MWRA EMPLOYEES' RETIREMENT BOARD MEETING
AGENDA

Thursday, May 25, 2023, 10:00 a.m.
MWRA, 2 Griffin Way
Chelsea, MA 02150

Item 1 10:00 a.m. Meeting called to order

OLD BUSINESS

Item 2 Standing Committee Reports
- i. By-Laws Committee: Member Kevin McKenna
- ii. Human Resources Committee: Member Frank Zecha
- iii. Special Committee, Stipend: Chair James M. Fleming, Member Kevin McKenna
- iv. Job Review Committee: Member James M. Fleming

Item 3 Standing Committees Appointments

NEW BUSINESS

Item 4 Approval of Minutes – VOTE
- a) April 20, 2023
- b) May 10, 2023

Item 5 Approval of Warrants – VOTE
- a) Warrant 5-2023
- b) Warrant 5-2023A – Payroll

Item 6 Approval of Monthly Transfers 5-2023 – VOTE

Item 7 Acknowledgement of retirement applications under G.L. c 32 §5 – VOTE
- a) Norman Greene DOR 4/15/2023
- b) David Hennis DOR 5/12/2023

Item 8 Approval of Bank Reconciliation – VOTE
- a) March 2023
- b) April 2023

Item 9 Opportunistic Credit Finalists Presentations
- 10:30 a.m. a) Waterfall – Jack Ross & Sharon Eliran
- 10:50 a.m. b) DSC Meridian – Sheru Chowdhry
- 11:10 a.m. c) LMCG – Tom Capobianco & David Weeks
- 11:30 a.m. d) Wellington – Brian Doherty & Kristina O'Gannon
- 11:50 a.m. e) Brigade – Donald Morgan & Joseph Turilli

Item 10 NEPC
- a) Flash Report as of 4/30/23
- b) Opportunistic Credit Search Review
- c) Rebalance Recommendation – VOTE

..FOR YOUR INFORMATION and REVIEW ....

Item 99-1	MWRA Staff Summary re. Update on Pension Funding Status
Item 99-2	Excerpt from Advisory Board's FY2024 Comments & Recommendations
Item 99-3	Hamilton Lane Secondary Fund VI/Credit Fund Update
Item 99-4	JF Lehman re. Death of Partner and Co-Founder Don Glickman

The Board reserves the right to consider items on the agenda out of order. The listing of items is those reasonably anticipated by the Chair to be discussed received at least forty-eight (48) hours prior to the meeting. Not all items listed may in fact be discussed and other items not listed may also be brought up for discussion to the extent permitted by law. Items identified for discussion in Executive Session may be conducted in open session, in addition to, or in lieu of discussion in Executive Session.

Date of next scheduled Retirement Board meeting is Thursday, June 29, 2023, 10:00 a.m., Chelsea

MWRA EMPLOYEES' RETIREMENT BOARD MEETING
APRIL 20, 2023

A meeting of the MWRA Employees' Retirement Board was conducted in-person on Thursday, April 20, 2023. Remote access was provided to the public via Zoom, with call-in information provided on the official Meeting Notice posted to www.mwraretirement.com and the MA Secretary of State's website. Participating in the in-person meeting were Board members James Fleming, Matthew Horan, Kevin McKenna, and Brian Peña, staff members Julie McManus and Danielle DiRuzza, and Sebastian Grzejka representing NEPC. Board member Frank Zecha participated via remote access. Members of the public also attended via remote access. Mr. Fleming called the meeting to order at 9:30 a.m.

1) Call the meeting to order-roll call of members: Mr. Horan, Mr. McKenna, Mr. Peña, and Mr. Fleming present and Mr. Zecha present via remote access.

2) Standing Committee Reports
   - i. By-Laws Committee: No report
   - ii. Human Resources Committee: No report
   - iii. Special Committee, Stipend: No report
   - iv. Job Review Committee: No report

3) Standing Committee Appointments

   On a motion made by Mr. McKenna and seconded by Mr. Zecha:
   VOTED
   to table the matter of the Standing Committee Appointments until the May 25, 2023 meeting. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

4) Approval of March 30, 2023 Minutes – VOTE

   On a motion made by Mr. McKenna and seconded by Mr. Horan:
   VOTED
   to approve the minutes of the March 30, 2023 meeting as submitted by the Executive Director. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

5) Approval of Warrants – VOTE

   a) Warrant 04-2023
   b) Warrant 04-2023A – Payroll

On a motion made by Mr. McKenna and seconded by Mr. Zecha:
<u>VOTED</u>
to approve Warrant 04-2023. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

On a motion made by Mr. McKenna and seconded by Mr. Horan:
<u>VOTED</u>
to approve Warrant 04-2023A – Payroll. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

6) Approval of Monthly Transfers 04-2023 – VOTE

On a motion by Mr. Horan and seconded by Mr. Peña:
<u>VOTED</u>
to approve the list of monthly transfers as presented and as recommended by NEPC. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

7) Approval of 2 months creditable service for MWRA contract employment 10/6/2022 – 12/8/2022 re. Jessica Vorse – VOTE

On a motion by Mr. McKenna and seconded by Mr. Horan:
<u>VOTED</u>
to approve 2 months creditable service for MWRA contract employment re. Jessica Vorse. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

8) NEPC
a) Flash Report as of 3/31/23
b) Opportunistic Credit Search Review
c) Rebalance Recommendation

The Board took Item 8b out of order – Opportunistic Credit Search Review. Mr. Grzejka reminded the Board that 15 managers responded to the RFP and NEPC has eliminated 6 of the respondents due to their track record, AUM, or not being a good fit for the portfolio. Page 3 lists the managers for further review. Mr. Grzejka stated Corbin's fund is not currently rated by NEPC as the team has not met with them or vetted them. Grantham, Mayo, Van Otterloo is a firm that is well known to NEPC and its performance fits the profile but the team has not met with them and they have had a number of changes over the last several years. PIMCO has a suite of investments available, but the PIMCO Flexible Credit Income Fund has not yet been rated by NEPC and Mr. Grzejka is not sure it fits the mandate. Shenkman Capital is known to NEPC but they have not had too much to do with them.

Mr. Grzejka stated there are 5 candidates left and recommends the Board interview all 5: Brigade Capital, DSC Meridian, LMCG, Waterfall, and Wellington. Mr. Horan asked about the process if the Board wanted to interview a manager who hasn't been rated. Mr. Grzejka replied that the Board can bring them in but PERAC looks for ratings of 1 or 2. Mr. Grzejka stated there was a good response of 15 managers and nice cross-section of managers. The 5 managers recommended were researched for multiple weeks, met with the NEPC team and the team's research went before its Due Diligence Committee. Mr. Grzejka stated it's a fairly robust process. Mr. McKenna noted that in the past the Board's vote did not always line up with the ratings for PERAC and that he believes Grantham, Mayo, Van Otterloo's returns look really good. Mr. Grzejka replied for each of these managers they are looking for returns over mid-single digits.

On a motion by Mr. McKenna and seconded by Mr. Horan:
VOTED
to invite the following managers to the May meeting based on NEPC's recommendation: Brigade Capital, DSC Meridian, LMCG, Waterfall, and Wellington. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

In regard to the Flash report, Mr. Grzejka stated the portfolio is up 1.5% for the month and 3.8% year-to-date. The market has experienced a reversal from Value to Growth with Polen up 14.1% year-to-date. Its top 10 names have been driving performance. 80% of the S&P returns are driven from those same names. The funds were moved from Boston Partners to Mesirow during the month so return numbers are not yet available. Non-US Equity experienced out-performance across the board. Emerging Markets had positive results and Fixed Income had good results throughout. No results from Private Equity managers or Real Estate managers have been. Core Real Estate is seeing headwinds. Private Debt is seeing mixed results, but has fared better than Private Equity. Mr. Grzejka stated that Garcia Hamilton had reached out to him late Tuesday night to inform him upon review of the account they had discovered the Retirement System had been over charged in fees a little more than $40,000. He noted that the reported performance has been accurate. Mr. Zecha stated Garcia Hamilton does not earn itself any style points because the Executive Director should have been notified first or at the same time as NEPC. Mr. Zecha asked if the amount included any investment loss and Mr. Grzejka replied in the negative. Mr. Grzejka stated when he spoke with Ruby Dang from Garcia Hamilton she had asked if the Board would prefer to have the overcharged fee netted out over the next four quarters or have the total amount wired to the custody account. Mr. McKenna asked if CLA would pick up this overcharged fee in the audit, and Mr. Zecha replied no because Mr. Garcia had reduced the original fee. Mr. Grzejka noted although it works in the Board's favor, it's a bad look and inquired if the Board would like Garcia Hamilton to come before the Board. Mr. Fleming responded that he is happy Garcia Hamilton found the error and is correcting it, and he would leave the decision up to the Executive Director as to how to recover the overcharged fee.

Mr. Zecha expressed his concern about the Board's real estate investments and asked whether they should consider a 5-20% reduction in its Morgan Stanley Prime Property investment. Mr. Zecha stated he is sure other investors are in the queue and asked if the Board can discuss liquidating a percentage of its investment at next month's meeting. Mr. Grzejka noted Prime Property holds Class A type properties, but he will confirm whether they've seen pressure and have had requests to liquidate before next month's meeting.

Rebalance Recommendation – VOTE

Mr. McKenna asked about the Board's prior rebalance vote in March - to withdraw $3,000,000 from Octagon with $1,500,000 going to Axiom and $1,500,000 remaining in cash – and why System will not receive the funds until the end of April although the request was sent March 9 with a redemption date of March 31. Mr. Grzejka responded that the Offering Memorandum provides for 30 days and to standardize their process with the Administrator, Octagon's policy is to pay redemption proceeds out on the last day of the month. Octagon allows a "lag" in the payment of the redemption since in a best-case scenario, loans settle T+7 and Octagon allows themselves 30 days to raise cash as within their rights per the Offering Memo.

The rebalance recommendation is to withdraw $3,000,000 from Loomis Sayles Multi Sector Bonds and to hold in cash for payroll and accounts payable needs.

> On a motion by Mr. Zecha and seconded by Mr. Peña:
> **VOTED**
> to approve the transfer as presented and as recommended by NEPC. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

Mr. Horan asked about the cash account at M&T noting that the Authority uses MMDT, and Mr. Zecha answered that he knows M&T rates are very competitive. Mr. Fleming asked that Mr. Grzejka and the Executive Director look into the interest rates offered by M&T and MMDT.

Mr. Zecha left the meeting at 10:10 a.m.

9) Manager Due Diligence Presentations

The following managers underwent an annual investment manager review pursuant to 840 CMR 16.07. The managers presented performance and investment reports detailing the manager's activities, which the Board reviewed.

a) J.F. Lehman – Lou Mintz
b) Foundry – Brad Feld

Mr. Lou Mintz joined the meeting representing J.F. Lehman. Mr. Grzejka stated that there are members of the public on the call and cautioned Mr. Mintz against disclosing any materials which may be considered proprietary. Mr. Mintz reminded the Board that J.F. Lehman is a sector focused buyout firm built around a core strategy of taking companies and finding diamonds in the rough. Mr. Mintz stated the Board made $6,000,000 commitment to fund IV in 2016 and a $9,000,000 commitment to fund V in 2020. The strategies for the funds are consistent and are summarized on page 9. The firm seeks sector focus with value and checks to see if company could be sold in a competitive market. Mr. Mintz noted that whatever happens with war or peace or whoever is in the White House does not affect the funds. Fund V has already sold 11 companies, 8 of them with very strong returns. Mr. Mintz thanked the Board and signed off the call at 10:40 a.m.

The Executive Director joined the meeting at 10:43 a.m.

Mr. Brad Feld joined the meeting representing Foundry. Mr. Grzejka stated that there are members of the public on the call and cautioned Mr. Feld against disclosing any materials which may be considered proprietary. Mr. Feld stated there are no material changes since Foundry's update last year. Mr. Feld reminded the Board that it invested in three funds. The Board made a $3,000,000 investment in its 2007 fund, 98.5% of committed capital was called, and $14,537,349 was distributed. Foundry 2007 currently has about $20,000,000 in Unrealized Value and a Net IRR of 42.8%. Foundry 2010 was a $3,000,000 investment, 97.8% of committed capital was called, and $3,255,566 was distributed. Foundry 2010 currently has $567,000,000 in Unrealized Value, and a Net IRR of 14.5%. Foundry 2010 Annex was a $268,205 investment, 100% of committed capital was called, and $407,252 was distributed. Foundry 2010 Annex currently has $106,300,000 in Unrealized Value and a Net IRR of 35.7%. There are three funds remaining in Foundry 2010 Annex. Mr. Feld thanked the Board and signed off the call at 11:03 a.m.

The Board determined each manager continues to operate in a manner represented when retained and outlined in the agreement between the Board and the manager.

10) Approval of 2022 Annual Statement – VOTE

Mr. Fleming noted that the Board's Executive Director is the best around and thanked her for her hard work and always completing the Annual Statement on time.

On a motion by Mr. McKenna and seconded by Mr. Horan:
VOTED
to approve the 2022 Annual Statement. 4-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, and Mr. Fleming voting yes.

11) Legal Update

Attorney Gibson welcomed the new Board Members. Attorney Gibson stated he will be moderating a legal panel at the upcoming MACRS conference and Board members will receive 3 credits for attending. Mr. McKenna asked if a Zoom link would be available and Attorney Gibson answered in the negative. Attorney Gibson stated he attended the PERAC meeting last week as the only non PERAC employee and had nothing to report other than PERAC will be moving its offices to 10 Cabot Road in Medford and parking will be available. Included in the Governor's budget is an extension of the Open Meeting Law Waivers until March 31, 2025. A hearing of the Joint Committee on Public Service has been scheduled regarding the issue of anti-spiking with reference to pay equality. This issue had been brought to PERAC's attention by the Board's Executive Director.

12) The Executive Director stated she anticipates the Preliminary Actuarial Valuation results will be available the second week in May and asked the Board if they would be available for a Special Meeting tentatively on Wednesday, May 10, 2023 to review results and funding schedule alternatives. Mr. Peña stated he could not attend in person but could attend virtually and the other Board Members confirmed their availability.

On a motion by Mr. McKenna and seconded by Mr. Peña:
VOTED
to adjourn the April 20, 2023 meeting of the MWRA Employees' Retirement Board. 4-0, roll call with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, and Mr. Fleming voting yes. The meeting was adjourned at 11:34 a.m.

The following communications were distributed to the Board for review:
PERAC MEMO 11/2023 – Extension of Open Meeting Law Waivers
PERAC MEMO #12/2023 – Forfeiture of Retirement Allowance for Dereliction of Duty by Members
Lord Abbett Personnel Update

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The Board is holding a Special Meeting on Wednesday, May 10, 2023 at 10:00 a.m. in Chelsea, and its next regularly scheduled Retirement Board meeting is Thursday, May 25, 2023, 10:00 a.m. in Chelsea.

James M. Fleming, Elected member

Matthew Horan, Appointed Member

Kevin McKenna, Elected Member

Brian Peña, Ex Officio Member

Frank Zecha, Fifth Member

MWRA EMPLOYEES' RETIREMENT BOARD SPECIAL MEETING
MAY 10, 2023

A special meeting of the MWRA Employees' Retirement Board was conducted in-person on Wednesday, May 10, 2023 for the purpose of discussing preliminary actuarial valuation results and Retirement System funding options. Remote access was provided to the public via Zoom, with call-in information provided on the official Meeting Notice posted to www.mwraretirement.com and the MA Secretary of State's website. Participating in the in-person meeting were Board members Matthew Horan, Kevin McKenna, and Frank Zecha, and staff members Carolyn Russo, Julie McManus, and Danielle DiRuzza. Mr. Brian Peña and Mr. James Fleming signed on via remote access. (Mr. Fleming reported technical difficulties but called in via phone, then joined on video at 10:21 a.m.) Because Mr. Fleming was not on-premises due to illness, Mr. Zecha assumed the role of the Chair. Ms. Lisa VanDermark, FSA, MAAA, EA, signed on representing Segal to present valuation results. Members of the public including Mr. Matthew Romero, representing the MWRA Advisory Board, also attended via remote access. Mr. Zecha called the meeting to order at 10:00 a.m.

1) Call the meeting to order-roll call of members: Mr. Horan, Mr. McKenna, Mr. Zecha present, and Mr. Pena present via remote access.

   Ms. VanDermark asked the host to enable screen sharing, and shared her presentation. Ms. VanDermark noted that the Board does an annual valuation, and thanked the Executive Director for the early submission of the data and follow-up to the data questions, which helped facilitate the earlier results. Ms. VanDermark noted that the employee and retiree population remained steady as compared with last year's results. Average retiree pay increased, which is generally expected, since new retirees receive higher benefits than those retired longer ago. The System has a small number of vested terminated employees and a larger number of non-vested terminated employees, whose only liability would be a return of contributions. Mr. Horan inquired about the impact of demographic changes on the valuation. Ms. VanDermark noted that this year over last, the change was not significant, but when compared with two years ago the employee population decreased. There has been a slight shift from Active Liability toward Retiree Liability. Salary, mortality, and termination rates will also have an impact. The loss on assets was 12.6%. All gains and losses are recognized over a five year period. The Actuarial Value of Assets smooths the up and down movements. Last year was one of the largest swings in asset values noted by Segal in recent years. As noted on page 3 of the presentation, the 12/31/2022 Actuarial Value of Assets was $691.9m, or 109.84% of the Market Value of Assets of $629.2m, as compared with the 12/31/2021 Actuarial Value of Assets of $666.7m, or 91.49% % of the Market Value of Assets of $728.7m. This results in a $61.9m loss to be recognized over the next four years. If asset performance improves, future gains may offset some of the loss to be recognized in future years. Page 4 shows the impact of experience loss due to assets as well as other plan assumptions. Segal does not recommend any changes to assumptions at this time. Mr. McKenna asked whether the administrative costs assumption reflects management fees. Ms. VanDermark responded that investment-related fees are not a part of the Administrative Expense assumption. Mr. McKenna asked about the impact of the MWRA's 100+ vacancies. Mr. Zecha noted with apologies to Ms. VanDermark for responding that as previously stated, there was little change to employee population over last year's numbers, but that they are down from two years prior. Ms. VanDermark stated that as of 12/31/2022 there were 1,083 Active and Vested Terminated members, and if employee counts were to increase by 10%, the Active Liability would be expected to increase by 10%. Returning to Mr. McKenna's previous question, Ms. VanDermark stated that the Administrative Expense assumption of $600,000 comes from the Retirement System Budget, and includes items such as Audits, Actuarial studies, salaries, computer services contract, supplies, etc. Investment-related expenses are in the millions and are not included. As shown on page 6, the investment return assumption is based on a long-term horizon. NEPC has calculated the ten-year expectation to be 6.8%, and the thirty-year to be 7.6%. Segal Marco has calculated the ten-year to be slightly higher. The valuation results incorporate the Board's approval of the one-time 5% COLA for retirees calculated on a $17,000 base. Page 8 shows an increase in the Total Normal Cost year-over-year, but a slight decrease to Normal Cost as a percent of payroll, because new plan participants are subject to the changes in benefits enacted by the legislature in 2012. The increase in Unfunded Liability from $82m to $91m was predominantly due to asset performance. Ms. VanDermark stated the four schedules requested by the Board included in the report were:

1. 6.9% return assumption, fully funded by 2030
2. 6.9% return assumption, fully funded by 2032
3. 6.9% return assumption, fully funded by 2031
4. 6.9% return assumption, fully funded by 2030, with 10% increase to the 2025 payment over the 2024 payment.

One additional schedule was provided separately which shows the impact of a potential additional payment of $1.9m for 2024. On all schedules, the required 2024 payment was set by the prior valuation, so this discussion is really addressing the 2025 payment, assuming annual valuations continue. Employer Normal Cost is shown on column 2. Ms. VanDermark compared the total Unfunded Actuarial Accrued Liability (UAAL) to a mortgage, but with increasing payments. The Liability is set, the number of payments is set, the interest rate is set, and in this case, we are solving for the year-over-year payment increase. Mr. Horan asked whether the cost of pushing out the full-funding date would increase steadily, i.e. if the $9m additional interest costs incurred to extend the schedule out one year to 2031 would become $18m if extended 2 years to 2032, and $27m if extended three years to 2033. Ms. VanDermark responded that she could not be sure without checking the numbers, but agreed in concept that the plan sponsor would be paying an additional 6.9% in interest on the remaining unfunded liability for each year the schedule is pushed out. Mr. Zecha asked Ms. VanDermark in simple terms to confirm that the overall cost to the Employer goes up if the schedule's full-funding date is pushed out, and Ms. VanDermark responded affirmatively that the total cost does go up. Mr. McKenna asked why the UAAL as shown in the valuation results on page 8 is $91m, but the funding schedule says $94m. Ms. VanDermark explained that the funding schedule shows beginning of fiscal year 2024 liability (7/1/2023), and the valuation results are as of 12/31/2022. The 12/31/2022 liability is rolled forward with interest to 7/1/2023 because appropriations are made on a fiscal year basis. Ms. VanDermark stated that if the Board approves a schedule today, the next step would be for the Executive Director to send it to CliftonLarsonAllen, LLP so they can move forward with the ACFR. If no schedule is approved, CLA will likely not be able to meet the filing deadline. Mr. Zecha asked for Mr. Horan's input as to how to "pay the mortgage." Mr. Horan began by thanking the Board for the early meeting, which will help with the budget process, and Segal for the early results. Mr. Horan stated that he had a helpful discussion with the Executive Director in regard to the results. The funding schedule decision really only impacts one year (FY2025), given that the valuations are done annually. Any of the options offered would be affordable for the Authority. Ms. VanDermark questioned whether they would all be acceptable to PERAC, since the Executive Director would also have to seek approval from PERAC's Actuary. Mr. Horan stated that he may be reading the statute incorrectly but that if the schedule is pushed out to 2031 or 2032 that the year-over-year increases are not supposed to exceed 4%. Ms. VanDermark responded that Mr. Horan's understanding is correct, that 22D (current schedule) and 22F (schedule extended past 2030) limit the increase to the amortization piece to 4 ½% and 4% increases respectively. PERAC may still approve the proposed schedules, but the approval will likely be accompanied by some strongly-worded additional commentary. Mr. Zecha stated that he had a conversation with Mr. Boorack, and that he believes Mr. Boorack would approve it. MWRA's revenue structure differs from cities' and towns' revenue, which puts MWRA in a unique position. Ms. VanDermark noted that the investment return and mortality assumptions adopted by the Board are conservative, and that should help as well. Mr. McKenna asked if perhaps there would be any statutory relief. Mr. Zecha responded that question is unfair, as it is asking for speculation. Mr. Horan stated that perhaps it would not be a bad idea to start a discussion with PERAC about changing the restrictions, given that they will likely start to affect more communities adversely in the coming years. Ms. VanDermark noted that MWRAERS is very well-funded without having extended the schedule and that there are only a few systems expecting to be fully funded prior to 2030. Mr. McKenna asked how the percent increase year-over-year can also be a driver of the ARC. Ms. VanDermark stated that the UAAL is set, the full-funding date is set, the interest rate is set, the increase is the remaining variable for which we solve. If the assets return 6.9% for the year, the UAAL is expected to increase due to the deferred losses. If the assets return more than that, some of the deferred losses will be partially offset. Mr. Horan proposed approval of Schedule 1. He analyzed rate projections, the impact would be modest and not occur until the later years, the Board approves a new funding schedule every year so it is not an area of concern, the shorter schedule saves unnecessary interest costs, and Schedule 1 does not impact budget projections. It would not be fair to adopt Schedule 5, which would tie the Authority's hands to the additional $1.9m appropriation, but Mr. Horan does expect the additional payment will be made, and appreciates seeing the impact it would have on future payments. Through the (Acting) Chair the Executive Director asked whether we need to be concerned, were Schedule 5 approved requiring the additional payment, whether later extending the schedule could potentially result in a subsequent year's payment which was less than the prior year's, i.e. could we potentially be penalized by making the additional payment a requirement. Mr. Zecha responded that the Executive Director's question was a fair one. Mr. McKenna asked how the additional funds were handled in the past. Ms. VanDermark stated that it would show up as an additional payment. Mr. Zecha thanked Ms. VanDermark for the presentation and for her efforts to get the information to the Board within tight time constraints.

On a motion made by Mr. Horan and seconded by Mr. Zecha:
VOTED
to adopt Schedule 1. 5-0, roll call with Mr. Fleming voting yes, Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, and Mr. Zecha voting yes.

On a motion by Mr. Peña and seconded by Mr. Zecha:
VOTED
to adjourn the March 30, 2023 meeting of the MWRA Employees' Retirement Board. 5-0, roll call with Mr. Fleming voting yes, Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, and Mr. Zecha voting yes. The meeting was adjourned at 10:49 a.m.

The following communications were distributed to the Board for review:

Preliminary Actuarial Valuation Results and Funding Schedules

The Board reserves the right to consider items on the agenda out of order. The listing of items is those reasonably anticipated by the Chair to be discussed received at least forty-eight (48) hours prior to the meeting. Not all items listed may in fact be discussed and other items not listed may also be brought up for discussion to the extent permitted by law. Items identified for discussion in Executive Session may be conducted in open session, in addition to, or in lieu of discussion in Executive Session.

Date of next scheduled Retirement Board meeting is Thursday, May 25, 2023, 10:00 a.m., Chelsea

James M. Fleming, Elected Member

Matthew Horan, Appointed Member

Kevin McKenna, Elected Member

Brian Peña, Ex-Officio Member

Frank Zecha, Fifth Member

Waterfall Eden Fund Overview

Prepared for NEPC / Massachusetts Water Resource Authority Retirement System

MAY 2023

Disclosure – Waterfall Eden

This confidential presentation is for information purposes only and is not and should not be construed as an offer to sell or a solicitation to buy securities. An offer or solicitation can be made only through delivery of a confidential offering memorandum and subscription agreement and will be subject to the terms and conditions contained in such documents.

An investment in Waterfall Eden Fund, LP, Waterfall Eden Fund, Ltd., and Waterfall Eden Master Fund, Ltd. (together, "Waterfall Eden" or "Eden") is speculative and subject to a variety of risks, as described in the applicable confidential offering memorandum. Among the risks we wish to call to particular attention of prospective investors are the following:

- Waterfall Eden's portfolio will be concentrated in structured finance securities, including residential mortgage-backed securities, asset-backed securities, CDO securities, and other structured finance securities and related instruments (including residual interests and loans) which may be affected by a variety of economic, geographic and other factors including interest rates. A significant portion of investments made by Waterfall Eden may lack a liquid trading market.
- Waterfall Eden's portfolio will also include distressed securities, loan participations, investments in special situations, high-yield securities, credit default swap agreements, other credit derivatives, bank debt and other high risk investments.
- Certain securities and instruments in which Waterfall Eden may invest can be highly volatile.
- Waterfall Eden's portfolio will utilize leverage.
- Waterfall Eden will have credit exposure to its counterparties in over-the-counter transactions, and, in certain circumstances, in respect of non-U.S. securities transactions.
- Waterfall Eden is dependent on the services of certain key personnel, and, were certain or all of them to become unavailable, Waterfall Eden may prematurely terminate.
- An investment in Waterfall Eden is illiquid.
- There is no secondary market for Waterfall Eden.
- Waterfall Eden's investment manager or affiliates thereof will receive performance-based compensation. Such compensation may result in riskier investments.
- Waterfall Eden is subject to conflicts of interest.
- Waterfall Eden is not registered under the United States Investment Company Act of 1940, as amends and investors will not have the protections afforded thereby.

There can be no assurance that Waterfall Eden's objectives can be achieved or that Waterfall Eden will not incur losses. Past investment performance is not indicative of future results, including future volatility and correlation to other types of investments. The returns of individual investors may vary because of timing of the investment and differences in management and incentive fees, if applicable. No investment decision should be made until a prospective investor has read the applicable confidential offering memorandum. The information contained herein is intended solely for use by the recipient hereof and is not to be reproduced or distributed to other parties.

Eden is only available to qualified investors, as determined by Eden or Waterfall in its sole discretion. This material does not constitute investment advice with respect to an investment in any security or other interest in Eden. The information regarding Eden should not be regarded as providing any assurance that Eden will continue to have the features, attributes and qualities described herein as of any subsequent date and is not a guarantee of future results.

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The research herein is based on information obtained from sources believed to be reliable but no representation or warranty is made that it is accurate, complete or up to date.

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The market indices shown in this presentation have been selected for purposes of comparing the performance of an investment in Waterfall Eden Funds (“Waterfall Eden” or “Eden Funds”) with certain well-known, broad-based benchmarks. Information about indices is provided to allow for comparison of the performance of the Fund to that of certain well-known and widely recognized indices. There is no representation that such index is an appropriate benchmark for such comparison. Benchmarks and financial indices are shown for illustrative purposes only, may not be available for direct investment, are unmanaged, may not reflect the impact of any management, incentive or other fees and have limitations when used for comparison or other purposes because they may have different volatility or other material characteristics (such as number and types of instruments) than the Fund. Past performance of indices of asset classes does not represent actual returns or volatility of actual accounts or investment managers and should not be viewed as indicative of future results. Performance results of indices assume the reinvestment of dividends, interest and other earnings. Investments made by the Fund may not be restricted to the instruments comprising any one index and do not in all cases correspond to the investments reflected in such indices. Indices are unmanaged, do not charge fees or expenses and do not employ special investment techniques such as leveraging or short selling.

- The BofA Merrill Lynch U.S. High yield Index tracks the performance of U.S. dollar denominated below investment grade corporate debt publicly issued in the US domestic market. Waterfall believes this is a relevant benchmark index for the Funds comparison to high-yield corporate bonds and it is a measure of the broad high-yield market within the U.S
- The Bloomberg Barclays US Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market.
- The S&P 500 Index or the Standard & Poor's 500 Index is a market-capitalization-weighted index of the 500 largest U.S. publicly traded companies.
- JPM High Yield Index is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.
- JPM Subprime Auto BB (3-year fixed index) is generated by JPM Index Research
- CRT index is generated by JPM Index Research
- CMBX index is a synthetic tradable index referencing a basket of 25 commercial mortgage-backed securities (CMBS)
- The S&P 500 Index is comprised of a representative sample of 500 large-cap companies. The index is an unmanaged, float-weighted index with each stock’s weight in the index in proportion to its float, as determined by Standard & Poors.
- The Barclays Capital U.S. Aggregate Bond Index is an unmanaged index composed of securities from the Barclays Capital Government/Corporate Bond Index, Mortgage-Backed Securities Index and the Asset-Backed Securities Index. Total return comprises price appreciation/depreciation and income as a percentage of the original investment. Indices are rebalanced monthly by market capitalization. Indices are unmanaged, do not charge fees or expenses and do not employ special investment techniques such as leveraging or short selling.
- The S&P/LSTA Leveraged Loan Index (LLI) covers the U.S. leveraged loan market back to 1997 and currently calculates on a daily basis. This index is run in partnership between S&P and the Loan Syndications & Trading Association, the loan market's trade group. Waterfall believes this is a relative benchmark for the Fund as it is a broad index designed to reflect the performance of U.S. dollar facilities within the leverage loan market, which is often used as a comparison to high yield fixed income products.

In the fall of 2009, Waterfall restructured the capitalization of the offshore and onshore funds. In conjunction with the restructuring, Waterfall designated a certain portion of the fund’s investments to be illiquid and allocated such investment on a pro rata basis to fund investors who were invested prior to the restructuring; those investors were offered an ongoing fee structure that is no longer available to new investors. The returns shown are representative of an investor in a class which existed prior to restructuring that occurred on November 1, 2009, is net of a 1.25% management fee, with a 10% performance allocation subject to a 5% hurdle, excludes any interest in Eden’s legacy designated investments, and is net of all other expenses. To the extent that the designated illiquid securities had been included in the calculation, annualized net returns would have reflected a variance. As of January 1, 2013, returns are shown for an investor who pays the fees described in the Fund’s offering materials, net of a 1.5% management fee and a 17% performance allocation. Returns for any class offered during the history of the Fund are available upon request.

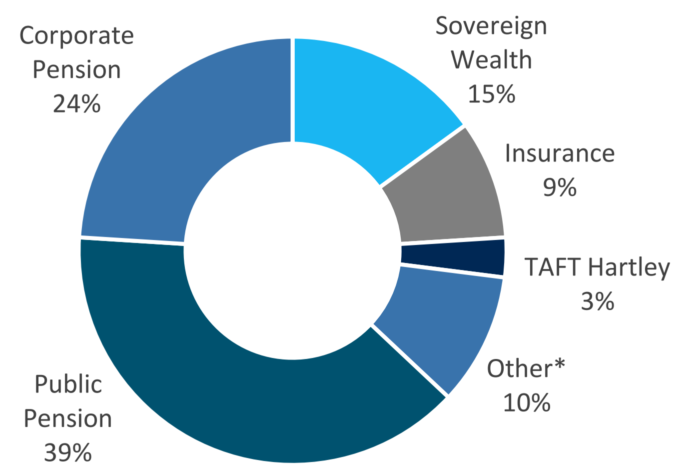
The performance results of the Waterfall Eden Funds shown in this letter are presented on a gross and net-of-fees basis. Gross and net performances include the reinvestment of all dividends, interest, and capital gains, and reflect the deduction of, among other things, brokerage commissions and administrative expenses. Net performance reflects the deduction of management fees and accrued performance fee, if any. Depending on the timing of a specific investment, net performance for an individual investor may vary from the net performance stated herein. Performance data for 2017 is estimated and unaudited. Forward-looking information, except where otherwise indicated, provided information is based on matters as they exist as of the date of preparation, and will not be updated or otherwise revised to reflect information that subsequently becomes available or circumstances or changes occurring after the date of preparation. Certain information contained in this presentation constitutes “forward-looking statements,” which can be identified by the use of forward-looking terminology such as “may,” “will,” “should,” “expect,” “anticipate,” “target,” “project,” “estimate,” “intend,” “continue,” or “believe,” or the negatives thereof or other variations thereon or comparable terminology. Actual events, results or performance may differ materially from those reflected or contemplated in such forward-looking statements.

Firm Summary

Waterfall Asset Management is a global alternative investment manager focused on specialty finance opportunities within asset-backed credit, whole loans, real assets, and private equity

ESTABLISHED	2005 SEC Registered Investment Adviser since 2006
FOUNDING PARTNERS	Jack Ross and Tom Capasse, founders of Merrill Lynch's ABS Group in the 1980's
ASSETS UNDER MANAGEMENT[1]	$11.8 billion
EMPLOYEES[2]	171 employees globally 72 investment professionals
OFFICES	Headquartered in New York City Offices in London, Dublin and Hong Kong
STRATEGIES	Asset-backed credit (public and private) Whole loans Real assets Private equity

WATERFALL'S CLIENT BASE



1 Please see important AUM disclosures on page 2.
2 As of March 1, 2023
*Other includes Endowment/Foundation, HNW/Family Office, Waterfall Employees. Ready Capital REIT is not included in the above client base.

Firm Strategy and Product Overview

Long-standing expertise within the broader specialty finance landscape allows Waterfall to seek and underwrite attractive investment opportunities across public and private markets

ASSET-BACKED CREDIT	WHOLE LOANS	PRIVATE REAL ESTATE	PRIVATE EQUITY
$6.4 Billion	**$4.7 Billion**	**$481 Million**	**$220 Million**
INCEPTION DATE			
MARCH 2005	**JULY 2007**	**JULY 2022**	**AUGUST 2017**
Evergreen Funds[1] • Eden Fund: $2.1B • Fund of One / SMAs: $3.4B **Drawdown Funds**[3,4] • Dislocation Opportunity Fund: $249M • Private Asset-Backed Credit Fund I Target: $400M **Investment Grade and Blended**[1] • SMAs: $650M	**Evergreen Funds**[1] • Victoria Fund: $2.5B • SMA: $200M **Drawdown Fund**[4] • Residential Credit Opportunity Fund: $100M Target: $300M **Real Estate & Small Business Loans**[2] • Ready Capital REIT (NYSE: RC)	**Commercial Real Estate Equity**[3] • Atlas Fund: $406M • Co-Investments: $75M	**Lower Middle Market Financial Services**[3] • Sentinel Fund: $120M • Co-Investments: $57M • Other Fund Investments: $44M

1 AUM data is approximate and estimated as of 3/1/2023 unless otherwise noted. 2/28/23 NAV plus known March Subs.
2 Total Stockholders Equity as of 12/31/2022. https://d18rn0p25nwr6d.cloudfront.net/CIK-0001527590/ef998e0c-507b-48ef-9cfb-ce1c4e4bca9c.pdf
3 AUM is committed capital as of 3/1/2023
4 Target commitments are not included in the current AUM figure
*Other includes Endowment/Foundation, HNW/Family Office, Waterfall Employees. Ready Capital REIT is not included in the above client base.

Waterfall Executive Summary

APPROACH & OPPORTUNITY SET	• Seeks to capture illiquidity and complexity premiums across the high yield Asset-Backed Credit /securitized credit and loan space (60+ sub-sectors) in the U.S. and Europe

RESIDENTIAL	CONSUMER	COMMERCIAL REAL ESTATE	SMALL BUSINESS	TRANSPORTATION

- Emphasis on non-traditional/esoteric segments of the market
- Relative value sector rotation primarily focused on high yield, short duration assets
- Focus on sourcing and structuring of investment opportunities
- Active use of the Asset-Backed Credit market to seek attractive non-recourse, non-MTM term funding

SOURCING

Secondary:

- Asset-Backed Credit
- Whole loan purchases from lenders and other financial institutions (distressed, NPL, performing)

Primary:

- Privately negotiated Asset-Backed Credit /Structured Lending (specialty finance funding solutions)
- Syndicated esoteric Asset-Backed Credit (e.g., CRE, student loans, timeshare, aircraft)
- Direct private origination/lending in the alternative residential mortgage market

PORTFOLIO FIT

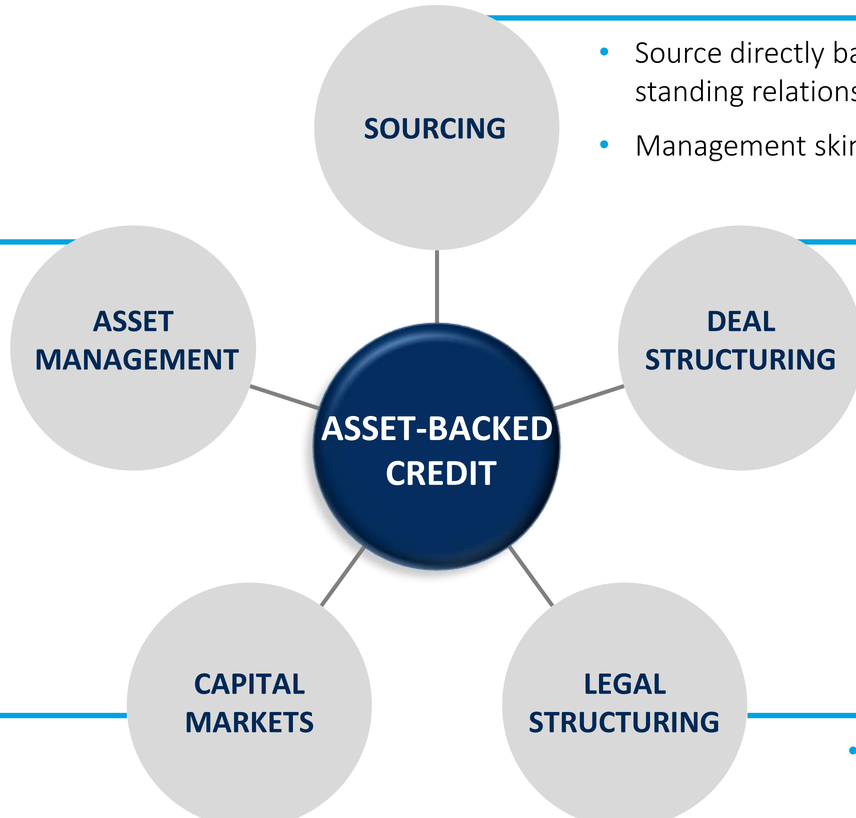
- Complement/diversify corporate credit (public/private/distressed) and the equity-risk premium
- Cash flows driven by generally different fundamental factors than corporate credit/equities

WHY WATERFALL?

- Extensive depth and experience across broad range of sectors
- 17-year history and track record
- Attractive scale and strong alignment
- Flexible/custom implementation:
  Commingled fund | Closed End Drawdown fund | Fund of One | Separate Account

Capturing Alpha

Waterfall seeks to generate alpha in each stage of the investment cycle



Sourcing

- Source directly based on long-standing relationships
- Management skin-in-the-game

Asset Management

- Asset management team with asset-specific and structure-specific expertise
- Counterparty risk framework of originator, servicer, back-up servicers, and custodian
- On-going operational audits

Deal Structuring

- Detailed asset and financial cash flow analysis
- Extensive asset performance and counterparty covenants

Capital Markets

- Seasoned capital markets team with cross-asset experience
- Private/public, bank, and Asset-Backed Credit financing expertise

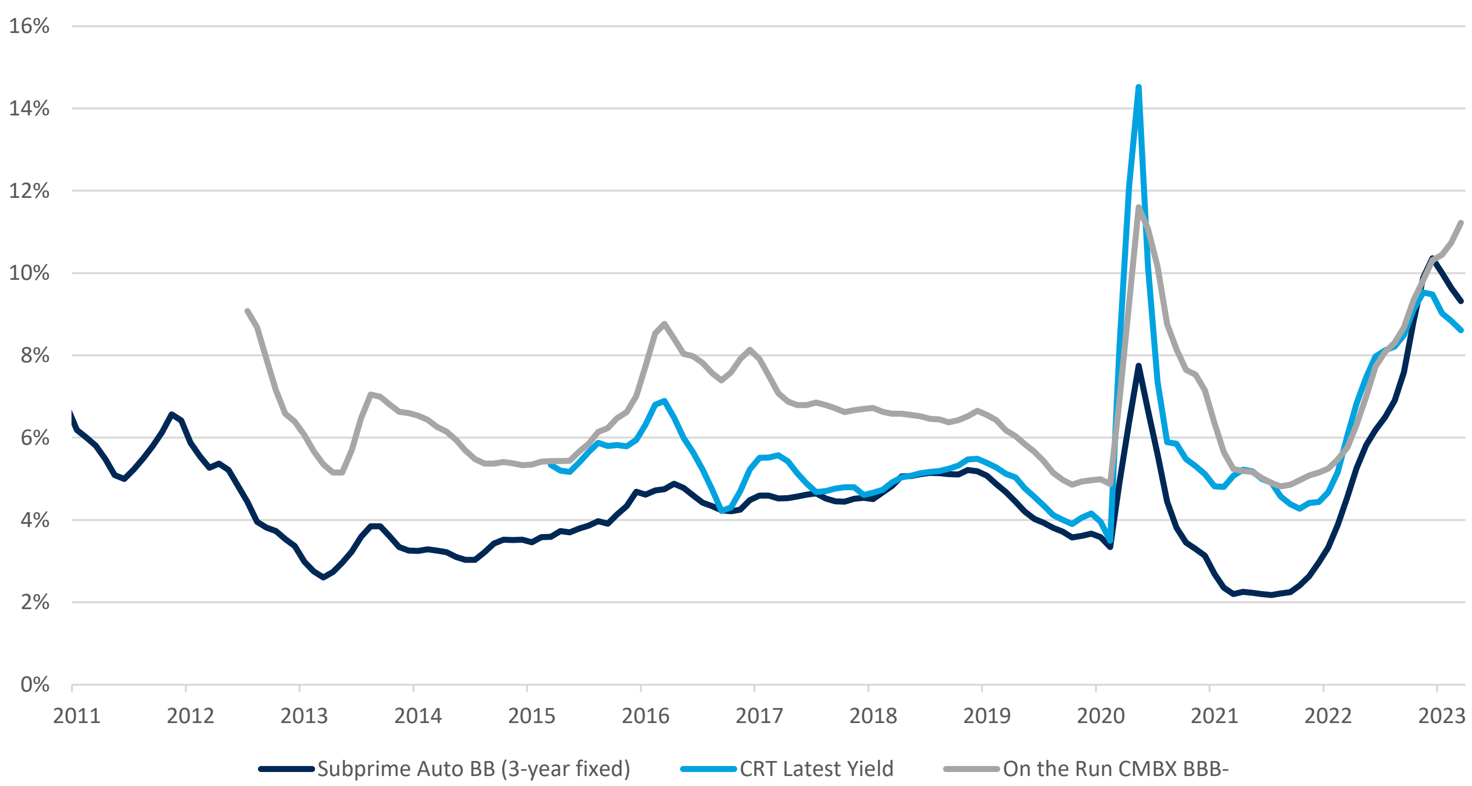
Legal Structuring

- In-house legal professionals with structuring expertise
- Provide oversight on legal, compliance and regulatory matters

Structured Products are Trading at Attractive Absolute Yields

- Loss remote BBB/BB quality Structured Products assets are now offering some of the highest yields in more than a decade (other than during the Covid-19 pandemic)

HISTORICAL YIELDS (3-MONTH AVERAGE)



Source: JPM. Information is as of March 31, 2023.

