ve seen strong responses from fiscal authorities around the world, which should help bridge the gap until social distancing comes to an end. We anticipate further stimulus from the US government by the end of Q1 2021.
- Vaccine distribution in 2021 would allow social distancing to begin to ease by the summer and help the economy normalize.

*Data as of 11/13/2020: Loomis Sayles Macro Strategies Group. This material is provided for informational purposes only and should not be construed as investment advice. The forecasted views and opinions expressed reflect those of the authors and do not necessarily reflect the views of Loomis, Sayles & Company L.P. All statements are made as of the date of the presentation and are subject to change at any time without notice.*

# why loomis sayles?

## Rich Resources

- Tremendous breadth and depth of fundamental research
- Security-specific analysis complemented by global macro and quantitative research
- Stable, long-term management at both firm and portfolio levels

## Collaborative Process

- Continuous collaboration between portfolio managers, strategists, research analysts and traders
- Investment decisions made by small, accountable portfolio management teams acting with conviction
- Proactive engagement with clients to help deliver compelling solutions

## Commitment to Performance

- Trusted reputation since 1926
- Embrace intelligent risk to optimize opportunity

## Client Focused

- Experienced client service continuously sharing portfolio insight and market perspective
- A culture of integrity, transparency and commitment to our clients

# disclosure

**Past performance is no guarantee of future results.**

**This is not an offer of, or a solicitation of an offer for, any investment strategy or product. Any investment that has the possibility for profits also has the possibility of losses.**

Gross returns are net of trading costs. Net returns are gross returns less effective management fees. Returns for multi-year periods are annualized.

Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.

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**Principal Investment Risks:** Investments in bonds can lose their value. When interest rates rise, bond prices usually fall and vice versa. High yield securities are subject to a high degree of market and credit risk, including risk of default. In addition, the secondary market for these securities may lack liquidity which, in turn, may adversely affect the value of these securities and that of the portfolio. Foreign investments involve special risks including greater economic, political and currency fluctuation risks, which may be even greater in emerging markets. Currency exchange rates between the US dollar and foreign currencies may cause the value of the investments to decline. Commodity-related investments, including derivatives, may be affected by a number of factors including commodity prices, world events, import controls and economic conditions and therefore may involve substantial risk of loss. Equity securities are volatile and can decline significantly in response to broad market and economic conditions. Diversification does not ensure a profit or guarantee against a loss.

Charts are illustrative for presentation purposes only as a sampling of tool output. Some or all of the information on charts shown may be dated, and, therefore, should not be the basis to purchase or sell any securities. The information is not intended to represent any actual portfolio. Any securities examples are provided to illustrate the investment process for the strategy used by Loomis Sayles and should not be considered recommendations for action by investors. They may not be representative of the strategy's current or future investments and they have not been selected based on performance.

An electronic version of this presentation book is available upon request.

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NEUBERGER BERMAN

# Los Angeles City Employees' Retirement System Core Bond Strategy

December 10, 2020



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- I. FIRM & TEAM OVERVIEW
- II. INVESTMENT PHILOSOPHY & PROCESS
- III. PORTFOLIO REVIEW
- IV. MARKET OUTLOOK

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- A. BIOGRAPHIES
- B. ADDITIONAL DISCLOSURES AND INDEX DEFINITIONS



## Firm & Team Overview

## Structured to Deliver Compelling Results Over The Long-term

Clients partner with us for innovative investment solutions to achieve their unique objectives

### Aligned and Engaged

100% independent, employee-owned; invest alongside clients

### Global Capabilities

Offices across 24 countries, with 18 portfolio management centers

### Breadth of Independent Perspectives

663 investment professionals connected across public and private markets, equity, fixed income, alternatives and real estate

### Experienced and Stable

25+ year average industry experience for lead PMs; 96% annualized retention rate of senior investment professionals<sup>1</sup>

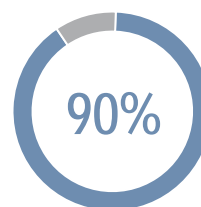
### Deep Resources

Extensive fundamental research, data science capabilities, innovative ESG approach and sophisticated risk management

### Leader in ESG

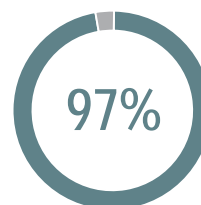
Member of the PRI 2020 Leaders' Group, a designation awarded to fewer than 1% of investment firms for excellence in ESG practices

### Long-term Outperformance<sup>2</sup>



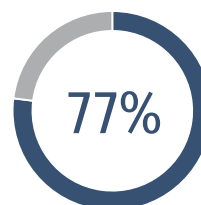
#### Institutional-oriented public markets equity

Percentage of institutional-oriented AUM outperforming benchmark since inception ended September 30, 2020



#### Institutional-oriented fixed income

Percentage of institutional-oriented AUM outperforming benchmark since inception ended September 30, 2020



#### Private equity

Percentage of NB Private Equity funds raised between 2009 – 2018 (since inception performance) outperforming benchmark Net MOIC

1. Retention of MD and SVP level since becoming an independent company in 2009.

2. Institutional-oriented equity and fixed income assets under management ("AUM") includes the firm's equity and fixed income institutional separate account ("ISA"), registered fund, and managed account/wrap ("MAG") offerings and are based on the overall performance of each individual investment offering against its respective benchmark. High net worth/private asset management ("HNW") AUM is excluded. If HNW AUM were included, the percentage of AUM outperforming the benchmark since inception period would have been 85% for equities and 96% for fixed income. Equity and Fixed Income AUM outperformance results are asset-weighted so individual offerings with the largest amount of assets under management have the largest impact on the results. Please see additional disclosures for important information regarding Private Equity methodology. All performance data for NB Private Equity funds, private equity indices data is as of December 31, 2019. Results are shown gross of fees. Individual offerings may have experienced negative performance during certain periods of time. See Additional Disclosures for additional information regarding the outperformance statistics shown (including 3-, 5- and 10-yr statistics for institutional-oriented equity and fixed income). Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. **Past performance is no guarantee of future results.**



# Employee Ownership Fosters Team Stability and Alignment with Clients

Industry-leading experience, retention and culture

**Ownership Structure**

**100%**

independent,  
employee-owned

**Manager Experience**

**99%**

of clients' assets managed by  
lead PMs who have 20+ years  
of industry experience

## Alignment With Clients

**~\$4bn** | invested by Neuberger Berman employees  
alongside clients<sup>1</sup>

**100%** | deferred cash compensation directly linked to team  
and firm strategies

## Retention Levels For Senior Investment Professionals

	Managing Directors (includes retirements)	Managing Directors (competitor departures only)
2015	99%	100%
2016	91%	99%
2017	94%	100%
2018	97%	99%
2019	96%	100%

## Our Culture



2014



2015



2016



2017



2018

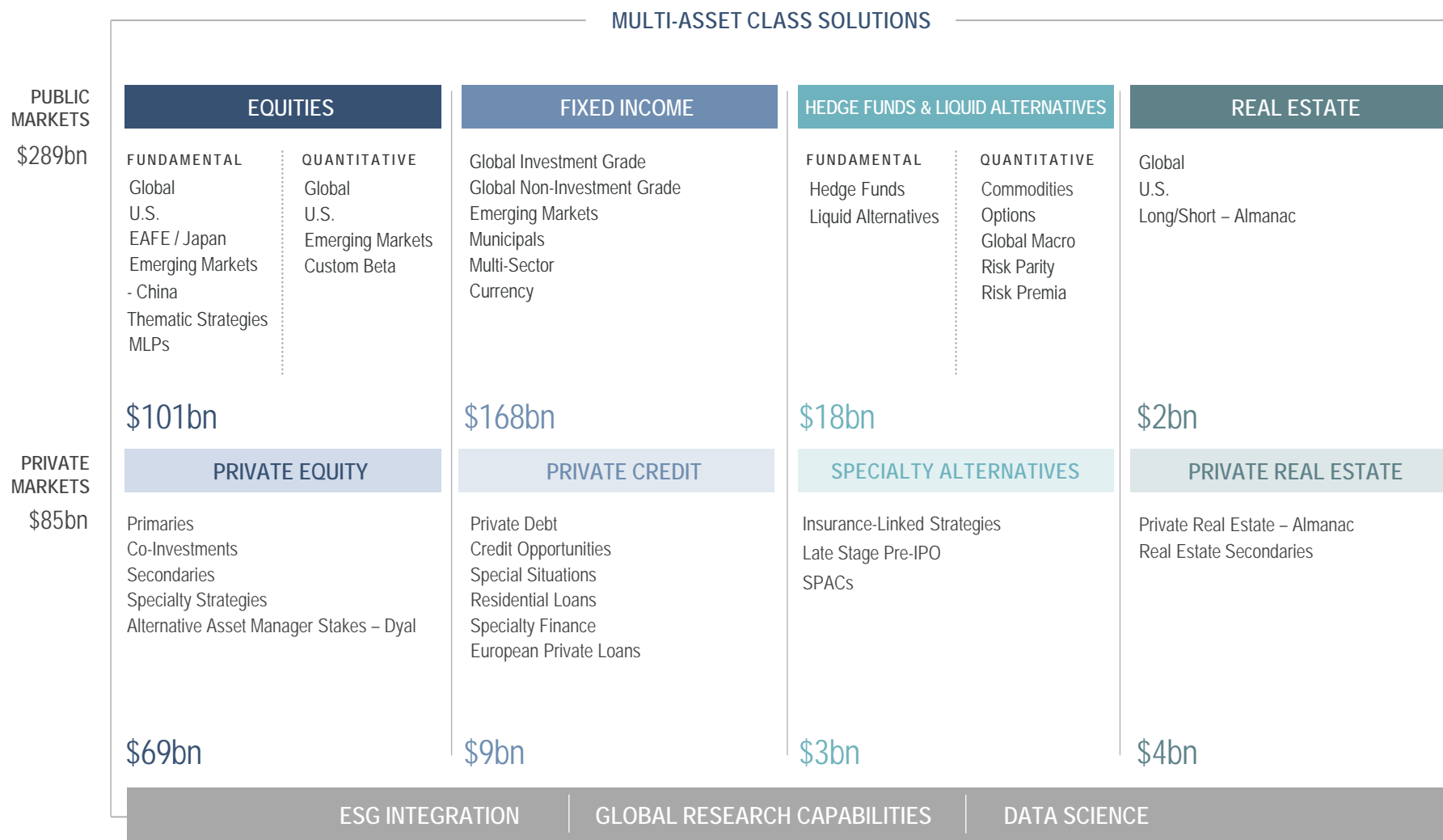


2019

1. Employee assets include current and former employees and their family members.

## Our Comprehensive Investment Offering Spans All Major Asset Classes

Investing \$374bn for clients globally



1. As of September 30, 2020.

## Our Approach to Fixed Income Investing

Our strength lies in our fundamental research and the breadth of the team to seek to achieve client defined objectives

### Integrated Global Platform

- A senior leadership team defined by their experience, collaboration and continuity
- 170+ investment professionals covering all sectors & geographies of the fixed income markets
- Global perspective with local presence: investment teams located in 8 cities on 3 continents



### High Quality Alpha Sources

- Steadfast commitment to fundamental research
- Belief that security selection is a repeatable and a high quality alpha source through cycles
- Broad range of proprietary credit, macroeconomic and quantitative tools help inform our fundamental research



### Consistent Approach to Portfolio Construction

- Focus investments in sectors offering attractive relative value
- Utilize consistent methodologies to value fixed income markets
- Emphasis on understanding tail risks in determining our level of confidence in an investment outcome

### Complete Suite of Focused Strategies

Global and diverse nature of our investment process enables our team to offer a variety of solutions based on specific investor needs.