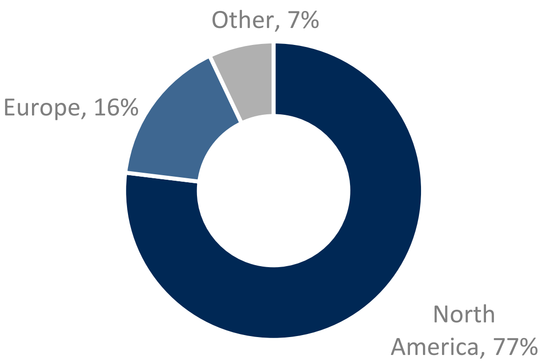
Eden Portfolio Positioning

EDEN PORTFOLIO STATISTICS (ESTIMATED AS OF 3/31/23)	
Fund NAV	$ 2.2 Billion
Leverage[1] (Debt to Equity – 0.60x)	1.60x
Gross levered Yield[2,*]	18.5%
Levered Yield (net of fees and expenses)**	14.1%
Credit Spread Duration[3]	2.1 Years
Interest Rate Duration[3]	0.3 Year
1- Year Annualized Levered Carry[4]	12.5%
Average Price	75.1
Average Position Size[5]	$6.7 Million
Largest Position | Top 10[5,6]	5% | 26%

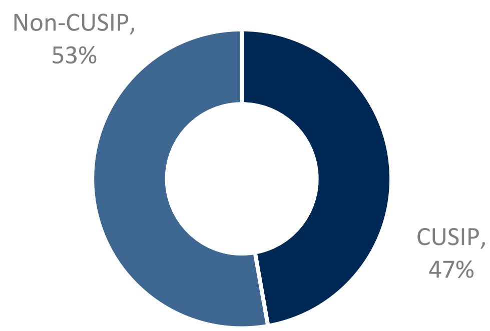
*Loss adjusted, net of estimated financing cost, and net of estimated hedging cost.
**Levered Yield (net of fees and expenses) is a hypothetical figure calculated by applying 1.5% Management Fee and 17% Incentive fee to the gross yield figure.

SECTOR ALLOCATION[7,8]		
CMBS		19%
Seasoned Conduit	7%	
Agency Multifamily	6%	
Single Asset Single Borrower (SASB)	5%	
Consumer		18%
Business Loans		13%
CRE Loans		8%
Agency Reverse Mortgage		8%
Aircraft		6%
Small Balance Commercial		3%
Auto		3%
RMBS		3%
Corporates		2%
Other		17%

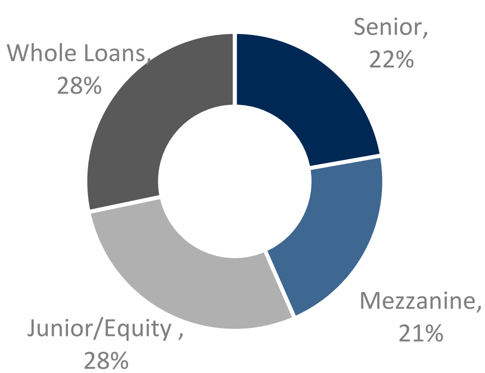
GEOGRAPHY[9]



CUSIP | NON-CUSIP[9]



CAPITAL STRUCTURE[6]



Please see important footnote disclosures on page 34
Note: Past performance is not indicative of future results. Data above estimated as of 3/31/23.
Please see important targets disclaimers at the front of this presentation.

Asset-Backed Credit Sector Rotation

- Waterfall adjusts the Fund's sector allocations in an effort to capture attractive risk-adjusted returns
  - As illustrated below, our team's deep knowledge of the structured finance market allows for opportunistic rotations within a diverse group of sectors

1Q2014	
CRE CDO	24%
CLO	13%
CMBS	9%
Trups CDO - Bank	8%
Trups CDO - Reits	7%
Business Loans	6%
Prime HELOC	4%
Insurance	4%
Commercial RE Loan	3%
Timeshare	3%
Other	19%

1Q2015	
CLO	19%
CRE CDO	14%
CMBS	12%
Trups CDO - Bank	11%
Trups CDO - Reits	7%
Timeshare	4%
Small Business Loan	4%
Subprime Mortgage	4%
Unsecured Consumer	3%
Prime HELOC	3%
Other	19%

1Q2016	
CMBS	23%
CLO	14%
Unsecured Consumer	10%
Trups CDO - Bank	10%
CRE CDO	8%
Trups CDO - Reits	5%
Small Business Loan	4%
Student Loans	3%
Timeshare	3%
Subprime Mortgage	2%
Other	18%

1Q2017	
CMBS	38%
Unsecured Consumer	14%
CRE Loans	8%
Trups CDO - Bank	8%
CLO	7%
Aircraft	5%
Trups CDO-Reits	3%
CRE CDO	3%
Small Business Loan	3%
Student Loans	3%
Other	8%

1Q2018	
CMBS	27%
Unsecured Consumer	14%
CRE Loans	12%
Aircraft	10%
Trups CDO - Bank	8%
CLO	4%
Student Loans	4%
Small Business Loan	3%
Corporates	3%
Activist CRE	2%
Other	13%

1Q2019	
CMBS	32%
Unsecured Consumer	16%
Aircraft	9%
CRE Loans	9%
Business Loans	5%
Trups CDO - Bank	5%
Non-Agency Reverse	3%
Corporates	3%
Student Loans	2%
Activist CRE	2%
Other	14%

1Q2020	
CMBS	29%
Unsecured Consumer	14%
CRE Loans	9%
Business Loans	9%
Agency Reverse Mortgage	7%
Aircraft	6%
Corporates	4%
Non-Agency Mortgage	3%
Trups CDO - Bank	3%
Activist CRE	2%
Other	15%

1Q2021	
CMBS	25%
CRE Loans	10%
Business Loans	10%
Unsecured Consumer	9%
Corporates	6%
CMBX	6%
Aircraft	4%
CRE CDO	4%
Activist CRE	2%
Student Loans	2%
Other	15%

1Q2022	
CMBS	22%
Unsecured Consumer	16%
Business Loans	14%
CRE Loans	11%
Agency Reverse Mortgage	7%
Aircraft	5%
CMBX	3%
RMBS	3%
Auto	2%
CRE CLO	2%
Other	16%

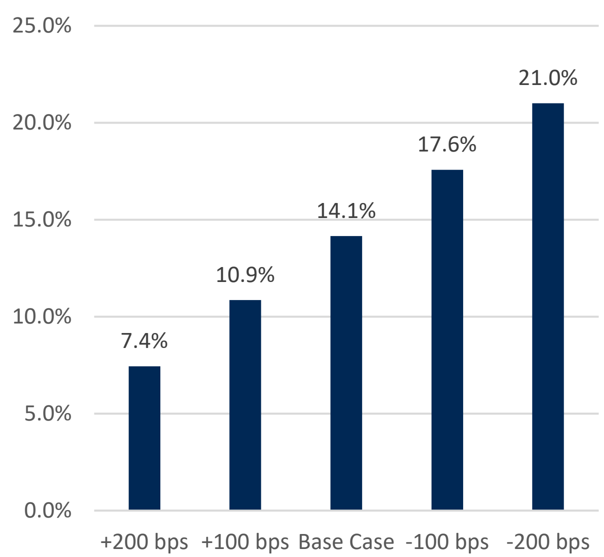
Prelim 1Q2023	
CMBS	19%
Consumer	18%
Business Loans	13%
CRE Loans	8%
Agency Reverse Mortgage	8%
Aircraft	6%
Small Balance Commercial	3%
Auto	3%
RMBS	3%
Corporates	2%
Other	17%

Source: Waterfall. As of prelim 3/31/23.
Portfolio sector allocations above reflect an illustrative sample of Eden's portfolio as of end of each respective period shown. Any additional quarterly allocations are available upon request.

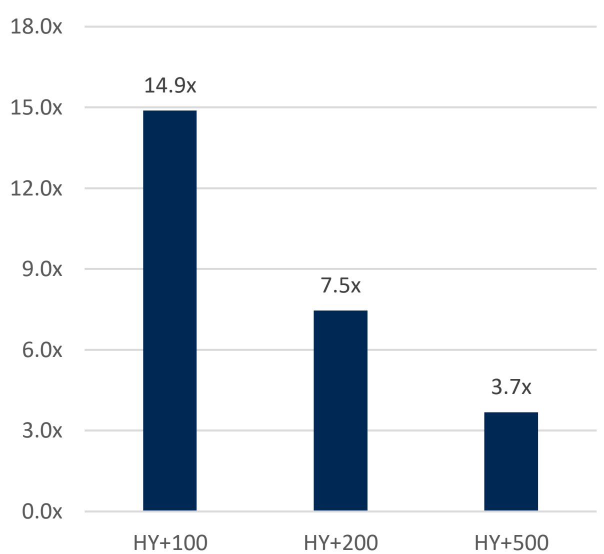
Portfolio positioning for 2023

- Waterfall's go forward performance expectations for Eden remain strong
  - 12.5% running carry as of March 2023 should support net interest margins
  - Spread tightening of 100-200bp may put gross returns into the 20%+ range (15%+ net)[1]
- Considerable Protection in downside scenarios. Eden maintains a cash buffer, leverage and hedges such that the fund can be covered between 3-15x on expected margin calls in severe downside scenarios
- Purchase activity remains relatively strong, averaging $1bn a quarter across HY accounts between Q3 2022 – Q1 2023.

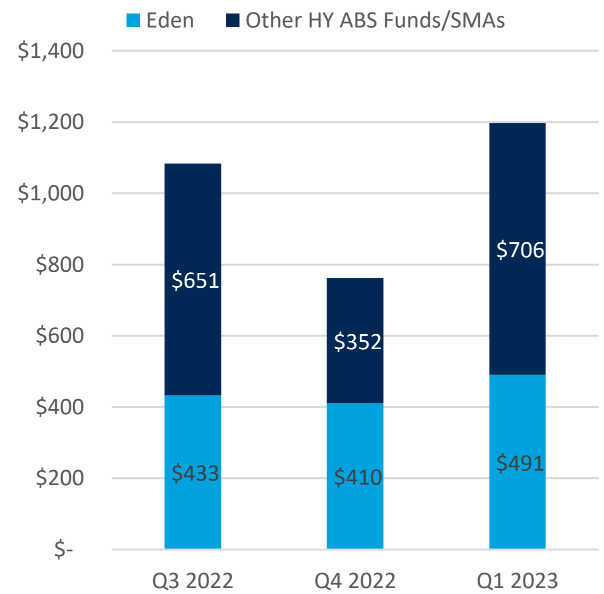
Expected Net Return with Spread Shock[1,2]



Expected Margin Call Coverage Multiple[2]



Purchase Activity (in $M)*



Note: Past performance is not indicative of future results. Data above estimated as of 3/31/23.
*Purchase figures and purchase stats represents purchase in HY ABS across all HY ABS funds and accounts managed by Waterfall.
1 Expected Net Return figures are calculated by applying 1.5% Management Fee and 17% Incentive fee to the gross estimated net return.
2 This data is provided by Waterfall's investment team that is subjective, opinion based, and relies on information Waterfall has learned as a market participant. Furthermore, this data is based on Waterfall's analysis of market conditions as of April 2023. Waterfall's analysis and the market characteristics described above may vary significantly if market conditions change. Please see important targets disclaimers at the front of this presentation.

High Yield Asset-Backed Credit: Relative Value in Fixed Income

FAVORABLE SUPPLY DEMAND PROFILE → OPPORTUNITY FOR HIGHER ABSOLUTE RETURN

0.5 - 1% MONTHLY CARRY → DAMPENS VOLATILITY & LOWERS CORRELATION

FUND/INDEX	ANNUALIZED RETURN	CORRELATION TO EDEN	CORRELATION TO S&P 500[1]	CORRELATION TO BARCLAYS AGGREGATE	ANNUALIZED VOLATILITY	SHARPE RATIO[2]
WATERFALL EDEN [3]	9.2%	-	0.33	0.01	5.8%	1.20
ML HY INDEX	5.8%	0.53	0.78	0.38	7.4%	0.48
S&P/LSTA LEVERAGED LOAN INDEX	4.6%	0.74	0.62	0.11	5.1%	0.46

1 Source Bloomberg. SPX Index.
2 Annualized Returns Starting Jan 2010. As of 3/31/23. The Sharpe ratio uses standard deviation to measure a fund's risk-adjusted returns. US Treasury (USGG10YR).
3 Returns start as of Jan 2010 (post restructuring), Waterfall Eden represents performance of Waterfall Eden Fund, LTD, net of fees and expenses. Source: Waterfall and Bloomberg. Please see important performance calculation disclosures and index definitions at the front of this presentation

WATERFALL Asset Management

Eden Portfolio Performance

Performance History: (% Net returns; 2010 to present)

WATERFALL EDEN FUND, LTD. ("Eden Ltd")	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
2023	0.13	0.78	(1.14)	0.50*									**0.26***
2022	1.37	0.44	0.42	0.23	(0.61)	(0.56)	(0.20)	1.85	(1.09)	(0.70)	(0.67)	(0.17)	**0.25**
2021	3.07	1.65	2.02	1.03	1.47	0.72	0.88	0.76	1.47	2.38	0.70	0.50	**17.93**
2020	0.53	0.33	(16.09)	1.18	0.10	2.73	2.01	1.51	2.00	0.87	0.94	2.48	**(2.96)**
2019	0.25	0.42	0.35	0.25	0.83	(0.04)	1.05	0.28	0.39	0.92	0.38	0.45	**5.66**
2018	1.42	0.85	0.66	0.14	0.66	0.63	0.44	0.70	0.51	0.90	(0.15)	(0.23)	**6.70**
2017	2.08	1.43	1.00	0.89	0.94	0.89	0.58	0.53	0.58	0.54	0.53	0.60	**11.12**
2016	(2.56)	(2.22)	1.94	1.88	0.48	0.12	1.44	1.22	0.85	1.28	0.72	0.72	**6.54**
2015	0.36	0.79	0.61	0.80	0.55	0.26	0.45	0.10	(0.79)	(1.05)	(0.32)	(1.31)	**0.41**
2014	1.53	1.30	0.76	1.04	0.91	0.95	1.26	0.76	0.80	0.07	0.53	0.48	**10.87**
2013	2.73	0.78	0.82	1.75	0.92	(1.06)	1.28	1.32	0.80	1.19	0.68	0.88	**12.73**
2012	3.26	3.08	2.56	1.33	1.25	0.03	1.99	2.06	1.84	1.87	1.09	0.74	**23.23**
2011	2.77	2.33	0.77	2.04	1.44	(0.47)	2.06	(1.29)	(0.46)	1.01	1.14	1.56	**13.60**
2010	0.96	0.87	0.64	1.21	0.00	0.95	1.43	2.88	3.13	2.36	2.64	0.92	**19.48**

WATERFALL EDEN FUND, LP ("Eden LP")	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
2023	0.19	0.63	(0.95)	0.50*									**0.36***
2022	1.40	1.08	0.55	0.39	(0.41)	(0.86)	(0.26)	2.10	(0.92)	(0.53)	(0.86)	(0.16)	**1.48**
2021	2.75	1.84	1.90	0.97	1.47	1.20	0.83	0.61	1.29	2.18	1.02	0.47	**17.83**
2020	0.49	0.23	(16.31)	0.90	0.11	2.72	2.01	1.51	1.85	0.84	0.75	2.46	**(3.98)**
2019	0.28	0.44	0.43	0.25	0.72	0.04	1.05	0.33	0.41	1.00	0.40	0.30	**5.80**
2018	1.31	0.81	0.69	0.19	0.66	0.59	0.45	0.73	0.50	0.98	0.08	(0.18)	**7.01**
2017	2.02	1.43	1.02	0.90	0.94	0.89	0.60	0.55	0.58	0.58	0.53	0.59	**11.13**
2016	(2.41)	(2.11)	1.87	1.84	0.50	0.16	1.38	1.22	0.85	1.26	1.25	0.73	**6.62**
2015	0.38	0.84	0.67	0.82	0.66	0.26	0.47	0.13	(0.75)	(0.98)	(0.29)	(1.27)	**0.92**
2014	1.48	1.25	0.74	1.02	0.88	0.92	1.18	0.71	0.80	0.13	0.55	0.50	**10.65**
2013	2.66	0.77	0.81	1.59	0.88	(0.90)	1.23	1.27	0.79	1.13	0.70	0.92	**12.46**
2012	2.89	2.88	2.50	0.37	1.41	0.04	2.10	2.25	1.84	1.79	1.06	0.81	**23.01**
2011	2.55	2.15	0.83	1.90	2.30	(0.30)	1.83	(0.94)	(0.25)	0.98	1.04	1.39	**14.31**
2010	1.12	1.02	0.87	1.80	6.68	0.94	2.05	2.51	2.69	1.70	2.35	0.94	**27.51**

Note: Past performance is not indicative of future results. Waterfall does not guarantee any minimum level of investment performance or the success of the Fund, and investors may incur losses Returns shown are net of fees and all other fund expenses. Performance shown is for a representative investor in the Fund; an individual investor's return may vary based on the timing of capital transactions and fees charged. The returns shown are representative of an investor in a class which existed prior to the restructuring that occurred on November 1, 2009 and are net of fees and all other fund expenses. An investor who invested into the fund after November 1, 2009 would have invested in a class different from the class of shares held by existing investors as of such date. As of January 1, 2013, returns are shown for an investor who pays the fees described in the Fund's offering materials. Returns for any class offered during the history of the Fund are available upon request. Total returns include changes in securities' prices and the reinvestment of capital gains and dividends, if any. 2022 performance numbers are unaudited and may change. Information on restructuring is included in back of this *Estimated Returns

Eden Portfolio Positioning: Footnotes

All market values are calculated in USD. FX rates are sourced from Bloomberg.

1. Leverage is calculated as NAV + financing with recourse, divided by NAV.

2. Gross Levered Yield is calculated by multiplying total fund leverage and the fund expected yield, and subtracting estimated financing and hedging costs from the product.

3. Calculated as weighted average based on market value. Only includes Portfolio Investments. Excluded are hedging, FX, currency, and financing positions, as well as investments that are not attributable to these statistics, such as, but not limited to, equities and warrants.

4. Represents annualized rolling 12-month average of the percentage of carry received on the investments, divided by net beginning market value of the portfolio assets that may generate carry income. Carry may include non-interest income, such as rental or lease income. Carry figure may also be adjusted for miscellaneous business income and expenses (i.e., expenses attributable to carry collection/generation) that Waterfall received or paid, respectively. This figure includes interest received or paid from hedging and FX positions and excludes non-income generating assets, such as, but not limited to, equity. A complete inclusion and exclusion list is available upon request.

5. Only includes Portfolio Investments. Pooled loans are counted as one position.

6. Shown as a percentage of total net market value of the Portfolio Investments positions (or the "Portfolio Market Value").

7. Sector and subsector categories are defined by Waterfall. The investments are categorized to sector based on Waterfall's discretion.

8. Shown as a percentage of total gross market value of the Fund. "Other" represents exposure to sectors other than largest 10 sectors, currency, and hedge positions, as percentage of GAV. Information about the sectors within "Other" is available upon request.

9. Only includes Portfolio Investments. Shown as a percentage of Portfolio Net Equity Market Value. Net Equity Market Value is calculated by subtracting the market value of leverage applied to the position to the market value of the Portfolio Investment.

DSC
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CAPITAL

MWRA Retirement System

DSC Meridian Capital:
Credit Opportunities Fund

May 25, 2023

Strictly confidential

Firm Overview

DSC Meridian Capital is an opportunistic, event-driven credit-focused firm seeking to generate absolute returns across the credit cycle

- Launch date: June 1, 2018
- Significant personal investment by Founder
- Firm AUM: ~$800mil
- Two Funds:

  - Credit Opportunities Fund

  - Climate Action Fund

Distinguished Leadership with Institutional Caliber Team

- Sheru Chowdhry, Founder and Chief Investment Officer, was Head of Credit Research and Co-Portfolio Manager at Paulson & Co.
- Experienced risk taker who guided multi-billion AUM credit portfolio through multiple macro and mini-credit cycles
- Assembled a seasoned team of like-minded partners with 60+ years of combined experience

Dynamic Approach to Portfolio Construction

- Will shift portfolio focus/ positioning based on the credit cycle
- Invest up and down the capital structure, long and short, across the full spectrum of credit opportunities
- Bottom-up, fundamental research drives security selection
- Focus on North American and Western Europe

ESG Integration and Corporate Engagement

- Dedicated, in-house ESG expertise: Director of ESG Research and Engagement has +20 years experience
- Fully embraced ESG as a strategic tool alongside fundamental underwriting
- Active corporate engagement to achieve both sustainability and security price outcomes

DSC MERIDIAN CAPITAL

Note: for illustrative purposes only and subject to change.

Multi-cycle approach to portfolio construction

Principal protection

Bottom-up fundamental analysis

Opportunistic

Optimize risk and return

ESG **Sustainability and engagement**

Objective: Maximize risk-adjusted returns through the credit cycle

Top of Cycle:
8-10% Target Returns

Priorities:
1. Capital Preservation
2. Liquidity
3. Secured Instruments
4. Alpha Shorts

Net Long Exposure Range:
Typically 70% to -30%

Portfolio of Performing and Stressed Longs; Cap Arb Trades, Alpha Shorts and Systemic Hedges

Targeting Mid-teens Returns Thru the Cycle

Bottom of Cycle: +20%
Target Returns

Priorities:
1. Capital Appreciation
2. Fulcrum Security (Distressed)
3. Equity Upside Thru Debt

Net Long Exposure Range:
Typically 130% to 70%

Portfolio of Stressed, Distressed and Post Re-Org Equity Longs

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Note: for illustrative purposes only and subject to change. Significantly based on DSC Meridian's evaluation of current market conditions

Sheru Chowdhry, Founder and CIO

JP Morgan Chase M&A Group	Debt Traders Research	Paulson & Co. Inc. Investment Management			DSC Meridian Launched: June 1, 2018
Associate **2000**	**Vice President** **2003**	**Analyst** **2004**	**Partner** **2007**	**Head of Credit Research, 2009** **Co-Portfolio Manager, 2015**	
Honed valuation using DCF, trading comparables and sum-of-the parts analysis Learned key drivers of value: revenue, margins and cost of capital	Published research on HY and distressed securities Evaluated covenants and capital structures Acquired experience with Chapter 11 process	First credit hire and fourth research analyst to join the team Covered North America and Western Europe HY and distressed markets Covered event-driven equities in E&P, Power, Utilities, Homebuilders and Gold Promoted to partner in 3 years	Hired, supervised and mentored team of 15 credit investment professionals Managed, monitored, and reviewed credit trades and portfolio Sourced, sized and executed ideas Developed and expanded capital market relationships	Head of Credit Research and Co-Portfolio Manager of Credit Funds along with John Paulson Member of the Risk and Portfolio Review Committees Oversaw credit funds ($9bn AUM at peak) and overall credit positions Paulson Credit Opportunities Fund named "Top Performing Hedge Fund in the World" by Barron's in 2010	

Education

- Master in Business Administration, Vanderbilt University, 2000
- Bachelor in Technology, Indian Institute of Technology, Bombay, 1996

DSC MERIDIAN CAPITAL

Source: DSC Meridian

DSC Investment Leadership

SHERU CHOWDHRY: Founder & Chief Investment Officer
+20Yrs Experience

Sheru Chowdhry is the Founder and Chief Investment Officer at DSC Meridian Capital. Prior to launching DSC Meridian Capital, Mr. Chowdhry was Head of Credit Research and Portfolio Manager at Paulson & Co. and managed the Paulson Credit Opportunities Funds. He was the first credit hire at Paulson & Co. in 2004, and was promoted to Partner in 2007, to Head of Credit Research in 2009 and to Portfolio Manager in 2015. During his tenure, he oversaw a team of 15 credit professionals and represented Paulson & Co. on several creditor committees and Boards of Directors. Prior to Paulson & Co., Mr. Chowdhry was a Vice President at DebtTraders Inc. and focused on high yield and distressed securities research. Mr. Chowdhry started his career in 2000 in the Mergers & Acquisitions group at J.P. Morgan as an Associate. Mr. Chowdhry has an MBA from Vanderbilt University and a Bachelor of Technology from IIT Bombay. He currently serves on the NY Tri-State Board of Pratham, one of the largest non-for-profit in India, that seeks to provide quality education to underprivileged children in India.

MATT BRECKENRIDGE: Partner & Member of Investment Committee
+20Yrs Experience

Matt Breckenridge is a Partner and Member of the Investment Committed at DSC Meridian Capital. Prior to joining DSC Meridian, Mr. Breckenridge was a Managing Director at Marathon Asset Management (2002-2016), a $13 billion special situations fixed income investment manager. Over his fourteen-year tenure, Mr. Breckenridge was tasked with leading investment analysis and strategy in industries of stress and transformation globally. Mr. Breckenridge led investments for Marathon in banks, non-bank financials, telecom, technology, infrastructure, media, homebuilders, chemicals, energy and general industrials. Prior to Marathon Asset Management, Mr. Breckenridge was a Director of Research at DebtTraders (2001-2002), a high-yield and distressed debt trading boutique. Previously, Mr. Breckenridge was a Vice President of Fixed Income Research in Societe Generale's High Yield Group (2000-2001). Matthew started his career at Merrill Lynch Asset Management as a Vice President in the Tax Exempt Fixed Income Group (1996-2000). Breckenridge earned a B.S. in Accounting from Rutgers University.

CEKI ALUF MEDINA: Partner & Member of Investment Committee
+20Yrs Experience

Ceki Aluf Medina is a Partner and Member of the Investment Committee at DSC Meridian. Mr. Medina has covered high yield and distressed debt securities and equities in developed economies over the past 15 years. Prior to joining DSC Meridian, he worked as a Managing Director and Partner at Southpaw Asset Management, Scottwood Asset Management, Eos Partners, and on the sell side at DebtTraders, a high-yield and distressed debt trading boutique. Prior to this, he was a banker in the mergers and acquisitions department of Lehman Brothers. Ceki is a graduate of Bogazici University (BSc.) and has an MBA from University of North Carolina at Chapel Hill.

PAULA LUFF: Director of ESG Research and Engagement
+20Yrs Experience

Paula Luff is the Director of ESG Research and Engagement at DSC Meridian Capital. Prior to DSC Meridian, Paula was Director of Sustainability and Impact at Inherent Group, LP, where she developed the firm's ESG platform and led engagement with portfolio companies and investment stewardship. Prior to joining Inherent, Ms. Luff was Vice President of Corporate Social Responsibility at Hess Corporation where she built the business unit, led strategy development, and integrated material ESG matters into operations. Previously, Ms. Luff was Senior Director of Strategic Health Partnerships at Pfizer where she built and led the company's Access to Medicines initiatives globally. Ms. Luff earned a B.A. from the University of Wisconsin—Madison and Master's Degrees from New York University and the New School.

Note: for illustrative purposes only and subject to change.

Broad Tool Kit: invest across full credit spectrum

Strategy		Approach	Illustrative names		
Performing Credit		• Attractive yield with potential upside catalyst • Low probability of impairment	YRC Lands' End	Live Nation Expedia	Life Time Houghton Mifflin
Stressed Credit		• Some probability of impairment; invest above the fulcrum security • Capture income plus price appreciation towards par	Adient U.S. Silica	PetSmart Selecta	Cinemark Carnival Cruise
Distressed	Workout/ Post Re-org Equity	• Good business/bad capital structure • Cyclicals at bottom of the cycle	Covia LatAm	PG&E Aeromexico	Realogy XM Sirius Radio
Distressed	Liquidations	• Large liquidations with depressed asset values • Limited downside from asset coverage	Capmark Glitnir	WAMU Lehman	Nortel
Distressed	Litigation	• Seek asymmetric returns from cheap/free options • Uncorrelated and event-driven situations	GM Nova Scotia Residential Capital	GSE's Lehman	Momentive
Post Re-org and/or Event-Driven Equities		• Significant discount to comps because of a corporate event • Specific corporate catalyst to drive value	AerCap Covia	National Exp. Compass	Ryman Oversees Shipping
Capital Structure Arbitrage		• Target convex situations with significant short bias • Structure trade with limited carry/downside	First Quantum Tronox	Hertz Sally Beauty	Energizer Uniti/Windstream
High Conviction Shorts		• Target fundamental and thematic shorts • Trade and cover position after catalyst	Occidental Précision Drilling	Apache Jaguar	BASF Saipem

Note: The companies listed above are being provided for illustrative purposes only and represent investments that historically have fit within the investment strategies and approach pursued by DSC Meridian. Only some of the names above have been held by various DSC Meridian portfolios. The rest were held by prior employers of DSC Meridian investment team, where such members held significant responsibility for the investment. It should not be assumed that DSC Meridian will be able to identify any similar investment opportunities in the future or that any such opportunities will be profitable.

We adjust portfolio exposure and objectives based on opportunity set

	TOP OF THE CREDIT CYCLE	BOTTOM OF THE CREDIT CYCLE
CREDIT SPREADS	TIGHT	WIDE
DEFAULT RATE	LOW	HIGH
FOCUS	Capital Preservation, Liquidity, Secured Instruments, Shorts, Diversification	Capital Appreciation, Equity Upside, Fulcrum Security, Mispriced Options
TARGET NET POSITIONING	+70% to -30%	+130% to +70%
LONG POSITION	Core 5%; Typical 2% to 3%	Core 10%; Typical 2% to 4%
SHORT POSITION	Core 10%; Typical 2% to 4%	Core 5%; Typical 1% to 2%

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And, toggle the underlying composition of longs and shorts

	TOP OF THE CREDIT CYCLE			BOTTOM OF THE CREDIT CYCLE		
	Target % of Portfolio	Target Returns	Typical Characteristics	Target % of Portfolio	Target Returns	Typical Characteristics
PERFORMING CREDIT	40-60%	7-10%	• Low probability of impairment • Low duration • Event driven	10-30%	10%+	• Debtor-In-Possession Financing • Long duration • Positive convexity
STRESSED CREDIT	20-30%	10-15%	• Complexity • Covenant/Legal thesis • Event driven	25-50%	15%+	• Above fulcrum • Potential equity upside
DISTRESSED/ BANKRUPTCIES	5-10%	15%+	• Less correlated • Liquidations • Asymmetric upside	25-50%	20%+	• Fulcrum security • Deep value • Good business/ bad capital structure • Cyclicals at bottom of cycle
EVENT EQUITY/ RE-ORG EQUITY	0-10%	20%+	• Deep value • Misunderstood/mispriced • M&A target			
CAP STRUCTURE ARBITRAGE	20-30%	20%	• Cheap shorts/hedges • Thematic/structural	-	-	
SINGLE NAME SHORTS/ PORTFOLIO HEDGES	10-100%	20%	• Cheap shorts/hedges • Thematic/structural	-	-	

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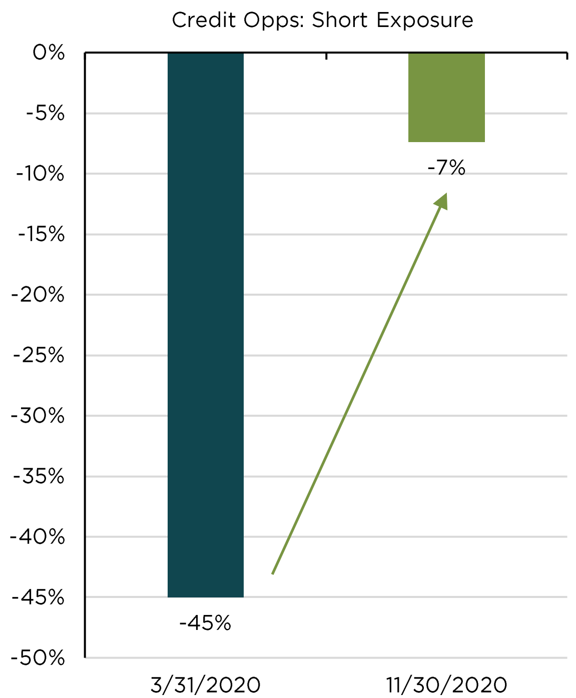
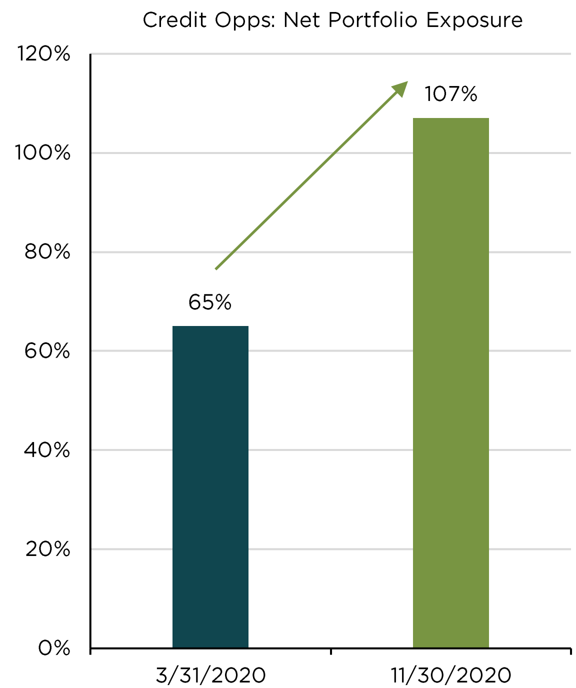
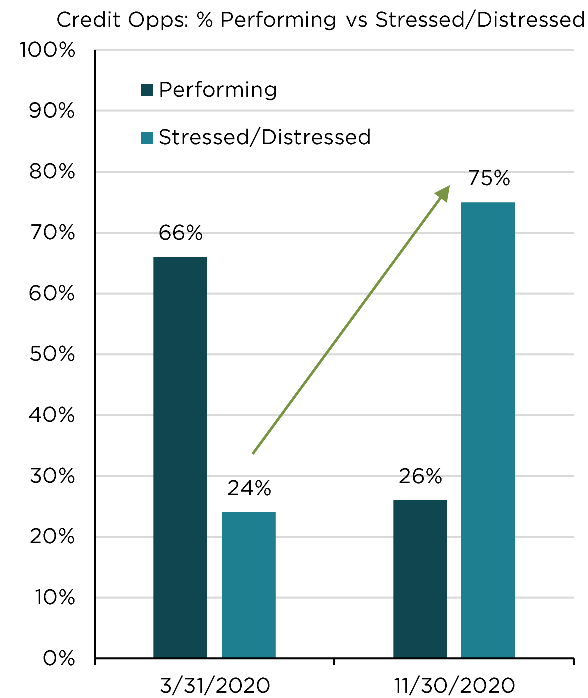
Managing Risk: navigating "Covid" credit cycle

Pre-Covid: March 2020 | *Ample short exposure…* | *…low net exposure…* | *…only 24% allocated to stressed and distressed*







November 2020 | *Pivot to offensive positioning, reduce short exposure…* | *…increase net long positioning…* | *monetize performing, increase stressed/distressed exposure*

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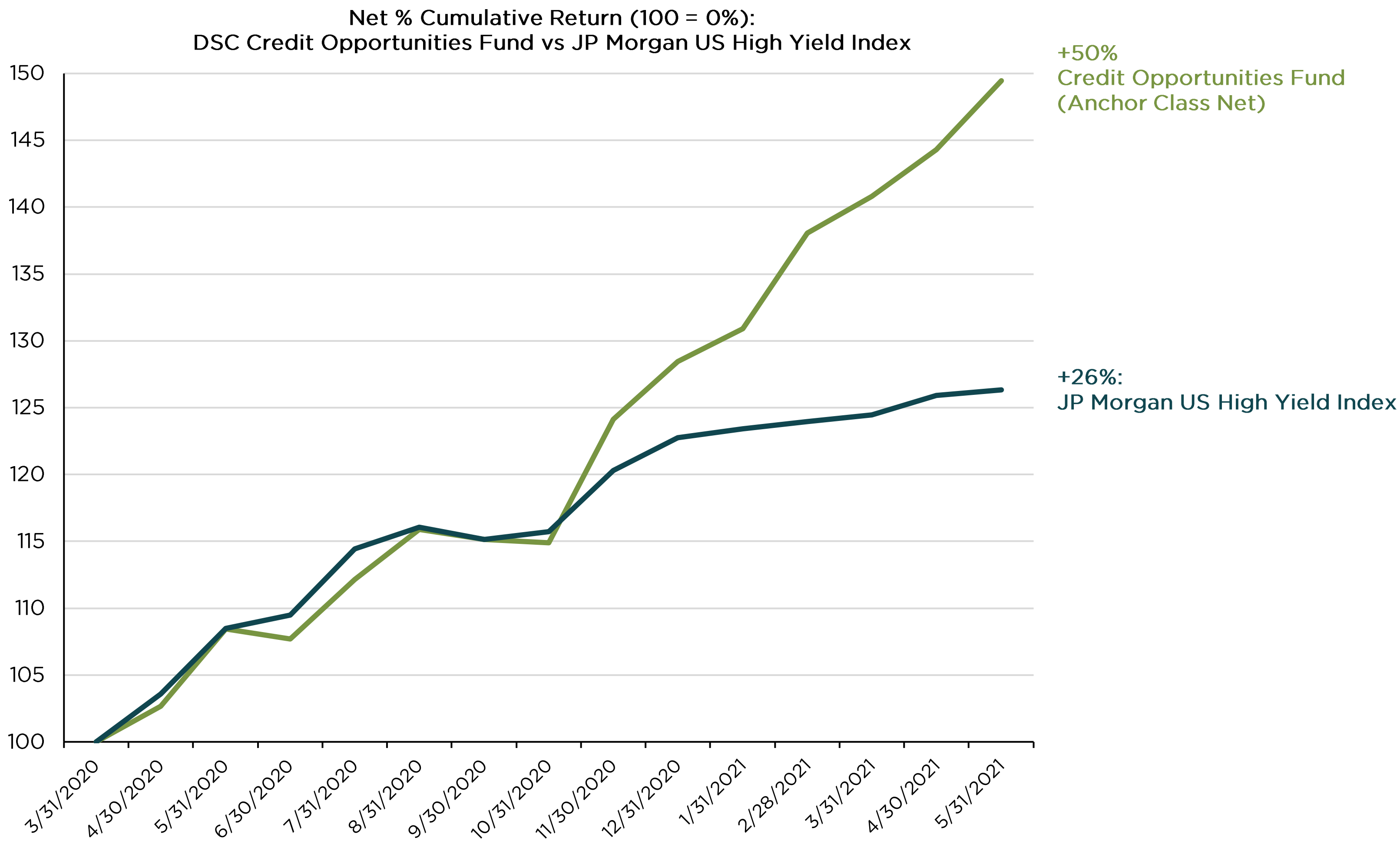
Result: Credit Opportunities Fund up 50% net over next 14 months



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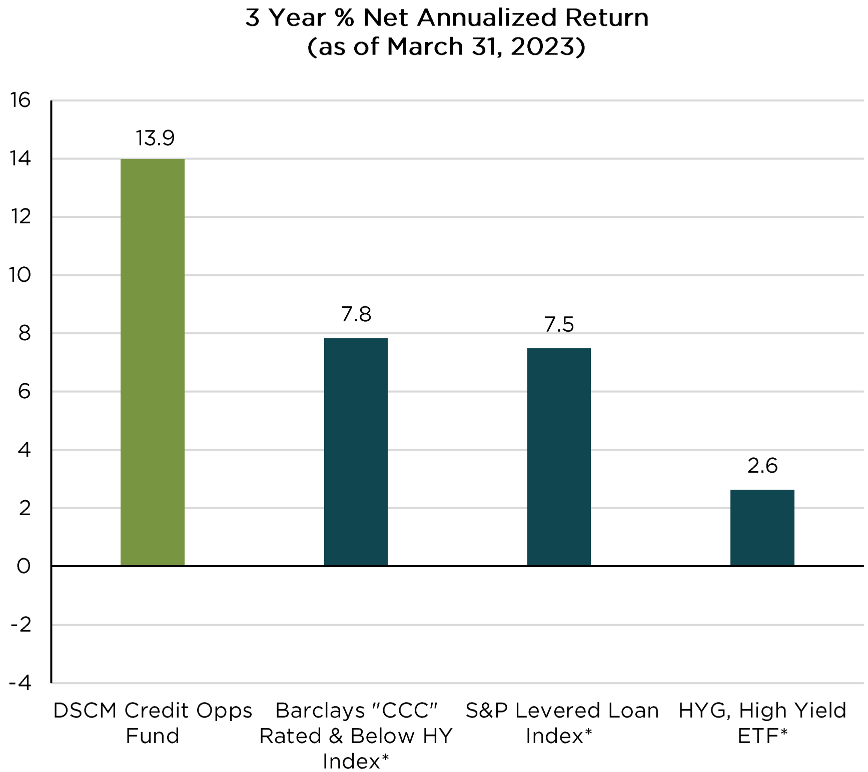
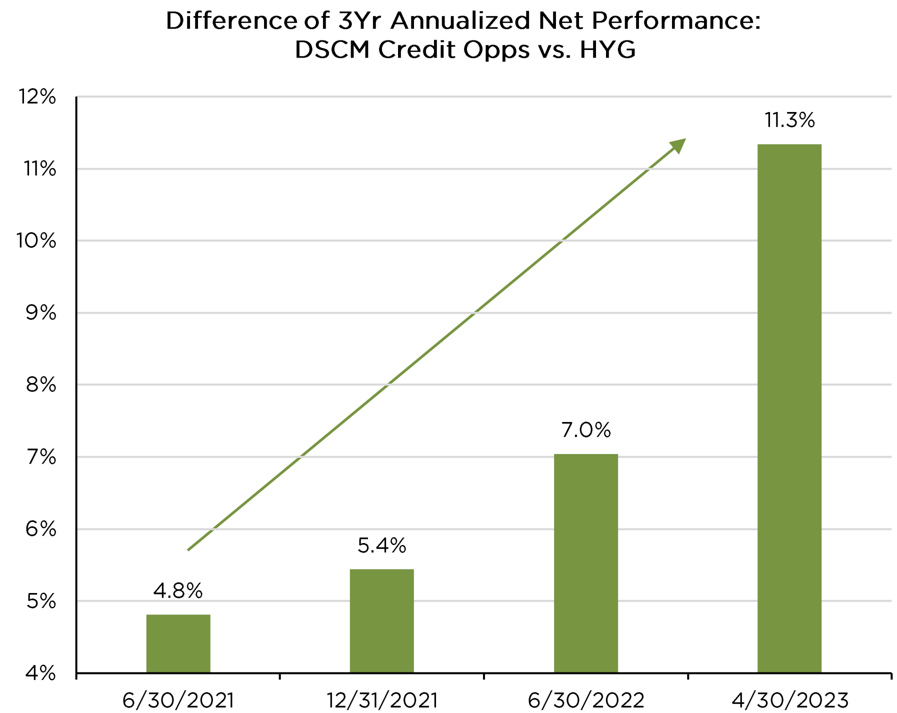
Credit Opps: +1134bps net outperformance over high yield annually





Source: DSC Meridian, Bloomberg.
*Note: Estimated performance through 4/30/2023
* The performance shown reflects the estimated performance of DSC Meridian Credit Opportunities Master Fund LP ("The Fund") managed by DSC Meridian Capital LP (the "Investment Manager"). This is not an offer to for sale of any interest in the Fund. Any offer will be made only by means of a formal Confidential Private Offering Memorandum that will be furnished to a prospective investor upon request and where permitted by law. The information contained herein is being provided for informational purposes only. This update is confidential and may not be reproduced or disseminated to any other person without the prior written consent of the Investment Manager. All figures are estimated and unaudited. The results reflect net realized and unrealized returns after deduction of fees applicable to the "Anchor Class" inclusive of management and incentive allocation/fees and all operational expenses (including brokerage commissions). Performance data assume reinvestment of all income. Actual returns may vary by investor depending upon, share class terms and timing of subscriptions and redemption. Past performance is not necessarily indicative of future results. DSC Meridian believes the benchmarks chosen were most relevant benchmark to our mandate. Indices represent a broadly diversified portfolio of securities that may have a materially different risk profile to that of the related DSC Meridian portfolio. Indices do not include any expenses or fees, which would lower performance, and benchmark performance does not otherwise reflect any costs associated with investing in such indices.

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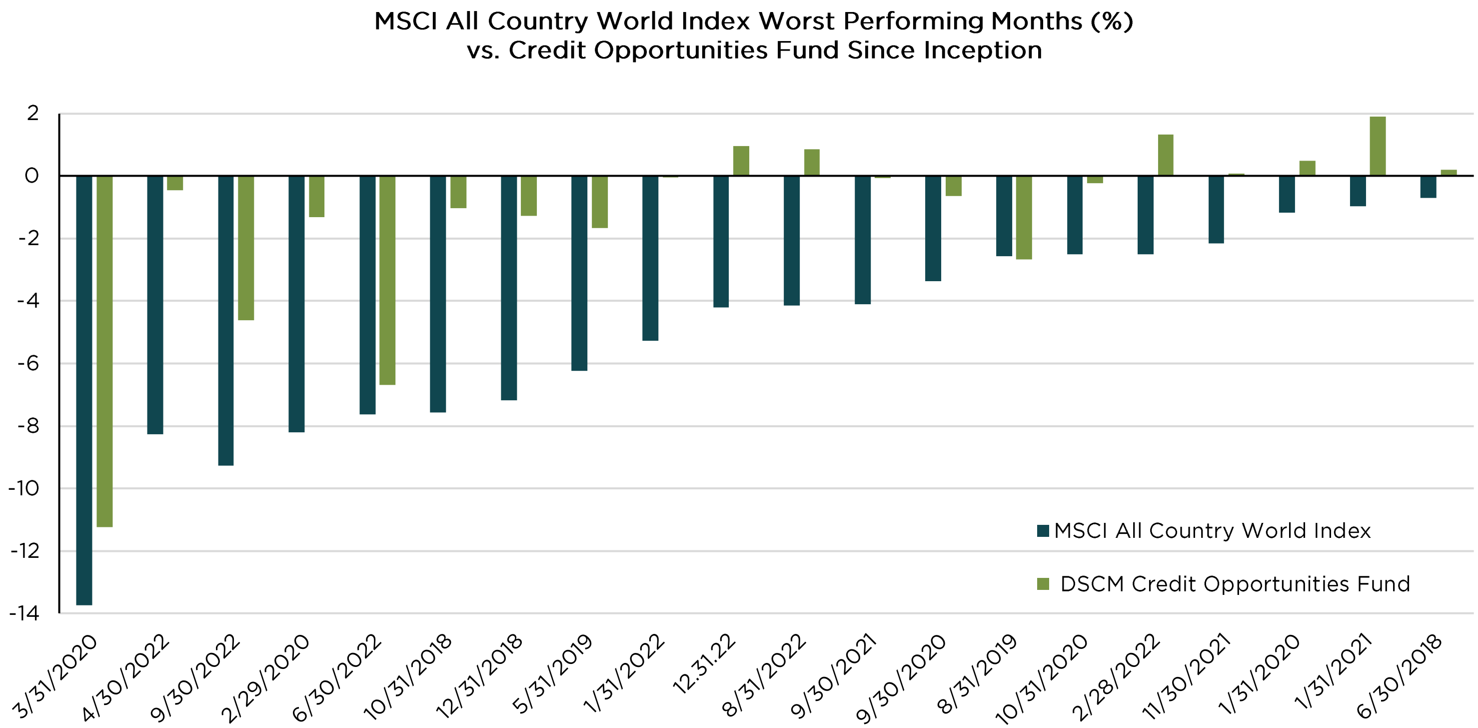
Credit Opps: protecting capital during negative months



DSC: +75.6% of Total Excess Return

Source: DSC Meridian, Bloomberg.
*Note: Estimated performance through 4/30/2023
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DSC MERIDIAN CAPITAL

Conclusion

With wide dispersion present in today's credit markets, this is an ideal market for mid-sized, bottom-up, credit pickers

Competitive Advantages

- Experienced Team and Aligned CIO
- Dynamic Approach to Portfolio Construction
- Broad Tool Kit Across Corporate Credit Spectrum
- More Nimble than Larger Credit Peers
- Shorting as a Source of Alpha
- Track Record of Outperformance
- Demonstrated Downside Protection

Net % Performance (April 30, 2023)	YTD	3Yr Ann	Since Inception
DSCM Credit Opportunities Fund LP	8.14	13.94	38.37
HYG, High Yield ETF*	3.94	2.64	12.67
S&P Levered Loan Index*	4.29	7.48	20.63
Barclays "CCC" Rated & Below HY Index*	7.49	7.83	2.38
BAML Distressed Index*	7.01	15.33	(24.54)

DSC MERIDIAN CAPITAL

Note: for illustrative purposes only and subject to change.

APPENDIX

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Attractive Fees: re-opening Anchor Class for MWRA

				Management Fee[2]			
	Class	Lockup	Quarterly Liquidity[1]	<$500MM AUM	>$500MM AUM	>1,000MM AUM	Incentive Fee
DAY 1 / ANCHOR (CLOSED)	Class A	1 Year Hard	25% Investor Level Gate	1.25%	1.00%	0.75%	15%
FOUNDERS[3]	Class A	1 Year Soft (5% Penalty)	25% Investor Level Gate	1.50%	1.25%	1.00%	17.5%
STANDARD	Class A	1 Year Soft (5% penalty)	25% Investor Level Gate			1.75%	20%

DSC MERIDIAN CAPITAL

Credit Opportunities Fund Performance (April 30, 2023)

2023 Monthly % Performance (Net) Vs. Indices	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD	1Yr	3Yr Ann	ITD
DSC Meridian Credit Opps	**4.75**	**1.40**	**0.58**	1.21									**8.14**	**(2.16)**	**13.94**	**38.37**
High Yield ETF (HYG)	3.67	(1.89)	1.99	0.20									3.94	1.34	2.64	12.67
S&P Levered Loan Index*	2.76	0.59	(0.03)	1.00									4.29	3.86	7.48	20.63
Barclays CCC < (Distressed) Index*	6.20	0.44	(1.49)	2.30									7.49	(3.19)	7.83	2.38
BAML Distressed Index	7.10	1.76	(4.86)	2.39									7.01	(14.66)	15.33	(24.54)

Monthly % Performance Net Since Inception

DSC Meridian Credit Opportunities	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	**YTD**
2023	4.75	1.40	0.58	1.21									8.14
2022	(0.04)	1.32	(0.45)	(0.45)	(2.79)	(6.68)	(0.46)	0.88	(4.61)	0.43	2.57	1.00	(9.19)
2021	1.90	5.48	1.98	2.48	3.57	1.09	(0.59)	1.03	(0.07)	0.76	0.07	1.15	20.37
2020	0.48	(1.31)	(11.24)	2.65	5.66	(0.71)	4.14	3.35	(0.65)	(0.24)	8.03	3.49	13.05
2019	2.34	1.99	0.81	3.60	(1.67)	2.18	(0.34)	(2.67)	(1.39)	(1.17)	(1.06)	2.85	5.37
2018	-	-	-	-	-	0.19	0.37	0.07	0.57	(1.04)	(0.62)	(1.28)	(1.73)

Source: DSC Meridian, Bloomberg.
*Note: Estimated performance through 4/30/2023
* The performance shown reflects the estimated performance of DSC Meridian Credit Opportunities Master Fund LP ("The Fund") managed by DSC Meridian Capital LP (the "Investment Manager"). This is not an offer to for sale of any interest in the Fund. Any offer will be made only by means of a formal Confidential Private Offering Memorandum that will be furnished to a prospective investor upon request and where permitted by law. The information contained herein is being provided for informational purposes only. This update is confidential and may not be reproduced or disseminated to any other person without the prior written consent of the Investment Manager. All figures are estimated and unaudited. The results reflect net realized and unrealized returns after deduction of fees applicable to the "Anchor Class" inclusive of management and incentive allocation/fees and all operational expenses (including brokerage commissions). Performance data assume reinvestment of all income. Actual returns may vary by investor depending upon, share class terms and timing of subscriptions and redemption. Past performance is not necessarily indicative of future results. DSC Meridian believes the benchmarks chosen were most relevant benchmark to our mandate. Indices represent a broadly diversified portfolio of securities that may have a materially different risk profile to that of the related DSC Meridian portfolio. Indices do not include any expenses or fees, which would lower performance, and benchmark performance does not otherwise reflect any costs associated with investing in such indices.

DSC MERIDIAN CAPITAL

Credit Opportunities Fund Exposure (March 31, 2023)

Monthly Statistics by Strategy

	% Long	% Short	Gross % of NAV	Net % of NAV	% Adjusted Net^	# of Positions	% Gross Carry	% Yield to Worst	Duration (Years)
Performing	37.2	-	37.2	37.2		15	7.8	10.5	3.1
Stressed	16.1	-	16.1	16.1		10	7.3	14.7	2.6
Distressed	25.7	(0.7)	26.4	25.0		11	8.5	19.8	2.4
Alpha Shorts	-	(14.4)	14.4	(14.4)		6	(4.0)	(5.2)	(3.2)
Cap Structure Arbitrage	7.5	(15.2)	22.7	(7.7)		2	(2.7)	(2.0)	(1.1)
Event-Equity	16.9	(0.1)	17.0	16.8		10	-	-	-
Sector/Portfolio Hedges	0.6	(10.7)	11.3	(10.1)		3	-	-	
Total	104.0	(41.1)	145.1	62.9	56.1	57	5.7	14.0	2.7

Top 5 Sector Exposure

	Position	Net % of NAV
1	Airlines	14.4
2	Metals & Mining	11.0
3	Cruise Lines	10.0
4	Retail	9.7
5	Consumer Discretionary	6.0
	Total	51.1

Top 5 Longs

	Position	% of NAV
1	Carnival Cruise	5.9
2	ABRA Global Finance	5.8
3	Norwegian Cruise	5.3
4	Aeromexico	4.8
5	IWG	4.4
	Total	26.2

Top 5 Shorts**

	Position	% of NAV
1	*Sovereign Debt*	(7.8)
2	*Ishares Index*	(6.7)
3	*Consumer Goods*	(4.4)
4	*Telecom*	(2.5)
5	*Financial*	(2.1)
	Total	(23.5)

Source: DSC Meridian, Bloomberg.
*Note: Estimated performance through 3/31/2023
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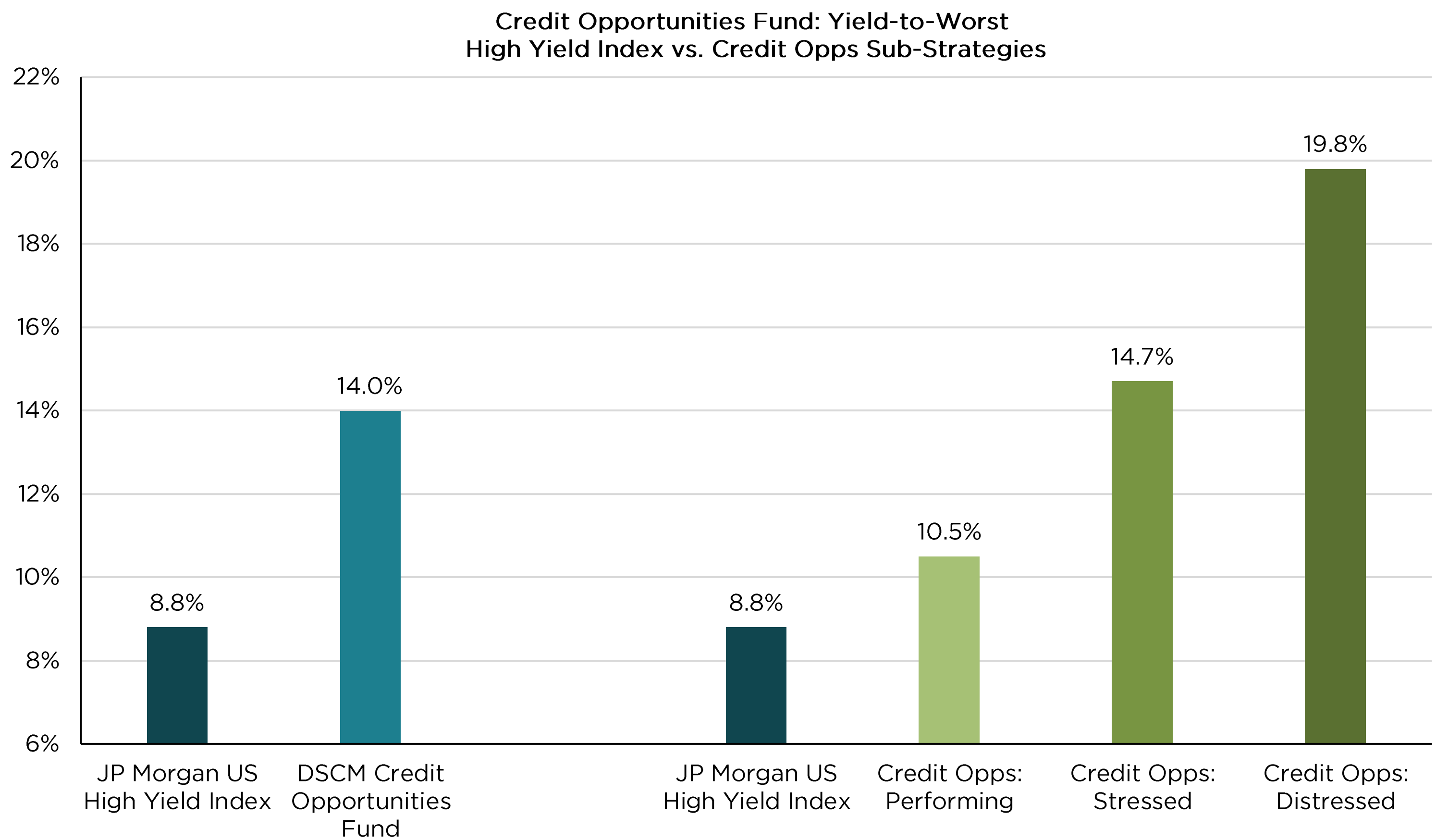
DSC MERIDIAN CAPITAL

Staying nimble and toggling risk is key to success in 2023



DSC MERIDIAN CAPITAL

Source: Bloomberg, DSC Meridian as March 31, 2023

DSC Meridian Personnel

SHERU CHOWDHRY
Founder, CIO

INVESTMENT MANAGEMENT

MATT BRECKENRIDGE
Partner
23 Years Experience
- Marathon
- DebtTraders Inc.

ERIC LE LION
Senior Analyst
11 Years Experience
- Claren Road Asset Mgt.
- JP Morgan Distressed Credit Group

GREG BUHAY
Trader
15 Years Experience
- Barclays/Lehman

CEKI ALUF MEDINA
Partner
23 Years Experience
- Southpaw
- Scottwood Capital

JASON KESNER
Senior Analyst
14 Years Experience
- Varde Partners
- KRG Capital
- Barclays/Lehman

REID DOUTY
Analyst
7 Years Experience
- Sandell Asset Mgt
- Duane Park Capital

ESG

PAULA LUFF
Director of ESG Research & Engagement
26 Years Experience
- Inherent Group
- Hess Corporation
- Pfizer

BUSINESS MANAGEMENT

DAVID GULKOWITZ
COO & CFO & CCO
20 Years Experience
- COO of Hutchin Hill Capital
- Head of Fixed Income Operations at S.A.C. Capital

LAUREN CLARK
Office Manager
10 Years Experience
- Claren Road Asset Mgt.
- Duane Park Capital
- Iron Park Capital

JAY BLOUNT
Business Development & Investor Relations
16 Years Experience
- Director at TVR Capital
- Director at Paulson & Co.

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DSC Meridian Business Infrastructure

DAVID GULKOWITZ
COO / CFO / CCO

LEGAL & COMPLIANCE

HAROLD NU
Legal Counsel

OPTIMA PARTNERS
Jonathan Saxton
Founder
Donald Babbitt
Partner

MY COMPLIANCE OFFICE (MCO)

IT & CYBER SECURITY

ATLAS TECHNICA

DRAWBRIDGE PARTNERS

MARKETING

STIFEL, NICOLAUS & CO / EATON PARTNERS
Marketing Services

OPERATIONS / MIDDLE OFFICE*

STATE STREET / INTERNATIONAL FUND SOLUTIONS
Confirmations
Settlements
Corporate Actions
Tri-Party Reconciliations
Treasury
Collateral Management
Valuations
Investor Services
AML/KYC
Regulatory Reporting
Financial Statements
Transparency Reporting

ALTER DOMUS
Loan Closing

IQ-EQ
Justin Racioppa
Director of Operations
Keith Wright
Treasury
Josh Krug
Fund Controller

CORPORATE ACCOUNTING

UNTRACHT EARLY
Adam Doctor
Accounting Manager
Kyle Drost
Accounting Manager
Andrew Reilly
Tax Manager

HR & ADMINISTRATIVE

TRINET-AMBROSE
HR Services

ZIRTUAL
Molly Krpata
Remote Assistant

DSC Meridian's key outsourced third-party service providers are listed above. Individuals listed are employees of the indicated service provider who service DSC Meridian's account but are not necessarily dedicated full-time to DSC Meridian.

*The cost of the indicated Operations/Middle Office services are allocated to the Credit Opportunities and Climate Action Funds.

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ESG integration through the investment process

Analyst Led Research

1 — ESG Policy

- Sets forth approach to ESG at the fund and firm level
- Aligns with the UNPRI
- Articulates engagement and governance principles

2 — SASB Materiality Map & Standards

- Identify sustainability issues that are likely to affect financial condition or operating performance
- Material issues will differ depending on industry or business lines

3 — Determine Overlap of ESG Issues cited in Disclosures & by Third Parties

- 10-Ks/20Fs/Annual Reports
- Sustainability disclosures
- Proxy Statements
- Investor Presentations
- Press releases
- Third party ESG and open-source data

4 — Identify Material SDG Overlap

- Determine how business activities align to SDGs
- Measure and report on the social impact of our issuers

5 — Track Issuer Performance, Momentum & Selectively Engage

- Engagement focused on 3-5 issues; goal to help companies set targets, improve disclosure, implement ESG performance throughout business operations

Screening → Exit

DSC MERIDIAN CAPITAL

Source: DSC Meridian

Active member of ESG eco-system

PRI Principles for Responsible Investment

- Signatory to UN PRI and implementing the six UNPRI principles across the firm. Will begin reporting on progress in 2022.
- Member of Global Policy Reference Group which encourages alignment of PRI signatories' ESG efforts with public policy development.

IFRS Sustainability Alliance

- Member of IFRS formerly "SASB Alliance".
- Broad access to SASB proprietary tools/data and best practices has proven critical to ESG integration and underwriting.

Ceres

- Opportunities to contribute to ESG/climate thought leadership.
- Active Participants in the Ceres Investor Network and Paris-Aligned Investor Working Group.

Council of Institutional Investors® The voice of corporate governance

- Asset owner led association focused on ESG. Opportunity to lean into, engage and educate institutional investors on ESG as it relates to our fund's core skill set as corporate high yield investors.
- Member of corporate governance advisory council

NET ZERO ASSET MANAGERS INITIATIVE

- Signed Net Zero Asset Manager Initiative supporting the goal of net zero GHG emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5 degrees Celsius; and to supporting investing aligned with net zero emissions by 2050.
- This organization includes 128 signatories and approximately $43 trillion in assets under management.

CDP DISCLOSURE INSIGHT ACTION

- CDP Investor Signatory
- Access to detailed company climate disclosures, scores and analysis

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Note: for illustrative purposes only and subject to change.

Corporate engagement has two objectives, two benefits

ESG Engagement Objectives

1) Shape Outcomes

Drive Issuers to…

- Identify material ESG issues and set performance targets
- Assign accountability and responsibility
- Track and disclose performance over time

2) Information Asymmetries

Enhances…

- Conviction in corporate leadership and operational diligence
- Ability to identify mispricings of ESG risks and opportunities
- Access to/relationships with management

Societal Benefit | **Investor Benefit**

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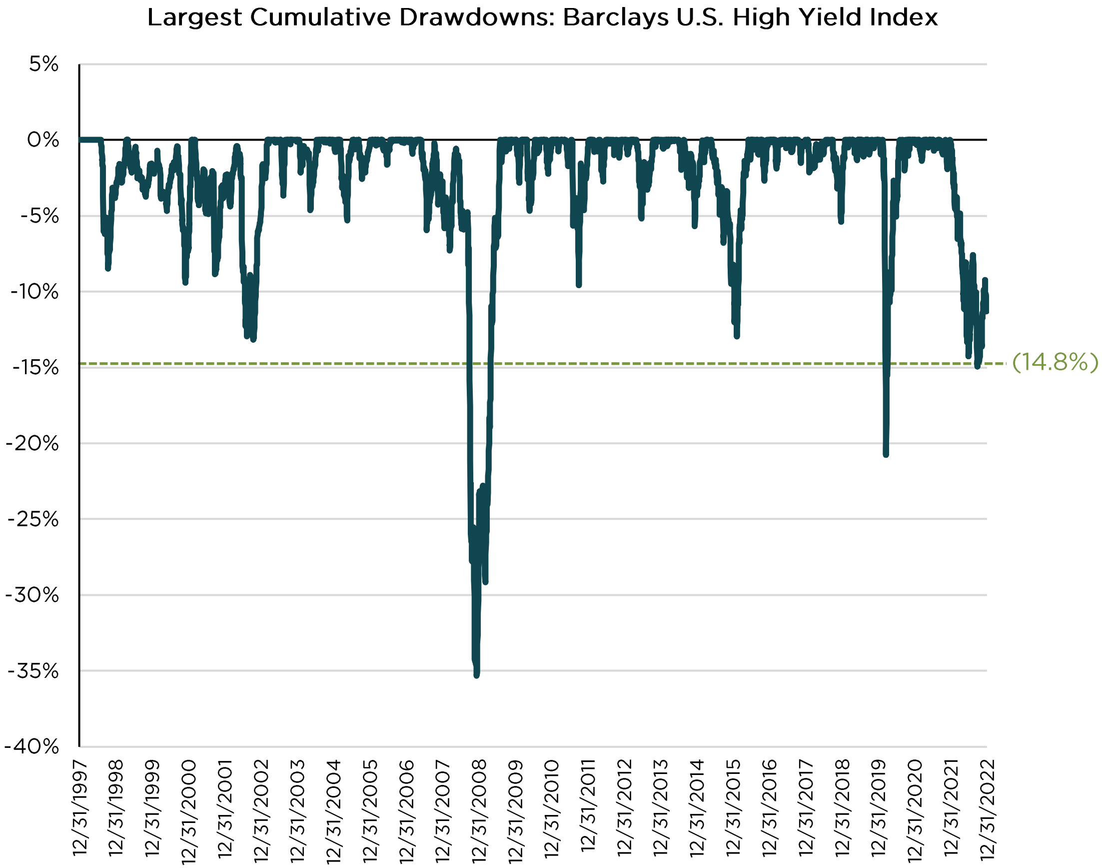
Source: DSC Meridian

High yield has only had two drawdowns larger than 2022



Time Period	% Drawdown	% Return Next 12 Months
2002	(12.9%)	+13.5%
2008	(35.3%)	+7.1%
2015-2016	(12.9%)	+9.7%
2020	(20.8%)	+7.2%
2022	(14.8%)	?
	Average	+9.4%

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Source: Bloomberg, DSC Meridian as December 31, 2022

Public credit markets continue to provide ample opportunities

2020

2021

2022

Present Day Opportunity

2024 & Beyond

Act 1: "Re-opening" Trades

- Covid Lockdowns
- HY spreads 1100bps (mid March)
- Default rate peaks at 7.5% (Nov)
- Cycle "Toughs"

- Economic stabilization and recovery
- Default rate end's 2022 at record low: 0.25%

- Further recovery postponed by inflationary concerns, geo-political risks and economic uncertainty

Extract Further Value as "Re-Opening" Trades Season and Mature

Act 2: Rising Rate Dispersion

- Rising rates and market weakness led to 2nd largest annual drawdown ever in HY
- Average HY bond price: down -17pts, creating widespread dispersion across bonds and loans
- 2022's sell-off created opportunity to lock-in short duration double digit yielding securities with low probability of bankruptcy

Earn Attractive Yields in Short Duration, Liquid Opportunities

Act 3: Recession & Maturity Wall

Prepare for Sustained Level of Higher Defaults in 2024

- Sustained inflation, spike in rates, regional banking crisis, and geopolitical risks continue to add to recessionary pressures.
- Almost 30% of all high yield bonds and loans are maturing in 2025/2026.
- $930bn of debt coming due; over 1,000 companies
- Half of issuers are "loan-only" borrowers.
- Issuers will be forced to address capital structures in 2024.
- Expect rise in defaults in 2024.

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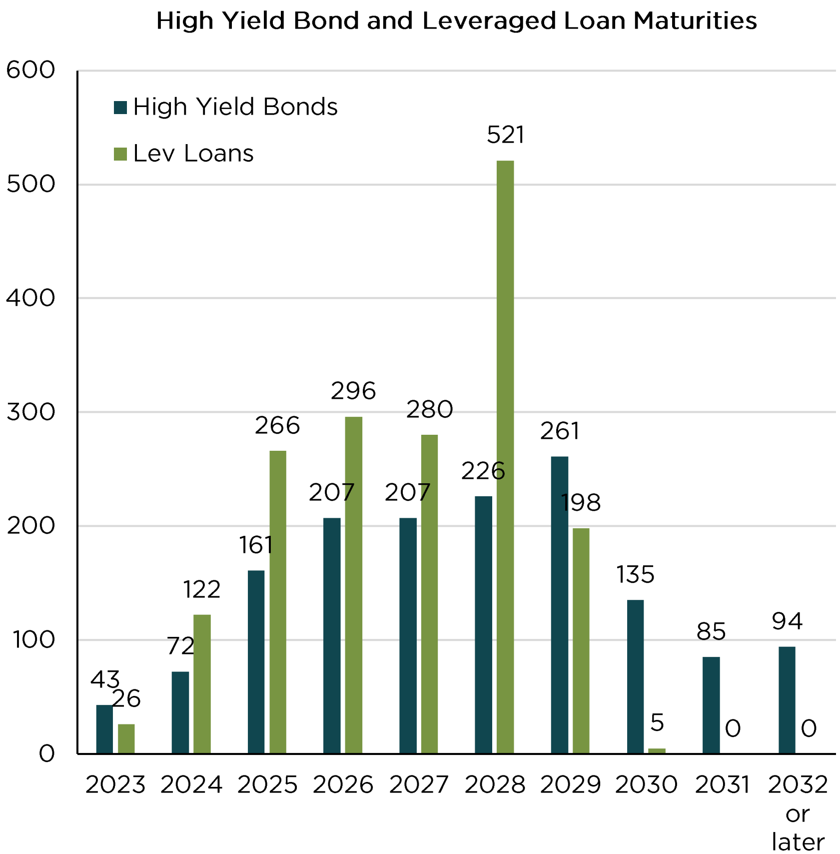
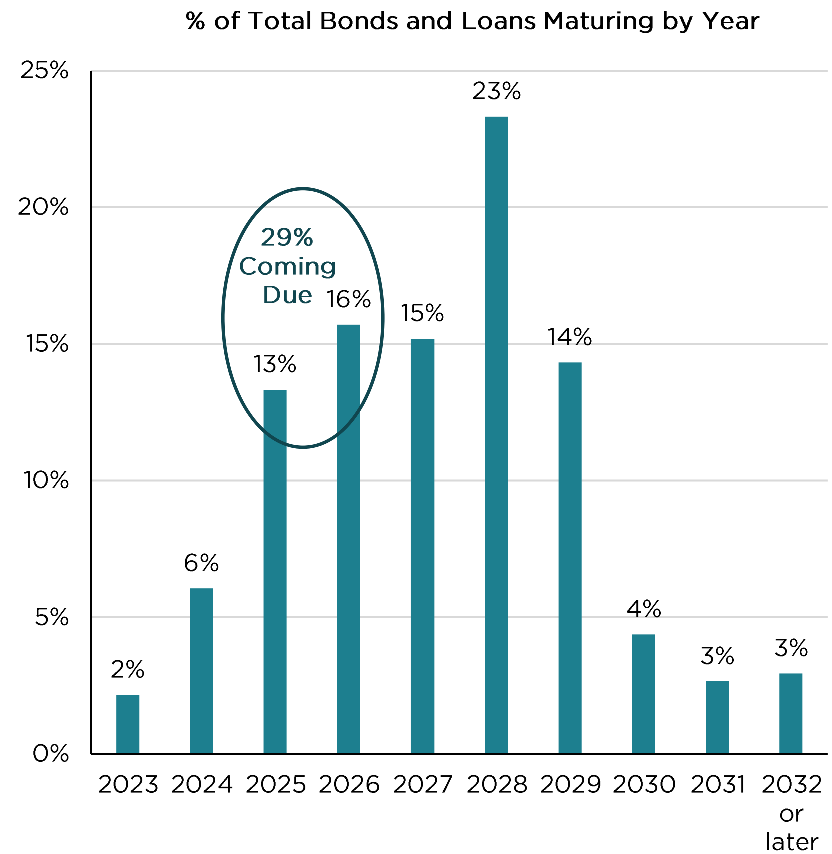
29% of total high yield and loan universe maturing in 2025/2026





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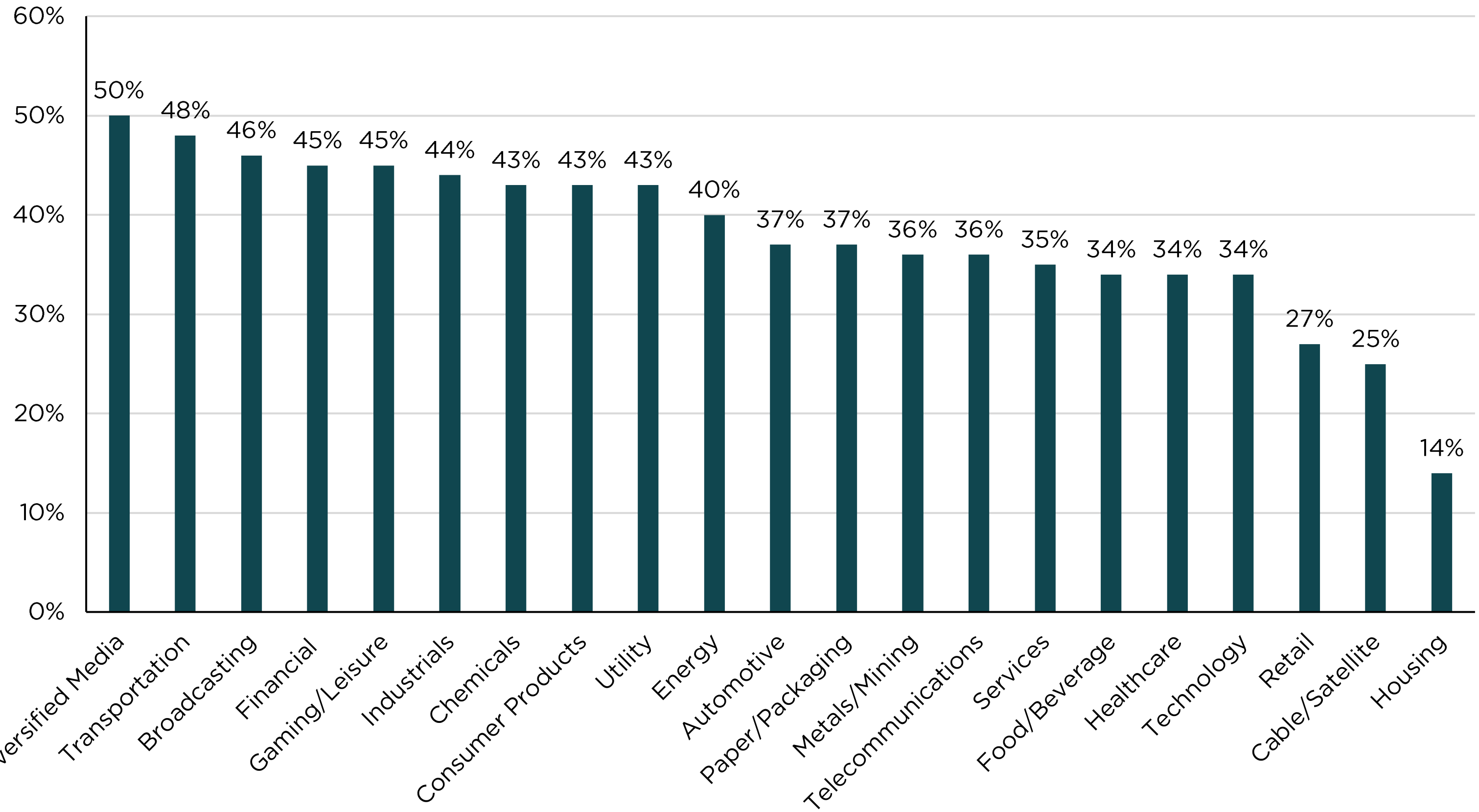
Source: JP Morgan, HIS Markit, as of November 4, 2022

Maturity wall issues are prevalent across industries…

Percent of High Yield Bond and Leveraged Loan Maturities Through 2026 by Industry



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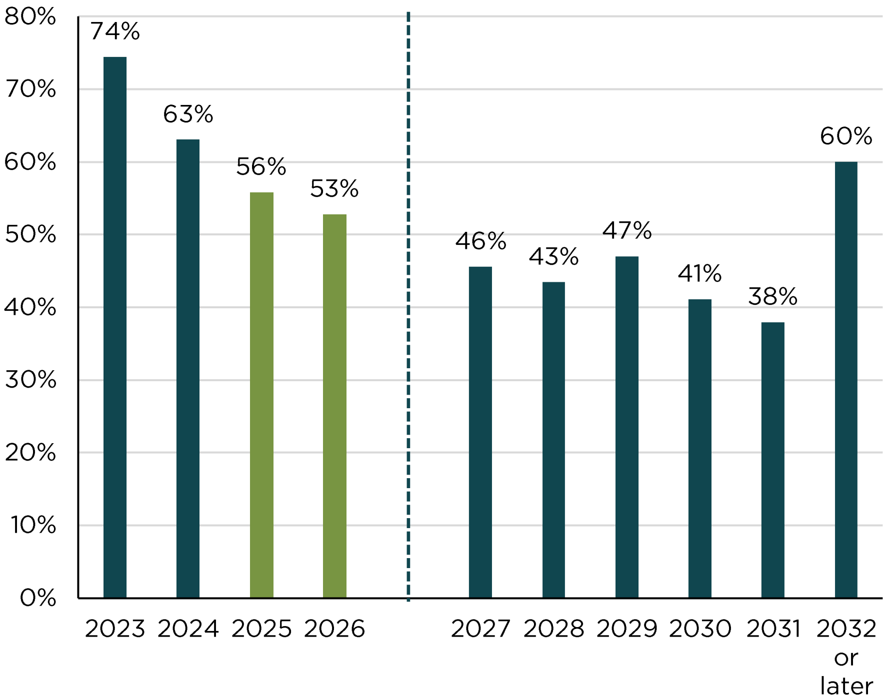
Source: JP Morgan, HIS Markit, as of November 4, 2022

...but most prominent among smaller-sized issuers

% of Total Bond/Loan Maturity Schedule by $500mil or Less Capital Structure Size



Number of High Yield Bonds and Loans Due by Tranche Size

	'23	'24	'25	'26	'27	'28	'29	'30	'31	'32 or later
$300mm or less	67	130	196	204	114	135	108	12	7	54
$301mm to $500mm	38	80	179	176	172	271	184	60	34	39
$501mm to $750mm	15	54	140	131	143	202	142	37	20	26
$751mm to $1bn	11	19	53	71	64	129	86	36	18	14
Greater than $1bn	10	50	104	138	134	197	101	30	29	22
Total # of tranches	141	333	672	720	627	934	621	175	108	155
Total tranches less than $500mm	105	210	375	380	286	406	292	72	41	93
% of maturities less than $500mm	74%	63%	56%	53%	46%	43%	47%	41%	38%	60%

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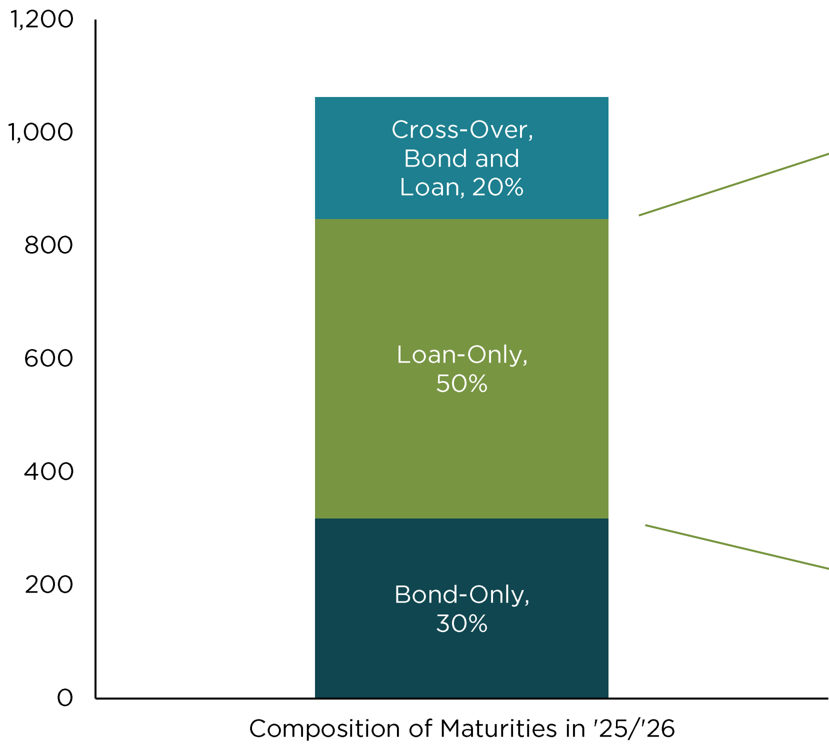
Source: JP Morgan, HIS Markit, as of November 4, 2022

50% of 1,063 issues coming due are loan-only capital structures



Higher floating rates: *good for investors, bad for companies*

- Average credit rating of loan market made new all-time lows at end of 2022
- Rating downgrades have accelerated in recent months
- Volume of loans maturating within next three years was at record high as of YE22 ($280bn or 20% of all loans outstanding) for only the second time on record.
- Prevalence of loan-only structures means many loans have very little debt cushion in a default scenario
- New loans predominately have minimal restrictive covenants
- More downgrades + lack of refi activity = mounting stress (expect higher defaults)

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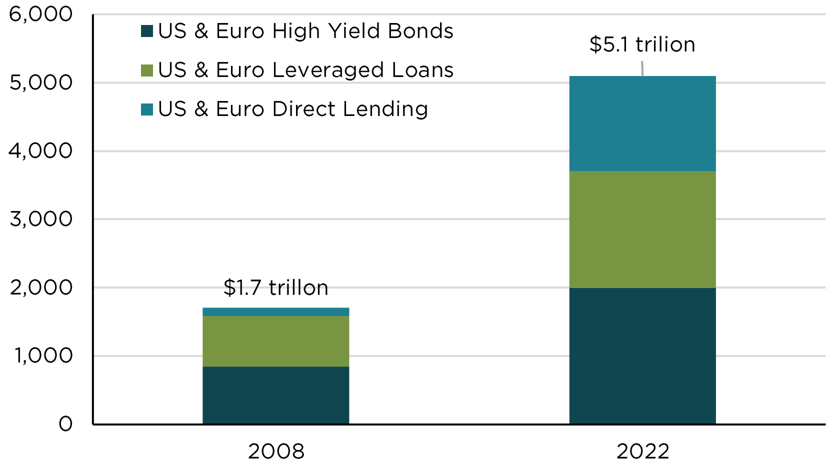
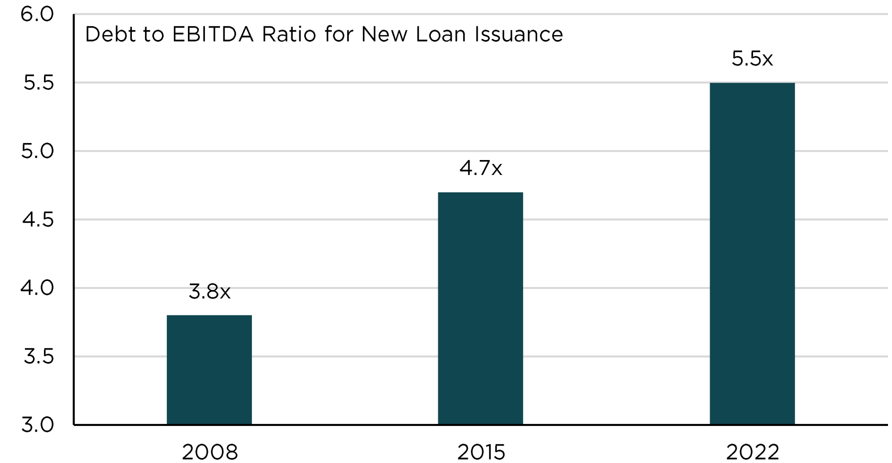
Source: JP Morgan, HIS Markit, as of November 4, 2022