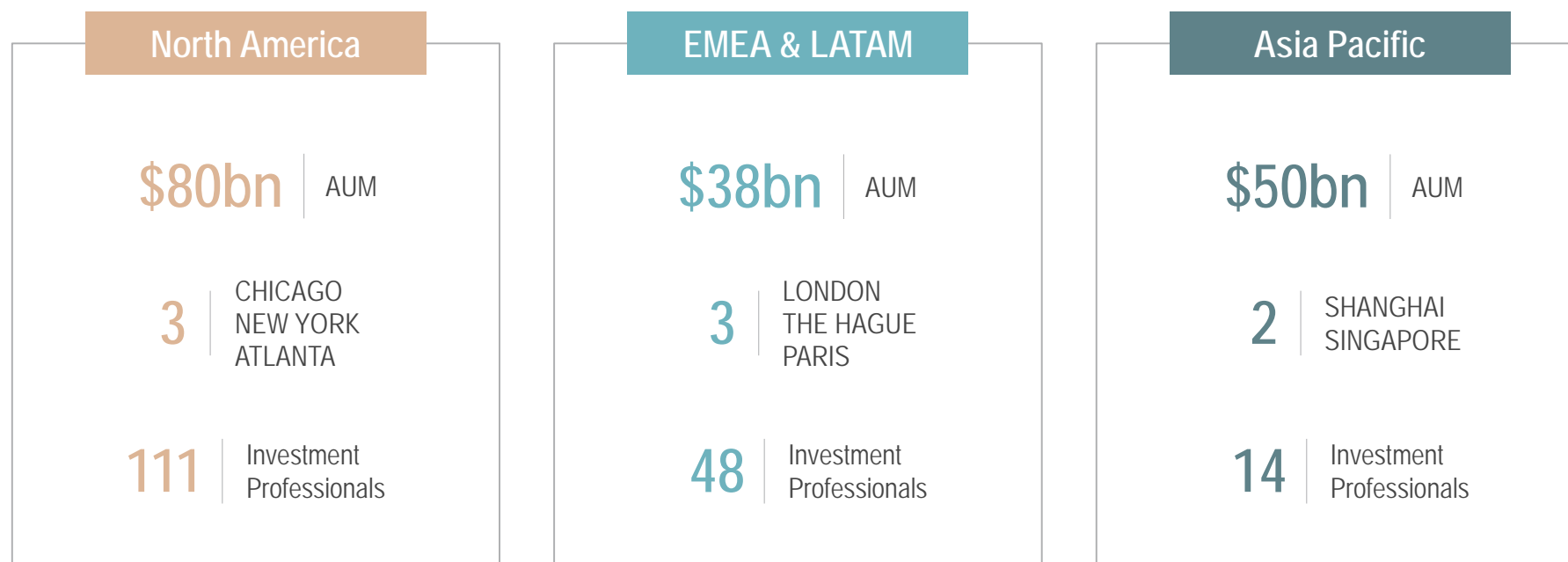
### Consistent Client Alignment

We continuously evolve to meet and anticipate client objectives such as the incorporation of ESG Investing, quantitative tools, as well as combination of investing in public and private markets.

As of September 30, 2020. This material is intended as a broad overview of the Portfolio Manager's style, philosophy and investment process and is subject to change without notice. Portfolio Manager's views may differ from that of other portfolio managers as well as the views of the firm. Information is intended to be a general overview of the process, is as of the date of this presentation, and is subject to change without notice. See Additional Disclosures at the end of this material, which are an important part of this presentation.

## A Global Fixed Income Platform

Globally integrated team managing \$168bn across all fixed income markets



**98%** | Assets Managed by Lead PMs with 20+ Years Experience

**97%** | AUM Exceeding Benchmark Returns Since Inception

Source: Neuberger Berman. As of September 30, 2020. Assets under management figures are based on client domicile. Past performance is not indicative of future results.

## Fixed Income Organization

Our global platform is comprised of over 170 investment professionals, including 76 research analysts

BRAD TANK, CIO of Fixed Income

ASHOK BHATIA, Deputy CIO

MULTI-SECTOR	INVESTMENT GRADE	NON-INVESTMENT GRADE	EMERGING MARKETS DEBT	MUNICIPALS	PRIVATE CREDIT <sup>1</sup>	
\$14bn	\$75bn	\$37bn	\$25bn	\$12bn	\$9bn	
BRAD TANK ASHOK BHATIA	THANOS BARDAS DAVE BROWN	JOE LYNCH	ROB DRIJKONINGEN GORKY URQUIETA	JAMES ISELIN		
<b>SENIOR PORTFOLIO MANAGERS</b>					<b>RESEARCH LEADERSHIP</b>	
<b>Global / US Opportunistic Strategies</b> Thanos Bardas Ashok Bhatia Dave Brown Adam Grotzinger Jon Jonsson Norman Milner  <b>Inflation / Liability Aware</b> Thanos Bardas Olumide Owolabi  <b>Insurance Solutions</b> Jason Pratt  <b>Currency</b> Ugo Lancioni	<b>Rates</b> Thanos Bardas Anthony Woodside  <b>Credit</b> Dave Brown Julian Marks Bob Summers  <b>Securitized</b> Jason Smith Tom Sontag  <b>Core/Core Plus</b> Thanos Bardas Dave Brown Adam Grotzinger Nate Kush  <b>European</b> Patrick Barbe Vito Cavaliere Yanick Loirat Antonio Serpico	<b>High Yield</b> Russ Covode Dan Doyle Chris Kocinski Joseph Lind  <b>European High Yield/Loans</b> Vivek Bommi Simon Matthews  <b>Senior Floating Rate Loans / Structured Credit</b> Stephen Casey Joe Lynch Pim van Schie  <b>European Private Loans</b> Pieter D'Hoore Philip Ortner Peer Rosenberg	<b>Hard Currency</b> Bart van der Made  <b>Local Currency</b> Raoul Luttk  <b>Corporates</b> Jennifer Gorgoll Nish Popat  <b>Asian Fixed Income</b> Prashant Singh  <b>China Fixed Income</b> Peter Ru	<b>Cash/Short Duration</b> Kristian Lind  <b>Intermediate</b> James Iselin S. Blake Miller  <b>High Income</b> James Iselin S. Blake Miller Eric Pelio	<b>Special Situations</b> Michael Holmberg John Humphrey Brendan McDermott Ravi Soni  <b>Residential Loans</b> Dmitry Gasinsky	<b>Multi-Sector</b> David Tang  <b>Investment Grade</b> Steve Flaherty  <b>Non-Investment Grade</b> Steve Ruh Rachel Young  <b>Emerging Markets Debt</b> Puay Yeong Goh Vera Kartseva Kaan Nazli  <b>Municipals</b> James Lyman

As of September 30, 2020.

Combined investment professionals of the firm and affiliated investment management entities.

<sup>1</sup> Private Credit additionally includes Private Debt, Credit Opportunities, and Specialty Finance.

Fixed Income assets under management excludes fixed income assets (\$6bn) managed by private wealth management and quantitative multi-asset class teams and includes broad mandate sleeves (\$1bn).

## Experienced and Stable Fixed Income Team

Experienced investment team leverages the depth of insights from across the NB FI platform

### Portfolio Managers



**Thanos Bardas**  
 22 Yrs of Exp.  
 22 Yrs at Firm



**Dave Brown**  
 29 Yrs of Exp.  
 27 Yrs at Firm



**Nate Kush**  
 19 Yrs of Exp.  
 19 Yrs at Firm

### Supported By Global Fixed Income Team With Over 170 Professionals



Global Investment Grade Credit	Securitized	Developed Market Sovereign Debt	Diversified Currency	Global Non-Investment Grade	Emerging Market Debt	Municipal Bonds
Lead PM (Yrs Exp.): Dave Brown (29)	Lead PM (Yrs Exp.): Tom Sontag (38)	Lead PM (Yrs Exp.): Patrick Barbe (32) & Thanos Bardas (22)	Lead PM (Yrs Exp.): Ugo Lancioni (25)	Lead PM (Yrs Exp.): Joe Lynch (24)	Lead PMs (Yrs Exp.): Rob Drijkonigen (30) & Gorky Urquieta (26)	Lead PM (Yrs Exp.): James Iselin (27)
<b>39</b>	<b>15</b>	<b>16</b>	<b>9</b>	<b>52</b>	<b>34</b>	<b>16</b>
Investment Resources	Investment Resources	Investment Resources	Investment Resources	Investment Resources	Investment Resources	Investment Resources

As of September 30, 2020.  
 Research and Trading professionals can be shared across multiple teams and may be counted more than once.



## Investment Philosophy and Process

## Core Bond Strategy Overview

A clearly defined approach with an extensive track record

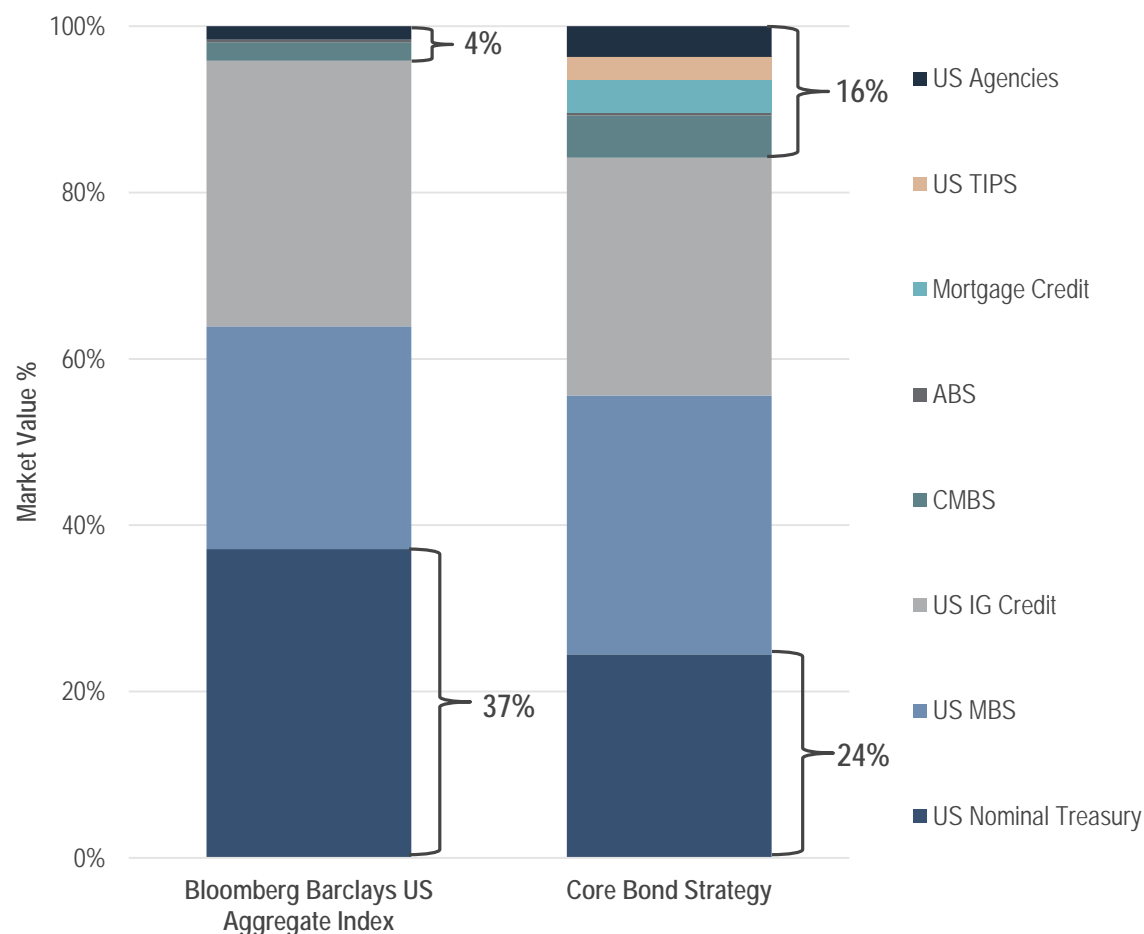
	CORE BOND
Benchmark	Bloomberg Barclays U.S. Aggregate Index
Tracking error range (Over a three to five year market cycle)	75 to 125 basis points
Volatility range (Over a three to five year market cycle)	Similar to benchmark
Investment universe	Diversified portfolio of government-related, corporate, mortgage-backed and asset-backed securities
Potential alpha sources	Primarily: sector allocation/rotation and security selection Secondly: duration/yield curve positioning Thirdly: if permitted, currency exposures
Duration flexibility	Typically +/- 1 year vs. benchmark
Credit rating focus	Investment grade rated securities
Regional focus	Domestically focused, similar to benchmark
Non-U.S. dollar exposure	None, fully hedged or limited
Other vehicles	Mutual Fund and Collective Investment Trust
Composite AUM & composite inception date	\$5,963 mm (1/1/82)

Source: Neuberger Berman. As of September 30, 2020.