Fundamentals in loan market are stressed today

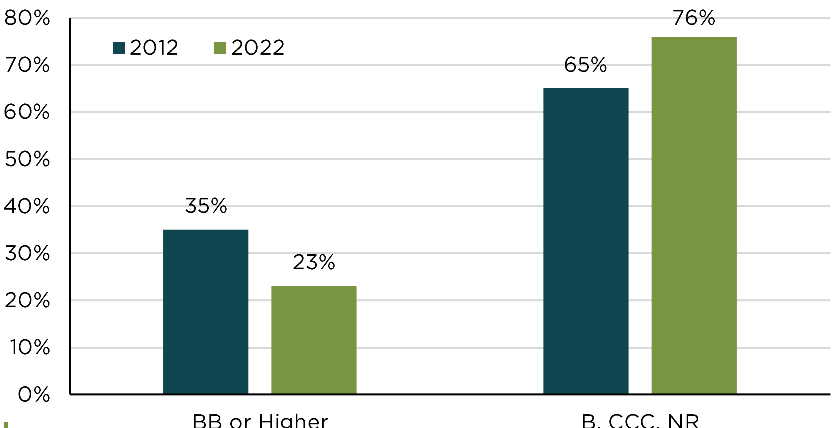
Loan Market Tripled in Size



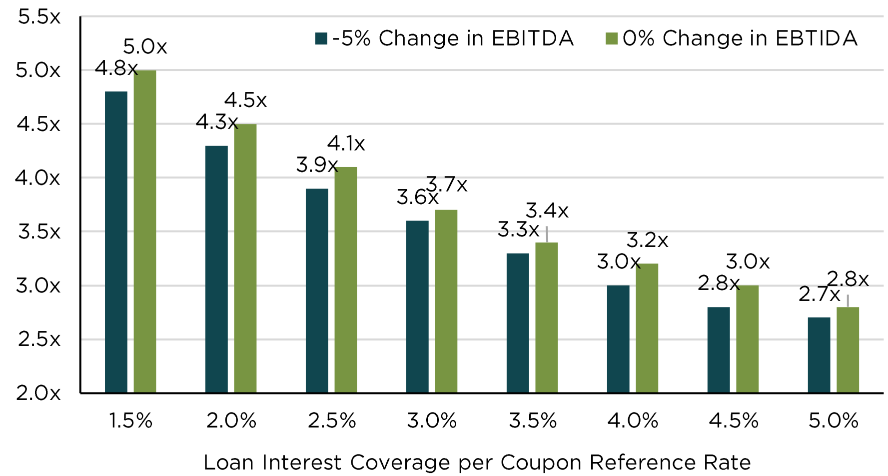
With Highest Leverage Ratio On Record



Quality Composition at Lowest Levels



Interest Coverage Collapses with Higher Rates



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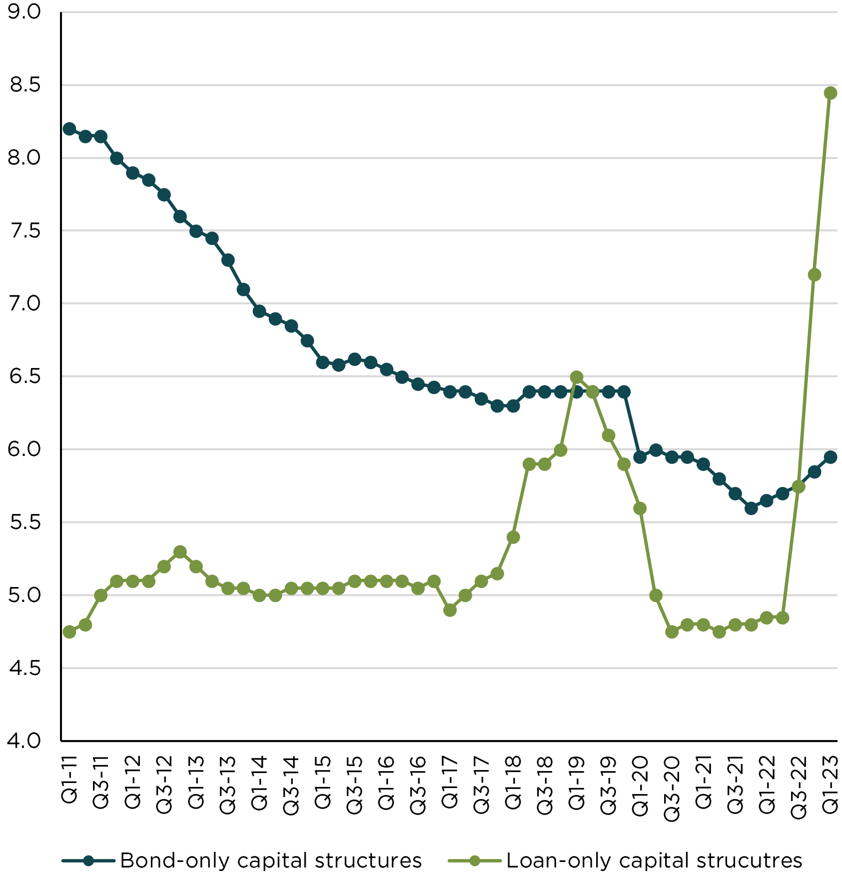
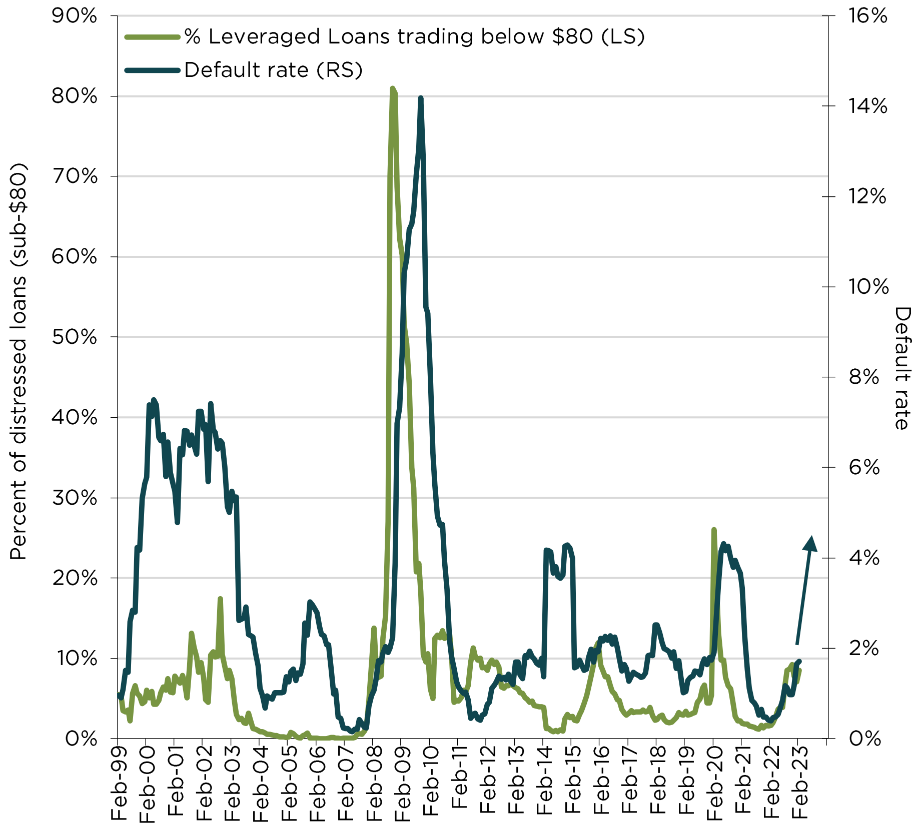
Source: DSC Meridian, Bloomberg. S&P LCD. Data as of Q2 2022. EBITDA - earnings before interest, taxes, depreciation, and amortization.

Shock in interest expense will likely lead to wider spreads and higher defaults…

Weighted Average % Coupon
HY-Rated USD bonds and Leveraged Loan Issuers



U.S. Leverage Loan Historical
Default Rate and % Distressed Ratio



2023	JPM	MS	DB	GS	Barc	Avg
Expected Loan Defaults	3.5%	3.0%	5.6%	3.5%	5.5%	4.2%

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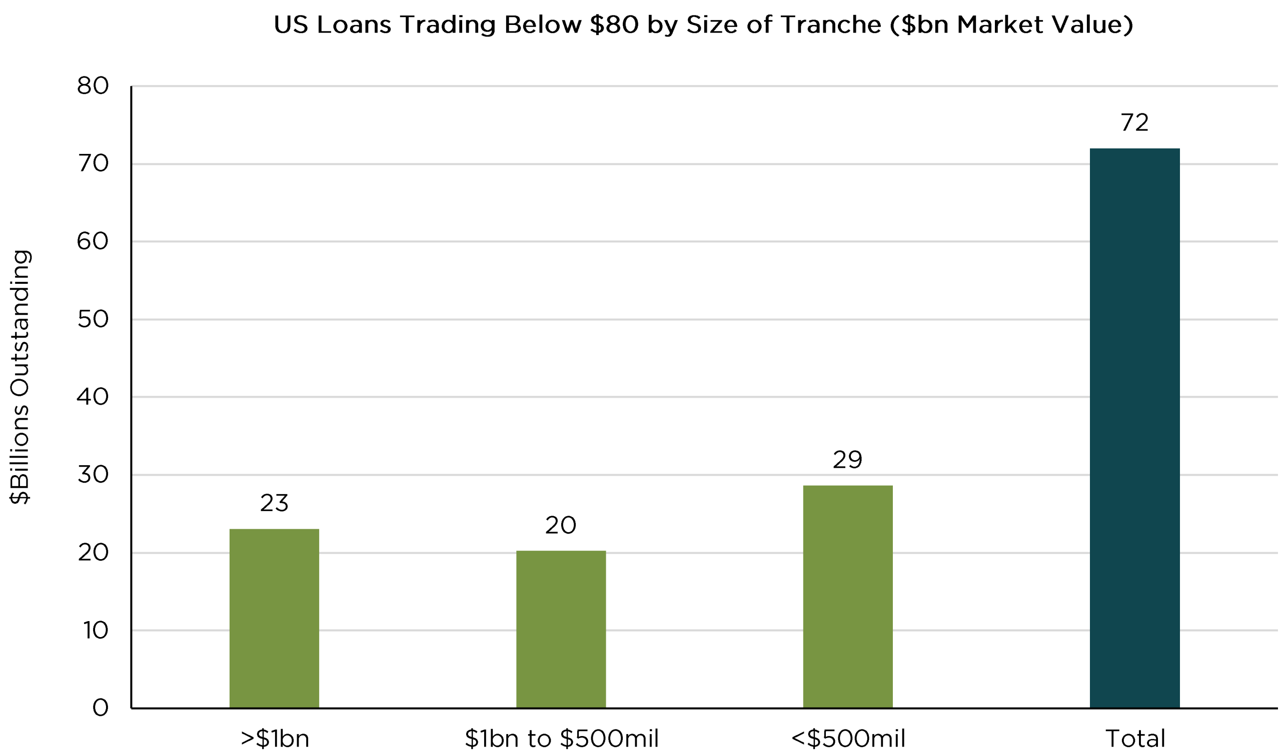
Source: DSC Meridian, Bloomberg. Goldman Sachs Global Invest Research March 2023. Pitchbook Data Inc; JP Morgan, HIS Markit. Default estimates from sell-side 2023 Loan market reports

…which is already affecting $72bn of loan's outstanding, especially the smaller-sized issuers



	>$1bn	$1bn to $500mil	<$500mil	Total
Number of Issues:	17	29	97	143
Average Price	68.3%	73.4%	60.9%	64.3
Average Yield	26.5%	23.8%	56.2%	46.1%

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Source: Bloomberg,, as of March 31, 2023

Bios

SHERU CHOWDHRY

Founder & Chief Investment Officer

Sheru Chowdhry is the Founder and Chief Investment Officer at DSC Meridian Capital, an opportunistic credit investment firm focused on generating returns across the credit cycle.

Prior to launching DSC Meridian Capital, Mr. Chowdhry was Head of Credit Research and Portfolio Manager at Paulson & Co. and managed the Paulson Credit Opportunities Funds. He was the first credit hire at Paulson & Co. in 2004, and was promoted to Partner in 2007, to Head of Credit Research in 2009 and to Portfolio Manager in 2015. During his tenure, he oversaw a team of 15 credit professionals and represented Paulson & Co. on several creditor committees and Boards of Directors.

Prior to Paulson & Co., Mr. Chowdhry was a Vice President at DebtTraders Inc. and focused on high yield and distressed securities research. Mr. Chowdhry started his career in 2000 in the Mergers & Acquisitions group at J.P. Morgan as an Associate.

Mr. Chowdhry has an MBA from Vanderbilt University and a Bachelor of Technology from IIT Bombay. He currently serves on the NY Tri-State Board of Pratham, one of the largest non-for-profit in India, that seeks to provide quality education to underprivileged children in India.

MATTHEW BRECKENRIDGE

Partner

Prior to joining DSC Meridian, Mr. Breckenridge was a Managing Director at Marathon Asset Management (2002-2016), a $13 billion special situations fixed income investment manager. Over his fourteen-year tenure, Mr. Breckenridge was tasked with leading investment analysis and strategy in industries of stress and transformation globally. Mr. Breckenridge led investments for Marathon in banks, non-bank financials, telecom, technology, infrastructure, media, homebuilders, chemicals, energy and general industrials. In his role, Mr. Breckenridge managed complex, multi-jurisdictional restructurings in North America, Latin America and Europe. Mr. Breckenridge also oversaw the investment analysis and purchase negotiations for several portfolio purchases of distressed assets, as well as the purchase of companies from Chapter 11 §363 sales.

Prior to Marathon Asset Management, Mr. Breckenridge was a Director of Research at DebtTraders (2001-2002), a high-yield and distressed debt trading boutique, where he developed research products and hired the team of analysts. Previously, Mr. Breckenridge was a Vice President of Fixed Income Research in Societe Generale's High Yield Group (2000-2001). Matthew started his career at Merrill Lynch Asset Management as a Vice President in the Tax Exempt Fixed Income Group (1996-2000), with a concentration in analyzing and investing in high yield and distressed tax exempt bonds.

Mr. Breckenridge earned a B.S. in Accounting from Rutgers University.

DSC MERIDIAN CAPITAL

Bios

CEKI ALUF MEDINA

Partner

Mr. Medina has covered high yield and distressed debt securities and equities in developed economies over the past 15 years. Prior to joining DSC Meridian, he worked as a Managing Director and Partner at Southpaw Asset Management, Scottwood Asset Management, Eos Partners, and on the sell side at DebtTraders. Prior to this, he was a banker in the mergers and acquisitions department of Lehman Brothers.

Ceki is a graduate of Bogazici University (BSc.) and has an MBA from University of North Carolina at Chapel Hill.

DAVID GULKOWITZ

Chief Operating Officer, Chief Financial Officer & Chief Compliance Officer

Prior to DSC Meridian, David Gulkowitz co-founded Milford Sound Capital in 2015, an opportunistic credit hedge fund, where he served as the Chief Operating Officer and Chief Financial Officer. Previously, Mr. Gulkowitz was at the multi-billion-dollar, multi-strategy hedge fund Hutchin Hill Capital from 2009 to 2015—most recently serving as Chief Operating Officer and managing the firm's infrastructure. He co-chaired the firm's Operating Committee and chaired the Valuation Committee. When Mr. Gulkowitz joined Hutchin Hill in 2009—within a year of its launch—as Director of Operations, he was tasked with building a best-in-class institutional infrastructure around accounting, operations, finance and valuations. He implemented trading, risk and operational technology and processes, as well as defined the strong institutional culture.

Prior to joining Hutchin Hill, Mr. Gulkowitz worked for six years at S.A.C. Capital in a variety of senior roles. From 2005 to 2009, he was Head Quantitative Trader for S.A.C. Select, a fundamentally driven multi-billion dollar, multi-strategy quantitative portfolio. Prior to that, he was Head of Margin Management, Head of Exchange-Traded Derivatives, Commodities and FX Operations, and Head of Fixed Income Operations at S.A.C. Capital from 2003 to 2005. Previously, Mr. Gulkowitz was a Financial Analyst in the Fixed Income Risk Management Group at Mizuho Corporate Bank (formerly Industrial Bank of Japan) in New York from 2000 to 2003.

Mr. Gulkowitz earned his Sc.B., *summa cum laude*, in Finance from Providence College in 1999.

DSC MERIDIAN CAPITAL

Bios

GREG BUHAY

Head Trader

Greg Buhay joined on March 1st, 2021, as our Head Trader. Before joining the DSC Meridian team, Greg spent his entire 15-year career managing credit products, first in Credit Sales at Lehman Brothers where he focused on structured products, CLOs, and credit derivatives. He then transitioned into credit trading at Barclays from 2009 onward. As a credit trader, Greg gained direct experience trading and committing bank capital into deeply distressed, process driven, bankrupt companies, as well as managing a portfolio of inventory positions across a spectrum of public and private issuers. Greg has a very robust network and deep relationships among the credit investor universe as well as other sell side contacts.

He earned a B.S. in Accounting and Finance from the Kelley School of Business at Indiana University.

PAULA LUFF

Director of ESG Research and Engagement

Paula Luff joined us on January 4th, 2021, to become our Director of ESG Research & Engagement. Prior to DSC Meridian, Paula was Director of Sustainability and Impact at Inherent Group, LP, where she developed the firm's ESG platform and led engagement with portfolio companies and investment stewardship. Prior to joining Inherent, Ms. Luff was Vice President of Corporate Social Responsibility at Hess Corporation where she built the business unit, led strategy development, and integrated material ESG matters into operations. Previously, Ms. Luff was Senior Director of Strategic Health Partnerships at Pfizer where she built and led the company's Access to Medicines initiatives globally.

Ms. Luff earned a B.A. from the University of Wisconsin—Madison and Master's Degrees from New York University and the New School.

DSC MERIDIAN CAPITAL

Bios

JAY BLOUNT

Director of Business Development and Investor Relations

Prior to DSC Meridian, Jay Blount was Director of Business Development and Investor Relations at TVR Capital Management, an equity market neutral hedge fund focused on the energy sector. Prior to joining TVR, Mr. Blount spent eight years at Paulson & Co., an event-driven hedge fund, where he was Director of Business Development and Investor Relations. Prior to joining Paulson, he was a management consultant at Casey Quirk & Associates.

Mr. Blount graduated from Yale University with a BA in History.

ERIC LE LION

Analyst

Prior to joining DSC Meridian, Mr. Le Lion was an analyst at Claren Road Asset Management (2014-2018). In his role, Mr. Le Lion prepared the investment analysis for names in the energy, retail and tech sector and ranging from bankruptcy situations to equities. Prior to Claren Road, Mr. Le Lion worked as a distressed credit desk analyst at JP Morgan (2012-2014) where he covered companies predominately in shipping, mining, retail, media and also worked on distressed SIVs. Previously, Mr. Le Lion worked in Syndicated & Leverage Finance at JP Morgan (2010-2012).

Mr. Le Lion earned a B.S. in Finance from INSEEC University, Paris and did a study abroad at Emory University.

JASON KESNER

Analyst

Prior to joining DSC Meridian, Mr. Kesner was an analyst at GCM Grosvenor and Varde Partners where he originated and underwrote stressed and distressed credit investments across the aerospace, energy, chemicals and TMT sectors. In these roles, Mr. Kesner participated in a number of restructurings and served on ad hoc creditor committees. Previously, Mr. Kesner worked for private equity firm KRG Capital and investment banks Lehman Brothers and Barclays Capital.

Mr. Kesner received an MBA with honors from The University of Chicago Booth School of Business and a BBA with distinction from the University of Michigan Stephen M. Ross School of Business.

DSC MERIDIAN CAPITAL

Disclaimer

Important disclosures

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An investment in the Fund is speculative and involves a high degree of risk. The Fund is not intended to be a complete investment program. DSC Meridian employs certain strategies and techniques, such as investing in distressed securities, illiquid securities, short selling and the use of leverage and derivatives, which may increase the risk of investment loss. DSC Meridian's investment program involves substantial risk, including the loss of principal, and no assurance can be given that the Fund's investment objectives will be achieved. As a result, the Fund's performance may be volatile, and an investor could lose all or a substantial amount of his or her investment. The Fund's fees and expenses may offset trading profits. There can be no assurances that the Fund will have a return on invested capital similar to the returns of other funds or accounts with which Sheru Chowdhry was associated, due to differences in investment policies, risk parameters, economic conditions, regulatory climate, portfolio size, leverage, fee structure and expenses. Past performance is not a guarantee of, and is not necessarily indicative of, future results.

The Fund also has substantial limitations on investors' ability to withdraw or transfer their shares or interests therein. No secondary market for the Fund's shares or interests exists or is expected to develop, so investors may not have access to capital when needed. All of these risks, and other important risks, are described in detail the Fund's Memorandum. Prospective investors are strongly urged to review the Fund's Memorandum carefully and consult with their own financial, legal and tax advisors before investing.

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The information in this document is current as of the date listed on the first page (or if there is no date, then the date this document is delivered to you) and is subject to change or amendment. The delivery of this document at any time does not imply that the information contained herein is correct at any time subsequent to such date. Certain information contained herein has been supplied to DSC Meridian by outside sources. While DSC Meridian believes such sources are reliable, it cannot guarantee the accuracy or completeness of any such information.

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SERENITAS

Massachusetts Water Resources Authority Retirement System

May 25, 2023

LMCG INVESTMENTS

Presenters

David Weeks
CIO, Serenitas Investment Team
dweeks@lmcg.com
(646) 652-7297

David Weeks is the Chief Investment Officer for the Serenitas investment team. Mr. Weeks joined LMCG in May 2015 by virtue of LMCG's acquisition of certain assets of Serenitas Capital. Prior to joining LMCG, Mr. Weeks was Chief Investment Officer of Serenitas Capital, a firm he co-founded in 2012. Mr. Weeks held previous positions as Managing Director at Merrill Lynch, where he was responsible for the proprietary trading of Non-Agency Residential Mortgage-Backed Securities from 2006 to 2011. He spent seven years managing the Merrill Lynch CLO Trading desk, where he traded CLOs, CBOs and TruPS CDOs. Prior to that, Mr. Weeks worked for six years as a structured products analyst at Moody's Investors Service. Earlier in his career, Mr. Weeks traded equity options for ten years as a market maker on the floor of Philadelphia Stock Exchange, after working for two years as a specialist clerk on the American Stock Exchange. Mr. Weeks received a B.S. in Finance from Lehigh University.

Thomas Capobianco
Partner, Public Fund Marketing
tcapobianco@lmcg.com
(617) 380-5677

Thomas Capobianco is responsible for developing new business within the Public Fund and Taft-Hartley marketplaces. He has been in the industry since 1989. Prior to joining LMCG, he was a Senior Vice President in the Sales and Relationship Management Group at Independence Investments LLC since 2003. Previously, Mr. Capobianco worked for State Street Global Advisors where he served as a Senior Sales Principal dedicated to the Public Fund and Taft-Hartley marketplaces. He has a B.S. from Fitchburg State College and has completed extensive coursework at the FW Olin Graduate School of Business at Babson College. Mr. Capobianco is a founder and former board member of the Connecticut Public Pension Forum, Massachusetts Public Pension Forum and Georgia Association of Public Pension Trustees Affiliate Advisory Committee. Mr. Capobianco currently serves on the Florida Public Pension Trustee Association Advisory Board. He also maintains his Series 7 & 63 licenses.

Table of Contents

LMCG Overview

2000

Founded in Boston

$4.1 billion*

Assets under management

39

Total employees

Offices

Boston & New York

RISK OVERSIGHT

Holistic approach to risk management and monitoring

Risk Oversight Committee governs and oversees all major investment risks that may affect the Serenitas Credit Gamma Master Fund

Independent, external risk advice through Global Risk Management Advisors ("GRMA")

LEGAL & COMPLIANCE

3-person Legal and Compliance Group, including general counsel

Independent, external legal counsel

- Ropes & Gray LLP (US) for onshore entities
- Ogier for offshore entities

OPERATIONS

8-person Operations Group

SS&C maintains official books and records of the fund

INFORMATION TECHNOLOGY

Business Continuity and Disaster Recovery plan

Cyber Liability Insurance Policy

Remote Site [Vsite]

* Preliminary AUM as of 4/30/2023.

Serenitas Investment Team

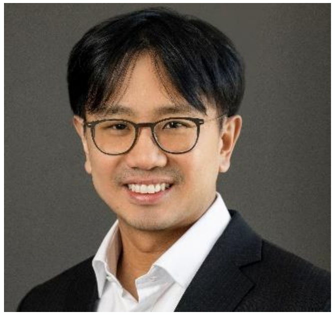
Deep experience working together as an investment team

Team Assets Under Management*

- Approximately $1.5 billion total team AUM
- ~$655 million in the fund
- Over $35 million invested in the fund by the team

Team History

- 15+ years focusing on corporate and mortgage credit products as a team
- Founded Serenitas Capital in 2012; Joined LMCG in May 2015
- Fund inception January 2013

				
David Weeks Chief Investment Officer	**Ajit Kumar, CFA** Portfolio Manager	**Edwin Tsui, CFA** Portfolio Manager	**Andreas Eckner, Ph.D.** Portfolio Manager	**Guillaume Horel, Ph.D.** Portfolio Manager
BIO HIGHLIGHTS				
▪ 42 years of investment experience ▪ Managing Director, Merrill Lynch (1999-2011)	▪ 26 years of investment experience ▪ Director, Merrill Lynch (2005-2011)	▪ 19 years of investment experience ▪ Director, Merrill Lynch (2006-2011)	▪ 17 years of investment experience ▪ VP, Merrill Lynch (2007-2011)	▪ 17 years of investment experience ▪ VP, Merrill Lynch (2007-2011)
EDUCATION				
▪ B.S. in Finance, Lehigh University	▪ M.S. in Financial Mathematics, Stanford University ▪ M.B.A. in Finance, McGill University ▪ CFA Charterholder	▪ M.S. in Mathematics and Finance, Courant Institute of New York University ▪ Masters of Physics, University of Oxford ▪ CFA Charterholder	▪ Ph.D. in Statistics & M.S. in Financial Mathematics, Stanford University ▪ Degree in Mathematics, Vienna University of Technology	▪ Ph.D. in Statistics & M.S. in Financial Mathematics, Stanford University ▪ Degree in Economics, Panthéon-Sorbonne University

LMCG INVESTMENTS

* Preliminary AUM as of 4/30/2023.

What Concerns Are Institutional Investors Facing Today?

CONCERNS:

- Persistent inflation
- Interest rate volatility
- Tighter credit conditions and potential recession risk
- Uncertainty in fixed income markets

SEEK INVESTMENTS WITH THE FOLLOWING TRAITS:

- Negative correlation to fixed income markets / low correlation to broader markets
- Seek to reduce downside risk
- Attractive risk/reward profile
- Seek to make money throughout the investment cycle, including rising rate or weaker credit environments

We Invest In A Range of Corporate and Mortgage Securities

SERENITAS CREDIT GAMMA FUND

Active Portfolio Allocation

MORTGAGE CREDIT

Credit Risk Transfer Securities (CRTs)
Non-Agency RMBS

CORPORATE CREDIT

US CLOs

CREDIT INSTRUMENTS

Curves, Options, Tranches

CREDIT SPREAD & INTEREST RATE RISK MANAGEMENT

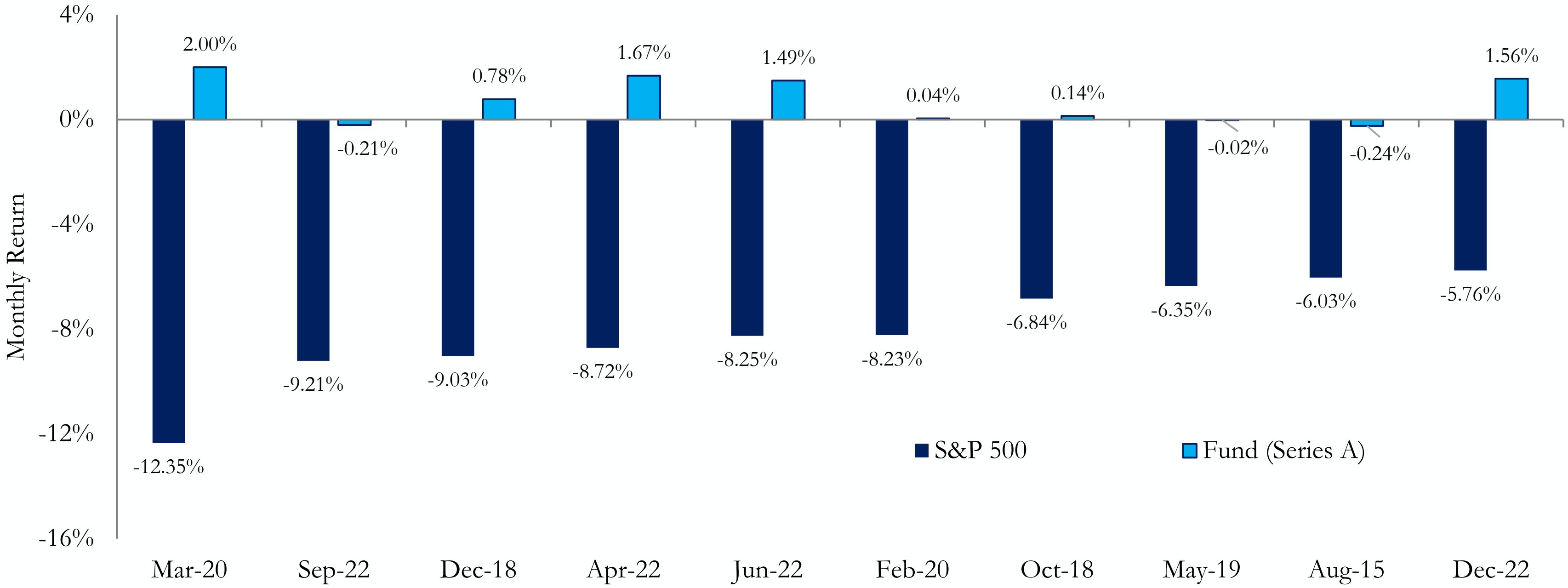
TARGET MISPRICINGS: Analyze and seek to acquire fundamentally cheap securities

FOCUS ON MITIGATING DOWNSIDE RISK: And seek to reduce drawdowns during market dislocations

CAPTURE MARKET INEFFICIENCIES: Drives fund returns

Serenitas' Approach Seeks Downside Risk Mitigation

FUND PERFORMANCE DURING WORST 10 MONTHS OF S&P 500^



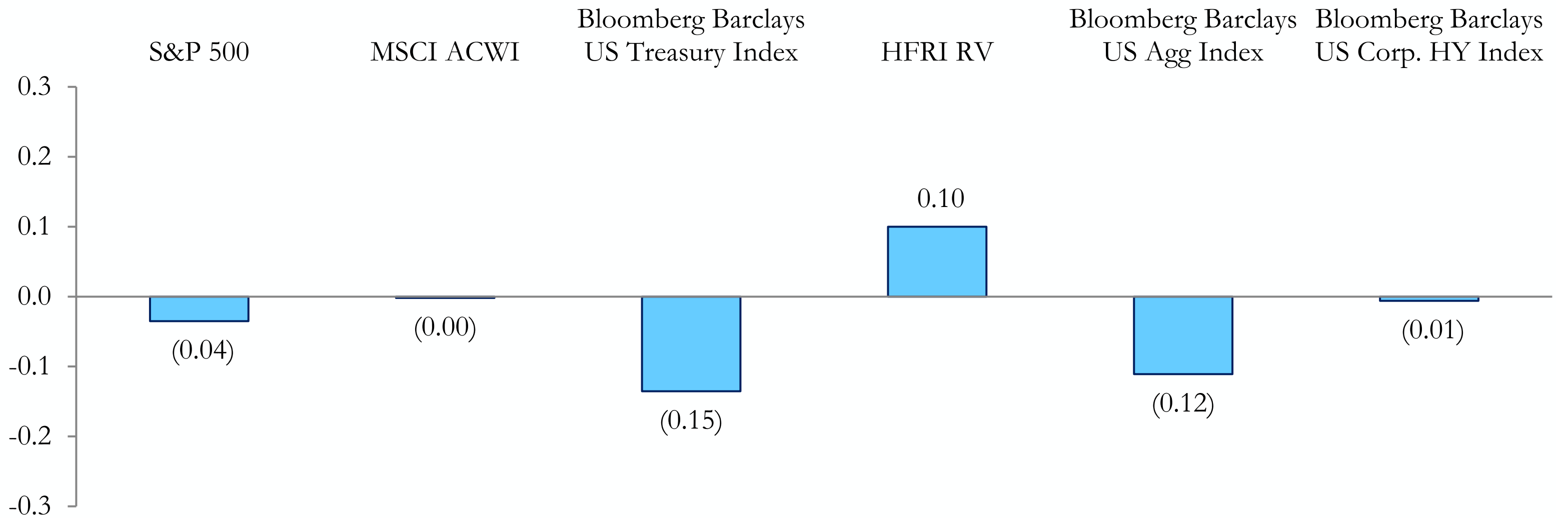
*From September 2018 returns are net of management fees, accrued performance fees and fund-borne expenses, and averaged between the feeder funds; returns for 2023 are unaudited. Returns before September 2018 were generated by applying Series A's fee structure and fund-borne expenses to Serenitas Credit Gamma Master Fund, LP's gross returns. Past performance does not guarantee future results. Returns and principal value of an investment will fluctuate so that an investor's interests, when redeemed, may be worth more or less than their original cost. Future performance may be lower or higher than shown above. An investor's returns will vary based on the timing of its investment. Source: LMCG. The S&P 500 Total Return index is included to allow for comparison of the fund's performance to this recognized equity index; this is not the fund's benchmark and differs from the fund's strategies and holdings. You cannot invest directly in an index.

^Since fund inception in January 2013.

LMCG® INVESTMENTS

Serenitas Fund Correlation

The Serenitas fund is uncorrelated to broader equity and fixed income indices



^ From September 2018 returns are net of management fees, accrued performance fees and fund-borne expenses, and averaged between the feeder funds; returns for 2022 and 2023 are unaudited. Returns before September 2018 were generated by applying Series A's fee structure and fund-borne expenses to Serenitas Credit Gamma Master Fund, LP's gross returns. Past performance does not guarantee future results. Returns and principal value of an investment will fluctuate so that an investor's interests, when redeemed, may be worth more or less than their original cost. Future performance may be lower or higher than shown above. An investor's returns will vary based on the timing of its investment.

Data since fund inception in January 2013.

*Source: Bloomberg. HFRI Relative Value (Total) index is included to allow for comparison of the fund's performance to this recognized hedge fund index; this is not the fund's benchmark and may differ from the fund's strategies and holdings. You cannot invest directly in an index. The HFRI Relative Value (Total) index includes hedge funds with investment managers that maintain positions in which the on realization of a valuation discrepancy in the relationship among multiple securities.

LMCG INVESTMENTS

Serenitas Credit Gamma Fund – Series A Performance (Net)^

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2013	-0.19%	0.76%	0.83%	2.20%	5.03%	-0.61%	0.49%	0.30%	1.65%	3.80%	0.44%	0.21%	**15.79%**
2014	1.65%	1.37%	0.35%	0.77%	0.49%	0.43%	0.68%	0.26%	2.57%	0.27%	0.07%	-0.20%	**9.04%**
2015	0.64%	0.45%	0.25%	0.05%	0.05%	0.04%	0.41%	-0.24%	-0.05%	-0.08%	-0.44%	0.42%	**1.51%**
2016	-1.44%	-1.97%	-0.33%	1.86%	0.33%	0.32%	0.57%	2.65%	2.29%	1.30%	1.19%	1.05%	**7.99%**
2017	0.23%	2.93%	1.04%	-0.11%	1.57%	1.36%	0.69%	2.91%	0.98%	1.65%	1.07%	-0.37%	**14.82%**
2018	0.77%	1.66%	1.54%	2.56%	1.56%	0.23%	0.29%	0.38%	0.04%	0.14%	0.10%	0.78%	**10.49%**
2019	0.08%	0.39%	0.53%	0.39%	-0.02%	0.09%	-0.01%	-0.56%	0.14%	0.35%	0.03%	0.20%	**1.62%**
2020	0.76%	0.04%	2.00%	1.55%	3.71%	3.32%	-0.24%	0.93%	0.52%	1.58%	0.42%	1.11%	**16.79%**
2021	1.18%	0.70%	0.55%	0.07%	-0.02%	-0.07%	-0.18%	-0.05%	0.46%	0.24%	-0.20%	-0.11%	**2.59%**
2022	1.05%	0.45%	1.16%	1.67%	-0.34%	1.49%	-0.32%	1.59%	-0.21%	-1.53%	0.62%	1.56%	**7.39%**
2023	2.18%	1.39%	-0.19%	1.56%[e]									**5.01%[e]**

Performance Since Inception (January 15, 2013)*			
(as of April 30, 2023)	**SCGMF Series A***	**Bloomberg Barclays US Agg**	**Bloomberg Barclays US Corp. HY**
Annualized Net Return	**8.93%**	1.39%	4.24%
Annualized Volatility	**3.63%**	4.30%	7.38%
Largest Drawdown (peak-to-trough)	**-4.08%**	-17.18%	-14.74%
Sharpe Ratio	**2.17**	0.08	0.43

SERENITAS CREDIT GAMMA FUND[1]

- Positive annual performance since inception
- Positive performance in 78% of months
- Positive months average return = +1.02%
- Negative months average return = -0.37%

^From September 2018 returns are net of Series A management fees, accrued Series A performance fees and fund-borne expenses, and averaged between the feeder funds; returns for 2023 are unaudited. Returns before September 2018 were generated by applying Series A's 1.5%/20% fee structure and fund-borne expenses to Serenitas Credit Gamma Master Fund, LP's gross returns. Past performance does not guarantee future results. Returns and principal value of an investment will fluctuate so that an investor's interests, when redeemed, may be worth more or less than their original cost. Future performance may be lower or higher than shown above. An investor's returns will vary based on the timing of its investment

[1]Data since fund inception in January 2013. Data has been generated applying Series A net fee structure. Past performance does not guarantee future results.

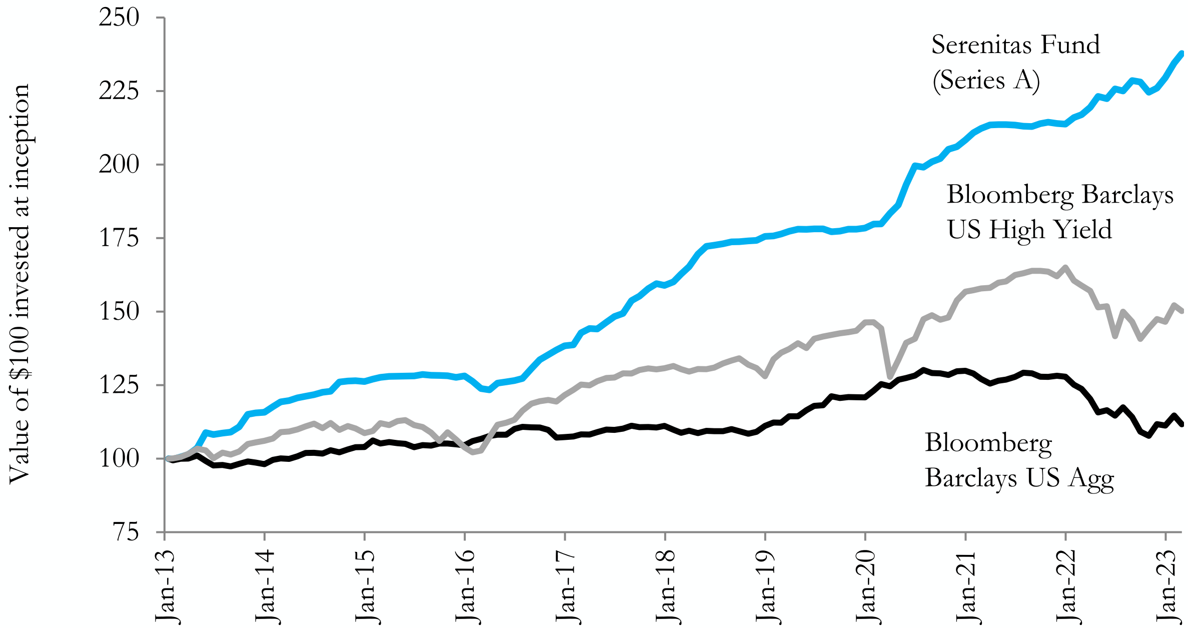
*Source: Bloomberg. The Bloomberg Barclays US Aggregate Bond Index is included to allow for comparison of the fund's performance to this recognized fixed income index; this is not the fund's benchmark and may differ from the fund's strategies and holdings. You cannot invest directly in an index. The Bloomberg Barclays US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed income taxable bond market.

[e]Preliminary estimate; returns as calculated by the fund's administrator may differ.

LMCG® INVESTMENTS

Annualized Performance

Annualized Performance						
(as of April 30, 2023)	**1YR**	**3YR**	**5YR**	**7YR**	**10YR**	**Since Inception[1]**
SCGMF Series A^	8.03%	8.99%	7.30%	9.75%	8.98%	8.93%
Bloomberg Barclays US Agg*	-0.43%	-3.15%	1.18%	0.91%	1.41%	1.39%
Bloomberg Barclays US Corp. HY*	1.22%	4.72%	3.28%	4.65%	4.23%	4.24%



^From September 2018 returns are net of Series A management fees, accrued Series A performance fees and fund-borne expenses, and averaged between the feeder funds; returns for 2023 are unaudited. Returns before September 2018 were generated by applying Series A's 1.5%/20% fee structure and fund-borne expenses to Serenitas Credit Gamma Master Fund, LP's gross returns. Past performance does not guarantee future results. Returns and principal value of an investment will fluctuate so that an investor's interests, when redeemed, may be worth more or less than their original cost. Future performance may be lower or higher than shown above. An investor's returns will vary based on the timing of its investment

[1]Data since fund inception in January 2013.

*Source: Bloomberg. The Bloomberg Barclays US Aggregate Bond Index and the Bloomberg Barclays US High Yield are included to allow for comparison of the fund's performance to widely recognized fixed income indices; these are not the fund's benchmarks and differ from the fund's strategies and holdings. You cannot invest directly in an index. The Bloomberg Barclays US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed income taxable bond market. The Bloomberg US Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market.

LMCG INVESTMENTS

Potential Upside Scenarios

- Stable US housing market
- Low corporate defaults
- Credit market volatility

Why Serenitas – Our Edge

Experienced Team

- We have a successful track record, both in prop trading and as a fund manager
- The team has been working together for more than 15 years
- LMCG is an established asset management firm with deep resources and an institutional infrastructure

Unique Investment Approach

- We take low exposure to credit spreads and interest rates
- Our robust proprietary analytics allows the fund to take advantage of both market inefficiencies and evolving market opportunities
- We strive to take advantage of pricing inefficiencies within the asset classes where we have extensive experience

Outstanding Performance Track Record

- Series A 8.93% annualized return with 3.63% volatility since inception* as of April 30, 2023**
- Low correlation to broader markets
- Diversification within traditional fixed income portfolio

*Inception: 1/15/2013

**From September 2018 returns are net of Series A management fees, accrued Series A performance fees and fund-borne expenses, and averaged between the feeder funds; returns for 2023 are unaudited. Returns before September 2018 were generated by applying Series A's 1.5%/20% fee structure and fund-borne expenses to Serenitas Credit Gamma Master Fund, LP's gross returns. Past performance does not guarantee future results. Returns and principal value of an investment will fluctuate so that an investor's interests, when redeemed, may be worth more or less than their original cost. Future performance may be lower or higher than shown above. An investor's returns will vary based on the timing of its investment. Source: LMCG, Bloomberg. Shown as supplemental information only and complements the full Serenitas Credit Gamma Fund track record found on slide 10.

LMCG® INVESTMENTS

Fund Terms and Service Providers

Structure	Master Feeder
Domicile	Cayman Islands for Master and Offshore Feeder; Delaware for Onshore Feeder
Subscriptions	Monthly
Lock-up	None
Liquidity	Quarterly (90-day notice; fully redeem (less 5% audit holdback) in 4 quarters or fewer)
Series A Management Fee	1.5%
Series A Performance Fee	20% (subject to high water mark)
Investment Manager	LMCG Investments, LLC
Legal Counsel	Ropes & Gray LLP (US), Ogier (Cayman Islands)
Auditor	RSM US LLP
Risk Advisor	Global Risk Management Advisors
Administrator	SS&C GlobeOp
Custodian	UMB Bank, N.A.