## An Active Approach to Address Today's Fixed Income Markets

Our Core Bond strategy incorporates a broader scope of high quality, investment grade sectors than the index and also seeks to add value through security selection and, to a lesser extent, duration management



Research drives high conviction security selection

72

IG Corporate Issuers vs. 947 for the Benchmark

Interest rate risk is actively managed

-0.9 to +0.5 years

Active Duration vs. the Benchmark (Last 5 Years)

Source: Neuberger Berman. Data as of 9/30/20. Data shown excludes cash and net unsettled positions.

1. Historical range is for the following time period: October 2015 – September 2020.
2. Benchmark shown is the Bloomberg Barclays U.S. Aggregate Bond Index.

# Investment Process

Proven approach to building diversified and dynamic portfolios

## 1 PROPRIETARY TOOL INFORMS POTENTIAL ALLOCATIONS

Sector-Specialty Team Views  
Historical Data  
Black-Litterman Optimization

## 2 KEY DECISIONS MADE BY CORE PMs

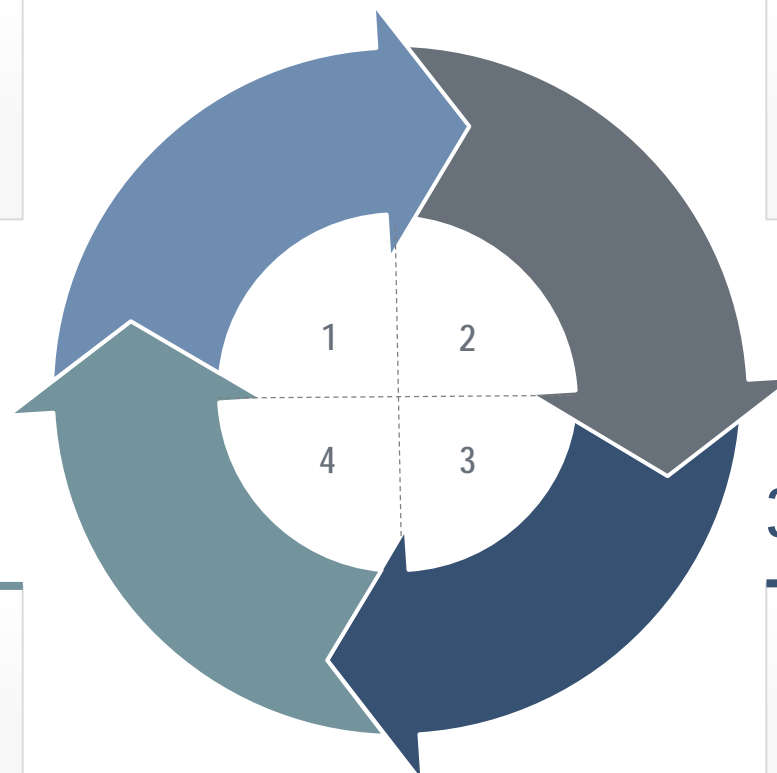
Sector Allocation / Rotation  
Duration / Yield Curve Exposure  
Risk Management & Budgeting

## 4 FIRM PROVIDES INDEPENDENT RISK OVERSIGHT

Portfolio Analysis & Risk (PAR)  
Asset Management Guideline Oversight (AMGO)

## 3 STRATEGY UTILIZES SECTOR-SPECIALTY TEAMS

Security Selection  
Sector Risk Management



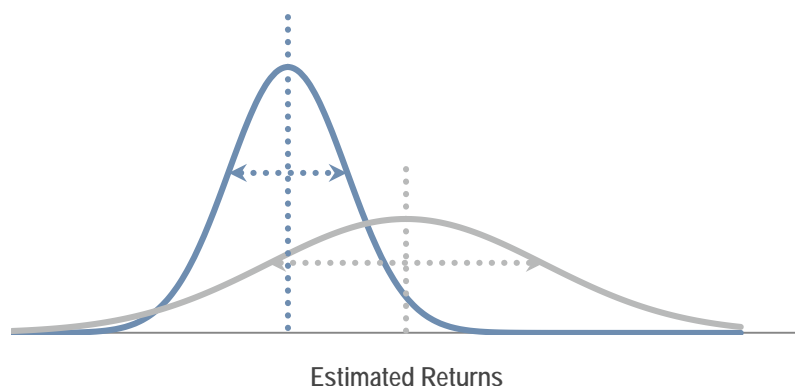
This material is provided for informational purposes only, is as of the date hereof and is subject to change without notice. Neuberger Berman advisors and portfolio managers may make recommendation or take positions contrary to the views expressed. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed.



## Proprietary Asset Allocation Tool: Sector-Specialty Views & Optimization

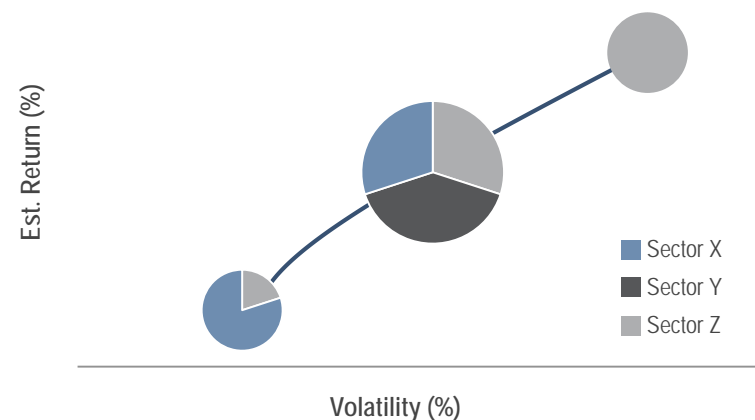
Sector-specialty portfolio managers provide forward-looking views for their sectors which are used as key inputs for a proprietary portfolio optimization tool

Sector-specialty PMs estimate sector returns under various scenarios and assign probabilities to those outcomes



- Estimated returns and probabilities are used to create an estimated return and confidence level for each sector
- A key metric measured is view uncertainty, i.e. expected risk
- Scenarios vary across sectors, reflecting that different factors drive different sector returns (economic growth, inflation, prepayment speeds, etc.)
- Process is designed to account for both probable and extreme outcomes, i.e. tail risks

Proprietary optimization tool generates potential allocations, and Core PMs overlay judgement to finalize positioning



- Combined with correlation matrices and return distributions for historical time periods, sector-specialty team views are inputs for a portfolio optimization which generates potential allocations
- We believe this process serves as a disciplined approach to comparing relative value across disparate sectors and aims to minimize tail risk
- Optimization results are a key consideration, but Core PMs ultimately decide the final portfolio allocation

**Estimates may not materialize.** This material is intended as a broad overview of the Portfolio Manager's style, philosophy and investment process and is subject to change without notice. Portfolio Manager's views may differ from that of other portfolio managers as well as the views of the firm. See Additional Disclosures at the end of this material, which are an important part of this presentation.



## Global Investment Grade Credit: Sector Investment Process

We believe consistently attractive returns are the result of a focus on practical research, managing tail risk and capitalizing on mispricings

### Deep and Experienced Team

**39** total investment resources primarily in Chicago & London

**24** years average experience for lead Portfolio Managers

**14** years average experience at Neuberger Berman for lead PM's

### "Credit Best Practices" Checklist

#### Top-down Analysis



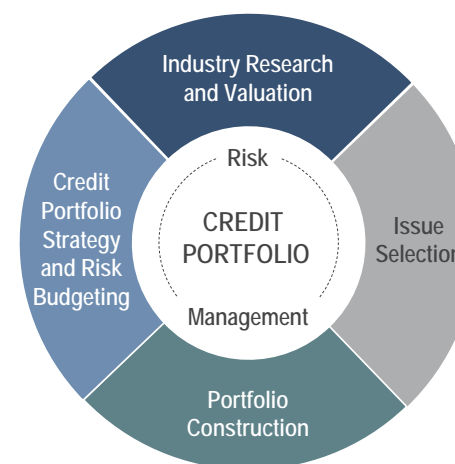
#### Bottom-up Analysis



### Keys to Success

- Disciplined investment process that combines qualitative and quantitative analysis
- Risk management is central to our philosophy
- Internally generated practical and insightful research
- Highly diversified portfolios seek to minimize individual issuer credit risk

### Five Components to Construct Credit Portfolios



Data as of September 30, 2020.

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# Securitized Products: Sector Investment Process

Loan level collateral performance forecasting is the foundation of fundamental analysis

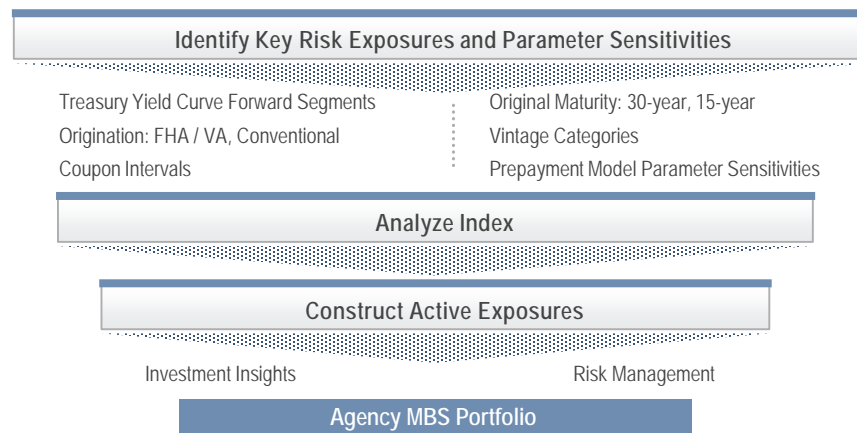
## Deep and Experienced Team

**15** total investment resources in Chicago & London

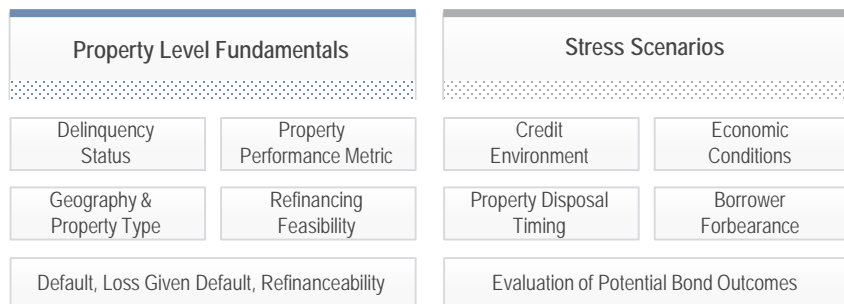
**33** years average experience for lead Portfolio Managers

**22** years average experience at Neuberger Berman for lead PM's

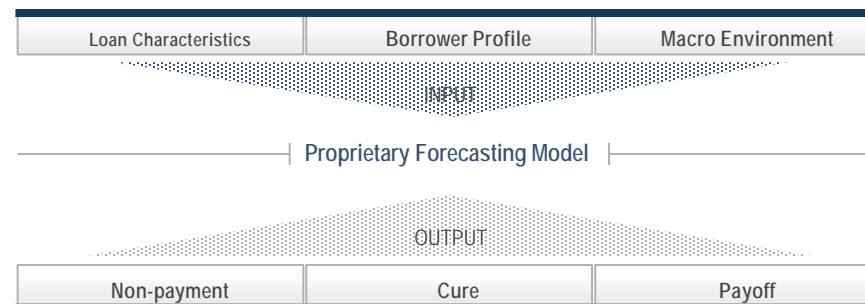
## Agency MBS Portfolio Construction Process



## CMBS Analytical Framework



## Loan Level Non-Agency RMBS Model



Data as of September 30, 2020.

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# Developed Market Sovereign Debt: Sector Investment Process

Approach incorporates views and signals across three horizons – strategic, tactical and short term

## Deep and Experienced Team

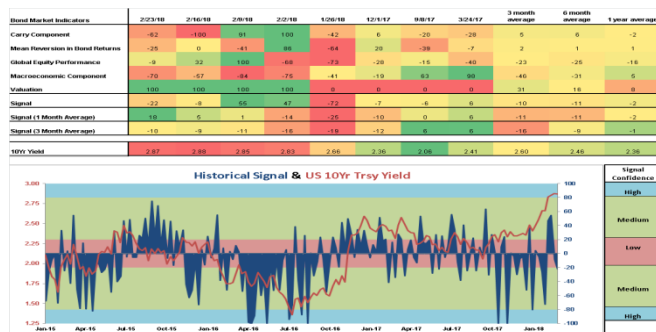
**16** total investment resources in Chicago & London

**27** years average experience for lead Portfolio Managers

**14** years average experience at Neuberger Berman for lead PM's

## Tactical: Intermediate Term Horizon

- Cross-market signals, such as momentum indicators, used to evaluate directional trends in rates and inflation

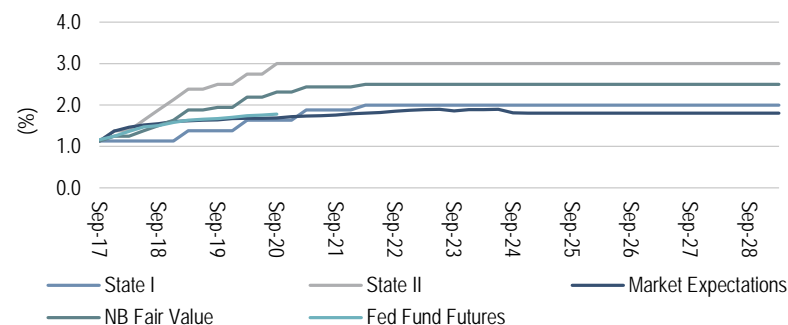


Data as of September 30, 2020.

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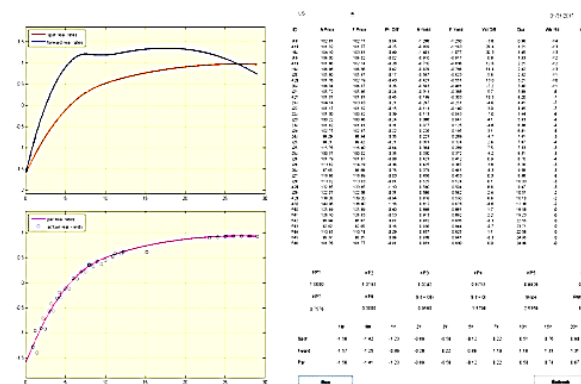
## Strategic: Twelve to Eighteen Month Horizon

- Outlook for monetary policy and the expected path of inflation



## Short Term Horizon

- Security selection seeks to capture short term, idiosyncratic dislocations





# ESG Investment Process Emphasizes Identifying Financially Material ESG Factors

Research teams leverage proprietary in-house research tools to develop a data-driven, differentiated view



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# Develop Forward-Looking Views On What We Believe Are Financially Material ESG Factors by Industry

## Proprietary NB industry materiality matrix enhances company ESG analysis

- Guides ESG investment analysis and engagement in a consistent and comparable way, accommodating real-time insights from sector experts
- Application to asset classes and investment strategies with limited research coverage, including private markets

Factor	Environmental		Social		Workforce		Supply Chain		Leadership & Governance	
	Emissions	Water Management	Data Privacy & Security	Pricing Transparency	Health & Safety	Human Capital Development	Product Safety & Integrity	Materials Sourcing	Innovation	Policy & Regulation Risk
Consumer Goods										
Extractives & Mineral Processing										
Financials										
Food & Beverage										
Health Care										
Infrastructure										
Renewable Resources										
Resource Transformation										
Services										
Technology & Communication										
Transportation										

SECTORS

### Legend

Likely to be Material

Unlikely to be Material

Source: Neuberger Berman Materiality, As of May 12, 2020.

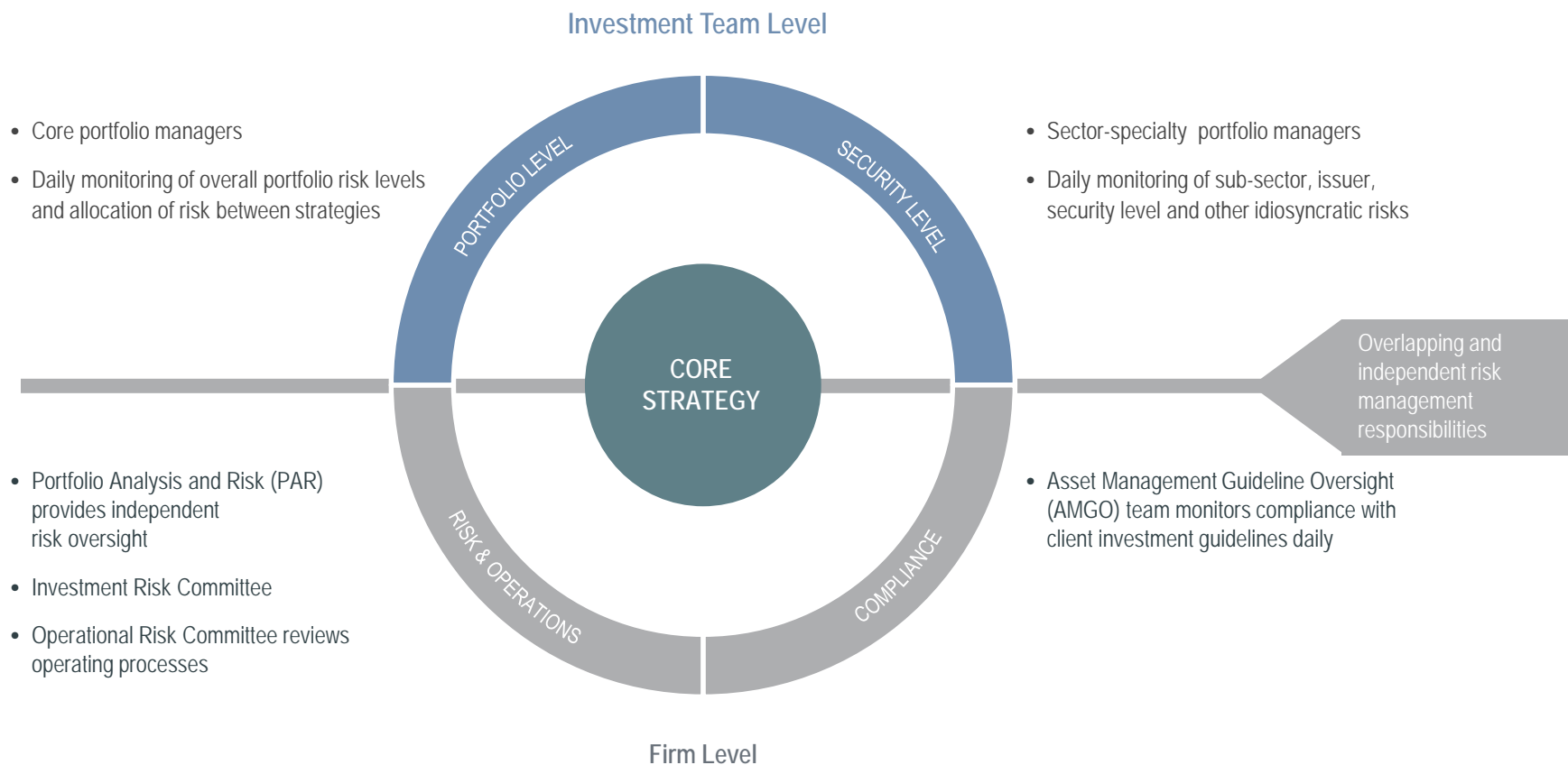
Materiality Matrix is as of the date indicated and subject to change without notice. This material is intended as a broad overview of the portfolio managers' style, philosophy and process and is subject to change without notice. Please note ESG integration is only one input in the credit analysis and is not solely determinative of whether an asset will be purchased.. See Additional Disclosures at the end of this piece, which are an important part of this presentation.





# Risk Management

Multi layered approach – security level, portfolio construction and independent oversight



This material is intended as a broad overview of the portfolio managers' style, philosophy and investment process and is subject to change without notice.

## Keys to Core Bond Management Success

REQUIREMENT	RATIONALE		OUR ADVANTAGE
Extensive Resources	Needed to cover complex and dynamic markets	➤	170+ Member Fixed Income Team
Global Perspective	As markets and economies are increasingly interconnected	➤	Integrated investment platform with presence in the US, Europe and Asia
Asset Allocation Expertise	To navigate changing market environments	➤	A well-defined and time tested process
Deep Fundamental Research	Key to uncovering market mispricings and generating alpha	➤	Sector specialty teams of dedicated experts
Focus on Risk Management	To understand downside and meet client objectives	➤	Multi-layered risk management approach with independent oversight
A Trusted Partnership	Performance is critical, but clients require more from their managers	➤	Direct access to portfolio managers, their unique insights and knowledge sharing

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Portfolio Review

## Investment Performance

As of September 30, 2020

Total Return Summary					
Periods Ending September 30, 2020	Los Angeles City Employees' Retirement System (Gross of Fees) <sup>1</sup>	Los Angeles City Employees' Retirement System (Net of Fees) <sup>1</sup>	Bloomberg Barclays U.S. Custom Index <sup>2</sup>	Difference (Gross of Fees)	Difference (Net of Fees)
Third Quarter 2020	0.81%	0.77%	0.62%	+0.19%	+0.15%
Year to Date 2020	7.81%	7.69%	6.79%	+1.02%	+0.90%
One Year	8.11%	7.95%	6.98%	+1.13%	+0.97%
Three Years	5.67%	5.51%	5.24%	+0.43%	+0.27%
Five Years	4.65%	4.49%	4.18%	+0.47%	+0.31%
Seven Years	4.33%	4.18%	3.97%	+0.36%	+0.21%
Ten Years	4.45%	4.32%	3.77%	+0.68%	+0.55%
Since Inception (11/01/1990 - 09/30/2020)	6.85%	6.77%	6.11%	+0.74%	+0.66%

1. Preliminary returns; not yet reconciled. Gross returns do not reflect the deduction of advisory fees and other expenses, which will reduce returns. This supplemental report is provided for informational purposes only; please refer to your account statement(s) or other statement provided by your custodian for the official records of your account(s). Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.

2. Returns reflect the Barclays Government/Credit Index from inception to 10/1/97; the Barclays Aggregate Index from 10/1/97 – 6/30/00; the Barclays Universal Index from 7/1/00 to 6/30/13 and the Bloomberg Barclays Aggregate Index 7/1/13 forward.

## Performance Attribution

As of September 30, 2020

Year to Date Return Attribution				
	Jan - Mar 2020	Apr - Jun 2020	Jul - Sep 2020	YTD 2020
U.S. Rates	+19	+14	+1	+36
Non-U.S. DM & EM Sovereign	+0	0	+0	+0
TIPS	-31	+10	+5	-16
IG Credit	+1	+95	-4	+93
Security Selection	-33	+86	-1	+52
Sector Allocation	+33	+9	-3	+40
Agency MBS	-19	+10	+4	-6
Non-Agency MBS	-37	+30	+3	-4
ABS/CMBS	-34	+24	+9	-1
<b>Total</b>	<b>-102</b>	<b>+182</b>	<b>+19</b>	<b>+102</b>

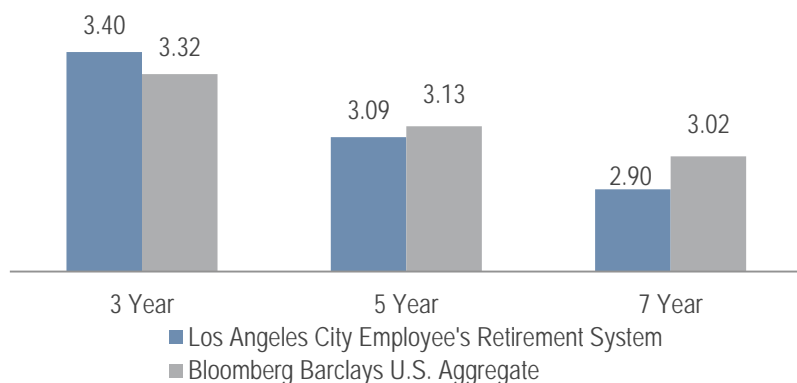
Historical Return Attribution					
	2019	2018	2017	2016	2015
U.S. Rates	-15	+54	-5	-7	-1
Non-U.S. DM & EM Sovereign	-3	-84	+6	-16	+1
TIPS	+4	-4	+5	+32	-15
IG Credit	+57	-7	+9	+56	+23
Security Selection	+59	-12	+12	+62	+25
Sector Allocation	-3	+4	-3	-6	-2
Agency MBS	+9	-10	+1	-7	+8
Non-Agency MBS	+1	0	+2	+1	+1
ABS/CMBS	+15	-1	+12	+10	+1
<b>Total</b>	<b>+68</b>	<b>-52</b>	<b>+30</b>	<b>+69</b>	<b>+18</b>