Serenitas Team Biographies

David Weeks – Chief Investment Officer, Serenitas Investment Team. David Weeks is the Chief Investment Officer for the Serenitas investment team. Mr. Weeks joined LMCG in May 2015 by virtue of LMCG's acquisition of certain assets of Serenitas Capital. Prior to joining LMCG, Mr. Weeks was Chief Investment Officer of Serenitas Capital, a firm he co-founded in 2012. Mr. Weeks held previous positions as Managing Director at Merrill Lynch, where he was responsible for the proprietary trading of Non-Agency Residential Mortgage Backed Securities from 2006 to 2011. He spent seven years managing the Merrill Lynch CLO Trading desk, where he traded CLOs, CBOs and TruPS CDOs. Prior to that, Mr. Weeks worked for six years as a structured products analyst at Moody's Investors Service. Earlier in his career, Mr. Weeks traded equity options for ten years as a market maker on the floor of Philadelphia Stock Exchange, after working for two years as a specialist clerk on the American Stock Exchange. Mr. Weeks received a B.S. in Finance from Lehigh University.

Ajit Kumar, CFA – Portfolio Manager. Ajit Kumar is the Portfolio Manager for investment-grade corporate structured credit products. Mr. Kumar joined LMCG in May 2015 by virtue of LMCG's acquisition of certain assets of Serenitas Capital. Prior to joining LMCG, Mr. Kumar was Portfolio Manager at Serenitas Capital, a firm he co-founded in 2012. He held a previous position as a Director at Merrill Lynch, where he was responsible for the proprietary trading of credit correlation products from 2005 to 2011. There he traded arbitrage relationships and relative value opportunities across U.S. and European index tranches, bespoke portfolios, and CSO securities. Prior to joining Merrill Lynch, Mr. Kumar worked with Morgan Stanley for six years, as a structured credit strategist and an equity research analyst. He received his Bachelors of Engineering in Computer Science from C.R. State College of Engineering, his MBA from McGill University, and his M.S. in Financial Mathematics from Stanford University. He is a CFA® charterholder and is a member of New York Society of Security Analysts.

Edwin Tsui, CFA – Portfolio Manager. Edwin Tsui is a Co-Portfolio Manager for CLOs and high-yield corporate structured credit products. Mr. Tsui joined LMCG in May 2015 by virtue of LMCG's acquisition of certain assets of Serenitas Capital. Prior to joining LMCG, Mr. Tsui was Portfolio Manager at Serenitas Capital, a firm he co-founded in 2012. He held a previous position as a Director at Merrill Lynch, where he was first in charge of the proprietary trading of subprime bonds and subsequently the portfolio manager for the proprietary trading of CLOs and tranches of the HYCDX and LCDX credit indices. Mr. Tsui started his career at Merrill Lynch in 2004 as a structurer in the asset based principal investments group. He received his M.S. in Mathematics and Finance from the Courant Institute of New York University and his Masters and Bachelor degree in Physics from the University of Oxford. He is a CFA® charterholder and is a member of New York Society of Security Analysts.

Guillaume Horel, Ph.D. – Portfolio Manager. Guillaume Horel is a Co-Portfolio Manager for CLOs and high-yield corporate structured credit products. Dr. Horel joined LMCG in May 2015 by virtue of LMCG's acquisition of certain assets of Serenitas Capital. Prior to joining LMCG, he was Portfolio Manager at Serenitas Capital, a firm he co-founded in 2012. He held a previous position as a Vice President in proprietary trading at Merrill Lynch, where he traded CLOs from 2007 to 2011. In this role, he also developed various quantitative models and relative value tools that helped to identify investment opportunities across CLOs and other structured credit products. Prior to joining Merrill Lynch, he worked for the structured credit analytics group at Goldman Sachs. Dr. Horel graduated with a degree in Engineering from École Centrale and a degree in Economics from Panthéon-Sorbonne University in Paris. He holds a M.S. in Financial Mathematics and a Ph.D. in Statistics, both from Stanford University.

Andreas Eckner, Ph.D. – Portfolio Manager. Andreas Eckner is the Portfolio Manager for Residential Mortgage Backed Securities (RMBS). Dr. Eckner joined LMCG in May 2015 by virtue of LMCG's acquisition of certain assets of Serenitas Capital. Prior to joining LMCG, he was Portfolio Manager at Serenitas Capital, a firm he co-founded in 2012. Dr. Eckner held a previous position as Vice President in proprietary trading at Merrill Lynch, where he traded RMBS securities from 2007 to 2011. Dr. Eckner's experience includes positions at ERSTE Bank, where he built pricing models for synthetic and cash-flow CDOs; and a statistical arbitrage group at Goldman Sachs. Prior to joining the financial industry, Dr. Eckner was at Stanford University where he completed a Ph.D. in Statistics and served on the admissions committee for the M.S. program in Financial Mathematics. His research on credit risk modeling and credit derivatives pricing has been published in the Journal of Finance and Journal of Computational Finance, and was mentioned in reports by the Bank of International Settlement and the European Central Bank. He is a winner of the "Swiss Finance Institute Outstanding Paper Award" and of a gold medal at the 30th International Chemistry Olympiad.

Important Risks and Investment Considerations

This document is being delivered to, and is directed only at persons who are reasonably believed to be investment professionals, institutional investors, or other qualified investors. If you are not such a person, you must not act or rely on the information in this document. This document does not constitute an offer to sell or solicitation of an offer to buy securities. Any such offer will be made only by means of the Confidential Private Placement Memorandum of Serenitas Credit Gamma Fund, LLC and the Confidential Offering Memorandum of Serenitas Credit Gamma Offshore Fund, Ltd. (the "Offshore Fund"), and will be subject to the terms and conditions contained therein.

The investment program of Serenitas Credit Gamma Master Fund, LP (the "Master Fund") is speculative and entails substantial risks. There can be no assurance that the Master Fund's investment objective will be achieved or that its strategies will be successful. Investors may lose all or substantially all of their investment in the Master Fund via its feeder funds. An investment in the Master Fund, via its feeder funds, should only be made after consultation with independent qualified sources of investment and tax advice.

The Master Fund's investment strategy is subject to market risk, including, but not limited to, directional price movements, deviations from historical pricing relationships, changes in the regulatory environment and changes in market volatility. The Master Fund may often engage in the use of leverage and other speculative investment practices, such as those involving hedging, short sales, options, derivatives and futures. These techniques may increase the risk of investment loss. The prices of certain instruments that may be traded by the Master Fund have been subject to periods of excessive volatility in the past, and such periods can be expected to recur. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than original cost. The Master Fund's investment manager, LMCG Investments, LLC ("LMCG"), has no specified diversification policies as to the percentage of the Master Fund's assets that may be invested in any particular country, asset class, issuer, instrument, market or strategy and may become more concentrated due to market movements. The Master Fund's investment strategy may involve investments in securities for which no liquid market exists or which are subject to legal or other restrictions on transfer. The Master Fund may invest in securities and other instruments of non-U.S. corporations and non-U.S. countries. Investing in such securities involves certain considerations not usually associated with investing in securities of U.S. companies or the U.S. government. The Master Fund invests in mortgage-backed ("MBS") and asset-backed ("ABS") securities including, but not limited to, collateralized debt obligations of such securities. These securities may be in the form of pass-through instruments or asset-backed obligations. Such securities are limited recourse obligations payable solely from the assets of the issuer. The fund uses a "master-feeder" structure which presents certain unique risks to investors, and its high fees and expenses may offset its total return. Interests in the feeder funds are generally non-transferable and subject to significant restrictions on withdrawal. The fund is not a complete investment program and should represent only a portion of an investor's portfolio management strategy.

Please refer to the Private Placement Memorandum/Offering Memorandum for a more detailed discussion of the risks associated with an investment in the fund.

Offering and marketing of shares of the Offshore Fund ("Shares") in Switzerland will be exclusively made to, and directed at, Qualified Investors as defined in Article 10(3) and (3ter) of the Swiss Collective Investment Schemes Act ("CISA") and its implementing ordinance. Accordingly, the Offshore Fund has not been and will not be registered with the Swiss Financial Market Supervisory Authority. This document is made available in Switzerland solely to Qualified Investors. In respect of offering and marketing to Qualified Investors with an opting-out pursuant to Art. 5(1) of the Swiss Federal Act on Financial Services and without any portfolio management or advisory relationship with a financial intermediary pursuant to CISA Article 10 (3ter), the Offshore Fund has appointed as Swiss representative ACOLIN Fund Services AG, Leutschenbachstrasse 50, 8050 Zurich, Switzerland (place of performance and jurisdiction) and as paying agent NPB Neue Privat Bank AG, Limmatquai 1 / am Bellevue, 8024 Zurich, Switzerland. The Offshore Fund's governing and offering documents and annual financial statements may be obtained free of charge from the Swiss representative. Alternate place of jurisdiction: registered office/domicile of the investor.

The Shares may be sold only to purchasers in Canada purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the Shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws. Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this document (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

This document has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this document and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of Shares may not be circulated or distributed, nor may Shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor pursuant to Section 304 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA") or (ii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Distribution in the European Economic Area and the United Kingdom:

In relation to each member state of the EEA (each a "Relevant State") which has implemented the Alternative Investment Fund Managers Directive (Directive (2011/61/EU)) (the "AIFMD"), this document may only be distributed and Shares may only be offered or placed in a Relevant State to the extent that: (1) the Offshore Fund is permitted to be marketed to professional investors in the Relevant State in accordance with AIFMD (as implemented into the local law/regulation); or (2) this document may otherwise be lawfully distributed and the Shares may otherwise be lawfully offered or placed in that Relevant State (including at the initiative of the investor).

In relation to each Relevant State which, at the date of this document, has not implemented AIFMD, this document may only be distributed and Shares may only be offered or placed to the extent that this document may be lawfully distributed and the Shares may lawfully be offered or placed in that Relevant State (including at the initiative of the investor).

This document may only be distributed and the Shares may only be offered or placed in the UK to the extent that (1) the Offshore Fund is permitted to be marketed to professional investors in the UK in accordance with the AIFMD (including the delegated and implementing acts adopted under it) as implemented, retained, amended, extended, re-enacted or otherwise given effect in the UK at the end of the transitional period agreed between the European Union and the UK pursuant to the European Union (Withdrawal) Act 2018 and as amended or supplemented in the UK thereafter; or (2) this document may otherwise be lawfully distributed and the Shares may otherwise be lawfully offered or placed in the UK (including at the initiative of the investor).

Important Risks and Investment Considerations

This document is being issued in the UK by LMCG to and/or is directed only at persons who are professional investors for the purposes of the Alternative Investment Fund Managers Regulations 2013, as amended, and is accordingly exempt from the financial promotion restriction in Section 21 of the Financial Services and Markets Act 2000 ("FSMA") in accordance with Article 29(3) of the FSMA (Financial Promotions) Order 2005.

The opportunity to invest in the Offshore Fund is only available to such persons in the UK and this document must not be relied or acted upon by any other persons in the UK.

This document has not been approved by the Israel Securities Authority and will only be distributed to Israeli residents in a manner that will not constitute "an offer to the public" under sections 15 and 15A of the Israel Securities Law, 5728-1968 ("the Securities Law") or section 25 of the Joint Investment Trusts Law, 5754-1994 ("the Joint Investment Trusts Law "), as applicable. Shares are being offered to a limited number of investors (35 investors or fewer during any given 12 month period) and/or those categories of investors listed in section 15A(b) of and/or the First Addendum ("the Addendum") to the Securities Law ("Sophisticated Investors") namely joint investment funds or mutual trust funds, provident funds, insurance companies, banking corporations (purchasing Shares for themselves or for clients who are Sophisticated Investors), portfolio managers (purchasing Shares for themselves or for clients who are Sophisticated Investors), investment advisors or investment marketers (purchasing Shares for themselves), members of the Tel-Aviv Stock Exchange (purchasing Shares for themselves or for clients who are Sophisticated Investors), underwriters (purchasing Shares for themselves), venture capital funds engaging mainly in the capital market, an entity which is wholly-owned by Sophisticated Investors, corporations, (other than formed for the specific purpose of an acquisition pursuant to an offer), with a shareholders equity in excess of NIS 50 million, and individuals investing for their own account, in respect of which at least one of the following applies: the total value of their cash, deposits, financial assets (as defined in the Investment Advice Law) and securities traded on a stock exchange licensed under the Securities Law (together, "Liquid Assets") exceeds NIS 8,094,444 ; their level of income over each of the preceding two years exceeds NIS 1,214,317, or the level of income of their "family unit" exceeds NIS 1,821,475; or the aggregate value of all their Liquid Assets exceeds NIS 5,059,652 and their level of income over each of the preceding two years exceeds NIS 607,158, or the level of income of their "family unit" exceeds NIS 910,737; each as defined in the said Addendum, as amended from time to time, and who in each case have provided written confirmation that they qualify as Sophisticated Investors, and that they are aware of the consequences of such designation and agree thereto; in all cases under circumstances that will fall within the private placement or other exemptions of the Joint Investment Trusts Law, the Securities Law and any applicable guidelines, pronouncements or rulings issued from time to time by the Israel Securities Authority. This document may not be reproduced or used for any other purpose, nor be furnished to any other person other than those to whom copies have been sent. Any offeree who purchases Shares is purchasing such Shares for its own benefit and account and not with the aim or intention of distributing or offering such Shares to other parties (other than, in the case of an offeree which is a Sophisticated Investor by virtue of it being a banking corporation, portfolio manager or member of the Tel-Aviv Stock Exchange, as defined in the Addendum, where such offeree is purchasing Shares for another party which is a Sophisticated Investor). Nothing in this document should be considered investment advice or investment marketing as defined in the Regulation of Investment Counselling, Investment Marketing and Portfolio Management Law, 5755-1995 ("the Investment Advice Law"). Investors are encouraged to seek competent investment counselling from a locally licensed investment counsel prior to making the investment. LMCG does not hold a licence under the Investment Advice Law, nor does it carry the insurance as required of a licensee thereunder. As a prerequisite to the receipt of a copy of this document a recipient may be required by LMCG to provide confirmation that it is a Sophisticated Investor purchasing Shares for its own account or, where applicable, for other Sophisticated Investors.

This document has not been registered by the Registrar of Companies in Hong Kong. The Offshore Fund is a collective investment scheme as defined in the Securities and Futures Ordinance of Hong Kong (the "Ordinance") but has not been authorized by the Securities and Futures Commission pursuant to the Ordinance. Accordingly, the Shares may only be offered or sold in Hong Kong to persons who are "professional investors" as defined in the Ordinance and any rules made under the Ordinance or in circumstances which are permitted under the Companies (Winding Up and Miscellaneous Provisions) Ordinance of Hong Kong and the Ordinance. In addition, this document may not be issued or possessed for the purposes of issue, whether in Hong Kong or elsewhere, and the Shares may not be disposed of to any person unless such person is outside Hong Kong, such person is a "professional investor" as defined in the Ordinance and any rules made under the Ordinance or as otherwise may be permitted by the Ordinance.

The Shares are not being offered to the Indian public for sale or subscription but are being privately placed with a limited number of sophisticated private and institutional investors. The Shares are not registered and/or approved by the Securities and Exchange Board of India, the Reserve Bank of India or any other governmental/regulatory authority in India. This document is not and should not be deemed to be a "prospectus" as defined under the provisions of the Companies Act, 2013 (18 of 2013) and the same shall not be filed with any regulatory authority in India. Pursuant to the Foreign Exchange Management Act, 1999 and the regulations issued thereunder, any investor resident in India may be required to obtain prior special permission of the Reserve Bank of India before making investments outside of India, including any investment in the Offshore Fund. The Offshore Fund has neither obtained any approval from the Reserve Bank of India or any other regulatory authority in India nor does it intend to do so and hence any eligible investor who is resident of India will be entirely responsible for determining its eligibility to invest in the Shares.

The Shares may not be offered or sold to the public in Brazil. Accordingly, the Shares have not been nor will be registered with the Brazilian Securities Commission - CVM nor have they been submitted to the foregoing agency for approval. Documents relating to the Shares, as well as the information contained therein, may not be supplied to the public in Brazil, as the offering of the Shares is not a public offering of securities in Brazil, nor used in connection with any offer for subscription or sale of securities to the public in Brazil.

For United Arab Emirates (Excluding Dubai International Financial Centre and Abu Dhabi Global Market) Residents Only: This document, and the information contained herein, does not constitute, and is not intended to constitute, a public offer of securities in the United Arab Emirates and accordingly should not be construed as such. The Shares are only being offered to a limited number of exempt investors in the UAE who fall under one of the following categories of non-natural Qualified Investors: (1) an investor which is able to manage its investments on its own, namely: (a) the federal government, local governments, government entities and authorities or companies wholly-owned by any such entities; (b) international entities and organisations; or (c) a person licensed to carry out a commercial activity in the UAE, provided that investment is one of the objects of such person; or (2) an investor who is represented by an investment manager licensed by the Securities and Commodities Authority (the "SCA") (each a "non-natural Qualified Investor"). The Shares have not been approved by or licensed or registered with the UAE Central Bank, the SCA, the Dubai Financial Services Authority, the Financial Services Regulatory Authority or any other relevant licensing authorities or governmental agencies in the UAE (the "Authorities"). The Authorities assume no liability for any investment that the named addressee makes as a non-natural Qualified Investor. The document is for the use of the named addressee only

SERENITAS CREDIT GAMMA FUND GIPS POOLED FUND REPORT

SCHEDULE OF ANNUAL RETURNS | January 1, 2013 through December 31, 2021

	NET RETURNS (%)	BENCHMARK RETURNS[1] (%)	COMPOSITE 3YR EX POST STANDARD DEVIATION[2](%)	BENCHMARK 3YR EX POST STANDARD DEVIATION[2](%)	FUND NET ASSETS AT END OF PERIOD ($M)	TOTAL FIRM ASSETS ($M)
2021	2.6	7.6	3.1	6.8	438.1	6,896.6
2020	16.8	3.4	3.3	6.9	343.2	6,301.0
2019	1.6	7.4	3.0	2.5	202.3	7,177.2
2018	10.5	-0. 4	3.7	2.7	175.8	6,143.8
2017	14.8	5.1	3.7	2.8	52.0	7,551.3
2016	8.0	7.7	3.3	2.9	41.2	7,367.5
2015	1.5	-0. 3	3.9	2.7	37.6	6,786.9
2014	9.0	4.0	NA	NA	27.8	6,370.5
2013	15.8	7.1	NA	NA	23.6	5,831.5

[1] Benchmark returns have been obtained from an independent source and have not been examined by independent accountants.
[2] The three-year annualized standard deviation is not presented from December 31, 2013 through December 31, 2014 because the composite did not have 36 monthly returns in that time period

Serenitas Credit Gamma Master Fund, LP ("The Fund") consists of investor classes in the onshore (Serenitas Credit Gamma Fund, LLC) and offshore (Serenitas Credit Gamma Offshore Fund, Ltd.) feeder funds. The fund's investment objective is to achieve attractive absolute total returns with a low correlation to traditional indices. The trading strategies focus on investment opportunities in the markets for structured credit securities, including non-agency residential mortgage-backed securities (RMBS), credit risk transfer securities (CRTs), collateralized loan obligations (CLOs), credit indices, credit tranches, credit swaptions and related instruments. While the fund is not managed against a benchmark, for comparison purposes, the fund is measured against the HFRI Relative Value (total) Index ("HFRI"). HFRI is a global, equal weighted Index of single-manager funds that report to the HFR Database. The inception date of the fund is January 1, 2013. Losses incurred on the Master Fund's leveraged investments increase in direct proportion to the degree of leverage employed. The Master Fund also incurs interest expense on the borrowings used to leverage its positions. The aggregate market value of the Master Fund's assets (long positions only) may not exceed 3 times the Master Fund's net asset value. The Fund invests in various debt instruments and derivatives that are subject to risks including credit, liquidity and interest rates. Please refer to the Fund's offering documents for full disclosure of the Fund's risks.

Effective March 1, 2022, LMCG redeemed Royal Bank of Canada's ("RBC") ownership interest in LMCG. As a result of this transaction with RBC, LMCG is a wholly-independent, SEC registered firm. In addition to the transaction with RBC, LMCG's Value Equity Team acquired certain client contracts and the associated $3.5 billion in assets under management from LMCG and formed Leeward Investments as a new investment firm independent of LMCG. RBC became LMCG's indirect majority owner in November 2015 when RBC acquired City National Corporation ("CNC"). Effective January 1, 2015, Lee Munder Capital Group, LLC is known as LMCG Investments, LLC ("LMCG"), an investment adviser registered with the Securities and Exchange Commission. A list of composite descriptions and a list of limited distribution pooled fund descriptions are available upon request.

Fund performance is calculated on a total return basis including income and realized and unrealized gains and losses. Fund performance is presented net of management fees, performance fees and fund-borne expenses applicable to Series A. Returns before September 2018 were calculated by applying Series A's fee structure and fund-borne expenses to the fund's gross returns. The three-year annualized standard deviation measures the variability of the fund's net returns and the benchmark returns over the preceding 36-month period. The U.S. Dollar is the currency used to express performance. As of the Fund's latest fiscal year end approximately 14% of the Fund's assets were valued using subjective unobservable inputs. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.

The fee schedule is as follows: investment management fee 1.5% , performance fee 20% of net income. The total expense ratio after performance fee for Series A of the onshore investor class is 2.63% and for Series A of the offshore fund is 2.72%.

LMCG claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. LMCG has been independently verified for the periods October 1, 2000 through December 31, 2021. The verification report(s) is/are available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report. Past performance is not indicative of future results. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

MWRA Retirement System

WELLINGTON MANAGEMENT®

Opportunistic Fixed Income

25 May 2023

Wellington Management Company LLP

WELLINGTON
MANAGEMENT®

Agenda

Section One Wellington Management Overview

Section Two Opportunistic Fixed Income

Section Three Appendix

WELLINGTON MANAGEMENT®

Wellington Management today

A trusted advisor and strategic partner to clients worldwide

BY THE NUMBERS

Business

USD 1,176 billion of client assets under management

2,565 clients

61 countries in which clients are based

People and portfolios

1,063 investment professionals

16 years of experience, on average

204 partners all active at the firm

Heritage: key dates

1928	Wellington Fund – the first US balanced fund
1979	Establishment of our private partnership
1994	Our first long – short strategy
2014	Our first dedicated private equity strategy
2015	Global Impact: Our first diversified impact investing strategy in public equities

As of 31 March 2023

OWNERSHIP MODEL

Long-term perspective of a private partnership structure

Attract and retain investment talent

Independent: No public shareholders, no outside capital

Interests aligned with clients

BUSINESS MODEL

Singular focus on investment management

Diversification by asset class, geography, and client type

Research for client benefit only

Commitment to bringing the right resources to each client

INVESTMENT MODEL

Comprehensive capabilities

Rigorous proprietary research

Career analysts

Global resources

Empowered portfolio teams

CULTURE

Open, collaborative

Performance driven

Professional/collegial

High standards, ethics, and integrity

Global diversity and inclusion

CURRENT LEADERSHIP INITIATIVES

Invest in our talent

Ambitiously evolve our investment capabilities to help investors grow and succeed

Pursue innovation in active management to help our clients' long-term outcomes

Transform our approach to technology to enable investment and operational excellence at scale

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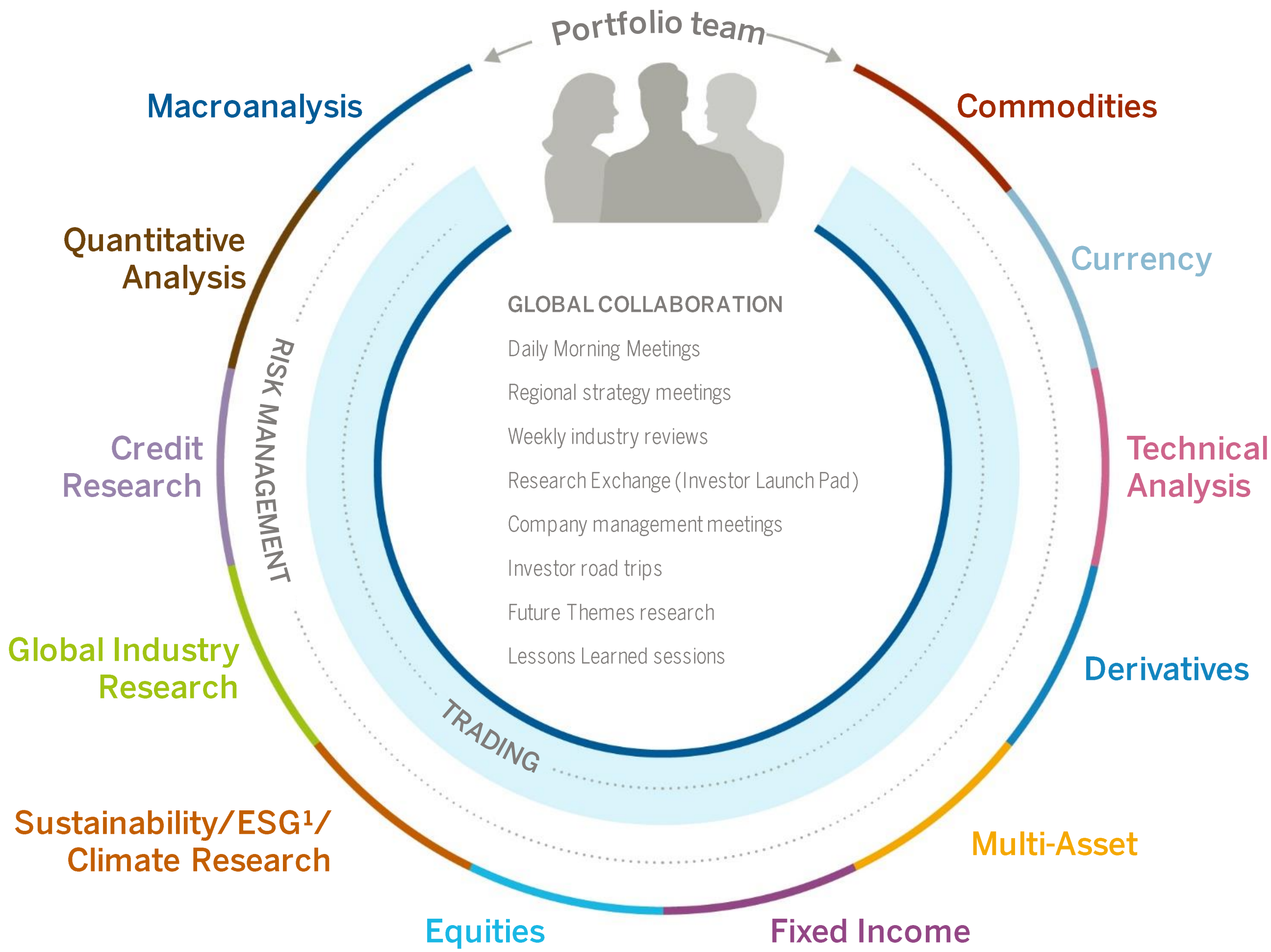
WELLINGTON MANAGEMENT®

Investors draw on our marketplace of ideas to build portfolios

We believe the best investment thinking is forged by the free exchange of ideas among a broadly diverse group of professionals



[1]Environmental, social, and corporate governance

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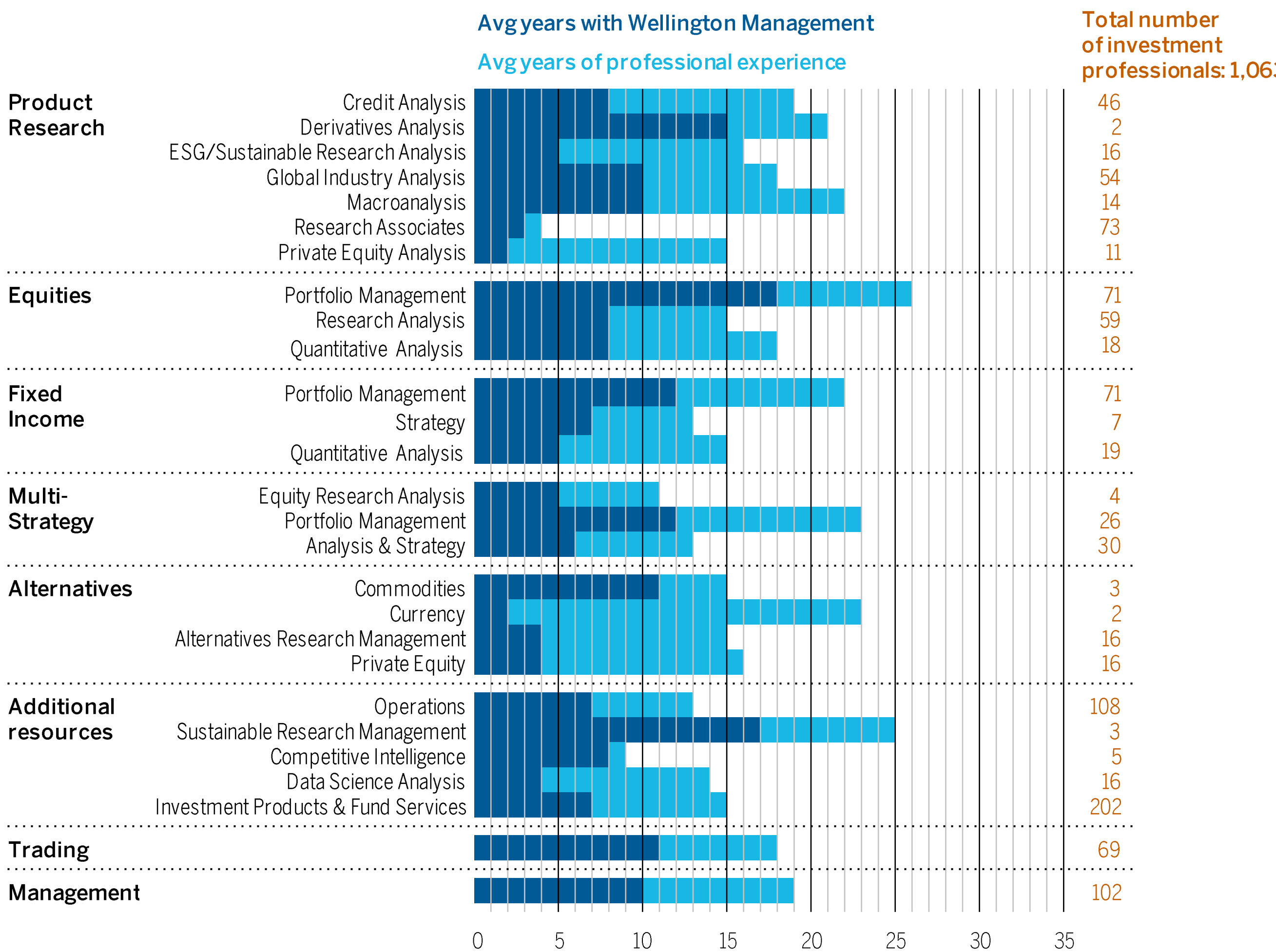
WELLINGTON MANAGEMENT®

Depth, experience, and continuity create interpretation advantage

Investors draw on rigorous, proprietary research

We conduct research through fundamental; environmental, social, and corporate governance (ESG); quantitative; macro; and technical lenses



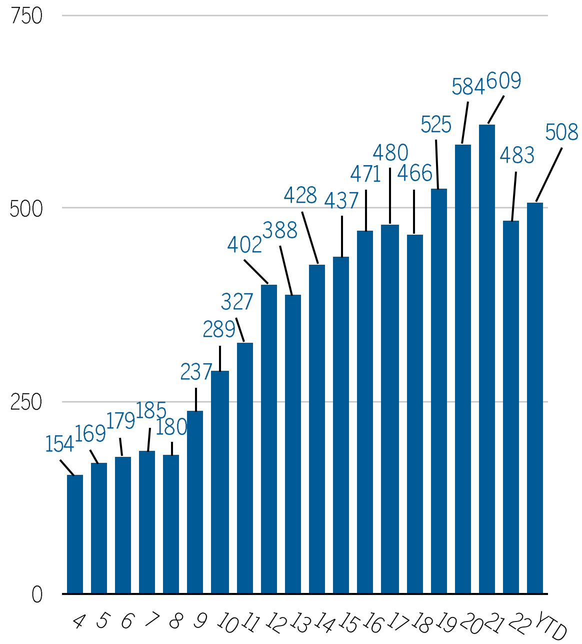
As of 31 March 2023

WELLINGTON MANAGEMENT®

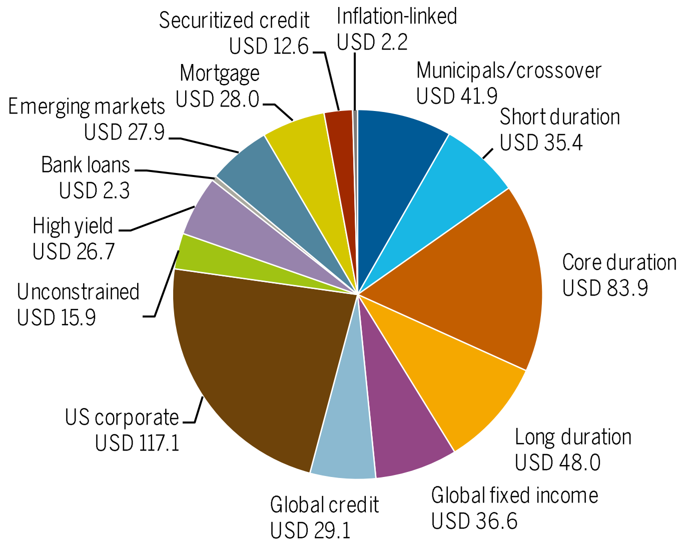
Fixed income assets under management

Expertise across all sectors

Total fixed income assets (USD bil)



By major investment style (USD bil)



As of 31 March 2023 | Sums may not total due to rounding.

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Opportunistic Fixed Income

Key Characteristics

Objective and risk	Objective	Realized[1]
Return expectation	5 – 7%	4.8% net
Risk	Core-like	5.9%
Average credit quality	A – BBB	A – BBB

Sectors	
Governments	• Developed up to 100% • Emerging up to 50%
Credit	• Non-investment grade up to 50%
Mortgage	• Agency up to 50% • Non-agency up to 15%
Securitized	• CMBS up to 25% • ABS up to 15%
Currencies	• Up to 30% net exposure

[1]Realized data calculated using monthly net representative account returns for the period 1 January 2008 – 31 March 2023. Data is shown since the year lead Portfolio Manager Brian Garvey took over the approach. Brian formally took over Opportunistic Fixed Income on 1 July 2008. | This target return reflects the objectives of the approach; it is aspirational and not based on particular criteria and assumptions. There can be no assurance this target will be met or maintained. It is presented gross of fees and expenses; when fees and expenses are deducted, the return will be lower. | As of 31 March 2023 | The characteristics presented are sought during the portfolio management process. Actual experience may not reflect all of these characteristics, or may be outside of stated ranges. | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. | **PAST PERFORMANCE DOES NOT PREDICT FUTURE RETURNS. AN INVESTMENT CAN LOSE VALUE.** | Net performance results are based on the highest published US advisory fee for this product, include reinvestment of dividends and other earnings, and are net of advisory fees, commissions, and other direct expenses, but before custody charges, withholding taxes, and other indirect expenses. Composite returns have the potential to be adjusted until reviewed and finalized 30 days following each calendar quarter end period. | This information complements the required net of fee returns included elsewhere in these materials. | This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

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Why Opportunistic Fixed Income

Variation in sector returns creates sector rotation opportunities

Calendar-year total returns (%)

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	1Q23
9.1	57.7	19.0	9.2	19.2	6.5	8.1	1.8	15.6	15.2	2.8	13.5	10.6	5.2	-0.6	5.4
8.5	51.6	15.7	7.9	18.0	5.3	7.6	1.5	10.2	8.4	1.6	13.3	8.3	2.5	-6.2	5.2
3.8	26.0	15.1	7.0	16.8	0.3	6.2	1.4	9.9	8.3	1.0	12.6	7.9	-0.2	-10.4	3.2
-5.0	25.6	11.8	6.3	10.9	0.1	6.1	0.9	9.6	6.0	0.8	12.5	7.1	-0.7	-10.8	3.1
-5.1	22.0	11.4	5.5	9.7	0.1	5.7	0.7	7.6	5.8	0.6	10.5	5.7	-0.8	-11.0	3.1
-5.2	17.9	10.1	4.8	9.2	-0.1	4.9	-0.2	6.2	4.1	0.4	8.6	5.1	-1.0	-11.1	2.9
-9.7	16.6	8.2	3.6	9.0	-1.5	3.4	-0.4	4.2	3.5	-1.0	8.2	4.9	-1.2	-11.7	2.5
-16.7	16.5	7.2	2.3	6.6	-2.2	2.6	-0.7	3.9	2.8	-2.7	7.3	3.9	-1.9	-11.8	2.0
-25.2	5.7	5.5	1.5	4.5	-8.3	1.6	-0.7	3.2	2.5	-3.3	6.4	3.1	-4.5	-14.1	1.9
-29.1	1.0	3.6	-1.8	2.6	-9.0	-5.7	-14.9	1.7	2.1	-5.3	5.4	2.7	-8.7	-24.7	1.9

- Governments
- MBS
- CMBS
- Bank loans
- Emerging local
- Corporates
- ABS
- High yield
- Emerging external
- OFI

As of 31 March 2023 | Please refer to the Key considerations page for additional information regarding third party indexes being shown. **PAST PERFORMANCE DOES NOT PREDICT FUTURE RETURNS.**

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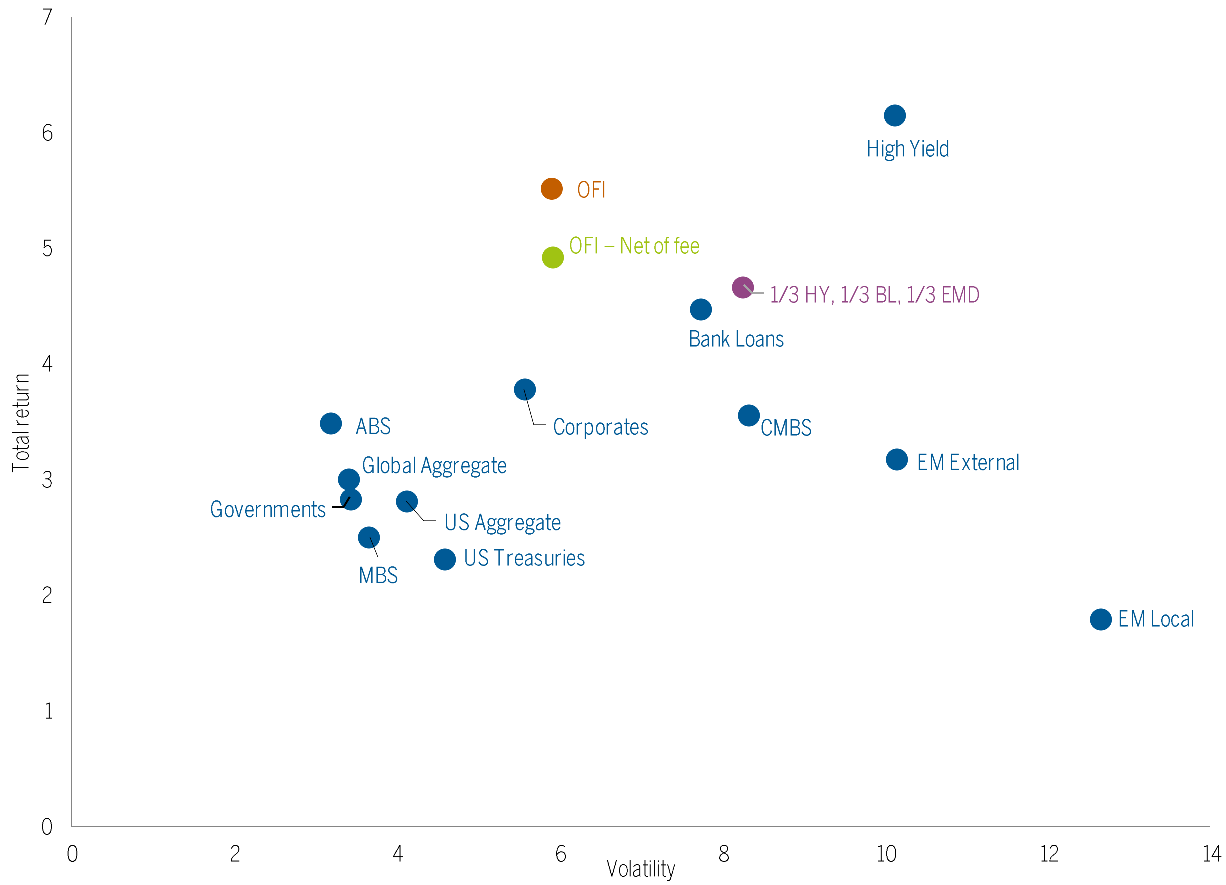
Opportunistic Fixed Income

Higher risk-adjusted returns

As of 31 March 2023 | Data is shown since the year lead Portfolio Manager Brian Garvey took over the approach. Brian formally took over Opportunistic Fixed Income on 1 July 2008. | Performance returns for periods one year or less are not annualized. | Please see the Key considerations page for additional information regarding third party indexes being shown. | **PAST PERFORMANCE DOES NOT PREDICT FUTURE RETURNS. AN INVESTMENT CAN LOSE VALUE.** | Gross performance results are net of commissions and other direct expenses, but before (gross of) advisory fees, custody charges, withholding taxes, and other indirect expenses, and include reinvestment of dividends and other earnings. Net performance results are based on the highest published US advisory fee for this product, include reinvestment of dividends and other earnings, and are net of advisory fees, commissions, and other direct expenses, but before custody charges, withholding taxes, and other indirect expenses. Composite returns have the potential to be adjusted until reviewed and finalized 30 days following each calendar quarter end period. | This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information. | Chart data: 31 October 2008 – 31 March 2023

Annualized standard deviation vs annualized gross and net return (%)