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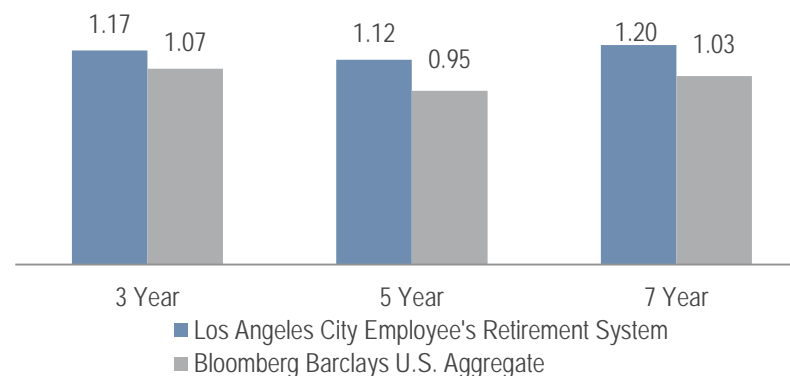
## Historical Risk

As of September 30, 2020

### Standard Deviation %



### Sharpe Ratio



### Tracking Error (%)



### Information Ratio



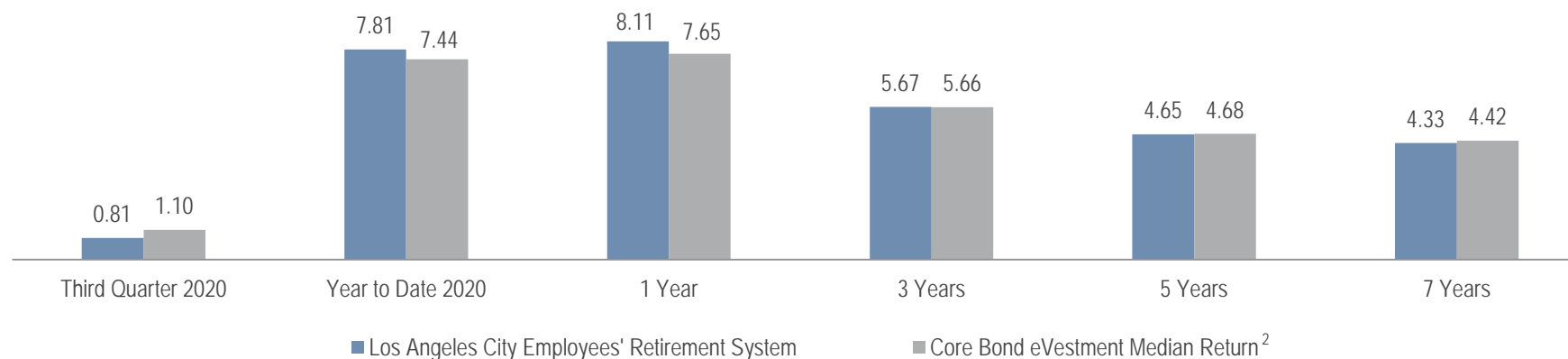
Source: Neuberger Berman.

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## Investment Performance vs. Peer Group

As of September 30, 2020

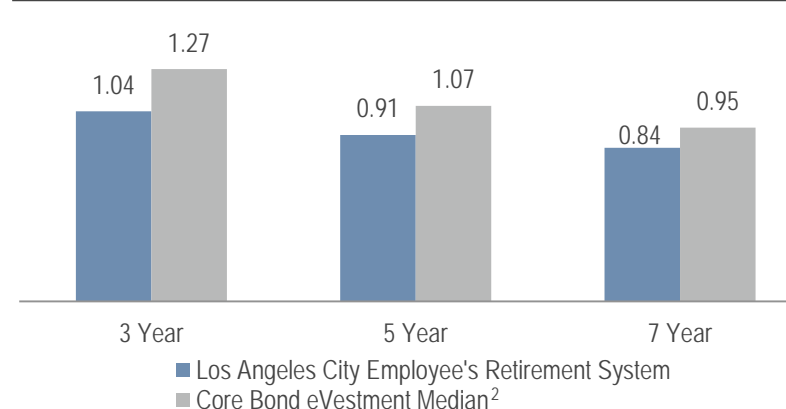
### Annualized Rates of Return (% , Gross of Fees)<sup>1</sup>



### Standard Deviation %



### Tracking Error (%)



1. Preliminary returns; not yet reconciled. Gross returns do not reflect the deduction of advisory fees and other expenses, which will reduce returns. This supplemental report is provided for informational purposes only; please refer to your account statement(s) or other statement provided by your custodian for the official records of your account(s). Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.

2. Core Bond eVestment Median Returns represent the median manager return values for all funds within eVestment's Core Bond universe.

## LACERS Manager Monitoring Policy

### Quantitative Factors

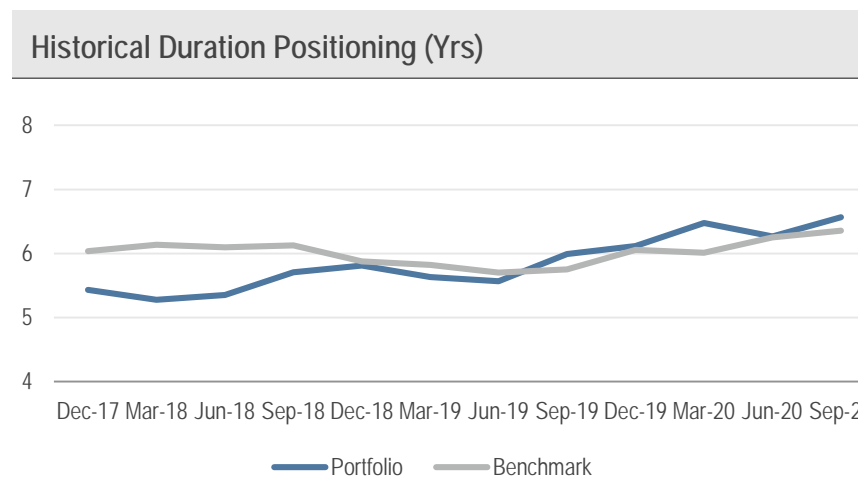
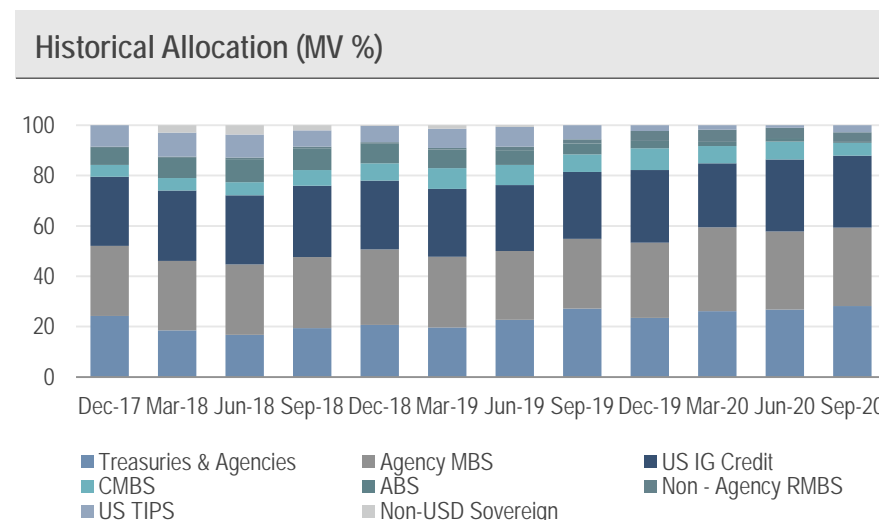
Factor	Trigger	Date	Actual
Annualized <u>net</u> performance relative to its benchmark for trailing <u>3-years</u>	Underperforms (net of fees) in 8 of 12 previous quarters	9/30/2020	Underperformed (net of fees) in 4 of 12 previous quarters
Annualized <u>net</u> performance relative to its benchmark for trailing <u>5-years</u>	Underperforms (net of fees)	12/31/2019	+0.10%
		3/31/2020	-0.10%
		6/30/2020	+0.22%
		9/30/2020	+0.31%
Moving average tracking error (TE) for <u>3 years</u>	Greater than two standard deviations from 'Since Inception' mean TE	9/30/2020	< 2 standard deviations
Moving average tracking error (TE) for <u>5 years</u>	Greater than two standard deviations from 'Since Inception' mean TE	9/30/2020	< 2 standard deviations
Moving average <u>net</u> Information Ratio for trailing <u>5-years</u>	Falls below 0.20 AND failing another quantitative factor	9/30/2020	+0.35

1. Preliminary returns; not yet reconciled.



## Positioning Themes

Key Exposure								
Interest Rate Positioning	Active Exposure	Duration		Yield Curve		U.S. TIPS		
		+0.2 yrs	0-3 Yr 0.0	5-10 Yr +0.1	15+ Yr +0.2	+3.1%	+0.4 yrs	
Securitized	Active Market Value	CMBS +3.5%		Mortgage Credit +4.4%		Agency MBS +7.9%		
		AAA +2.6%	AA +0.9%	CRTs +2.6%	Non-Agency +1.8%	Pools/TBAs +6.2%	IOs +1.6%	
Corporate Credit	Active Market Value	Total +4.5%	Banking +1.4%		Midstream +1.4%		Technology +1.3%	
			JPM +0.8%	MS +0.7%	STT +0.6%	ETP +0.7%	MPLX +0.7%	EPD +0.2%



Data as of September 30, 2020. Source: Neuberger Berman.

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## Portfolio Characteristics

As of September 30, 2020

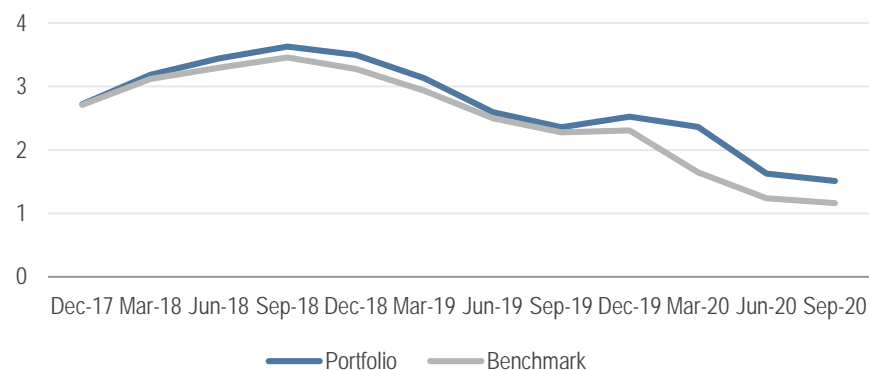
### Portfolio Statistics

	Los Angeles City Employees' Retirement System	Bloomberg Barclays U.S. Aggregate
Duration (yrs)	6.57	6.36
Spread Duration (yrs)	4.75	3.81
Yield to Worst (%)	1.51	1.16
OAS (bps)	85	59
S&P Rating	AA-	AA-
Corporate Issuers	72	947

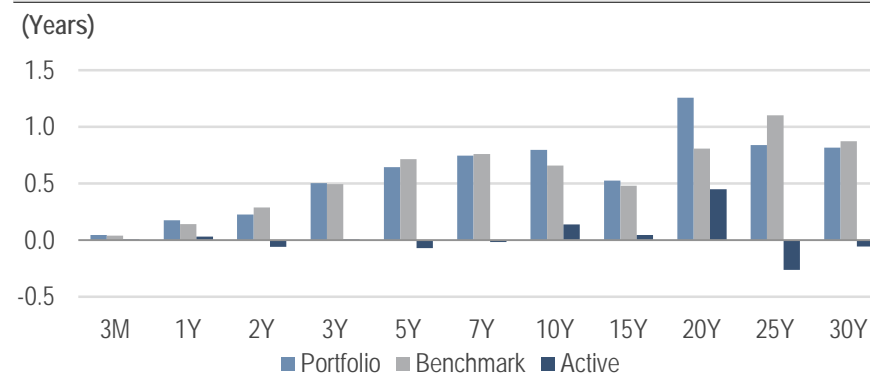
### Portfolio Credit Ratings<sup>1</sup>

(%)	Los Angeles City Employees' Retirement System	Bloomberg Barclays U.S. Aggregate
AAA or Above	67.92	69.91
AA Rated	4.10	3.15
A Rated	9.28	12.19
BBB	18.33	14.48
BB Rated and Below	0.25	0.00
Not Rated	0.12	0.28
Cash / Cash Equivalents	0.00	0.00
<b>Total</b>	<b>100.00</b>	<b>100.00</b>

### Historical Yield to Worst (%)



### Key Rate Duration Contribution



1. Bloomberg Barclays methodology based on the conservative average of Moody's, S&P, and Fitch expressed in S&P's nomenclature. If Moody's, S&P and Fitch all provide a credit rating, the Index Rating is the median of the three agency ratings. If only two agencies provide ratings, the Index Rating is the more conservative rating. If only one agency provides a rating, the Index Rating reflects that agency's rating.

Source: Aladdin. Portfolio characteristics are as of the date indicated and subject to change without notice. Components are rounded to 2 decimal places and may incorporate immaterial rounding differences as a result. This is provided for informational purposes only. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.



## Fixed Income Market Outlook

## Sector Outlook – Our Views and Comments

Asset Class	Our View	Comments
Interest Rates	=	Front end rates stay pinned; path of inflation will determine long end dynamics
Inflation-Linked	+	Extraordinarily accommodative policy backdrop should lift inflation expectations, particularly in the U.S.
Investment Grade Credit	+	Record supply post-COVID shock gives way to light issuance calendar; focus on industry and issuer specific opportunities
Agency MBS	+	Central bank purchases, heightened need for high-quality spread and increased Treasury issuance are constructive for MBS; prepayment risk remains
Credit Risk Transfers	+	Various housing indicators near post-GFC highs signal strength in the housing market; we prefer more seasoned vintages for their superior fundamentals

As of October 14, 2020 and subject to change without notice. Estimates may not materialize. This material is intended as a broad overview of the Portfolio Manager's views and is subject to change without notice. Portfolio Manager's views may differ from that of other portfolio managers as well as the views of the firm. See Additional Disclosures at the end of this material, which are an important part of this presentation. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed.



Appendices

## Detailed Asset Allocation

As of September 30, 2020

	Market Value %				Duration Contribution				Spread Duration Contribution			
	Portfolio	Benchmark	Active	3M Δ Active	Portfolio	Benchmark	Active	3M Δ Active	Portfolio	Benchmark	Active	3M Δ Active
Government Related	34.37	38.71	-4.34	4.25	2.39	2.78	-0.39	-0.05	0.12	0.06	0.06	0.02
Agencies	4.09	1.60	2.49	3.17	0.12	0.06	0.06	0.02	0.12	0.06	0.06	0.02
Treasuries	30.28	37.11	-6.83	1.08	2.27	2.72	-0.45	-0.07	-	-	-	-
US Treasury Bullets	27.21	37.11	-9.91	-0.84	2.19	2.72	-0.53	-0.25	-	-	-	-
US Treasury TIPS	3.07	-	3.07	1.92	0.43	-	0.43	0.19	-	-	-	-
Treasury Futures	-	-	-	-	-0.35	-	-0.35	-0.01	-	-	-	-
Global Treasuries	-	-	-	-	-0.00	-	-0.00	0.00	-	-	-	-
Securitized	45.04	29.30	15.74	-1.74	1.13	0.83	0.30	0.04	1.71	1.11	0.59	-0.00
Credit Risk Transfer	2.60	-	2.60	0.23	0.00	-	0.00	-0.00	0.08	-	0.08	0.03
ABS	0.40	0.34	0.06	-1.08	0.00	0.01	-0.01	-0.00	0.00	0.01	-0.00	-0.02
Non - Agency RMBS	1.75	-	1.75	-0.22	0.02	-	0.02	-0.04	0.03	-	0.03	-0.04
US MBS	34.63	26.76	7.87	1.29	0.87	0.70	0.17	0.21	1.36	0.99	0.37	0.16
CMBS	5.66	2.19	3.46	-1.96	0.23	0.12	0.11	-0.13	0.23	0.11	0.11	-0.13
Investment Grade Credit	31.80	31.96	-0.16	1.04	3.05	2.74	0.31	0.20	2.92	2.64	0.28	0.19
Corporate	31.80	27.30	4.50	1.11	3.05	2.42	0.63	0.21	2.92	2.33	0.59	0.19
Financial	8.58	8.29	0.29	-0.19	0.52	0.56	-0.03	-0.02	0.51	0.54	-0.03	-0.02
Industrial	21.78	16.79	4.99	1.51	2.33	1.61	0.72	0.26	2.22	1.54	0.68	0.24
Utilities	1.44	2.23	-0.79	-0.22	0.19	0.25	-0.06	-0.03	0.18	0.24	-0.06	-0.03
Non-Corporate	-	4.65	-4.65	-0.06	-	0.32	-0.32	-0.01	-	0.31	-0.31	-0.01
High Yield	-	0.03	-0.03	-0.03	-	0.00	-0.00	-0.00	-	0.00	-0.00	-0.00
Net Unsettled Positions	-11.21	-	-11.21	-3.52	-0.00	-	-0.00	-0.00	-	-	-	-
Cash / Cash Equivalents	-	-	-	-0.01	-	-	-	-	-	-	-	-
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>0.00</b>	<b>0.00</b>	<b>6.57</b>	<b>6.36</b>	<b>0.21</b>	<b>0.19</b>	<b>4.75</b>	<b>3.81</b>	<b>0.93</b>	<b>0.20</b>

Source: Aladdin.

This supplemental report is provided for informational purposes only; please refer to your account statement or other statement provided by your custodian for the official records of your account(s). This review contains information supplied by third parties, including but not limited to the client. This report is based upon information that we consider reliable, but we do not represent that it is accurate or complete, and it should not be relied upon as such. It does not constitute an official record.

## Detailed Credit Exposure

As of September 30, 2020

### Top 10 / Bottom 10 Sectors by Active Duration Contribution (yrs)

	Duration Contribution			Active Market Value (%)
	Los Angeles City Employees' Retirement System	Bloomberg Barclays U.S. Aggregate Index	Difference	
<b>Top 10</b>				
Technology	0.40	0.22	0.18	1.28
Cable/Media	0.29	0.12	0.17	1.15
Telecom	0.32	0.15	0.17	0.84
Midstream	0.25	0.08	0.16	1.36
Integrated	0.18	0.06	0.12	0.86
Food and Beverage	0.20	0.11	0.09	0.22
Manufacturing/Machinery	0.14	0.07	0.07	0.42
Tobacco	0.09	0.03	0.06	0.57
Banking	0.38	0.34	0.04	1.40
Pharmaceuticals	0.20	0.17	0.04	0.36
<b>Bottom 10</b>				
Non-Corporate	0.00	0.32	-0.32	-4.68
Railroads	0.00	0.05	-0.05	-0.41
Consumer Cyclical Service	0.00	0.05	-0.05	-0.48
Utility	0.19	0.23	-0.04	-0.63
Retailers	0.04	0.08	-0.04	0.40
Chemicals	0.00	0.04	-0.04	-0.41
Health Insurance	0.00	0.04	-0.04	-0.34
Insurance	0.05	0.09	-0.04	-0.61
Healthcare	0.09	0.12	-0.03	0.29
Metals and Mining	0.00	0.02	-0.02	-0.24

### Top 25 Issuers by Active Duration Contribution (yrs)

	Duration Contribution			Active Market Value (%)
	Los Angeles City Employees' Retirement System	Bloomberg Barclays U.S. Aggregate Index	Difference	
AT&T Inc.	0.22	0.06	0.16	0.66
Anheuser-Busch Inbev	0.13	0.04	0.09	0.49
Exxon Mobil Corp.	0.10	0.02	0.09	0.48
General Electric Capital	0.11	0.02	0.09	0.55
T-Mobile USA Inc.	0.09	0.01	0.08	0.82
BAT Int'l Finance Plc	0.09	0.01	0.08	0.77
Fiserv Inc.	0.08	0.01	0.08	0.57
MPLX LP	0.08	0.01	0.07	0.66
Oracle Corp.	0.10	0.03	0.07	0.18
Broadcom Limited	0.08	0.01	0.07	1.01
Fox Corp.	0.07	0.00	0.07	0.38
Apple Inc.	0.10	0.03	0.07	0.20
Energy Transfer Partners	0.07	0.01	0.06	0.75
Gilead Sciences Inc.	0.07	0.01	0.06	0.40
Charter Communications	0.07	0.02	0.05	0.45
Comcast Corporation	0.10	0.05	0.05	0.54
Morgan Stanley	0.07	0.02	0.05	0.73
Coca-Cola Co.	0.06	0.01	0.05	0.27
Berkshire Hathaway Inc.	0.05	0.01	0.04	0.21
Pacific Gas & Electric Co	0.05	0.01	0.04	0.19
Abbvie Inc.	0.07	0.03	0.04	0.74
Cigna Corp.	0.05	0.01	0.04	0.87
Enterprise Products	0.05	0.01	0.04	0.18
Volkswagen Group Of America	0.04	0.00	0.04	0.60
Chevron Corp.	0.04	0.01	0.03	0.27

Source: Aladdin.

This supplemental report is provided for informational purposes only; please refer to your account statement or other statement provided by your custodian for the official records of your account(s). This review contains information supplied by third parties, including but not limited to the client. This report is based upon information that we consider reliable, but we do not represent that it is accurate or complete, and it should not be relied upon as such. It does not constitute an official record.

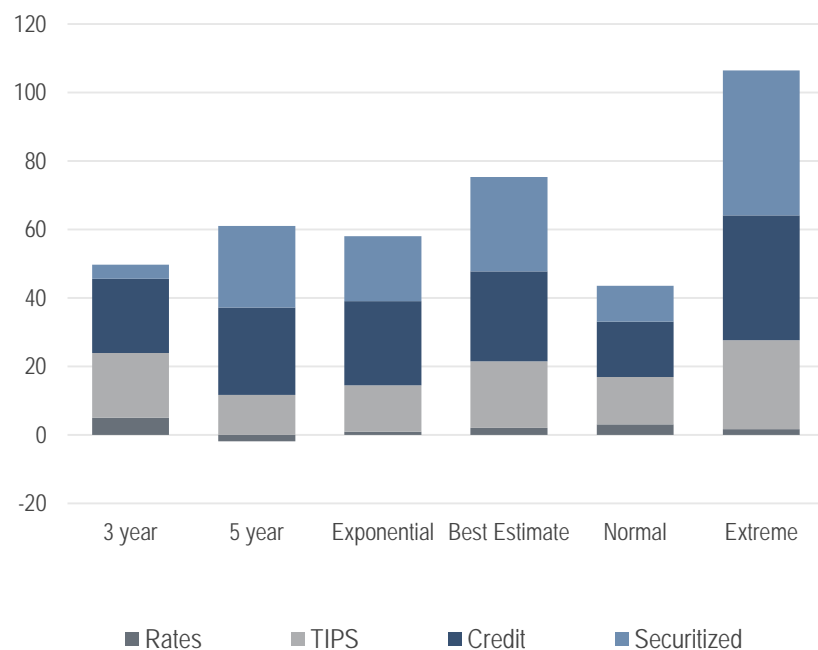
# Risk Management Snapshot

Multi-faceted risk management with a focus on tail events

## Proprietary Risk Model

- Proprietary model used to evaluate tracking error, VaR and CVaR across various historical time horizons and under different market environments

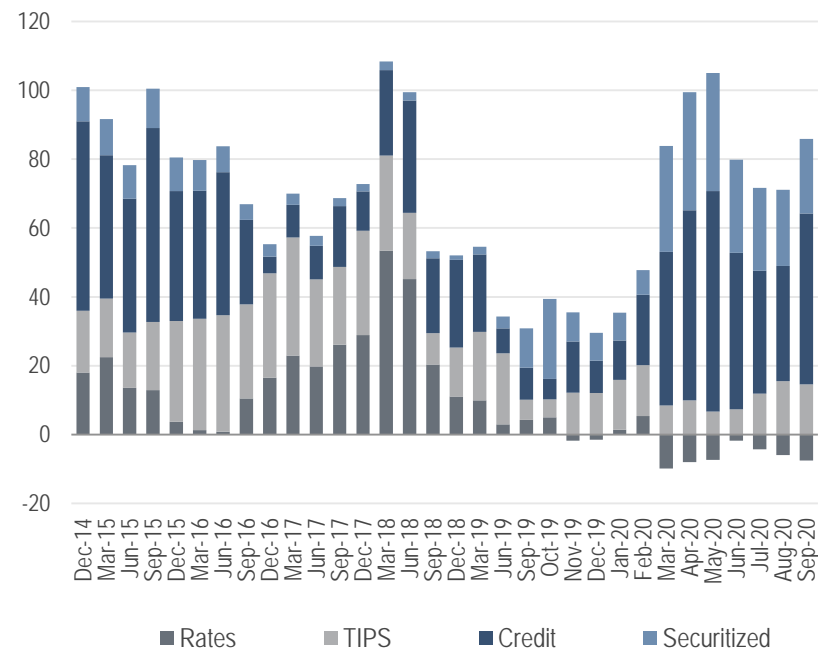
Tracking Error  
(bp / annum)



## Aladdin Risk Model

- Third-party system used as a supplementary method for monitoring risk, including tracking error and scenario analysis

Tracking Error  
(bp / annum)



Source: Neuberger Berman. As of September 30, 2020.