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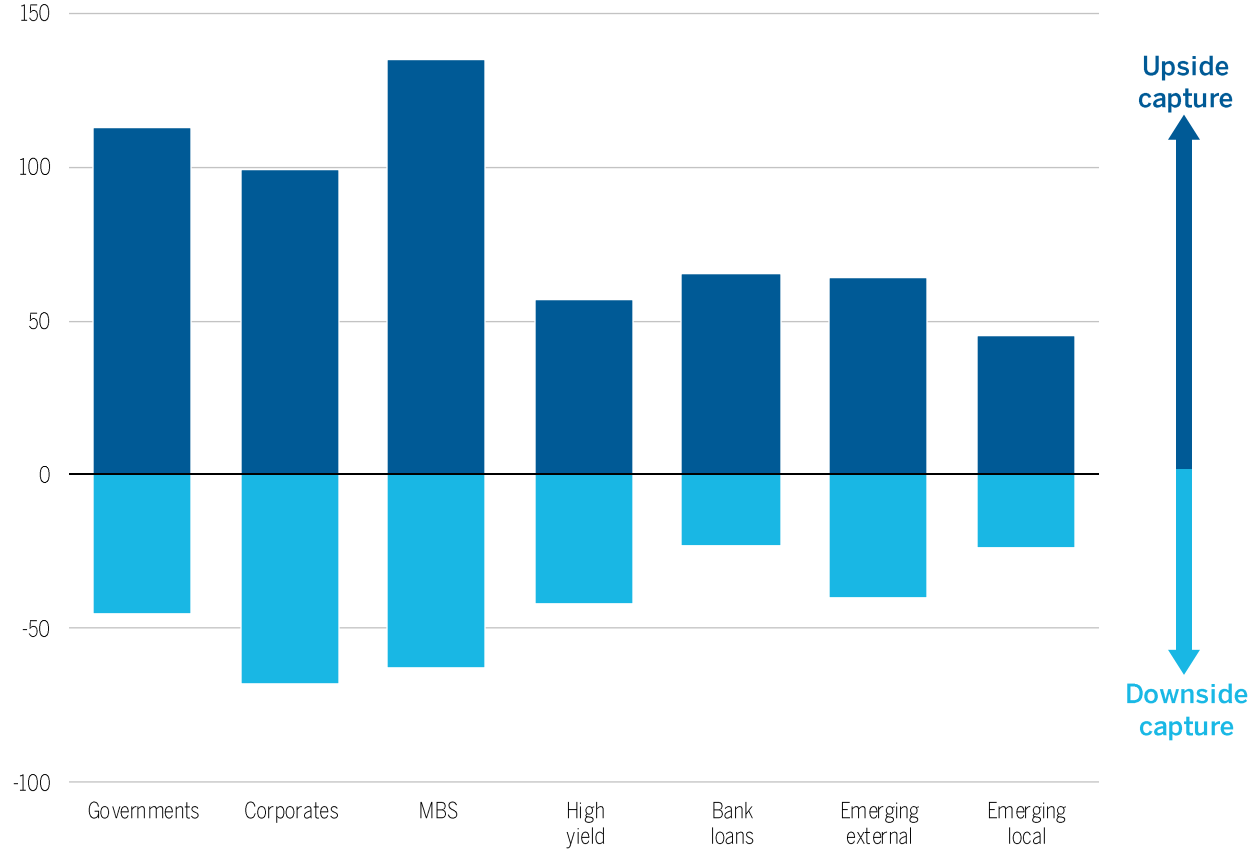
Opportunistic Fixed Income

Upside/downside capture relative to selected fixed income indexes

Upside/downside capture (net, %)



	Governments	Corporates	MBS	High yield	Bank loans	Emerging external	Emerging local
Upside capture (%)	113	99	135	57	65	64	45
Downside capture (%)	45	68	63	42	23	40	24

As of 31 March 2023 | Data is shown since lead Portfolio Manager Brain Garvey took over the approach. Brian formally took over Opportunistic Fixed Income on 1 July 2008. | Please see the Key considerations page for additional information regarding third party indexes being shown. | **PAST PERFORMANCE DOES NOT PREDICT FUTURE RETURNS. AN INVESTMENT CAN LOSE VALUE.** | Net performance results are based on the highest published US advisory fee for this product, include reinvestment of dividends and other earnings, and are net of advisory fees, commissions, and other direct expenses, but before custody charges, withholding taxes, and other indirect expenses. Composite returns have the potential to be adjusted until reviewed and finalized 30 days following each calendar quarter end period. | This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information. | Chart data: 1 January 2008 – 31 March 2023

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PPT/ Tmpl 1.6

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Opportunistic Fixed Income
Investment team and resources

Portfolio Management Team

Brian Garvey
SMD, Portfolio Manager

29 years of professional experience

Brij Khurana
SMD, Portfolio Manager

14 years of professional experience

Rakesh Yeredla, CFA
MD, Portfolio Manager

13 years of professional experience

Frances Scanlan
VP, Portfolio Analyst

9 years of professional experience

Brian Doherty, CFA
MD, Investment Director

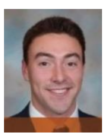
24 years of professional experience

Risk Management

Manny Hunjan, CFA
Assc. Director, Multi-Asset
Risk Management Oversight

Jing Lu
Investment Risk Analyst

Product Management



Sam Rowley
Investment Analyst

Roger Paul
Senior Product
Reporting Analyst

Investment Science

Suhas Anjaria
Quantitative Analyst

Portfolio Construction

Evelyn Chen
Portfolio Analyst

Investment Specialists

Market Neutral
Nick Petrucelli
Opportunistic Currency

John Soukas
Government Relative Value

Noah Stuart
Credit Relative Value

Sector Specialists
Noah Atlas, CFA
Capital Securities

Michael Barry
Convertibles

Craig Gainey
Credit Research

Michael Henry
EM Local Debt

Jeff Heuer, CFA
Bank Loans

Blake Huynh
Value Credit

Cory Perry
Structured Credit

Research

Commodities
David Chang, CFA

Technical
Brian Decker, CMTA

Macro
Juhi Dhawan, PhD

Mike Medeiros, CFA

John Butler

Broad resources

Macro
14 Strategists

Fixed Income Strategy
7 Analysts

Investment Strategy
53 Team members

Investment Grade Corporate
17 Analysts

Global Equity Industry
53 Analysts

ESG/Sustainability
16 Analysts

High Yield Corporate
16 Analysts

Securitized
4 Analysts

Municipal
5 Analysts

Emerging Markets Debt
5 Analysts

Currency
2 Analysts

Operational Risk
Michael Richardson

As of 31 March 2023

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Opportunistic Fixed Income
Investment returns

Opportunistic Fixed Income is a non-benchmark oriented approach. The Bloomberg US Aggregate Bond Index, Bloomberg Global Aggregate Bond Index Hedged to USD and the ICE BofA US Dollar 3-Month LIBOR Constant Maturity can be used as reference benchmarks. All indexes are representative of the broad global market and are shown only as reference points for prospects and clients who may wish to use these as comparisons. Bloomberg Index Services Limited. BLOOMBERG is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively "Bloomberg"). BARCLAYS is a trademark and service mark of Barclays Bank PLC (collectively with its affiliates, "Barclays"), used under license. Bloomberg or Bloomberg's licensor's, including Barclays, own all proprietary rights in the Bloomberg Barclays Indices. Neither Bloomberg nor Barclays approves or endorses this material, or guarantees accuracy or completeness of any information herein, or makes any warranty, express or implied, as to the results to be obtained therefrom and, to the maximum extent allowed by law, neither shall have any liability or responsibility for injury or damages arising in connection therewith | Sums may not total due to rounding. | Performance returns for periods one year or less are not annualized. | **PAST PERFORMANCE DOES NOT PREDICT FUTURE RETURNS. AN INVESTMENT CAN LOSE VALUE.** | Gross performance results are net of commissions and other direct expenses, but before (gross of) advisory fees, custody charges, withholding taxes, and other indirect expenses, and include reinvestment of dividends and other earnings. Net performance results are based on the highest published US advisory fee for this product, include reinvestment of dividends and other earnings, and are net of advisory fees, commissions, and other direct expenses, but before custody charges, withholding taxes, and other indirect expenses. Composite returns have the potential to be adjusted until reviewed and finalized 30 days following each calendar quarter end period. | For use in one-on-one presentations only. | This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

As of 31 March 2023 (%, USD)

	3 mos	1 yr	3 yrs	5 yrs	10 yrs	15 yrs
Opportunistic Fixed Income Broad Composite (gross)	5.6	3.3	5.2	3.5	3.6	5.3
Opportunistic Fixed Income Broad Composite (net)	5.5	2.8	4.6	3.0	2.9	4.5
Bloomberg US Aggregate Bond Index	3.0	-4.8	-2.8	0.9	1.4	2.7

	2022	2021	2020	2019	2018
Opportunistic Fixed Income Broad Composite (gross)	-9.9	-0.1	11.2	11.1	1.1
Opportunistic Fixed Income Broad Composite (net)	-10.4	-0.7	10.6	10.5	0.6
Bloomberg US Aggregate Bond Index	-13.0	-1.5	7.5	8.7	0.0

	2017	2016	2015	2014	2013
Opportunistic Fixed Income Broad Composite (gross)	6.3	8.2	0.4	5.7	-1.4
Opportunistic Fixed Income Broad Composite (net)	5.8	7.6	-0.4	4.9	-2.2
Bloomberg US Aggregate Bond Index	3.5	2.7	0.6	6.0	-2.0

	2012	2011	2010	2009	2008
Opportunistic Fixed Income Broad Composite (gross)	9.9	3.2	12.4	18.9	4.7
Opportunistic Fixed Income Broad Composite (net)	9.0	2.3	11.4	17.9	3.8
Bloomberg US Aggregate Bond Index	4.2	7.8	6.6	5.9	5.2

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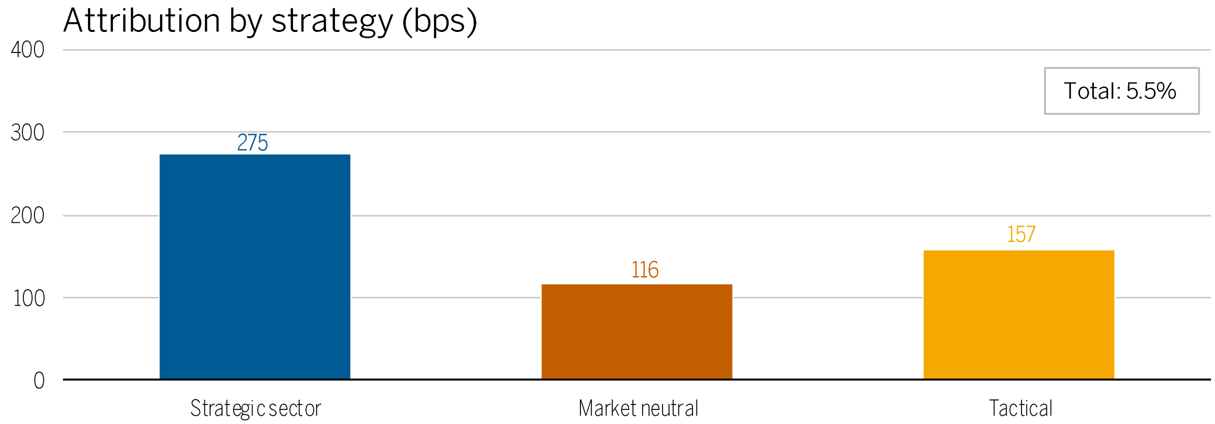
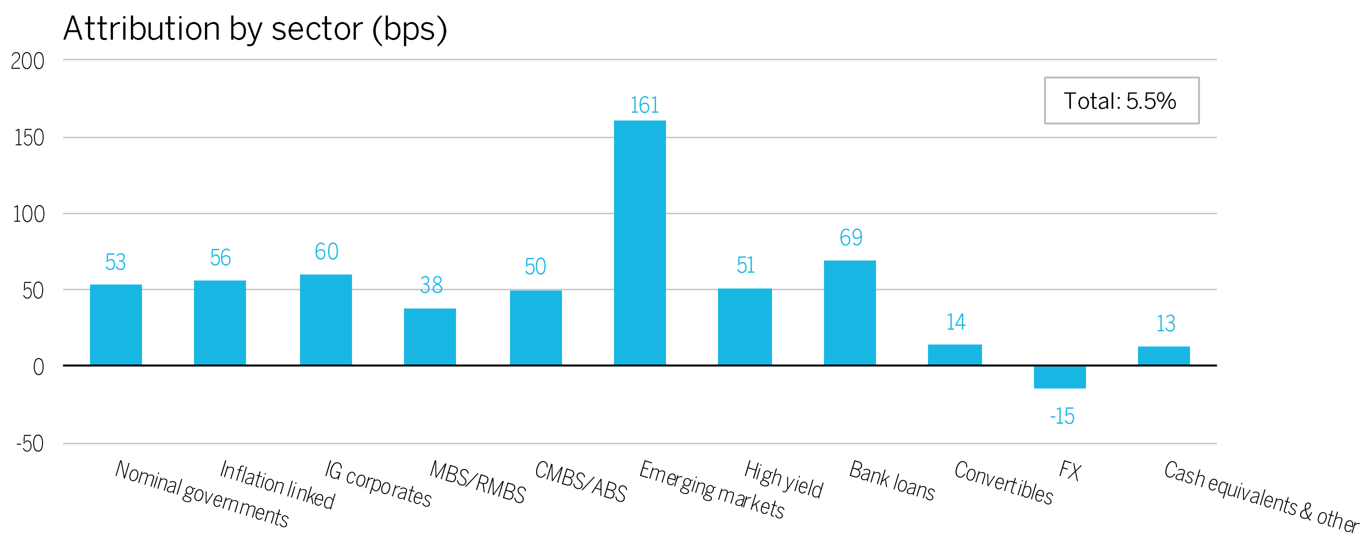
Opportunistic Fixed Income

Annualized total return attribution (gross, USD)

May 2009[1] – March 2023





[1]Attribution is shown since the representative account was designated on 1 May 2009 | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. | **PAST PERFORMANCE DOES NOT PREDICT FUTURE RETURNS. AN INVESTMENT CAN LOSE VALUE.** | Gross performance results are net of commissions and other direct expenses, but before (gross of) advisory fees, custody charges, withholding taxes, and other indirect expenses, and include reinvestment of dividends and other earnings. If all expenses were reflected, the performance shown would be lower. Actual fees will vary depending on, among other things, the applicable fee schedule and account size. | This information complements the required net of fee returns included elsewhere in these materials. | This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

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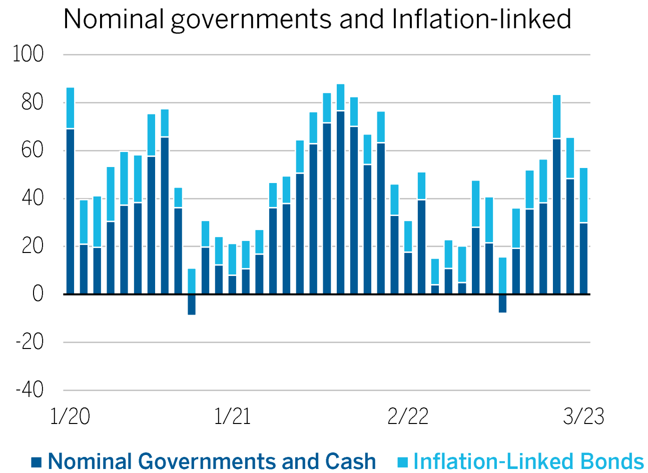
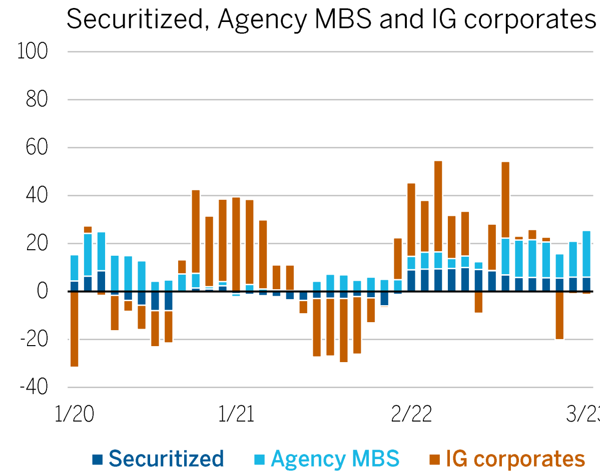
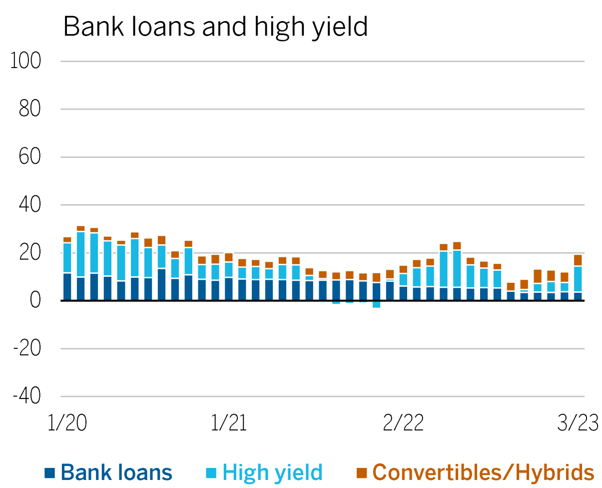
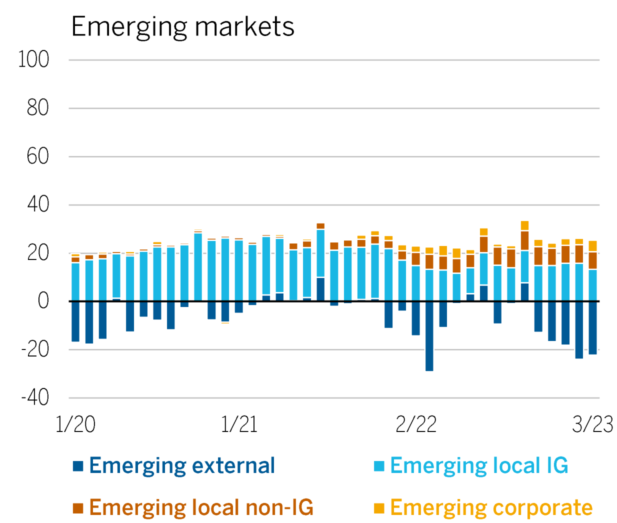
Opportunistic Fixed Income

Representative account dynamic sector rotation
Market values as of 31 March 2023









Based on monthly net exposure, inclusive of derivatives from 1 January 2018 – 31 March 2023. The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. Please refer to the Important Disclosures page for additional information. | Chart data: 31 January 2020 – 31 March 2023

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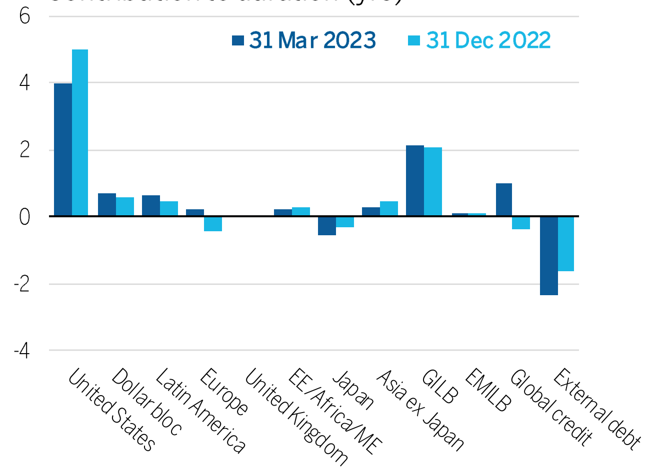
Opportunistic Fixed Income

Representative account exposures as of 31 March 2023

Contribution to duration (yrs)



Statistics

	31 Mar 2023	31 Dec 2022
Duration – effective (yrs)	6.41	6.11
Yield (%)	6.14	5.62
Average quality	A3	A2
Below investment grade (%)	24.5	6.2
Option Adjusted Spread (bps)	159	109

Key credit sectors (CTSD)

	31 Mar 2023	31 Dec 2022	Change
IG corporate	-0.3	-1.2	0.9
MBS	0.8	0.8	0.1
ABS	0.1	0.1	0.0
CMBS	0.0	0.0	0.0
RMBS	0.1	0.1	0.0
EM external	-2.7	-1.9	-0.8
EM local	1.2	1.4	-0.2
EM corporate	0.3	0.1	0.2
Bank loans	0.1	0.1	0.0
High yield	0.6	0.2	0.3
Converts/hybrids/other	0.2	0.3	-0.1

Active currency exposure (MV %)

	31 Mar 2023	31 Dec 2022	Change
Japanese Yen	3.9	0.5	3.3
Euro Currency	3.5	3.5	0.0
Indonesian Rupiah	2.4	2.1	0.3
Mexican Peso	2.3	2.4	-0.1
Iceland Krona	1.9	1.9	-0.1
Offshore Chinese Renminbi	-1.7	-2.3	0.6
Canadian Dollar	-1.5	-0.4	-1.1
Singapore Dollar	-1.5	-1.5	0.0
Australian Dollar	-1.2	-1.3	0.1
US Dollar	-18.4	-18.9	0.5
Other	10.3	13.7	-3.4

The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. Please refer to the Important Disclosures page for additional information.

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Opportunistic Fixed Income

Representative account theme implementation

As of 30 April 2023 | The examples identified reflect exposures within each theme and are not representative of all of the investments purchased, sold, or recommended for clients. It should not be assumed that an investment in the examples identified has or will be profitable. Actual holdings will vary for each client and there is no guarantee that a particular client's account will hold any or all of the examples listed. | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. Please refer to the Important Disclosures page for additional information.

Strategic sector (%)

Activist Governments	
Cyclical credit	2
Developed Market Inflation-linked bonds	27
Core Challenges	17
Emerging Market Opportunities	
EM Sovereigns	11
EM Local debt	11
Short Cycle Credit	
Bank loans	4
Short Duration Structured Products	6
Thematic Credit	1
Value Credit	4
Stranded Credit	
Busted Convertibles	3
Capital Securities	2
Sustainable Bond	
Sustainable Bond Best Ideas	4
Sustainable Bond Relative Value	3
Term Premia Normalization	4

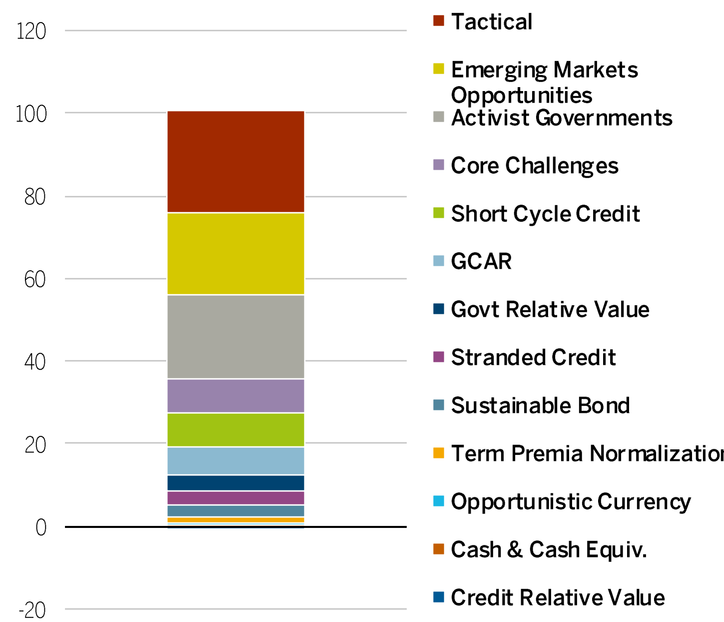
Market neutral (%)

Global Credit Absolute Return	15
Credit Relative Value	8
Government Relative Value	8
Opportunistic Currency	5

Tactical

Duration	
Australia	0
Canada	3
Japan	-2
Norway	-2
Credit	
Credit Research Portfolio	3
Municipal Bonds	1
Peripheral European Debt	1
Ultrashort Credit	1
US Agency MBS	21

Total risk (%)



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Opportunistic Fixed Income
Philosophy

We believe that…	Therefore we…
Alpha is a function of the breadth of the opportunity set	Cast a wide net and focus on non-core sectors – those characterized by extremes in valuation and unrecognized structural change
Alpha is about surprises	Foster an information advantage through the use of less traditional data sources and a broad network of internal experts
Capital preservation is best achieved through the portfolio construction process	Construct a benchmark-agnostic portfolio invested in a diverse set of opportunities: multiple time horizons, styles, geographies, asset types, and objectives

Any views expressed herein are those of the author(s), are based on available information, and are subject to change without notice. Individual portfolio management teams may hold different views and may make different investment decisions for different clients.

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Opportunistic Fixed Income
Investment process

Goal: construct a benchmark-agnostic portfolio invested in a diverse set of opportunities: multiple time horizons, styles, geographies, asset types, and objectives

	Strategic sector	Market neutral	Tactical
Inputs	• Defining characteristics of business cycle • Structural changes in economy • Evaluate new instruments for pricing inefficiencies • Collaborate with specialists • On the ground research	• Identify complementary relative value specialists • Correlation/dispersion analysis • Market/regulatory conditions • Process review	• Valuation screens across broad opportunity set in global duration, credit and currency markets • Quantitative tactical models • Liquidity conditions
Outputs	• Typically 3 – 5 thematic sector allocations • Assets best aligned with insight • Review thesis/explore evolution	• Currently four market neutral allocations • Long/short exposure in bond, credit and currency markets	• Positions typically vary based on opportunity set • Duration, sector rotation, market and currency selection

Portfolio construction/Risk mitigation

Inputs

- Factor-based analysis
- Expected returns/correlations
- Scenario/sensitivity analysis
- Forward-looking stress tests

Outputs

- Hedges designed to seek to preserve capital
- Ensure portfolio risks are deliberate, diversified and appropriately scaled
- Maintain a core-like risk profile

The characteristics presented are sought during the portfolio management process. Actual experience may not reflect all of these characteristics, or may be outside of stated ranges. For illustrative purposes only. Not representative of an actual investment. This is not to be construed as investment advice or a recommendation to buy or sell any specific security.

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Opportunistic Fixed Income
Fee schedule

Commingled account investment management fee

	Assets under management	Annual management fee
On the first	USD 100 million	0.50%
Over	USD 100 million	0.45%

Minimum account size
USD 1 million

In addition to the investment management fee, commingled pool accounts incur routine operating expenses (e.g., custody, accounting, audit, transfer agency, and other administrative expenses). These operating expenses are voluntarily capped. Commingled pool accounts also indirectly experience operating expenses of any other pooled investment vehicles in which they invest, and the voluntary cap does not apply to those indirect expenses. The cap on the portfolio's direct operating expenses could be eliminated or revised in the future, which may lower the portfolio's yield or return. | Fee changes are not anticipated at this time, but could occur in the future.

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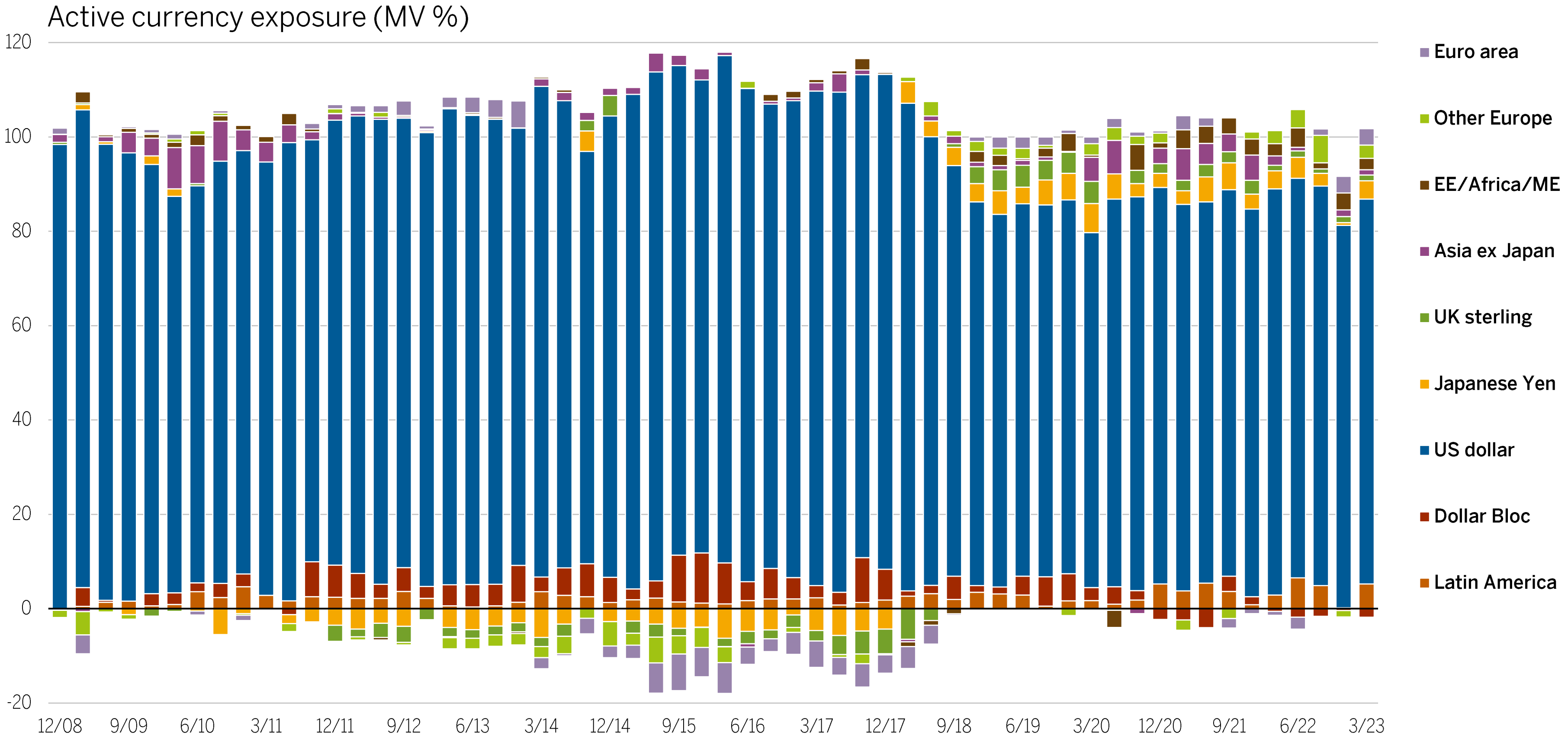
Opportunistic Fixed Income

Representative account historical currency exposure as of 31 March 2023



Due to system limitations, data is only available from September 2008 | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. Please refer to the Important Disclosures page for additional information. | Chart data: 30 September 2008 – 31 March 2023

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Biography

Brian M. Garvey
Senior Managing Director, Partner, and Portfolio Manager

Brian is responsible for developing and managing portfolios across multiple asset classes and geographies, with a specific focus on unconstrained cross-asset strategies. He has spent over 25 years analyzing and investing in capital markets, focusing on contrarian investment opportunities that arise from global imbalances and longterm structural themes. His investment philosophy blends thematic insights with quantitative inputs and risk controls, and draws upon the research and perspectives of Wellington Management's global industry analysts, specialist portfolio managers, and global macro strategists. He is the author of research papers on thematic portfolio construction, optimal inflation-hedging approaches, and niche investment opportunities.

Before joining Wellington Management in October 2007, Brian was the North American head of global macro research at State Street Global Markets, where he focused on analyzing market regimes and integrating measures of investor behavior into investment strategies. Prior to State Street, he was a fixed income research analyst on the global bond team at Standish, Ayer & Wood, and a senior currency strategist for IDEAglobal, an independent economic advisory service. He started his professional career at the US Bureau of Labor Statistics as an economist, and is credited with identifying a calendar distortion in the reporting of the agency's average hourly earnings data.

Brian received an MBA concentrating in finance/economics from Boston University (1998) and a BA in economics from Colby College (1991). He has been a participant in the Bank for International Settlements' (BIS's) emerging markets monitoring group, and is a member of the National Association of Business Economists.

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Biography

Brij S. Khurana
Senior Managing Director and Portfolio Manager

Brij is a portfolio manager on the Opportunistic Investment and Opportunistic Fixed Income portfolios. His focus is on global total return and unconstrained fixed income portfolios. He draws on the perspectives of Wellington Management's global industry and credit analysts, specialist portfolio managers, and global macro strategists and conducts top-down and bottom-up research to identify and deliver actionable investment ideas across sectors, regions, and themes, primarily within the global fixed income markets.

Prior to joining Wellington Management in 2016, Brij was a senior vice president and portfolio manager at Pacific Investment Management Company (PIMCO), where he managed core, unconstrained, and multi-sector credit fixed income portfolios. He started his professional career trading structured products at Goldman, Sachs & Co.

Brij received an MBA from Harvard Business School (2011) and a BA in economics from Princeton University (2007), with honors.

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Biography

Rakesh R. Yeredla, CFA
Managing Director and Fixed Income Portfolio Manager

As a fixed income portfolio manager, Rakesh works to generate new investment ideas and manage risk across the Opportunistic Fixed Income portfolios. In addition, he implements an absolute-return-oriented global credit strategy across the platform.

Prior to joining Wellington Management in 2013, Rakesh spent three years in risk management at the Vanderbilt University Endowment (2008 – 2011). Before that, he worked as a quantitative analyst at Quantitative Services Group (2007 – 2008).

Rakesh earned an MBA with high honors from the University of Chicago (Booth, 2013). He also holds a master of science degree in materials science from the University of Wisconsin-Madison (2007) and a bachelor of technology degree in metallurgical engineering from the Indian Institute of Technology, Chennai (2004). Additionally, he holds the Chartered Financial Analyst designation.

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Biography

Brian R. Doherty, CFA
Managing Director and Investment Director

As an investment director in Investment Products and Strategies, Brian works closely with investors in his coverage to help ensure the integrity of their respective investment approaches. This includes meeting regularly with the team and overseeing portfolio positioning, performance, and risk exposures, as well as developing new products and client solutions and managing business issues such as capacity, fees, and guidelines. He also meets with clients, prospects, and consultants to communicate our investment philosophy, strategy, positioning, and performance.

Prior to joining the firm in 2005, Brian worked in portfolio management, trading, and portfolio analyst roles at Standish Mellon Asset Management (1999 – 2003), Scudder Investments (1998 – 1999), and State Street Bank & Trust (1997 – 1998).

Brian earned his MBA from Carnegie Mellon University (2004) and his BA in economics from the University of Massachusetts (1997). Additionally, he holds the Chartered Financial Analyst designation and is a member of the CFA Institute.

WELLINGTON MANAGEMENT®

Opportunistic Fixed Income

Key considerations

The portfolio managers emphasize investments in non-core, less traditional areas of the fixed income markets, which are typically underrepresented in core portfolios. However, the portfolio is not constrained with respect to core areas and the portfolio may include exposure to core areas (e.g., Government Bonds, MBS).

The portfolio is primarily invested in fixed income securities and instruments, although may also include equity and commodity exposures subject to a maximum of 10% each. Cash exposure is unconstrained and may vary over time.

The portfolio may be concentrated in a small number of sectors, industries, or geographical regions. As a result of this concentration, poor performance among a small group of sectors, industries, or regions may lead to underperformance and may result in higher volatility than the fixed income benchmark.

The portfolio may have exposure to currencies other than the US dollar and may result in currency exposure that differs from that of the benchmark.

The portfolio includes positions based on both long-term and short-term investment ideas. The time horizon for top-down thematic ideas is often multiple years, while tactical ideas often have much shorter-term investment horizons and may be added to and removed from the portfolio on a frequent basis.

Investment ideas may be implemented through direct investment in the permissible fixed income and equity securities, commingled vehicles available through Wellington Trust Company, NA, and index-linked ETFs and derivatives. The portfolio may include allocations to new and existing investment strategies managed by Wellington Management Company, LLP.

Projected risk statistics are estimated using RiskMetrics, current holdings, and historical returns. The actual risk profile of the portfolio may differ from the projections based on market conditions.

The portfolio uses derivatives for purposes of risk management and alpha generation. Gross exposure, defined as the sum of all long positions plus the sum of the absolute value of all short positions, is expected to exceed 100% of the market value of the portfolio.

Returns, yield, duration, correlation, and volatility data was sourced from third party index providers. The Bloomberg US Aggregate Index and the Bloomberg Global Aggregate Hedged USD Index were the source of US aggregate and Global aggregate data, respectively. The FTSE TMX Canada Universe Bond Index was the source of FTSE TMX Canada Universe data. Sub indexes of the Bloomberg Global Aggregate hedged to USD index was the source of Treasuries, corporates, MBS, ABS, and CMBS data. The Bloomberg Global High Yield Index and the S&P LSTA Leveraged Loan Index was the source of the High Yield and Bank Loan data respectively. The JPMorgan EMBI Plus index was the source of the emerging external and emerging local data respectively.

For more information regarding eligible investments and portfolio guidelines, please refer to the portfolio's Statement of Characteristics.

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Opportunistic Fixed Income
Investment risks

PRINCIPAL RISKS

Asset/Mortgage-Backed Securities Risk – Mortgage-related and asset-backed securities are subject to prepayment risk, which is the possibility that the principal of the loans underlying the securities may prepay differently than anticipated at purchase. Because of prepayment risk, the duration of mortgage-related and asset-backed securities may be difficult to predict.

Bank Loan Risk – Bank loans involve risks, including the risk of nonpayment of principal and interest by the borrower. In the event of a default, bank loans contain the risk that any loan collateral may be impaired and that the investor may obtain less than the full value for the collateral sold. An investment in bank loans may also be in the form of an assignment or a participation of all or a portion of a loan from a third party. A participation may involve counterparty exposure to the original bank.

Commingled Fund Risk – Investments in funds or other pooled vehicles generally will indirectly incur a portion of that fund's operating expenses and/or fees and will inherit a proportion of the fund's investment risks. Funds may have different liquidity profiles based on their dealing terms, and the types of instruments in the fund. In the event a fund holds illiquid instruments, it is possible that a full redemption from the fund could result in taking custody of illiquid instruments that could not be sold in the market.

Concentration Risk – Concentration risk is the risk of amplified losses that may occur from having a large percentage of your investments in a particular security, issuer, industry, or country. The investments may move in the same direction in reaction to the conditions of the industries, sectors, countries and regions of investment, and a single security or issuer could have a significant impact on the portfolio's risk and returns.

Credit Derivatives Risk – Credit derivatives transfer price, spread and/or default risks from one party to another and are subject to additional risks including liquidity, loss of value, and counterparty risk. Payments under credit derivatives are generally triggered by credit events such as bankruptcy, default, restructuring, failure to pay, or acceleration. The market for credit derivatives may be illiquid, and there are considerable risks that it may be difficult to either buy or sell the instruments as needed or at reasonable prices. The value and risks of a credit derivative instrument depends largely the underlying credit asset. These risks may include price, spread, default, and counterparty.

Credit Risk – The value of a fixed income security may decline due to an increased risk that the issuer or guarantor of that security may fail to pay interest or principal when due, as a result of adverse changes to the issuer's or guarantor's financial status and/or business. In general, lower-rated securities carry a greater degree of credit risk than higher-rated securities.

Currency Risk – Active investments in currencies are subject to the risk that the value of a particular currency will change in relation to one or more other currencies. Active currency risk may be taken in an absolute, or a benchmark relative basis. Currency markets can be volatile, and may fluctuate over short periods of time.

Derivatives Risk – Derivatives can be volatile and involve various degrees of risk. The value of derivative instruments may be affected by changes in overall market movements, the business or financial condition of specific companies, index volatility, changes in interest rates, or factors affecting a particular industry or region. Derivative instruments may provide more market exposure than the money paid or deposited when the transaction is entered into. As a result, a relatively small adverse market movement can not only result in the loss of the entire investment, but may also expose a portfolio to the possibility of a loss exceeding the original amount invested. Derivatives may also be imperfectly correlated with the underlying securities or indices it represents, and may be subject to additional liquidity and counterparty risk. Examples include futures, options and swaps.

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Opportunistic Fixed Income

Investment risks

Emerging Markets Risk – Investments in emerging and frontier countries may present risks such as changes in currency exchange rates; less liquid markets and less available information; less government supervision of exchanges, brokers, and issuers; increased social, economic, and political uncertainty; and greater price volatility. These risks are likely greater relative to developed markets.

Fixed Income Securities Risk – Fixed income security market values are subject to many factors, including economic conditions, government regulations, market sentiment, and local and international political events. In addition, the market value of fixed income securities will fluctuate in response to changes in interest rates, and the creditworthiness of the issuer.

Interest Rate Risk – Generally, the value of fixed income securities will change inversely with changes in interest rates, all else equal. The risk that changes in active interest rates will adversely affect fixed income investments will be greater for longer-term fixed income securities than for shorter-term fixed income securities.

Leverage Risk – Use of leverage increases portfolio exposure and may result in a higher degree of risk, including (i) greater volatility, (ii) greater losses from investments than would otherwise have been the case had leverage not been used to make the investments, (iii) margin calls that may force premature liquidations of investment positions.

Non-Investment Grade Risk – Lower rated securities have a greater risk of default in payments of interest and/or principal than the risk of default for investment grade securities. The secondary market for lower rated securities is typically less liquid than the market for investment grade securities, frequently with more volatile prices and larger spreads between bid and asked price in trading.

ADDITIONAL RISKS

Commodities Risk – Commodities markets may be more volatile than investments in traditional equity or fixed income securities. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, commodity price volatility, interest rate changes or events affecting a particular commodity or industry. Instruments used to invest in commodities include forward contracts, futures contracts, options, and swap agreements.

Common Stock Risk – Common stock are subject to many factors, including economic conditions, government regulations, market sentiment, local and international political events, and environmental and technological issues as well as the profitability and viability of the individual company. Equity security prices may decline as a result of adverse changes in these factors, and there is no assurance that a portfolio manager will be able to predict these changes. Some equity markets are more volatile than others and may present higher risks of loss. Common stock represents an equity or ownership interest in an issuer.

Complex Investments Risk - Some investments may constitute the combination of two or more different financial instruments to obtain an intended exposure. While these instruments are designed to have complementary and/or offsetting exposure, they create additional risk of loss (or increased losses) where they do not perform as expected. Complex investments are often comprised of one or more derivatives, and will inherent the risks of the underlying derivatives, including but not limited to counterparty, liquidity, and volatility risk.

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Opportunistic Fixed Income
Investment risks

Contingent Convertible Securities Risk – Contingent capital securities (CoCos) are fixed income securities that, under certain circumstances, either convert into common stock of the issuer or undergo a principal write-down by a predetermined percentage if the issuer's capital ratio falls below a predetermined trigger level. Due to contingent write-down, write-off, and conversion features of contingent capital and contingent convertible securities, such high-yielding instruments may have substantially greater risk than other forms of securities in times of credit stress. This action could result in a partial or complete loss even if the issuer remains in existence. In full principal write-downs of CoCos, for instance, bondholders could theoretically lose the value of their investment completely, even though the common equity of the bank retains (and perhaps eventually recovers) some value.

Convertible Securities Risk – Convertible securities are hybrid securities that combine the investment characteristics of bonds and common stocks, and may be exchanged or converted into a predetermined number of the issuer's underlying shares, the shares of another company, or shares that are indexed to an unmanaged market index at the option of the holder during a specified time period. Although to a lesser extent than with fixed income securities generally, the market value of convertible securities tends to decline as interest rates rise. Because of the conversion feature, the market value of convertible securities also tends to vary with fluctuations in the market value of the underlying shares and thus is subject to equity market risk as well.

Liquidity Risk – Investments with low liquidity may experience market value volatility because they are thinly traded (such as small cap and private equity or private placement bonds). Since there is no guarantee that these securities could be sold at fair value, sales may occur at a discount. In the event of a full liquidation, these securities may need to be held after liquidation date.

Model Risk – Model risk occurs when systematic and/or quantitative investment models used in investment decision making fail. These models may evolve over time and have risks related to mistakes in software or data inputs that could go undetected for a period of time before rectified. Models may fail to adequately measure or predict market risks or outcomes and could result in a loss of value or opportunity cost.

Options Risk – An option on a security (or index) is a derivative contract that gives the holder of the option, in return for the payment of a "premium," the right, but not the obligation, to buy from (in the case of a call option) or sell to (in the case of a put option) the writer of the option the security underlying the option (or the cash value of the index) at a specified exercise price prior to the expiration date of the option. Purchasing an option involves the risk that the underlying instrument will not change price in the manner expected, so that the investor loses the premium paid. However, the seller of an option takes on the potentially greater risk of the actual price movement in the underlying instrument, which could result in a potentially unlimited loss rather than only the loss of the premium payment received. Over-the-counter options also involve counterparty risk.

Preferred Stock Risk – Preferred stock represents an equity or ownership interest in an issuer. If an issuer is liquidated or declares bankruptcy, the claims of owners of bonds take precedence over the claims of those who own preferred stock. Preferred stock is subject to many of the risks to which common stock and debt securities are subject, and may be subject to more volatility because they may trade with less frequency and in more limited volume. Additional risks include interest rate sensitivity, deferred distribution payments, involuntary redemptions, and limited voting rights.

Repo & Reverse Repo Risk – Both repurchase and reverse repurchase transactions involve counterparty risk. A reverse repurchase transaction also involves the risk that the market value of the securities the investor is obligated to repurchase may decline below the repurchase price.

Short Sale Risk – A short sale exposes the investor to the risk of an increase in market price of the particular security or instrument sold short, which could result in a loss. In addition, it is possible that an investor who engaged in a short sale is unable to cover the short at the current market price, resulting in a larger loss.

Important disclosures

Additional performance information

PAST PERFORMANCE DOES NOT PREDICT FUTURE RETURNS. There can be no assurance nor should it be assumed that future investment performance of any strategy will conform to any performance examples set forth in this material or that the portfolio's underlying investments will be able to avoid losses. The investment results and any portfolio compositions set forth in this material are provided for illustrative purposes only and may not be indicative of the future investment results or future portfolio composition. The composition, size of, and risks associated with an investment in the strategy may differ substantially from the examples set forth in this material. An investment can lose value.

Impact of fees

Illustration of impact of fees: If USD100,000 was invested and experienced a 10% annual return compounded monthly for ten years, its ending value, without giving effect to the deduction of advisory fees, would be USD270,704 with an annualized compounded return of 10.47%. If an advisory fee of 0.95% of average net assets per year were deducted monthly for the ten-year period, the annualized compounded return would be 9.43% and the ending USD value would be USD246,355. Information regarding the firm's advisory fees is available upon request.

Selection of representative account

The current representative account became effective on 1 May 2009 because it was the oldest account at the time of selection. For data shown prior to the current representative account effective date, data of the representative account(s) deemed appropriate for the time period was used. Further information regarding former representative accounts can be provided upon request. Each client account is individually managed; individual holdings will vary for each account and there is no guarantee that a particular account will have the same characteristics as described. Actual results may vary for each client due to specific client guidelines, holdings, and other factors. In limited circumstances, the designated representative account may have changed over time, for reasons including, but not limited to, account termination, imposition of significant investment restrictions, or material asset size fluctuations.

Access products

If access products are held by the portfolio they may not be included in the calculation of characteristic data. Access products are instruments used to gain access to equity markets not otherwise available and may include (but are not limited to) instruments such as warrants, total return swaps, p-notes, or zero strike options.

Additional disclosures

Securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly into an index.

Benchmark definition

Bloomberg US Aggregate Bond: The Index measures the performance of the U.S. investment grade bond market.

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LIBOR risk

The U.K. Financial Conduct Authority has announced cessation and non-representative dates on 35 London Inter-Bank Offered Rate (LIBOR) settings across various tenors and currencies after 2021. Notably, certain widely used US dollar (USD) LIBOR rate settings (overnight, 1-, 3- ,6-, and 12-month) will continue to be published in representative forms until 30 June 2023, enabling a smoother transition to alternative reference rates by allowing more time for "difficult-to-amend" legacy contracts/securities to mature. The elimination of LIBOR may adversely affect the interest rates on, as well as the liquidity and value of, certain portfolio investments.

Wellington has established a working group of stakeholders from key areas across the firm to manage the transition away from IBORs. Our LIBOR Replacement Working Group oversees work streams covering all aspects of the management of client assets that we anticipate could be impacted by LIBOR transition to help ensure that our client portfolios are well prepared for this upcoming change. Wellington is utilizing a multi-step implementation framework for transitioning from IBORs to alternative rates, including:

- Establishing a transition program
- Implementing a communication strategy with internal and external constituents, including several white papers
- Identifying and validating exposures across instruments, portfolios, and products as well as contractual and derivatives agreement language
- Developing operational and technology readiness plans to address the large-scale operating model, data, and technology implications required for IBOR transition
- Assessing the potential accounting and reporting implications associated with the transition away from IBORs

When IBORs are discontinued, securities that contain fallback language will transition to an alternative reference rate, depending on the deal documents. Fallback language can vary significantly for cash products based on product type, contract originator, and even origination date, as industry practices have evolved over time. For example, fallback language may provide that the replacement rate be determined based on reference bank quotations, remain permanently fixed from the previous interest period, or be determined by reference to another rate. Some securities lack any fallback language, or contain fallback language that differs from current industry standards. As a result, the liquidity and value of these securities may be adversely impacted in advance of the discontinuation of IBORs. In the event that securities lacking adequate fallback language become illiquid, clients may be forced to hold these securities to maturity.

Wellington Management
Composite: Opportunistic Fixed Income Broad
Schedule of Performance Returns from 01 January 2012 to 31 December 2021

Period	*Gross Return (%)*	*Net Return (%)*	*Benchmark1 Return (%)*	*Benchmark2 Return (%)*	*Number of Portfolios*	*Internal Dispersion (%)*	*Composite Mkt.Value (USD Mil)*	Total Firm Assets (USD Mil)
2012	9.88	8.96	4.21	5.72	< 6	N/M	1,973	757,903
2013	-1.40	-2.23	-2.02	-0.14	< 6	N/M	2,224	834,441
2014	5.75	4.86	5.97	7.59	< 6	N/M	2,527	914,109
2015	0.43	-0.42	0.55	1.02	< 6	N/M	2,172	926,949
2016	8.23	7.56	2.65	3.95	< 6	N/M	1,996	979,210
2017	6.34	5.76	3.54	3.04	< 6	N/M	2,315	1,080,307
2018	1.14	0.58	0.01	1.76	< 6	N/M	2,693	1,003,389
2019	11.08	10.47	8.72	8.22	< 6	N/M	3,189	1,154,735
2020	11.21	10.60	7.51	5.58	7	N/M	5,437	1,291,419
2021	-0.14	-0.69	-1.54	-1.39	6	0.6	6,952	1,425,481

Benchmark1: Bloomberg US Aggregate Bond

Benchmark2: Bloomberg Global Agg Hdg USD

N/M: For years where there are less than six portfolios throughout the performance period, Internal Dispersion is not meaningful.

Composite Description: Portfolios included in the Opportunistic Fixed Income Broad Composite seek to outperform the core fixed income market by making timely investments, primarily in non-core areas of the market. While Opportunistic Fixed Income is a non-benchmark oriented approach, the Bloomberg US Aggregate Bond Index and the Bloomberg Global Aggregate Bond Index Hedged to USD can be used as reference benchmarks. This broad composite includes portfolios with varying guidelines including those managed consistent with 40 Act and 81.102 issuer and derivative exposure requirements. In times of increased market volatility, the composite characteristics may change significantly due to various risk factors. Key risks of this composite, in no particular order, include, but are not limited to, Asset/Mortgage-Backed Securities Risk, Bank Loan Risk, Commingled Fund Risk, Concentration Risk, Credit Derivatives Risk, Credit Risk, Currency Risk, Derivatives Risk, Emerging Markets Risk, Fixed Income Securities Risk, Interest Rate Risk, Leverage Risk, and Non-Investment Grade Risk.

Composite Inception Date: The composite inception date is 29 February 2000.

Composite Creation Date: The composite creation date is August 2019.

Composite Membership: All fully discretionary, fee paying portfolios are eligible for inclusion in the composite.

Fee Schedule: The institutional separate account fee schedule for this product is:

Market Value	Annual Fee
On all assets	0.55%

Benchmark Definition: Bloomberg Global Agg Hdg USD is a market-weighted index of global government, government-related agencies, corporate and securitized fixed-income investments hedged to USD.

Bloomberg US Aggregate Bond measures the performance of the U.S. investment grade bond market.

Benchmark Change: As of January 2021, the ICE BofA ML US Dollar 3-Month LIBOR Constant Maturity Index has been removed from the performance table for all periods. The benchmark change has not resulted in any material changes to the investment philosophy or process.

Derivatives/Leverage/Shorts: Derivatives are used for risk management purposes and in pursuit of the Portfolios' objective. Derivatives may be used to achieve exposure to any theme or tactical opportunity, and within underlying investment strategies. For example, the Portfolios may use long and short positions in derivatives to adjust the Portfolios' exposure to various markets and factors around the world to desired levels, after incorporating the exposures generated by the other investments in the Portfolios. In addition, multiple investment strategies within the Portfolios may use derivatives for purposes of alpha generation. The instruments used for these purposes include, but are not limited to: bond and index futures and swaps, options, options on futures, forward contracts, structured notes, and other derivatives related to countries, industries, broad market indexes, or similar groups of securities. Derivatives used may be related to equities, equity indexes, fixed-income instruments, fixed-income indexes, commodities, commodity indexes, currencies, and other asset classes.

The investment approaches held within the Portfolios may change periodically, and each of these approaches employs its own approach to investing in derivatives, and is governed by its own derivatives guidelines. The guidelines for the Portfolios are deliberately broad, in order to allow the component investment approaches the latitude to determine their own derivatives usage. The Portfolios' gross investment exposure, defined as the market exposure associated with the sum of all long positions plus the market exposure associated with the absolute value of the sum of all short positions, may exceed 100% of the market value of the Portfolios.

The Portfolios' use of derivatives to date should not be considered indicative of its future use of derivatives. For example, the use of derivatives may be significantly greater in the future, may change rapidly, and the derivatives used may be more or less complex and more or less liquid than the derivatives used to date.

Firm: For purposes of GIPS® compliance, the Firm is defined as all portfolios managed by Wellington Management Company LLP, an independently owned, SEC-registered investment adviser, as well as its affiliates (collectively, Wellington Management). Wellington Management provides investment advisory services to institutions around the world.

GIPS®: Wellington Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS® standards. Wellington Management has been independently verified for the periods 1 January 1993 to 31 December 2020. The verification reports are available upon request.

A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report.

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Performance Calculation: Gross performance results are net of trading expenses. Returns are gross of withholding taxes on dividends, interest and capital gains and include reinvestment of any earnings. Returns, market values, and assets are reported in USD except when otherwise noted. Returns, market values and assets reported in currencies other than USD are calculated by converting the USD monthly return and assets using the appropriate exchange rate (official 4:00 p.m. London closing spot rates). Policies for valuing investments, calculating performance, and preparing GIPS composite reports are available upon request.

Wellington Management
Composite: Opportunistic Fixed Income Broad
Schedule of Performance Returns from 01 January 2012 to 31 December 2021

Net of fees performance reflects the deduction of the highest tier investment management fee ("model fee") that would be charged based on the fee schedule appropriate to you for this mandate, without the benefit of breakpoints and is calculated by subtracting 1/12th of the model fee from monthly gross composite returns. In certain instances Wellington Management may charge certain clients a fee in excess of the standard model fee, such as to legacy clients or clients receiving additional investment services. Performance net of model fees is intended to provide the most appropriate example of the impact management fees would have for you.

Pool investors will experience costs in excess of investment management fees, such as operating expenses and custodial fees. These indirect costs are not reflected in the model fee, or net of fees performance.

Internal Dispersion: The dispersion measure presented is the asset-weighted standard deviation. The asset-weighted standard deviation measures the dispersion of individual portfolio gross returns relative to the asset-weighted composite return. Only portfolios that have been included in the composite for the full period are included in the standard deviation calculation. Limitations imposed by client guidelines or by law on a portfolio's ability to invest in certain securities or instruments, such as IPO securities, and/or implementation of the firm's Trade Allocation Policies and Procedures, may cause the portfolio's performance to differ from that of the composite.

External Dispersion: The dispersion measure presented is the three-year annualized ex-post standard deviation. It measures the variability of the composite gross returns and the benchmark(s) over the preceding 36-month period. For periods prior to 1 January 2011, the Firm was not required to present the three-year annualized ex-post standard deviation.

	3-Year Standard Deviation (%)									
Year	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Composite	3.25	3.65	3.71	3.87	3.63	3.15	2.75	2.59	7.96	8.07
Benchmark1	2.38	2.71	2.63	2.88	2.98	2.78	2.84	2.87	3.36	3.35
Benchmark2	2.16	2.43	2.29	2.66	2.73	2.63	2.37	2.40	2.86	3.12

Composite Listing: Wellington Management's list of composite descriptions is available upon request.

Pooled Fund Listing: Wellington Management's list of pooled fund descriptions is available upon request.

Other Matters: This material contains summary information regarding the investment approach described herein and is not a complete description of the investment objectives, policies, guidelines, or portfolio management and research that supports this investment approach. Any decision to engage Wellington Management should be based upon a review of the terms of the investment management agreement and the specific investment objectives, policies, and guidelines that apply under the terms of such agreement.

Past Performance: Past results are not necessarily indicative of future results and an investment can lose value.

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Brigade Opportunistic Credit Strategy

Presentation to Massachusetts Water Resource Authority Retirement System

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I. Introduction

BRIGADE
CAPITAL MANAGEMENT

Executive Summary

Brigade Capital Management, LP ("Brigade") is a well-established global investment advisor specializing in credit-focused strategies.

DISTINGUISHED TEAM

Led by CIO & Managing Partner, Donald Morgan, who has 29 years of leveraged finance experience

Senior investment team has 18 years of experience, on average

INVESTMENT FOCUS

Global investment platform focused on below investment grade credit strategies

Fundamental research process emphasizing free cash flow, asset coverage and relative value

BRIGADE EDGE

Disciplined investment process proven over numerous market cycles

Seasoned investment team with significant industry-specific experience

ORGANIZATION

2006
Year the firm was founded

$25.3bn
Assets Under Management[1]

131
Total number of employees globally

28
Equity partners across the employee-owned firm

51
Investment professionals with significant industry-specific expertise

1. As of May 1, 2023.

BRIGADE
CAPITAL MANAGEMENT

The Brigade Credit Platform

Brigade offers credit solutions with centralized portfolio management and a consistent investment process managed by the same investment team across the Brigade credit platform.

$25.3bn[1]
AUM

LIQUID CREDIT	ALTERNATIVE CREDIT	STRUCTURED CREDIT[2]	COLLATERALIZED LOAN/BOND OBLIGATIONS[3]
High Yield	Long/Short	Long/Short	U.S. CLOs
Loans	Opportunistic	Investment Grade	European CLOs
	Dislocation	Illiquid/Private	U.S. CBOs
$8.1bn	$4.1bn	$3.8bn	$9.3bn

AUM is as of May 1, 2023.
1. Total Firm AUM is adjusted to exclude AUM of Brigade funds/accounts that are invested in Brigade managed CLOs.
2. Excludes structured credit positions held in funds categorized as Liquid and Alternative Credit Strategies/accounts that are invested in Brigade managed CLOs.
3. Includes 16 U.S. CLOs, 5 European CLOs and 2 U.S. CBOs.

BRIGADE CAPITAL MANAGEMENT

Brigade Investment Team

Brigade's investment strategies are supported by substantial credit research and trading expertise.[1]

Donald E. Morgan III, CFA*
CIO, Managing Partner
29 Years

Doug Pardon*
Co-CIO
21 Years

INVESTMENT COMMITTEE

Steven Bleier*
Co-Head of Structured Credit
24 Years

Gregory Soeder, CFA*
Head of Portfolio Strategy
25 Years

Andrew Petitjean, CFA*
Global CLO Portfolio Manager
22 Years

Thomas O'Shea*,[2]
Head of European Investments
26 Years

Jenny Y. Lee*
Co-Head of Private Credit
29 Years

Raymond Garson*
Head of Corporate Credit Research
28 Years

GLOBAL CREDIT RESEARCH

Kunal Banerjee, CFA* Chemicals	John Baylis* Media & Cable	Chris Chaice* Head of Distressed Research	Luc-Antoine Lebard*,[2] European Tech Media & Telecom	Matthew Perkal* Head of Special Situations & SPACs
Patrick Robb* Gaming, Homebuilding & Autos	Sumit Sablok* Technology	Pavlin Kumchev[2] European Healthcare & Industrials	Sandro Carissimo Energy	Florian Kass, CFA[2] European Business Services
Scott O'Brien Financials & Real Estate	Emily Brown Industrials	Matthew D'Ambrisi Tech, Media & Telecom	Sachin Abrol Retail & Consumer Products	Madison Delev Media, Cable & Publishing
Conor Dillon Autos, Gaming, Lodging, Leisure & Homebuilding	Tommy Anderson Healthcare	Christopher Lembo Energy, Power, Metals & Mining		

STRUCTURED CREDIT

Dylan Ross* Co-Head of Structured Credit	Justin Pauley* CLOs	Michael Kreicher* CMBS
Max Scherr* FIG & Specialty Finance	Gaurav Tejwani* Derivatives	Philip Ha CLOs
Jess Wang RMBS	Priya Kothary Senior Product Specialist	Mia Qian CLOs
Byron Maturo, CFA Macro Credit	Gabby Champagne-Sitzler ABS & Specialty Finance	Hong Fan ABS & Specialty Finance

RISK & TRADING

Russ DiMinni* Co-Head of Trading	Michael Walker* Co-Head of Trading
Rob Lefkowitz, CFA, CAIA, FRM* Director of Risk	Xavier Mimaud Trader
Charles Bartels Trader	Tom Eardley, CFA[2] European Trader
Emily Keinz Portfolio Analytics & Trading	Michael Bennett Trading Assistant

PRIVATE CREDIT

Jim Wolf Co-Head of Private Credit
Jason Wang Director
Tyler Williams-Sinclair Director
Haroon Ashraf Associate
Diego Campos Associate

*Indicates Firm Partner.
1. Reflects years of relevant industry experience.
2. Located in the London office.
There is no assurance that any individual will continue to be employed by Brigade or be involved in the management of any transaction for any period.

II. Investment Process

Investment Strategy

Credit Selection & Portfolio Construction

OPPORTUNISTIC CREDIT STRATEGY

Liquid Credit Focused Strategy:
high yield bonds, leveraged loans, and non-traditional credit instruments

Extensive expertise in leveraged finance and credit selection

Fundamental bottom-up credit selection determines portfolio construction

Credit cycle rotation is a crucial determinant of sector and credit weightings

Ability to reduce market exposure through non-traditional allocations and macro hedges

DISCIPLINED INVESTMENT PROCESS

Catalyst Focused Investments:
capital raise, asset sale, restructuring, ratings upgrade

Asset coverage/margin of safety:
> 1.5x or approximately 65% loan-to-value

Free cash flow generation:
>5% to 10% of debt

Relative value analysis

Extensive expertise in restructuring, debt exchanges and negotiated recapitalization

All portfolio construction parameters are measured at the time of investment unless otherwise noted. While Brigade generally expects to adhere to the above parameters during normal market conditions, such parameters are targets and not investment restrictions. Brigade may modify its portfolio construction targets at any time and in any manner which it believes is consistent with its overall investment objective in response to market conditions or other factors without notice to investors or clients.

BRIGADE CAPITAL MANAGEMENT

Portfolio Construction: Opportunistic Exposure Profile

Dynamic portfolio exposure profile allows for strategy exposures and portfolio beta to increase or decrease based on the opportunity set, and provides for the use of non-traditional credit investments, index hedges, and/or cash to reduce market exposure.

TYPICAL OPPORTUNISTIC EXPOSURE

Size	Average Position Size	1-2%
	Maximum Position Size	5%
	Number of Core Positions	75-150
Core Positions	Leveraged Loans	25-75%
	High Yield Corporate Bonds	25-75%
Opportunistic Positions	High Quality Corporate Bonds	0-15%
	Convertible Bonds	0-10%
	Structured Credit	0-15%
	Distressed	0-10%
	Municipal Debt	0-15%
	Emerging Markets	0-10%
	Cash	0-10%
Short Positions	Macro Hedge (credit, interest rates, etc.)	Dependent on mandate

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BRIGADE CAPITAL MANAGEMENT

Repeatable Investment Process

High Yield Bonds | Leveraged Loans | Distressed Debt | Converts/Preferreds | Structured Credit | Opportunistic EM/Munis

$9.8 TRILLION INVESTMENT UNIVERSE[1]
3,400+ ISSUERS[2]

Long Bias Idea Set
- Minimum Yield or
- Discount to FMV

QUALITATIVE ANALYSIS | **QUANTITATIVE ANALYSIS**

- Strong Management
- Positive Operating Momentum
- Industry Position/Market Share
- Strategic Value of Assets
- ESG Considerations

- FCF Generation
- Strong Asset Coverage
- Strong Covenants

CATALYST

- FCF Pays Down Debt
- Raise Equity
- Corporate Restructuring
- Covenant Plays

SECURITY SELECTION

- High Yield
- Distressed
- Secured Loans
- Investment Grade

OPPORTUNITY SET
250 Issuers

Seek to reduce risk through **diversification**

75 TO 150
CORE POSITIONS

Diversified by: Strategy ▪ Sector ▪ Issuer

1. Values as of 3/31/2023. Source: BofA Global Research, Credit Suisse Leveraged Loan Index, Credit Suisse Leveraged Equity Index, Credit Suisse Western European Leveraged Loan Index, ICE BofAML Global High Yield Index, ICE BofAML US Fixed Rate CMBS Index, Bloomberg and Intex.
2. Includes the total Issues in the ICE BofAML Global High Yield Index, 3/31/2023.

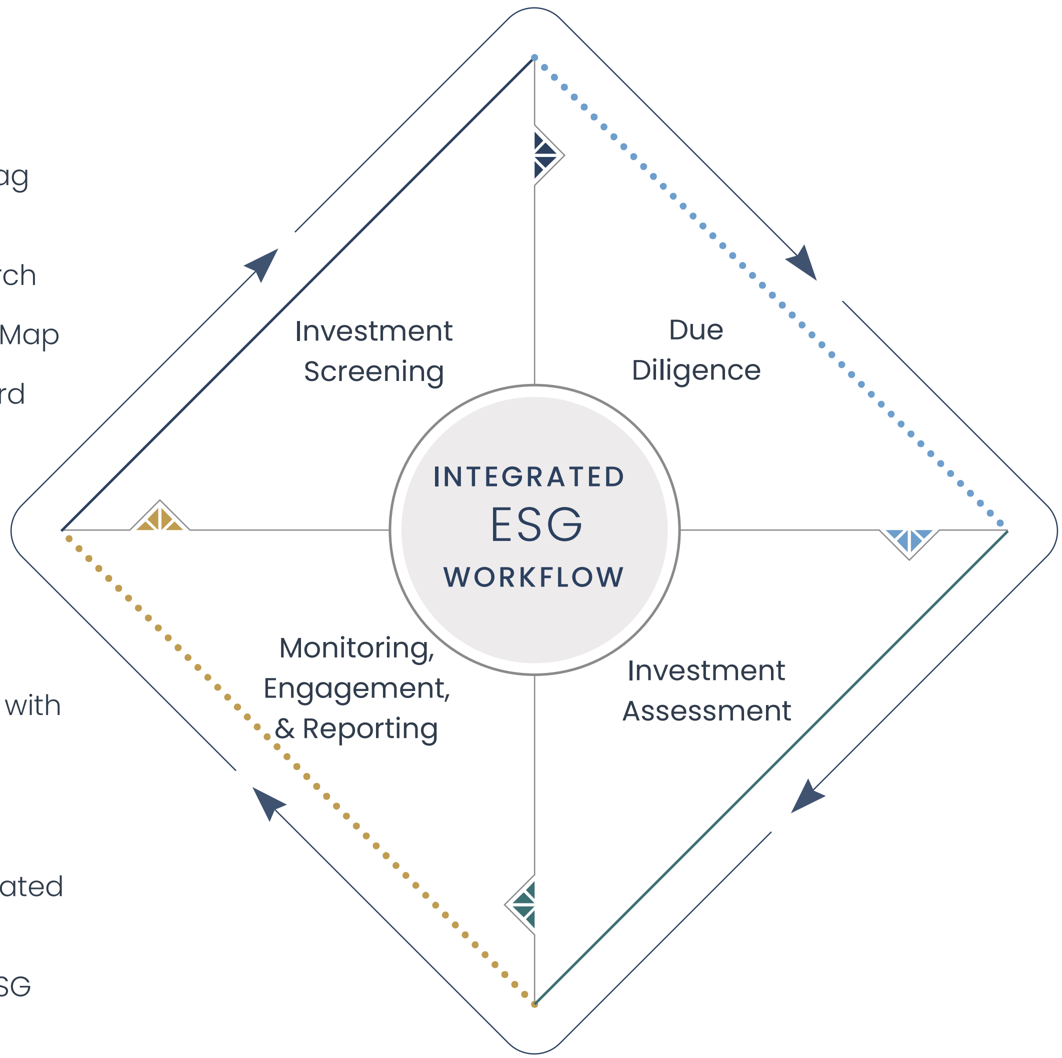
All portfolio exposures are measured at the time of investment unless otherwise noted. While Brigade generally expects to adhere to the above exposures during normal market conditions, such exposures are targets and not investment restrictions. Brigade may modify its portfolio exposure targets at any time and in any manner which it believes is consistent with its overall investment objective in response to market conditions or other factors without notice to investors or clients.

BRIGADE CAPITAL MANAGEMENT

Repeatable Process: Integrated ESG Workflow

ESG awareness and evaluation is integrated throughout the investment life cycle, from pre-screening through the monitoring and reporting phases.

- Employ desktop red-flag diligence
- Utilize MSCI ESG Research
- Apply SASB Materiality Map
- Brigade's ESG Scorecard



- Robust due diligence based on publicly available information
- Discussions with management and key stakeholders (suppliers, customers, consultants)
- Comparative peer analysis
- Evaluation of industry trends

- Establish relevant KPIs to monitor and engage with issuer/management on ESG factors
- Regular evaluation of investment and ESG-related risks
- We will publicly report ESG data through UNPRI

- Investment Committee deliberates on investment decision
- All investment criteria weighed including ESG factors to assess risk/reward potential

Case Study:
McGraw Hill

McGraw Hill is an educational publishing company focused on educational content, software, and services for pre-K through post-graduate education

INVESTMENT THESIS

McGraw Hill is an educational publisher that provides educational content, technology and services and is transitioning from print to a subscription-based, rental, and digital solutions model. We believe the company's diversification across both the higher education industry and K-12 (top three provider in Higher Education with 24% market share and top three provider in K-12 curriculum with 20% market share) is extremely valuable to their success and market share. In conjunction with this, their push for digital adoption is allowing them to build a recurring subscription business.

QUANTITATIVE ASSESSMENT[1]

- FCF/Total Debt 7.8%
- Asset Coverage 2.3x

QUALITATIVE ASSESSMENT

- The company's ability to create exclusive content, through relationships with authors and product services provided by the publishers, is critical for longevity within the industry
- The Higher Education business has successfully pushed digital to be close to 80% of billings which has reduced the company's resilience on print and lowered costs
- K-12 stimulus funding has led to above average profitability in recent quarters
- Strong liquidity profile with no maturities until 2028
- Adaptive learning is a significant improvement to the learning experience, which we believe will allow the company to empirically prove this out through time and greater penetration of the product

RELATIVE VALUE

ISSUE[2]	YIELD	SPREAD
McGraw Hill, L+475 Term Loan	10.4%	771bps
Credit Suisse, LL Diversified Media Sector[3]	10.1%	616bps
Credit Suisse, Lev Loan Index[3]	10.0%	609bps

CATALYST

- K-12 stimulus funding will continue to maintain the above average profitability for their K-12 business through 2024
- COVID-19 accelerated the pivot to digital, which has positioned the industry well as enrollment continues to recover
- Enrollment statistics are improving with recent clearing house enrollment data seeing improvement particularly in 2-year institutions
- Higher education publishers are historically countercyclical, a potential tailwind as recession fears mount

1. 1 Based on estimated fiscal year 2022 financials and the implied TTM multiples to arrive at asset value for Cengage and Pearson of 9.3x and 11.6x, respectively.
2. Based on data as of 3/31/2023, Source: Bloomberg
3. This benchmark reflects the Credit Suisse Leveraged Loan Index ("Credit Suisse Lev Loan Index") or a sector that is a subset of the Credit Suisse Lev Loan Index. The index information is included to show the general trend in the high yield or a sector of the high yield markets in the periods indicated and is not intended to imply that the fund/account's portfolio was similar to the index in composition, diversification, volatility or element of risk. The fund/account may hold substantially fewer positions than the Credit Suisse Lev Loan Index and certain or all of the securities held by such index may not be held by the fund/account. Due to such differences, among others, indexes should not be relied upon as an accurate measure of comparison.

BRIGADE CAPITAL MANAGEMENT

Case Study:
Service Properties Trust

Service Properties Trust ("SVC") is a REIT with $11bn invested across 238 hotels and 765 service-focused retail net lease properties.

INVESTMENT THESIS

SVC is a fallen angel hotel and net lease REIT that found itself with an elevated leverage profile coming out of the pandemic, which materially impacted its urban-focused hotel offerings

We are confident in the company's ability to successfully refinance its near-term maturities and de-lever via a recovery in its operating hotel footprint, led by business transient mid-week business and asset sales

SERVICE PROPERTIES TRUST

QUANTITATIVE ASSESSMENT[1]

- FCF/Total Debt 2.7%
- Debt Coverage 1.9x on sum of the parts estimate / 2.2x on book value
- Net Leverage 9.7x

QUALITATIVE ASSESSMENT

- Temporarily levered, fallen angel REIT facing a laddered maturity wall with a clear path to de-leveraging
- Stable minimum rent income stream from its 765 net lease properties provides 1.5x interest coverage on a capital structure that has 88% of its total debt at a fixed rate
- Ongoing hotel recovery allowed the company to reinstate its dividend, and we expect it to lead to substantial EBITDA growth over the next few quarters

RELATIVE VALUE

ISSUE[2]	YIELD	SPREAD
SVC, 4.375% Unsecured Notes	9.5%	599bps
ICE BofA, Homebuilders & Real Estate Index[3]	9.4%	558bps
ICE BofA, High Yield Index[3]	8.5%	458bps

CATALYST

- Successfully addressing remaining 2023 maturity ($800mm Revolver due July 2023) to give the market confidence in SVC's refinancing options, which include issuing additional guaranteed debt as the company did during COVID lockdowns. Supported via:
- The sale of underperforming hotel asset sales ($554mm net proceeds in 2022, guided to $500mm in 2023), and
- A continued recovery at urban and select service hotels, which have been the slowest segments to recover from pandemic-induced lows due to the reduction in business travel

1. Based on fiscal year 2022 financials
2. Based on data as of 3/31/2023, Source: Bloomberg
3. This benchmark reflects the ICE BofA US High Yield Index ("ICE BofA HY Index") or a sector that is a subset of the ICE BofA HY Index. The index information is included to show the general trend in the high yield or a sector of the high yield markets in the periods indicated and is not intended to imply that BCFII's portfolio was similar to the index in composition, diversification, volatility or element of risk. BCFII may hold substantially fewer positions than the ICE BofA HY Index and certain or all of the securities held by such index may not be held by BCFII. Due to such differences, among others, indexes should not be relied upon as an accurate measure of comparison.

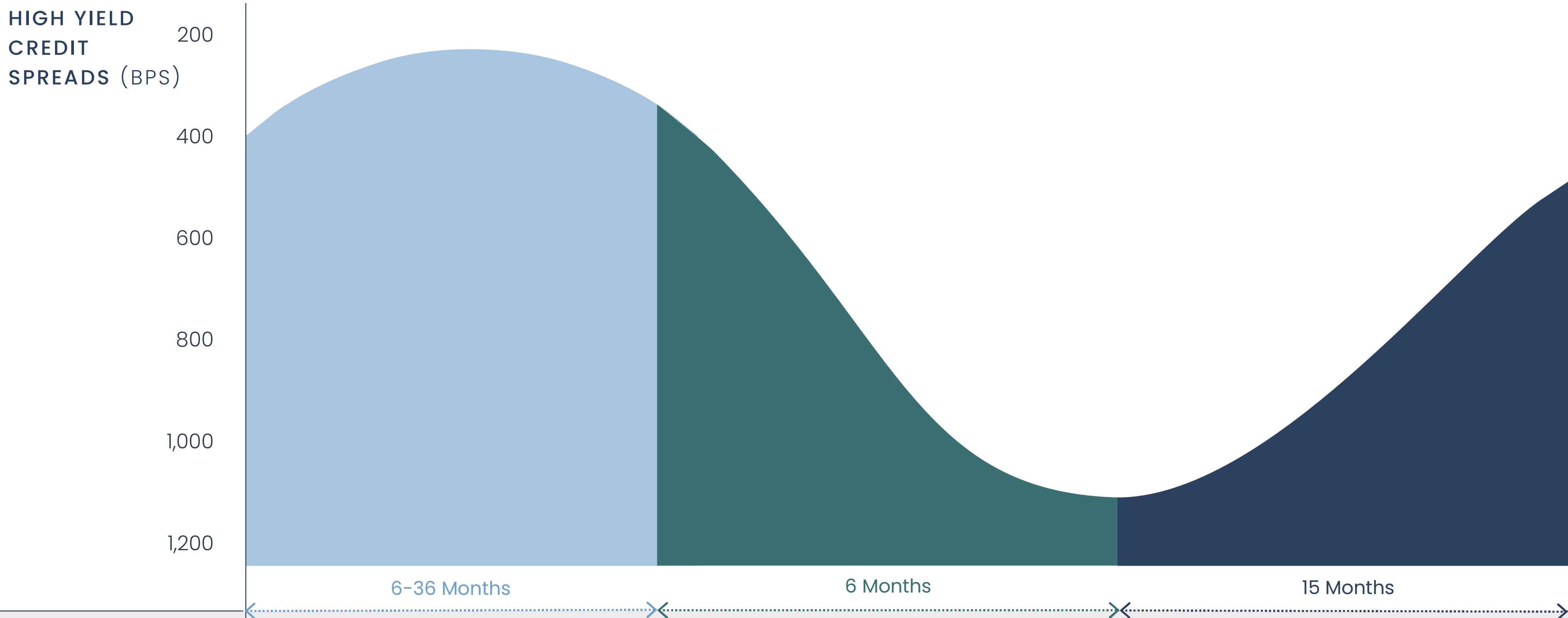
The case studies are presented for information purposes in order to present examples of Brigade's analytical methods and investment approaches in the credit space. This information should not be construed as a performance record or as an indicator of future performance results. The case studies should not be considered a recommendation to purchase or sell any particular security. There can be no assurance that any securities discussed herein remain in the portfolios of accounts managed by Brigade or if sold will not be repurchased. The securities discussed in this presentation do not represent the entire portfolio of the relevant accounts and in the aggregate represent only a small percentage of overall portfolio holdings in such accounts. Prospective investors should not assume that any of the holdings discussed in this presentation have been or will be profitable, or that recommendations made in the future will be profitable or will equal the investment performance of the securities discussed herein. The above reflects Brigade's opinion at the time of the presentation and is subject to change at any time without notice.

BRIGADE CAPITAL MANAGEMENT

Portfolio Construction

Brigade seeks to rotate the portfolio as risk and return potential change over the credit cycle.

Capital allocation is a function of the **market environment** and the **relative value** of investment ideas.



MARKET ENVIRONMENTS	RICH/RANGE BOUND	BEAR/WIDENING	BULL/TIGHTENING
	Focus on higher quality	Reduce high quality exposure	Emphasis on high yield bonds
	Low distressed	Slowly increase B's and CCC	Maintain CCC/Distressed
	Macro hedges	Monetize hedges	Increase converts
	Reduce beta	Liquidity provider	

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III. Positioning & Performance

Fund Positioning and Characteristics:
Brigade Credit Fund II Ltd.

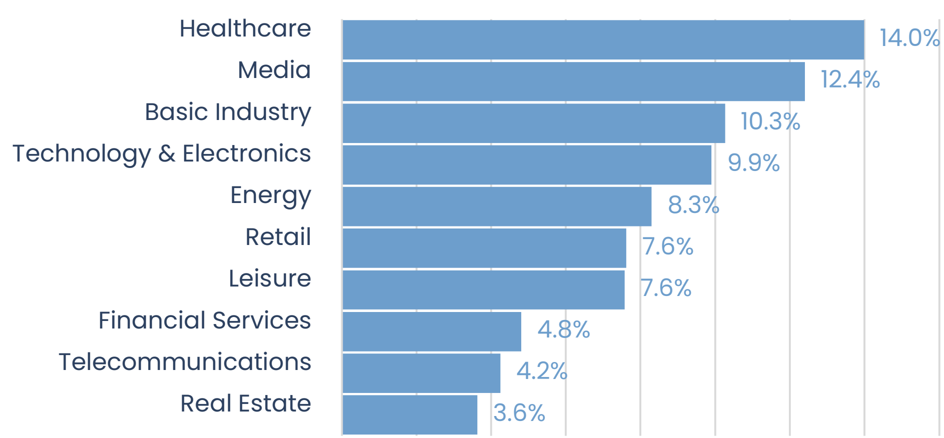
STRATEGY[1]	EXPOSURE[1,2]
TRADITIONAL CREDIT	
High Yield	42.7%
Leveraged Loans	37.5%
NON-TRADITIONAL CREDIT	
Investment Grade	2.3%
Distressed	6.4%
Preferred/Converts	5.2%
CLO/CMBS/ABS	1.9%
CORE PORTFOLIO	96.0%
Hedges	-10.1%
Cash	0.5%
TOTAL PORTFOLIO	85.9%[2,3]

	LARGEST POSITIONS	MV%[2]
1	Cornerstone Chemical Co.	2.5%
2	Epic Y-Grade Services LP	2.5%
3	LifeScan Global Corp.	2.4%
4	Syniverse Holdings Inc.	2.3%
5	Alpha Media LLC	2.2%
6	Carestream Health Inc.	1.8%
7	Aquity Holdings Inc.	1.8%
8	Foxwoods	1.7%
9	Euro Garages Ltd.	1.6%
10	Guitar Center Inc.	1.6%

RISK CHARACTERISTICS[1,2]	PORTFOLIO	BLENDED INDEX[4]
Average Rating (S&P)	B-	B
Effective Duration (Yrs)	1.71	1.98
Yield To Worst *	10.49%	9.11%
Average Price	$83.16	$90.77
Spread (bps) *	788	524

* For Bank Loans: Spread = 3yr DM, YTW = 3 Yr Yield

LARGEST SECTORS[1,2]



1. As of 4/30/2023.
2. All portfolio exposures are measured at the time of investment unless otherwise noted. While Brigade generally expects to adhere to the above exposures during normal market conditions, such exposures are targets and not investment restrictions. Brigade may modify its portfolio exposure targets at any time and in any manner which it believes is consistent with its overall investment objective in response to market conditions or other factors without notice to investors or clients.
3. Total portfolio exposure excludes cash positions.
4. The ICE BofAML HY Constrained/CSLL benchmark is a simple average of the ICE BofAML US High Yield Constrained Index (HUC0) and the Credit Suisse Leveraged Loan Index. The index information is included to show the general trend in the high yield markets in the periods indicated and is not intended to imply that the Brigade Opportunistic Composite's portfolio was similar to the index in composition, diversification, volatility or element of risk. PLEASE SEE IMPORTANT DISCLAIMERS ON SLIDE 34.

BRIGADE CAPITAL MANAGEMENT

Performance Highlights:

Brigade Credit Offshore Fund II Returns[1]

BRIGADE CREDIT OFFSHORE FUND II LTD. HISTORICAL NET RETURNS (AS OF 4/23)[2]

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
2023	3.60%	0.70%	-1.64%	1.25%									**3.89%**
2022	-0.35%	-0.27%	-0.34%	-0.99%	-1.80%	-3.92%	1.63%	-0.73%	-3.54%	-0.23%	0.26%	-1.24%	**-11.06%**
2021	3.14%	1.98%	1.33%	1.37%	1.08%	1.27%	-0.15%	0.68%	1.21%	0.77%	-0.58%	1.39%	**14.31%**
2020	0.50%	-1.90%	-17.17%	1.91%	4.58%	3.64%	3.47%	2.71%	-0.08%	0.62%	5.06%	2.56%	**3.84%**
2019	1.92%	2.00%	0.32%	2.20%	-0.92%	0.59%	0.18%	-1.25%	0.68%	0.20%	-0.19%	3.22%	**9.21%**
2018	1.74%	-0.40%	-0.25%	0.43%	0.37%	0.76%	1.03%	0.10%	1.14%	-1.25%	-1.66%	-2.73%	**-0.82%**
2017	2.00%	1.81%	-0.05%	0.39%	0.81%	0.63%	0.96%	-0.23%	0.69%	0.43%	-0.45%	0.36%	**7.58%**
2016	-1.85%	-0.49%	5.79%	5.88%	0.92%	1.60%	3.17%	2.62%	1.22%	0.78%	-0.43%	2.16%	**23.23%**
2015	0.48%	2.63%	-0.15%	1.34%	0.31%	-2.16%	-1.48%	-2.05%	-2.42%	0.66%	-3.16%	-3.87%	**-9.62%**
2014	0.53%	1.38%	0.63%	0.97%	1.09%	1.05%	-0.79%	0.81%	-1.96%	-0.45%	-0.26%	-2.18%	**0.75%**
2013	1.69%	0.41%	1.12%	1.46%	0.16%	-2.60%	1.43%	-0.35%	1.38%	1.44%	0.70%	0.36%	**7.38%**
2012	2.45%	2.14%	0.58%	1.16%	-0.55%	1.20%	1.68%	1.45%	1.55%	1.02%	0.77%	1.77%	**16.27%**
2011	2.30%	1.35%	0.63%	1.11%	0.43%	-0.07%	0.97%	-2.94%	-1.11%	2.76%	-0.79%	1.31%	**5.98%**
2010	1.71%	-0.14%	2.51%	1.76%	-3.02%	1.59%	1.88%	0.07%	1.94%	2.35%	-0.72%	1.57%	**11.99%**
2009	-	-	1.01%	2.48%	3.43%	3.19%	5.02%	1.95%	3.96%	1.45%	0.45%	2.19%	**28.06%**

1. While all the information presented herein is believed to be accurate, Brigade makes no express warranty as to the completeness or accuracy. This document does not constitute an offer or the solicitation of any offer. Brigade Credit Offshore Fund II Ltd. was launched in March 2009 as a predominantly secured bank loan product that could also invest in secured and senior bonds. The initial investment focus was on the senior secured part of the capital structure with the intention of taking advantage of a severe market dislocation that occurred in the September 2008 through January 2009 time period. As the market environment began to change in the fourth quarter of 2009, the product mandate was expanded to include a broader mix of credit sub-strategies, including first lien, unsecured bonds, converts, EETCs, distressed, etc. as well as the utilization of a macro short. These returns are shown net of the management fees and expenses.
2. The Brigade Credit Offshore Fund II Ltd. is an offshore feeder fund in a "master-feeder" fund structure ("BCFII"). The above net returns are shown at such feeder fund level and are net of 0.70% management fees and expenses. The 2009-2022 returns were prepared based on audited financial statements. The 2023 returns were prepared based on unaudited estimates and are subject to change. The returns presented are indicative of the returns on an investment made at BCFII's inception (March 2009), assume the reinvestment of all earnings, and include both realized and unrealized gains and losses. As of May 1, 2023, BCFII had approximately $1.5 billion in assets under management. There can be no guarantee that the BCFII's investment objective will be achieved or that BCFII will not suffer losses

IV. Market Environment

BRIGADE
CAPITAL MANAGEMENT

Market Environment

As of
1Q 2023

Risk assets globally experienced positive performance despite significant volatility as the market digests disorder within financial institutions and attempts to forecast when the Fed's tightening cycle will conclude.

Despite the economy remaining resilient to date, given the significant headwinds in place, we expect a mild recession to occur in 2023 as economic conditions continue to deteriorate.

Brigade's Current Views

We are actively seeking to protect the portfolio, mainly by:

- Rotating into higher quality and secured bonds that offer attractive yields and strong credit protection
- Opportunistically adding to weak single-B and CCC-rated loans as technical dislocations are being created by CLOs managing to their CCC limit

We expect volatility to persist as market dynamics evolve, making credit selection crucial around increased market dispersion

We believe single name, catalyst-driven situations will drive alpha generation and outperformance in potentially uneasy market environment

Market Environment: Material spread widen creates significant opportunity

Strong total return potential following spread peak (arrows show cumulative 24-month return).