Biographies

## Biographies

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### PORTFOLIO MANAGEMENT TEAM



Brad C. Tank, Managing Director, joined the firm in 2002 and is the Chief Investment Officer and Global Head of Fixed Income. He is a member of Neuberger Berman's Operating, Investment Risk, Asset Allocation Committees and Fixed Income's Investment Strategy Committee, and leads the Fixed Income Multi-Sector Group. From inception in 2008 through 2015, Brad was also Chief Investment Officer of Neuberger Berman's Multi-Asset Class Investment business and remains an important member of that team along with the firm's other CIOs. From 1990 to 2002, Brad was director of fixed income for Strong Capital Management in Wisconsin. He was also a member of the Office of the CEO and headed institutional and intermediary distribution. In 1997, Brad was named "Runner Up" for Morningstar Mutual Fund Manager of the Year. From 1982 to 1990, he was a vice president at Salomon Brothers in the government, mortgage and financial institutions areas. Brad earned a BBA and an MBA from the University of Wisconsin.



David M. Brown, CFA, Managing Director, rejoined the firm in 2003. Dave is Global Co-Head of Investment Grade and acts as Senior Portfolio Manager on both Global Investment Grade and Multi-Sector Fixed Income strategies. He is a member of the Fixed Income Investment Strategy Committee and the Fixed Income Multi-Sector Group. Dave also leads the Investment Grade Credit team in determining credit exposures across both Global Investment Grade and Multi-Sector Fixed Income strategies. Dave initially joined the firm in 1991 after graduating from the University of Notre Dame with a BA in Government and subsequently received his MBA in Finance from Northwestern University. Prior to his return, he was a senior credit analyst at Zurich Scudder Investments and later a credit analyst and portfolio manager at Deerfield Capital. Dave has been awarded the Chartered Financial Analyst designation.



Nathan Kush, Managing Director, joined the firm in 2001. Nathan is a Portfolio Manager for the firm's Global Investment Grade strategies. Additionally, he is involved in investment grade credit research and, previously, covered the banking, brokerage, finance, insurance and REIT sectors. Before joining the investment grade team, he spent three years in Debt Capital Markets in the Investment Banking Division of Lehman Brothers. Nathan earned a BS in Finance and Accounting from Tulane University and an MBA from the University of Chicago.

## Biographies

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### RELATIONSHIP MANAGEMENT TEAM



Paul Sauer, CFA, Managing Director, joined the firm in 2013. Paul is a Client Advisor who is responsible for West Coast Public Institutions as part of the North American Client Coverage Team. Prior to joining Neuberger Berman, Paul was a managing director and head of BlackRock's Endowment and Foundation institutional sales team, and began his financial services career at Goldman Sachs and Credit Suisse in the Equities Division. Paul also served 10 years in the US Navy as a Flight Officer deploying to Southwest Asia. Paul earned a BS from California State University at Northridge, an MBA from USC's Marshall School of Business, and has been awarded the Chartered Financial Analyst designation.



Jennifer Laird, CAIA, Senior Vice President, joined the firm in 2006. Jennifer is a Client Service Manager who leads the North American institutional client service team. Prior to joining the firm, she held various positions at ABN AMRO Asset Management specifically as a client service associate and a portfolio operations analyst. Jennifer received a BS in Finance from the University of Illinois at Urbana-Champaign and an MBA in Finance from DePaul University. In addition, Jennifer has obtained the Chartered Alternative Investment Analyst designation.

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## Additional Disclosures and Index Definitions

## Core Composite (Inception 1/1/1982)

### Investment Performance Results – As of September 30, 2020

	Composite		Benchmark	Composite					3 Year Standard Deviation	
	Total Return (%, Gross of Fees)	Total Return (%, Net of Fees)	Bloomberg Barclays U.S. Aggregate Index (%)	No. of Accounts	Market Value (\$, m)	Total Firm Assets (\$, bn)	% of Firm Assets	Internal Dispersion	Composite (%)	Bloomberg Barclays U.S. Aggregate Index (%)
YTD Sep-2020	8.05	7.91	6.79	17	5,963.5	--	--	--	3.70	3.32
2019	9.81	9.60	8.72	15	5,193.8	355.8	1.46	0.27	2.66	2.87
2018	-0.31	-0.51	0.01	16	5,336.9	304.1	1.75	0.32	2.53	2.84
2017	4.22	4.03	3.54	17	5,453.6	295.2	1.85	0.32	2.41	2.78
2016	3.48	3.30	2.65	15	5,835.3	255.2	2.29	0.32	2.63	2.98
2015	0.55	0.37	0.55	19	7,133.1	240.4	2.97	0.17	2.75	2.88
2014	5.84	5.67	5.97	18	7,802.3	250.0	3.12	0.13	2.74	2.63
2013	-1.68	-1.82	-2.02	17	7,054.7	241.7	2.92	0.34	2.89	2.71
2012	6.22	6.08	4.21	18	7,926.4	205.0	3.87	0.84	2.47	2.38
2011	6.90	6.76	7.84	19	9,154.3	193.1	4.74	0.32	3.73	2.78
2010	9.25	9.13	6.54	15	6,026.2	80.1	7.53	0.90	5.47	4.17

Past performance is no guarantee of future results.  
Please see attached important disclosures which contain complete performance information and definitions.

## Core Composite

### Investment Performance Disclosure Statement

#### Compliance Statement

- Neuberger Berman Group LLC ("NB", "Neuberger Berman" or the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS® standards. Neuberger Berman has been independently verified for the period January 1, 2011 to December 31, 2019. 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 NB Core composite has been examined for the periods January 1, 1996 to December 31, 2019. The verification and performance examination reports are available upon request.
- The GIPS® firm definition was redefined effective January 1, 2011. For prior periods there were two separate firms for GIPS® firm definition purposes and such firms were independently verified for the periods January 1, 1997 to December 31, 2010 and January 1, 1996 to December 31, 2010, respectively.

#### Definition of the Firm

- The firm is currently defined for GIPS® purposes as Neuberger Berman Group LLC, ("NB", "Neuberger Berman" or the "Firm"), and includes the following subsidiaries and affiliates: Neuberger Berman Investment Advisers LLC, Neuberger Berman Europe Ltd., Neuberger Berman Asia Ltd., Neuberger Berman East Asia Ltd., Neuberger Berman Singapore Pte. Ltd., Neuberger Berman Taiwan Ltd, Neuberger Berman Australia Pty. Ltd., Neuberger Berman Trust Company N.A., Neuberger Berman Trust Company of Delaware N.A., NB Alternatives Advisers LLC Neuberger Berman Breton Hill ULC, Neuberger Berman Loan Advisers LLC and Neuberger Berman Loan Advisers II LLC.

#### Policies

- Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

#### Composite Description

- The Core Composite (the "Composite") includes the performance of all fee-paying Core portfolios, with no minimum investment, managed on a fully discretionary basis by the Investment Grade Fixed Income team. The Core strategy is designed for investors who seek returns from a portfolio that has broad discretion to invest in investment grade taxable bonds. The emphasis is on bond selection, sector rotation, and duration/yield curve positioning. The Core strategy may use futures on an infrequent basis for hedging purposes. The Composite creation date is December 2004 and performance inception date is January 1982. A complete list of Neuberger Berman's composites is available upon request.

#### Primary Benchmark Description

- The benchmark is the Bloomberg Barclays U.S. Aggregate Index (the "Index"). The 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. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

#### Reporting Currency

- Valuations are computed and performance is reported in U.S. Dollars. Performance includes reinvestment of dividends and other earnings.

#### Fees

- Composite Gross of Fee returns are the return on investments reduced by any trading expenses incurred during the period. Composite Net of Fee returns are the Gross of Fee returns reduced by investment advisory fees.

#### Fee Schedule

- The annual investment advisory fee, generally payable quarterly, is as follows: 0.30% on the first \$50mn; 0.25% on the next \$100mn; 0.20% on the next \$100mn; 0.15% on the next \$250mn; 0.12% thereafter.

#### Internal Dispersion

- Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were in the Composite for the entire year. Internal dispersion is not calculated if the Composite does not contain at least 6 portfolios for the entire year.

#### Annualized Standard Deviation

- The three-year annualized standard deviation measures the variability of the Composite and the benchmark returns over the preceding 36-month period. The standard deviation is not required for periods prior to 2011.

## Index Definitions

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**ABS** – This index is the ABS component of the Bloomberg Barclays U.S. Aggregate index. The index includes pass-through, bullet, and controlled amortization structures. The ABS Index includes only the senior class of each ABS issue and the ERISA-eligible B and C tranche.

**Agencies** – The Bloomberg Barclays U.S. Agency Bond Index measures the performance of the agency sector of the U.S. government bond market and is comprised of investment-grade native-currency U.S. dollar-denominated debentures issued by government and government-related agencies, including the Federal National Mortgage Association (“FNMA” or “Fannie-Mae”). The Index includes both callable and non-callable agency securities that are publicly issued by U.S. government agencies, quasi-federal corporations, and corporate and foreign debt guaranteed by the U.S. government.

**Aggregate** – The Bloomberg Barclays U.S. Aggregate Index covers the USD-denominated, investment-grade, fixed-rate, taxable bond market of SEC-registered securities. The index includes bonds from the Treasury, Government-Related, Corporate, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS, and CMBS sectors. The U.S. Aggregate Index is a component of the U.S. Universal Index in its entirety. The index was created in 1986, with index history backfilled to January 1, 1976.

**Senior Floating Rate Loans** – The US High-Yield Loans Index, also known as the Senior Floating Loan Index, provides broad and comprehensive total return metrics of the universe of syndicated term loans. To be included in the index, a senior floating rate loan must be dollar denominated, have at least \$150 million funded loan, a minimum term of one year, and a minimum initial spread of LIBOR+125.

**CMBS** - The Bloomberg Barclays Commercial Mortgage-Backed Securities (CMBS) Index family consists of four components: CMBS Investment-Grade Index, CMBS High-Yield Index, CMBS Interest-Only Index, and Commercial Conduit Whole Loan Index (all bond classes and interest-only classes). The CMBS Investment-Grade Index is further subdivided into two components: The U.S. Aggregate-eligible component that contains bonds that are ERISA eligible under the underwriter’s exemption and the non-U.S. Aggregate-eligible component that consists of bonds that are not ERISA eligible. The CMBS Indices were launched on January 1, 1997.

**Corporates** - The Bloomberg Barclays Investment Grade Credit Index is publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be SEC-registered.

**EMD (CEMBI)** - J.P. Morgan’s Corporate Emerging Markets Bond Index (CEMBI) is a global, liquid corporate emerging markets benchmark that tracks U.S.-denominated corporate bonds issued by emerging markets entities. The corporate CEMBI is a liquid basket of emerging markets corporate issues with strict liquidity criteria for inclusion in order to provide replicability, tradability, robust pricing and data integrity.

**EMD (EMBI Global)** - The EMBI Global Diversified limits the weights of the J.P. Morgan Emerging Markets Bond Index Global (“EMBI Global”) index countries with larger debt stocks by only including a specified portion of these countries’ eligible current face amounts of debt outstanding. The EMBI Global index tracks total returns for traded external debt instruments in the emerging markets, and is an expanded version of the JPMorgan EMBI+. As with the EMBI+, the EMBI Global includes U.S. dollar-denominated Brady bonds, loans, and Eurobonds with an outstanding face value of at least \$500 million. It covers more of the eligible instruments than the EMBI+ by relaxing somewhat the strict EMBI+ limits on secondary market trading liquidity.

**EMD (GBI Global)** - GBI-EM Global is an investable benchmark that includes only those countries that are directly accessible by most of the international investor base. The GBI-EM GLOBAL excludes countries with explicit capital controls, but does not factor in regulatory/tax hurdles in assessing eligibility. Specifically, it includes all GBI-EM countries, as well as the Brazil NTN-F, LTN, and the Colombia local TES tasa fija bond.

## Index Definitions (continued)

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**Global Agg (ex USD)** - The Global Aggregate Index provides a broad-based measure of the global investment-grade fixed-rate debt markets. The Global Aggregate Index contains three major components: the U.S. Aggregate Index (USD 300 million), the Pan-European Aggregate Index (EUR 300 million), and the Asian-Pacific Aggregate Index (JPY 35 billion). In addition to securities from these three benchmarks (94.9% of the overall Global Aggregate market value), the Global Aggregate Index includes Global Treasury, Eurodollar (USD 300 million), Euro-Yen (JPY 35 billion), Canadian (USD 300 million equivalent), and Investment-Grade 144A (USD 300 million) index-eligible securities not already in the three regional aggregate indices. The Global Aggregate Index family includes a wide range of standard and customized subindices by liquidity constraint, sector, quality, and maturity. The Global Aggregate Index is a component of the Multiverse Index. The Global Aggregate Index was created in 1999, with index history backfilled to January 1, 1990.

**HY** - The Bloomberg Barclays U.S. Corporate High-Yield Index covers the USD-denominated, non-investment grade, fixed-rate, taxable corporate bond market. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. The index excludes Emerging Markets debt. The index was created in 1986, with index history backfilled to January 1, 1983. The U.S. Corporate High-Yield Index is part of the U.S. Universal and Global High-Yield Indices.

**Long BBB Credit** - This is the long component of the Bloomberg Barclays U.S. Credit Baa index. The index includes publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be SEC-registered. The U.S. Credit Index is the same as the former U.S. Corporate Investment Grade Index, which has been renamed as the U.S. Credit Index. The name change is effective as of 6/1/00 (for statistics) and as of 7/1/00 (for returns).

**Long Corporates** - The Bloomberg Barclays U.S. Long Credit index includes investment grade corporate and non-corporate credit bonds that are dollar denominated and have a remaining maturity of greater than or equal to 10 years. As of December 31, 2008, the Index included 965 issues with an average dollar-weighted maturity of 24.39 years.

**Long Govt/Credit** - The Bloomberg Barclays U.S. Long Government/Credit Bond Index measures performance of U.S. dollar denominated U.S. Treasuries, government-related, and investment grade U.S. corporate securities that have a remaining maturity of greater than or equal to 1 year. In addition, the securities have \$250 million or more of outstanding face value, and must be fixed rate and non-convertible.

**Mortgages** - The Bloomberg Barclays Mortgage Backed Securities Index is an unmanaged index of mortgage pools of the Government National Mortgage Association, Federal Home Loan Mortgage Corporation and Federal National Mortgage Association.

**TIPS** - The Bloomberg Barclays U.S. Treasury Inflation Protected Securities ("TIPS") Index measures the performance of intermediate (1-10 year) U.S. Treasury Inflation Protected Securities.



## Additional Disclosures

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eVestment is an innovative, Web-based provider of comprehensive investment information and analytic technology. eVestment delivers extensive data through robust, user-friendly products with an unparalleled commitment to client service. Through its online Global Database, eVestment captures the most comprehensive dataset in the industry and distributes all information via its fully Web-based Analytics system, a platform which has set the software standard for online manager comparisons, research and competitive intelligence. Drawing upon its data management expertise, eVestment also offers its powerful Omni system to address the industry's redundant data request problems by automating the transformation and precise update of manager data to multiple databases. With better data, more flexible analytics and custom data automation and delivery platforms, eVestment's robust tools enable clients to conduct more thorough research, generate more insightful analysis, and significantly improve their overall efficiency.

**Peer Rankings:** eVestment collects information directly from investment management firms and other sources believed to be reliable; however, eVestment does not guarantee or warrant the accuracy, timeliness, or completeness of the information provided and is not responsible for any errors or omissions. Performance results may be provided with additional disclosures available on eVestment's systems and other important considerations such as fees that may be applicable. Not for general distribution. All categories not necessarily included. Totals may not equal 100%. Copyright 2013-2019 eVestment Alliance, LLC. All Rights Reserved. Neuberger Berman Investment Advisers LLC composite peer rankings represent percentile rankings which are based on monthly gross of fee returns and reflect where those returns fall within the indicated eVestment's universe. eVestment provides third party databases, including the institutional investment database from which the presented information was extracted. The eVestment institutional investment database consists of over 1,500 active institutional managers, investment consultants, plan sponsors, and other similar financial institutions actively reporting on over 10,000 products. Additional information regarding eVestment rankings for year to date and since inception performance of the composites is available on eVestment's website.

### eVestment Traditional Universes Definitions:

**US Core Fixed Income:** US Fixed Income products that primarily invest in a broad duration of Investment Grade bonds. Common benchmarks include the Bloomberg Barclays US Aggregate and Bloomberg Barclays US Govt/Credit.

**US TIPS / Inflation Fixed Income:** US Fixed Income products that follow the general methodology of an index but will make modest active investments outside of this index in an effort to generate alpha.

**US Corporate Fixed Income:** US Fixed Income products that invest principally in broad duration, Investment Grade, Corporate bonds. Common benchmarks include the Bloomberg Barclays US Credit and BofA US Corporate.

**US Securitized Fixed Income – Mortgage:** US Fixed Income products that invest principally in Investment Grade Mortgage-Backed Securities (MBS). Common benchmarks include the Bloomberg Barclays US Mortgage Backed Securities and Barclays Capital Mortgage

**Securitized Fixed Income - Non-Traditional:** US Fixed Income products that invest in securitized loans outside of Investment Grade, Mortgage-Backed Securities (MBS). Common examples include Asset-Backed Securities (ABS), Commercial Mortgage-Backed Securities (CMBS), and Residential Mortgage-Backed Securities (RMBS).

## Additional Disclosures (continued)

Institutional-Oriented Equity and Fixed Income AUM Benchmark Outperformance Note: Institutional-oriented equity and fixed income assets under management ("AUM") includes the firm's equity and fixed income institutional separate account ("ISA"), registered fund, and managed account/wrap ("MAG") offerings and are based on the overall performance of each individual investment offering against its respective benchmark offerings and are based on the overall performance of each individual investment offering against its respective benchmark. High net worth/private asset management ("HNW") AUM is excluded. For the period ending March 31, 2019, the percentage of total institutional-oriented equity AUM outperforming the benchmark was as follows: Since Inception: 89%; 10-year: 72%; 5-year: 69%; and 3-year: 75%; and total institutional-oriented fixed income AUM outperforming was as follows: Since Inception: 94%, 10-year: 52%; 5-year: 73%; and 3-year: 61%. If HNW AUM were included, total equity AUM outperforming the benchmark was as follows: Since Inception: 86%; 10-year: 46%; 5-year: 48%; and 3-year: 53%; and total fixed income AUM outperforming was as follows: Since Inception: 94%; 10-year: 52%; 5-year: 73%; and 3-year: 61%. Equity and Fixed Income AUM outperformance results are asset weighted so individual offerings with the largest amount of assets under management have the largest impact on the results. As of 3/31/2019, six equity teams/strategies accounted for approximately 52% of the total firm equity (ISA, MAG and mutual fund combined) assets reflected, and nine strategies accounted for approximately 52% of the total firm fixed income (ISA, MAG and mutual fund combined) assets reflected. Performance for the individual offerings reflected are available upon request. AUM for multi-asset class, balanced and alternative (including long-short equity or fixed income) offerings, as well as AUM for hedge fund, private equity and other private investment vehicle offerings are not reflected in the AUM outperformance results shown. AUM outperformance is based on gross of fee returns. Gross of fee returns do not reflect the deduction of investment advisory fees and other expenses. If such fees and expenses were reflected, AUM outperformance results would be lower. Investing entails risk, including possible loss of principal. **Past performance is no guarantee of future results.**

Private Equity Outperformance Note: The performance information includes all funds, both commingled and custom, managed by NB Alternatives Advisers LLC with vintage years of 2005 – 2016, with the exception of a closed-end, public investment company registered under the laws of Guernsey (the "Funds"). Accounts that are only monitored are excluded. Vintage years post 2016 are excluded as benchmark information is not yet available. Please note that private debt funds are also excluded as benchmark data is not yet available for the applicable vintages.

Percentages are based on the number of funds, calculated as the total number of funds whose performance exceeds their respective benchmarks divided by the total number of all funds with vintage years of 2005 through 2016. Performance is measured by net IRR, MOIC, and DPI and is compared to the respective index's median net IRR, MOIC and DPI, respectively. The Cambridge Secondary Index was used for secondary-focused funds; the Cambridge Buyout and Growth Equity for US and Developed Europe was used for co-investment-focused funds; the Cambridge Fund of Funds Index was used for commingled funds and custom portfolios comprised of primaries, secondaries and co-investments; and the Cambridge Global Private Equity was used for strategies focused on minority stakes in asset managers fund and healthcare credit.

The Cambridge Associates LLC indices data is as of September 30, 2018, which is the most recent data available. The Cambridge Associates Fund of Funds Index is the benchmark recommended by the CFA Institute for benchmarking overall private equity fund of funds performance. The benchmark relies on private equity funds self-reporting data for compilation and as such is subject to the quality of the data provided. The median net multiple of Cambridge Associates Fund of Funds Index is presented for each vintage year as of September 30, 2018, the most recent available. Cambridge Associates data provided at no charge.

While one of the secondary funds closed in 2008, Cambridge Associates classifies that particular fund as a 2007 vintage year fund (the year of its formation) and, therefore, the Cambridge Associates benchmarks used herein are for 2007 vintage year funds.

Private Offerings: Certain strategies referenced herein may only be available through a private offering of interests made pursuant to offering and subscription documents, which will be furnished solely to qualified investors on a confidential basis at their request for their consideration in connection with an offering. These documents will contain information about the investment objective, terms and conditions of an investment in such vehicle and will also contain tax information and risk disclosures that are important to an investment decision. Any decision to invest in such vehicle should be made after a careful review of these documents, the conduct of such investigations as an investor deems necessary or appropriate and after consultation with legal, accounting, tax and other advisors in order to make an independent determination of the suitability and consequences of an investment in such vehicle.

## Additional Disclosures (continued)

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Portfolio performance is calculated utilizing a total return methodology. The total return calculation is the combination of the change in price of the investments plus any income (or other distributions); it is expressed as a percentage gain or loss in the investment's value. Any segment level performance shown (equity only or fixed income only) is presented gross of fees and focuses exclusively on the investments in that particular segment of the portfolio being measured (equity or fixed income holdings) and excludes cash. Specific securities identified and described do not represent all of the securities purchased, sold or recommended for advisory clients. It should not be assumed that any investments in securities, companies, sectors or markets identified and described were or will be profitable.

Credit quality generally reflects the average credit quality of three Nationally Recognized Statistical Ratings Organizations (NRSROs), S&P, Moody's and Fitch, as calculated internally by the investment adviser. Holdings that are unrated by any NRSRO may be assigned an equivalent rating by the investment manager. If NRSRO ratings differ for a particular holding, the average rating is generally used. No NRSRO has been involved with the calculation of average credit quality and the ratings of underlying portfolio holdings should not be viewed as a rating of the portfolio itself. Portfolio holdings, underlying ratings of holdings and average credit may change materially overtime.

Representative portfolio information (characteristics, holdings, weightings, etc.) is based upon the composite or a representative/model account. Representative accounts are selected based on such factors as size, length of time under management and amount of restrictions. Any segment level performance shown (equity only or fixed income only) is presented gross of fees and focuses exclusively on the investments in that particular segment of the portfolio being measured (equity or fixed income holdings) and excludes cash. Client accounts are individually managed and may vary significantly from composite performance and representative portfolio information. Specific securities identified and described do not represent all of the securities purchased, sold or recommended for advisory clients. It should not be assumed that any investments in securities, companies, sectors or markets identified and described were or will be profitable.

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## Additional Disclosures (continued)

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