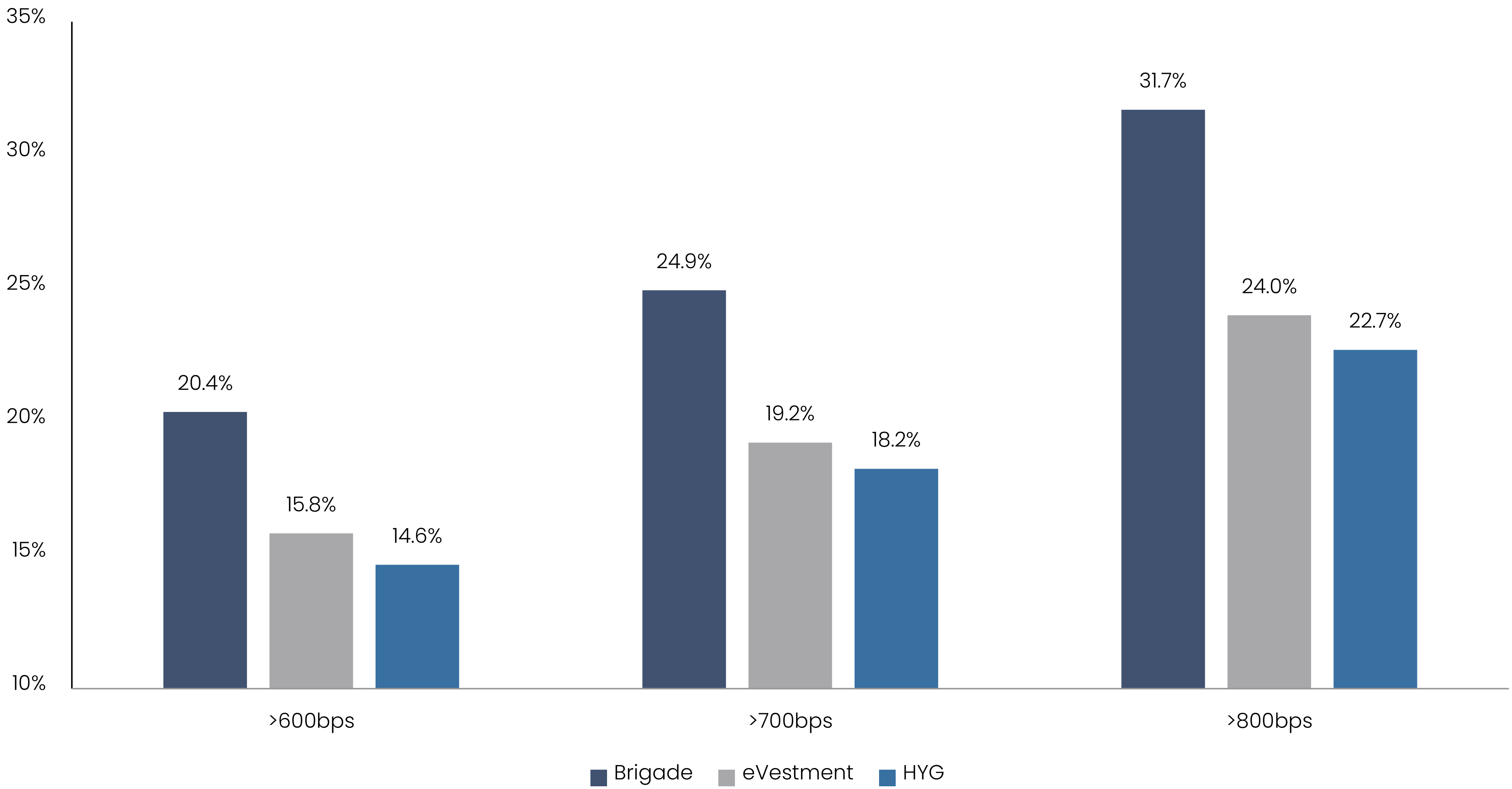
ICE BOFA HY SPREAD (H0A0), 1986 - 2023

Source: ICE BofA as of 3/31/2023.

Market Environment: Brigade Historical Performance

Brigade has typically outperformed in historically wide-spread environments[1,2,3]

12 MONTH FORWARD GROSS RETURNS IN WIDE SPREAD ENVIRONMENTS



Source: eVestment, Brigade Models, Bloomberg

[1] The Brigade returns reflect the gross monthly returns of a representative account in the Brigade Long-Only High Yield Strategy (the "Representative Account"), without deduction for any applicable fees/expenses. For the period April 30, 2009 to March 31, 2023. See important footnotes on slide 33 and the disclaimers on slide 34.

[2] 12-month forward returns represent the average of all 12-month total returns for periods that begin in months where spreads exceeded specified thresholds. Returns may be based on limited observation periods in wide spread environments greater than 800bps.

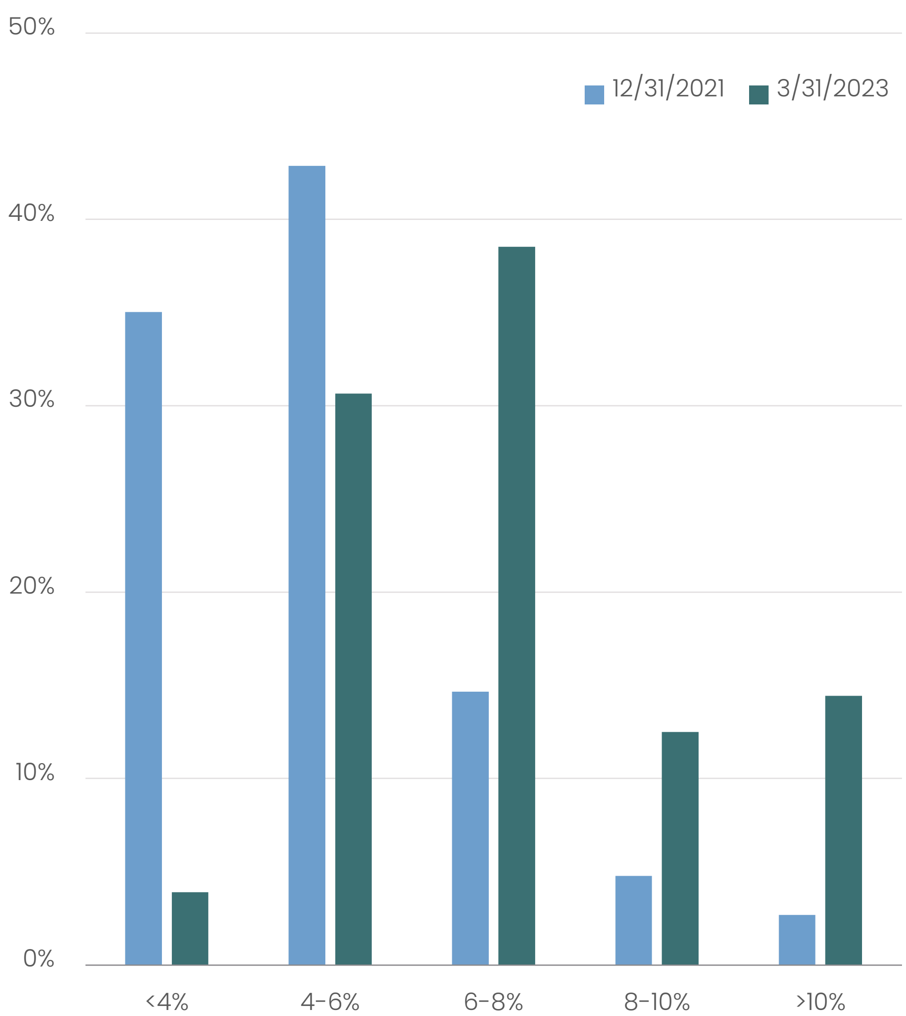
[3] See slide 30 for the net returns of the Brigade account.

BRIGADE CAPITAL MANAGEMENT

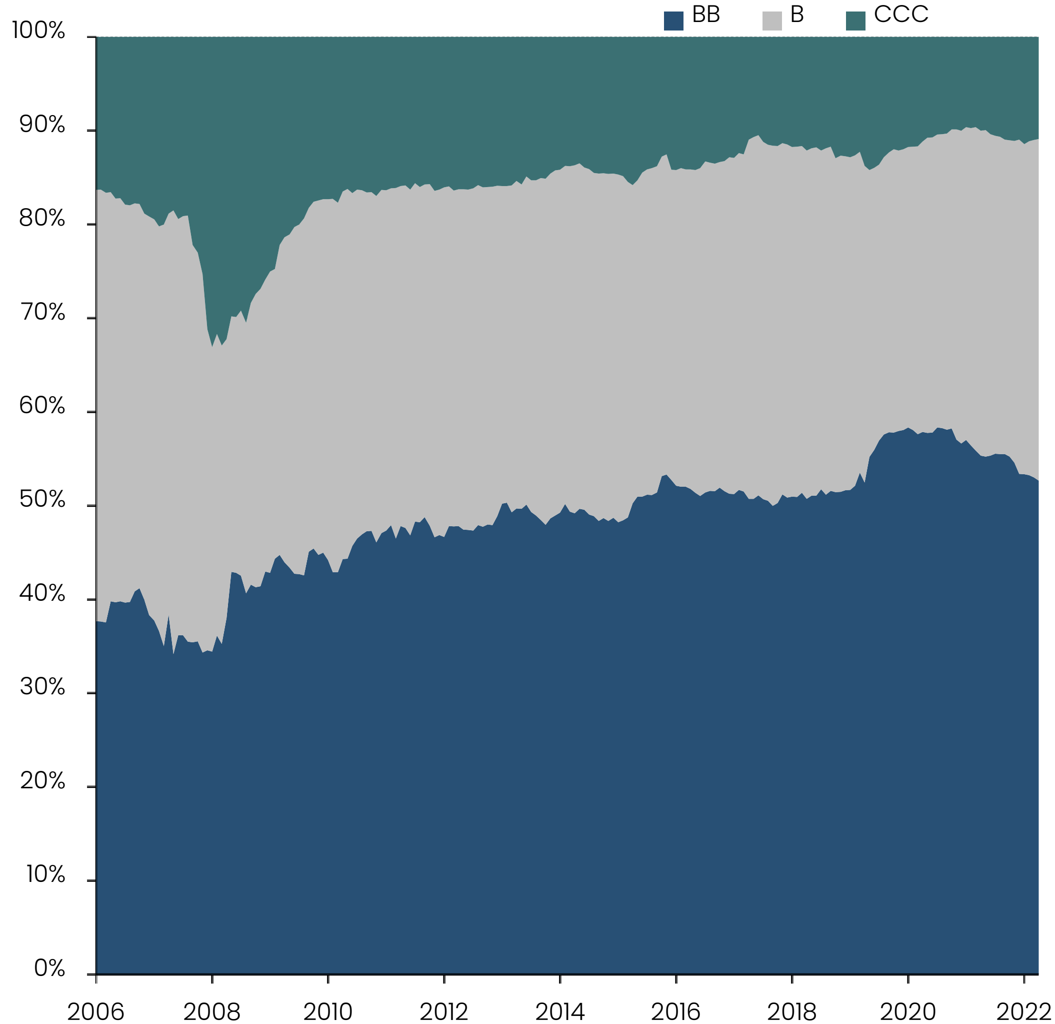
Market Environment: Increased dispersion across high yield

We believe the widespread market selloff is providing attractive single name alpha opportunities in mispriced higher rated securities.

YIELD DISTRIBUTION FOR ICE BOFA U.S. HIGH YIELD CONSTRAINED INDEX[1]



RATINGS BREAKDOWN FOR ICE BOFA U.S. HIGH YIELD CONSTRAINED INDEX[2]



[1]Source: Bloomberg, as of 3/31/2023.

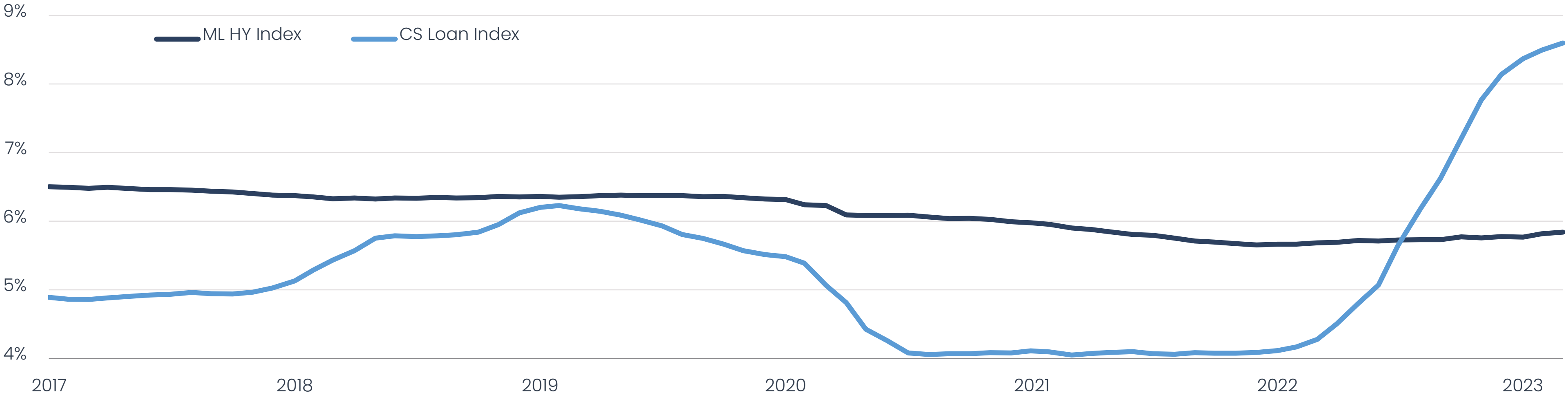
[2]Source: BofAML High Yield Strategy, HY Credit Chart book, April 5, 2023. All data as of March 31. 2023.

Any projections or outlooks contained herein should not be construed to be indicative of the actual events which will occur. Such projections and outlooks are forward looking statements and are based on certain assumptions, and other events which were not taken into account may occur and significantly affect the returns or performance of the funds/accounts.

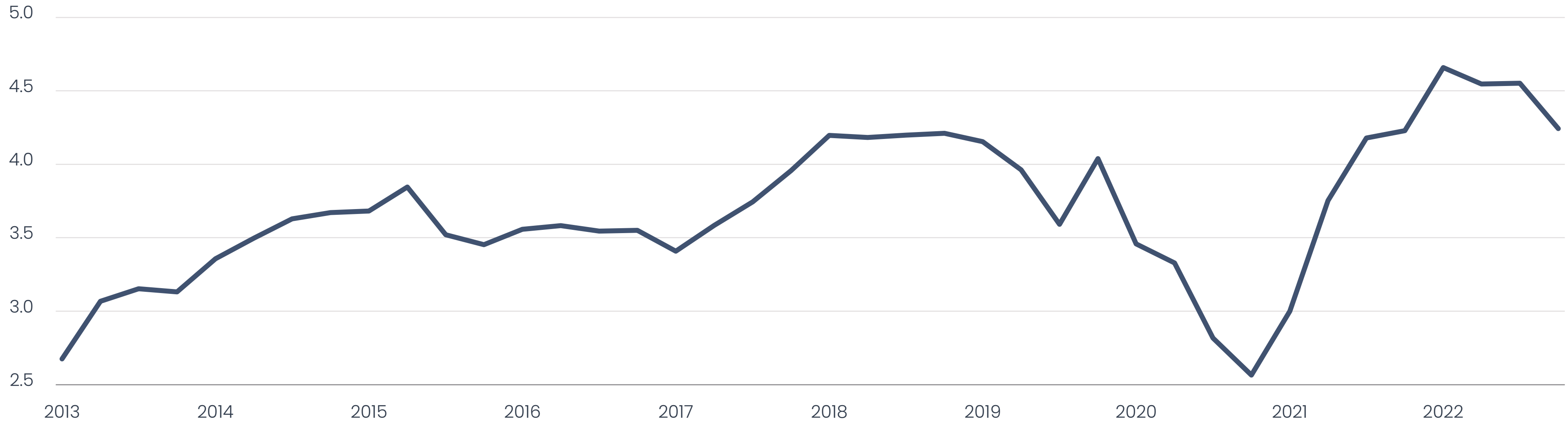
Market Environment: Loans Well-Positioned for Rising Interest Rates

Rising rates offers the opportunity to generate attractive yields; the increased coupon should have minimal impact to companies given interest coverage is at 10-year highs.

ML HY INDEX AND CS LOAN INDEX – AVERAGE COUPON[1]



LOAN INTEREST COVERAGE RATIO[2]



1. Source: Credit Suisse and Bloomberg, as of 3/31/2023.
2. Source: Bank of America, as of Q4 2022.

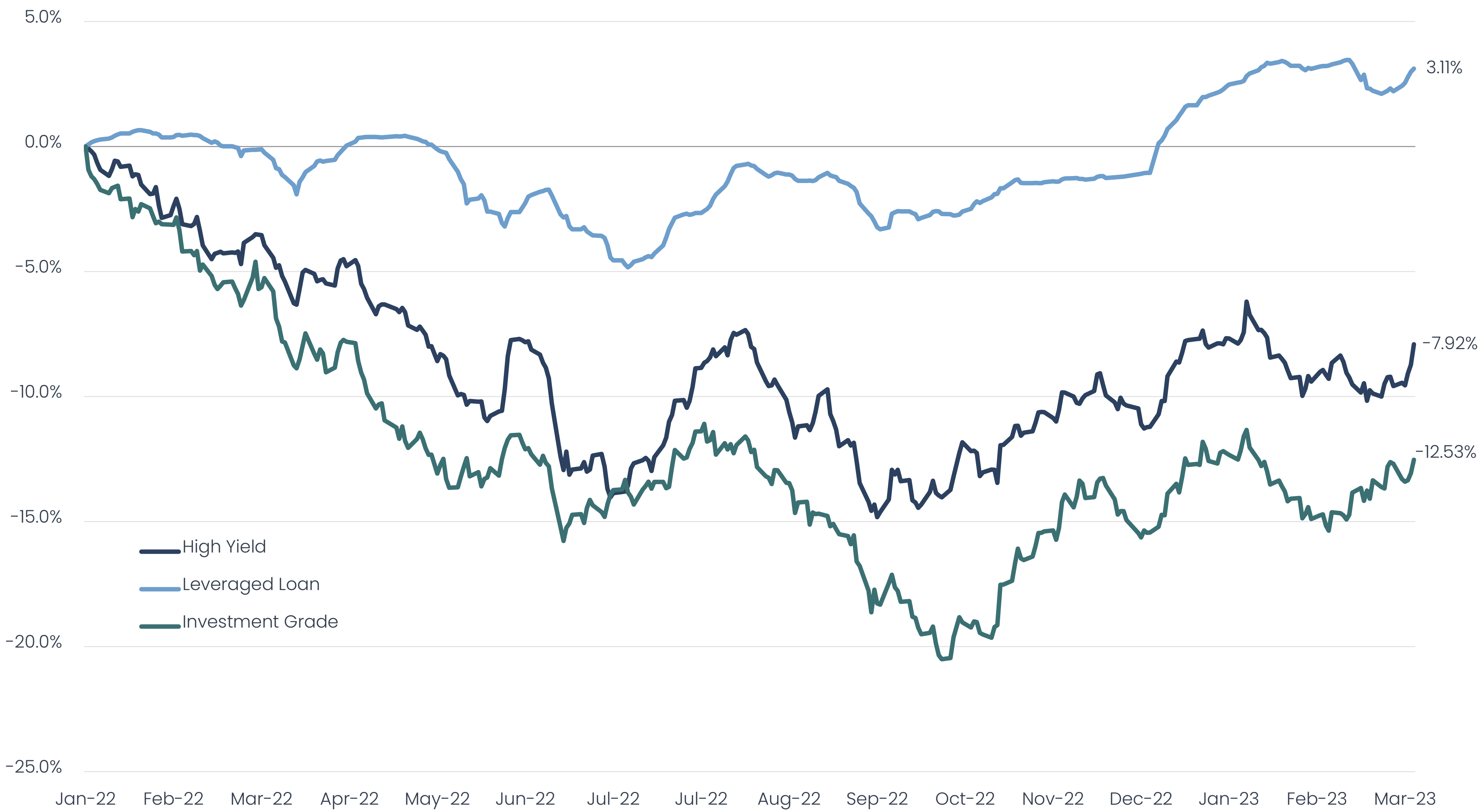
Any projections or outlooks contained herein should not be construed to be indicative of the actual events which will occur. Such projections and outlooks are forward looking statements and are based on certain assumptions, and other events which were not taken into account may occur and significantly affect the returns or performance of the funds/accounts.

BRIGADE CAPITAL MANAGEMENT

Market Environment: Investment Grade Appears Attractive

Rising rates pressure has created a strong total return opportunity through higher quality assets trading at a steep discount.

2022-2023 YTD CUMULATIVE RETURNS BY RATING[1]



1. Source: Bloomberg, Credit Suisse, as of 3/31/2023. The "High Yield" index is represented by the ICE BofA U.S. High Yield Index. The "Investment Grade" index is represented by the ICE BofA U.S. Investment Grade Index. The "Leveraged Loan" index is represented by the Credit Suisse Leveraged Loan Index.

Any projections or outlooks contained herein should not be construed to be indicative of the actual events which will occur. Such projections and outlooks are forward looking statements and are based on certain assumptions, and other events which were not taken into account may occur and significantly affect the returns or performance of the funds/accounts.

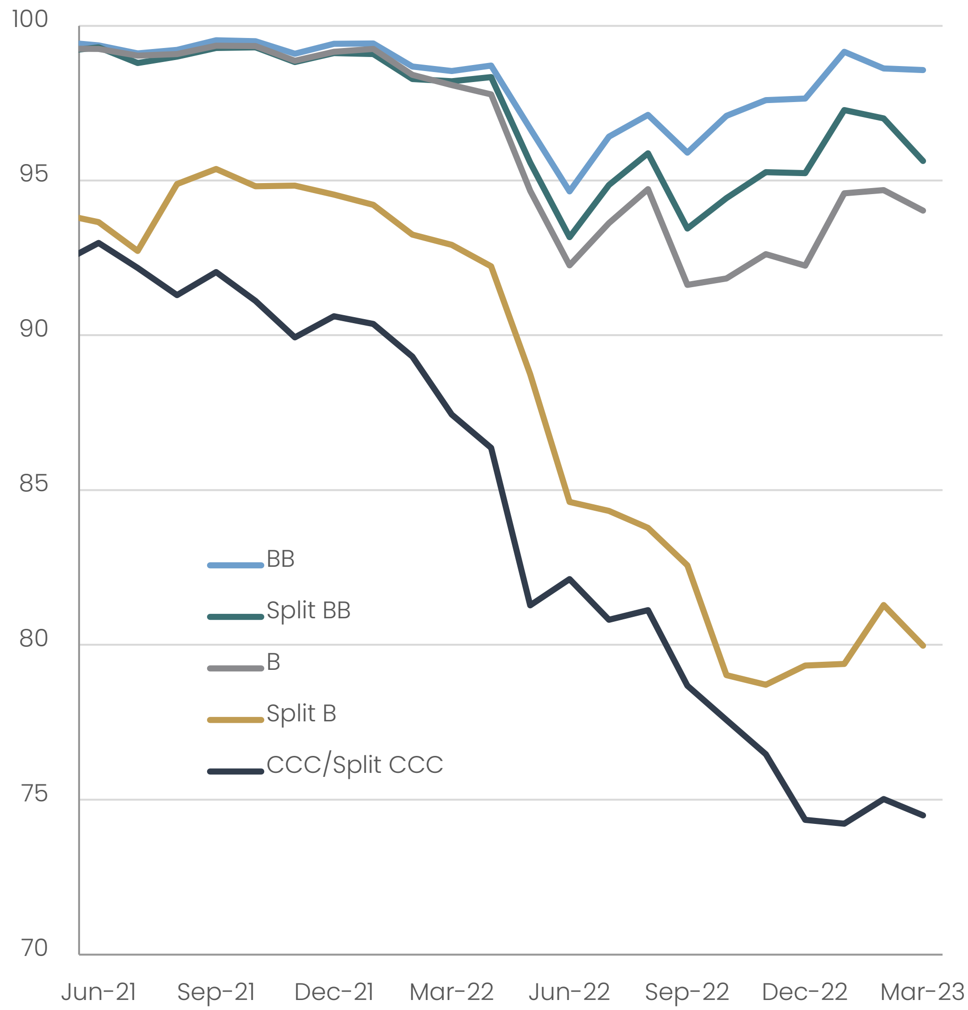
BRIGADE CAPITAL MANAGEMENT

Market Environment: Opportunities in lower rated loans

Compelling opportunity in loans as the growing lower rated segment becomes increasingly mispriced as CLOs manage to their CCC limit.

CONCENTRATION OF CS LOAN INDEX RATED B AND LOWER

CS LOAN INDEX AVERAGE PRICE BY RATING



Source: Credit Suisse, as of 3/31/2023.

Any projections or outlooks contained herein should not be construed to be indicative of the actual events which will occur. Such projections and outlooks are forward looking statements and are based on certain assumptions, and other events which were not taken into account may occur and significantly affect the returns or performance of the funds/accounts.

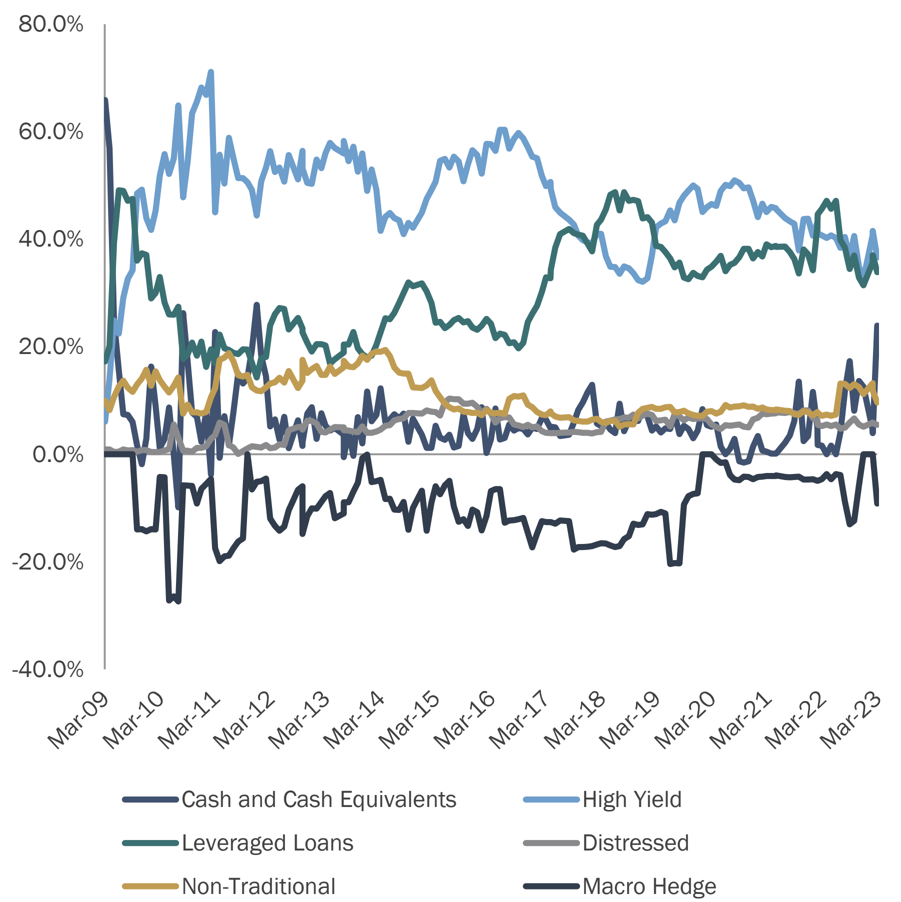
V. Appendix

BRIGADE CAPITAL MANAGEMENT

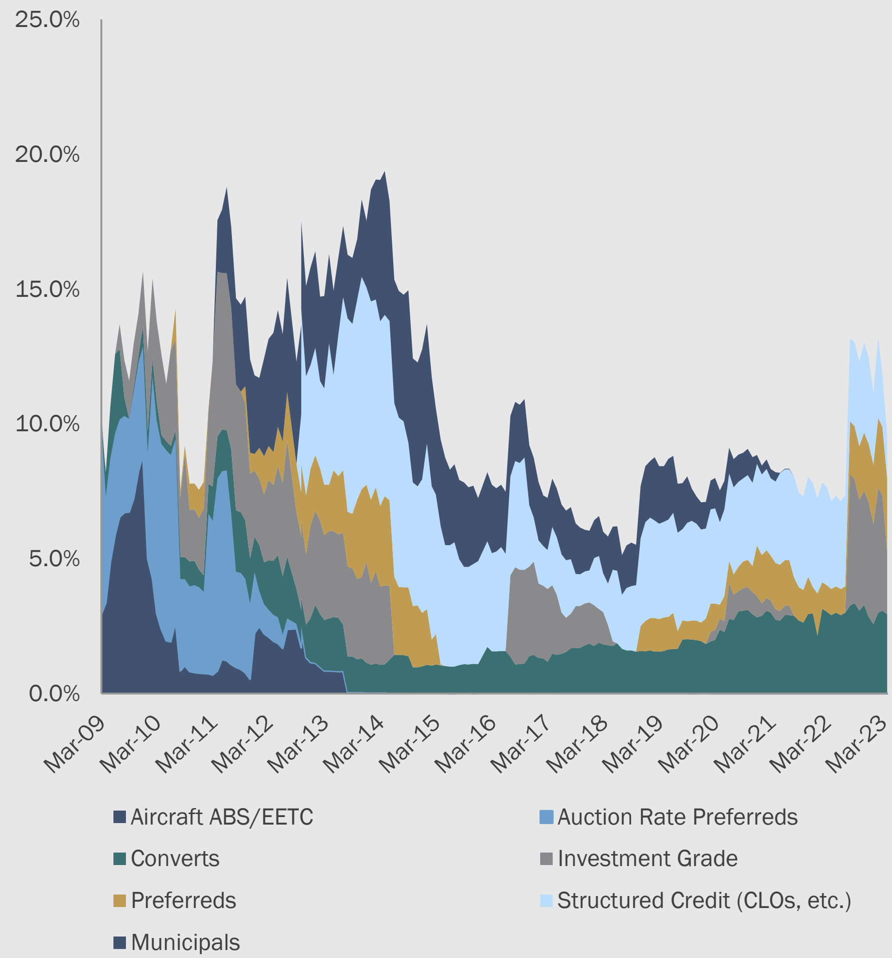
Fund Positioning

Dynamic strategy allocations as security prices change and the credit cycle evolves.

OPPORTUNISTIC CREDIT FUND ALLOCATIONS



HISTORICAL NON-TRADITIONAL CREDIT EXPOSURES



The above depicts data relevant to Brigade Credit Fund II Ltd. ("BCFII"), a commingled fund in Brigade's Opportunistic Credit Strategy (the "Strategy"), as of 3/31/2023.

The Strategy was launched in March 2009 as a predominantly secured leveraged loan product that could also invest in secured and senior bonds. The initial investment focus was on the senior secured part of the capital structure with the intention of taking advantage of a severe market dislocation that occurred in the September 2008 through January 2009 time period. As the market environment began to change in the fourth quarter of 2009, the product mandate was expanded to include a broader mix of credit sub-strategies, including first lien, unsecured bonds, converts, EETCs, distressed, etc.

The historical portfolio construction should not be viewed as an indication that future construction will remain the same. Brigade may modify BCFII's portfolio characteristics and exposures at any time and in any manner that it believes is consistent with the overall investment objective and guidelines of BCFII, in response to market conditions or other factors without notice to investors. There can be no guarantee that BCFII's investment objective will be achieved or that BCFII will not suffer losses.

BRIGADE CAPITAL MANAGEMENT

Business and Operations Team Structure

Aaron Daniels*
Chief Operating Officer, General Counsel

ACCOUNTING, OPERATIONS, & TREASURY

Patrick Criscillo, CPA*
Chief Financial Officer

Meghana Reddy, CPA
Deputy Chief Financial Officer

Accounting & Tax
14 Professionals

Jeff Frusciante
Head of Operations

Operations
16 Professionals

Michael Abbott
Treasury Manager

Treasury
1 Professional

TECHNOLOGY

Brett Honneus*
Chief Technology and Information Officer

Tapan Talati
Head of Infrastructure and Chief Information Security Officer

Jason Shuey
Co-Head of Software Development

Christopher Alfonzo
Co-Head of Software Development

Infrastructure Technology
5 Professionals

Software Developers
9 Professionals

MARKETING & INVESTOR RELATIONS

Joseph Turilli*
Head of Marketing

David Love
Insurance Solutions

Lauren Stelzer
Marketing

Jessica Walton
Marketing

Rock Wilkinson
Marketing

Marketing
2 Professionals

Matt Plaveczky, CFA
Head of Investor Relations

Investor Relations
5 Professionals

Tara Lenehan
ESG & Sustainability

LEGAL & COMPLIANCE

Daniel Altabef
Chief Compliance Officer and Counsel

Alistair Cuthbert[1]
General Counsel and Compliance Officer (UK/Europe)

Monica Jun
Associate General Counsel

Compliance
1 Professional

ADMINISTRATIVE STAFF

Raymond Luis, CPA, CFA*
Senior Vice President, Finance & Chief Administrative Officer

Christine Curtis
Head of Human Capital

Administrative Staff
6 Professionals

*Indicates Firm Partner.
[1] Located in the London office.
There is no assurance that any individual will continue to be employed by Brigade or be involved in the management of any transaction for any period

Performance:

High Yield Representative Account[1,2]

HIGH YIELD REPRESENTATIVE ACCOUNT NET RETURNS (AS OF 3/23)[1]

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD	ICE BofA HY Index[2]
2023	4.48%	-0.56%	-0.84%										3.02%	3.72%
2022	-1.19%	-0.54%	-0.53%	-2.66%	-1.27%	-5.86%	3.62%	-2.36%	-4.07%	1.01%	1.37%	-1.91%	-13.78%	-11.21%
2021	2.75%	1.57%	1.35%	1.45%	0.87%	1.41%	-0.29%	0.71%	1.08%	0.45%	-0.94%	1.86%	12.93%	5.35%
2020	0.58%	-1.82%	-16.26%	1.91%	4.61%	2.95%	4.27%	2.11%	-0.39%	0.86%	4.79%	2.70%	4.48%	6.07%
2019	3.24%	2.15%	0.58%	2.51%	-1.44%	1.55%	0.17%	-0.37%	0.89%	0.42%	0.10%	2.90%	13.36%	14.41%
2018	1.16%	-1.00%	-0.41%	0.54%	0.49%	0.87%	1.49%	0.41%	0.92%	-1.87%	-1.61%	-3.17%	-2.26%	-2.27%
2017	1.80%	2.01%	-0.22%	0.90%	1.13%	0.44%	1.19%	-0.38%	0.84%	0.05%	-0.69%	0.42%	7.72%	7.48%
2016	-1.44%	0.35%	5.45%	5.14%	0.85%	1.84%	3.02%	2.93%	1.08%	0.16%	-0.26%	2.47%	23.55%	17.49%
2015	0.89%	2.61%	-0.27%	1.31%	0.51%	-1.82%	-0.97%	-1.74%	-2.83%	1.62%	-3.67%	-3.43%	-7.73%	-4.61%
2014	0.88%	1.54%	0.61%	1.30%	1.31%	1.34%	-1.10%	1.30%	-2.41%	0.28%	-0.38%	-1.78%	2.83%	2.51%
2013	1.49%	0.61%	1.27%	1.63%	-0.05%	-2.83%	1.36%	-0.45%	1.50%	1.95%	0.66%	0.36%	7.65%	7.41%
2012	2.71%	2.13%	0.26%	1.17%	-0.87%	1.53%	1.98%	1.53%	1.54%	0.74%	0.72%	1.78%	16.28%	15.55%
2011	2.27%	1.27%	0.33%	1.35%	0.50%	-0.32%	1.23%	-3.12%	-1.48%	3.77%	-0.86%	2.06%	7.03%	4.37%
2010	1.45%	0.16%	2.81%	1.79%	-3.19%	1.13%	2.97%	0.44%	2.71%	2.51%	-0.88%	1.30%	13.84%	15.07%
2009	-	-	-	13.91%	8.21%	3.85%	6.36%	2.57%	5.83%	2.28%	1.29%	2.69%	57.22%	49.84%[3]

Returns	1 YEAR	2 YEAR	3 YEAR	5 YEAR	7 YEAR	10 YEAR	ITD
Rep Account (Net)[1]	-9.14%	-2.62%	8.21%	3.09%	5.78%	4.32%	9.40%
ICE BofA HY Index[2]	-3.58%	-1.95%	5.81%	3.03%	5.00%	4.02%	8.60%

[1]The returns presented reflect the net monthly returns of a representative account (the "Representative Account") in the Long-Only High Yield Strategy (the "Strategy"). The Representative Account's net returns are net of all applicable fees and expenses. Both the gross returns and net returns reflect the reinvestment of all earnings and include both realized and unrealized gains and losses. The above returns were prepared by Brigade and are unaudited. As of April 1, 2023, the Representative Account had approximately $455 million in assets under management. The index information is included to show the general trend in the high yield markets in the periods indicated and is not intended to imply that the Representative Account's portfolio was similar to the index in composition, diversification, volatility or element of risk. Past performance should not be construed as an indicator of future performance and there can be no guarantee that an account's investment objective will be achieved or that an account will not suffer losses. In addition, there can be no assurance that the certain favorable market conditions reflected in the past performance will be as attractive in the future.

[2]This benchmark reflects the ICE BofAML High Yield Constrained Index ("ICE BofAML HY Index").

[3]The 2009 YTD index return is for the period from April 2009 (the inception of the Representative Account) through December 2009.

PLEASE SEE IMPORTANT DISCLAIMERS ON SLIDES 33 AND 34.

BRIGADE CAPITAL MANAGEMENT

Brigade ESG Mission Statement

Brigade is committed to the consideration of environmental, social and governance (“ESG”) issues and the impact it has on our clients’ investments, our company culture, and our planet. We believe that ESG considerations are an integral part of our fiduciary and ethical responsibility and will help us evaluate material risks and opportunities.

With the continued efforts of developing a robust and established ESG program, Brigade will:

- Continue to integrate ESG considerations into our bottom-up fundamental credit research and decision-making process through the continued buildout of our proprietary ESG scoring system for new and current issuers
- Engage with issuers and investors on ESG matters to encourage sustainable and ethical practices whenever possible
- Evolve with new regulations and client needs within the ever-changing ESG landscape
- Promote diversity and inclusion, green initiatives, and other ESG-focused initiatives in the workplace
- Create transparency for our clients through progress updates and proprietary reporting metrics and disclosures

Please refer to slide 34 for additional disclosures.

Diversity, Equity and Inclusion

At Brigade, fostering diversity and inclusion is a core value. We are deeply committed to attracting, retaining, and promoting individuals from diverse backgrounds and with diverse experiences. We believe such an approach leads to broader perspectives, superior outcomes for the companies in which we invest and the communities they serve, while generating a positive, lasting impact on our business.

Brigade's DEI Committee was formed in 2022 and is comprised of 18 professionals representing all levels and areas of the organization. The Committee is tasked with implementing the below priorities.

FOSTERING AN INCLUSIVE ENVIRONMENT FIRM-WIDE.

Brigade is launching a Women's Network to provide training, internal and external networking opportunities, and discussions with featured speakers on career development. Additionally, Brigade provides inclusive benefits offerings (paid parental leave, fertility, adoption and surrogacy assistance.)

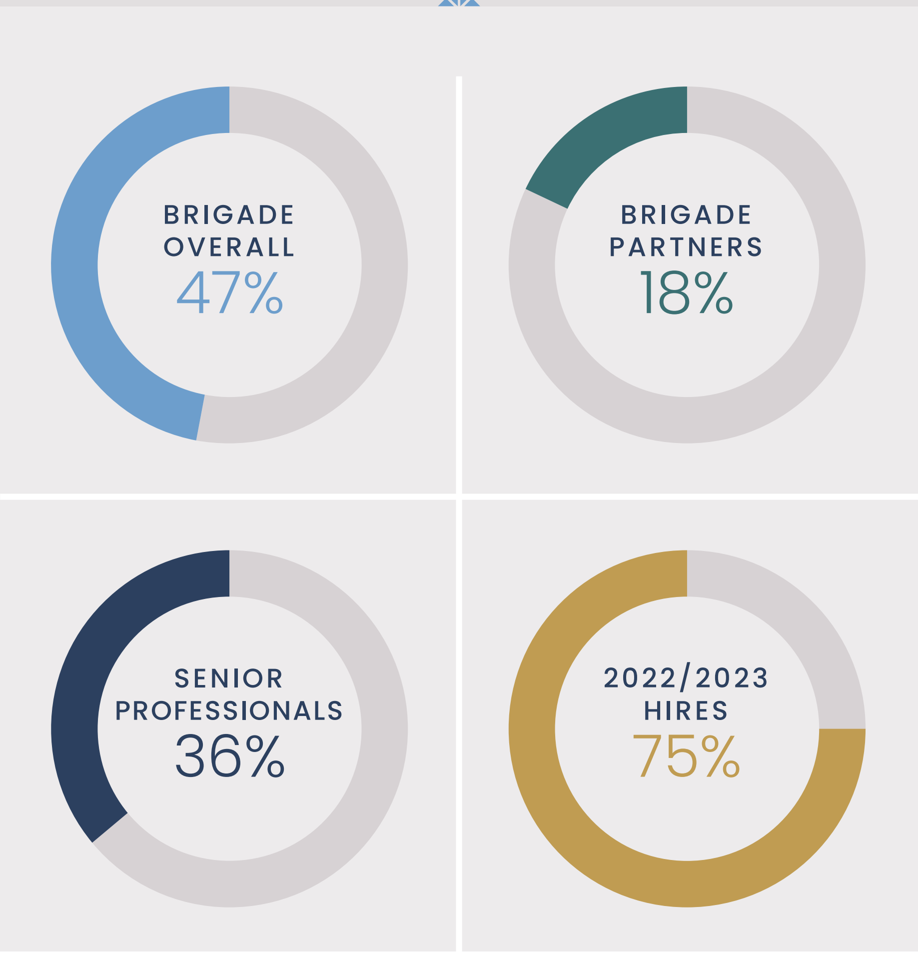
ENHANCING COMMUNITY INVOLVEMENT.

Brigade volunteers within the local community and encourages employees to volunteer and donate to causes both locally and to macro causes. As a firm, Brigade is involved with various charities such as University Settlement and City Harvest.

RECRUITING, INVESTING IN, AND PROMOTING EMPLOYEES FROM ALL BACKGROUNDS.

Brigade engages with community organizations targeted at educating students and young professionals of historically underrepresented ethnic and socioeconomic backgrounds, including Cristo Rey High School and All Star Code. This includes educational programming, access to Brigade's leaders, and internship opportunities.

WOMEN OR ETHNICALLY DIVERSE



1. Ethnically Diverse includes Black, Hispanic, and Asian professionals. Data as of 4/1/23.
2. Please refer to slide 34 for additional disclosures.

FOOTNOTES

FOOTNOTES TO SLIDE 22:

- The returns presented reflect the gross and net monthly returns of a representative account (the "Representative Account") in the Long-Only High Yield Strategy (the "Strategy"). These performance figures of the Representative Account's gross returns reflect trading expenses only; and they do not reflect any deduction for administrative/operating expenses or Brigade's fees. Accounts in the Strategy are subject to asset-based management fees and will incur administrative/operating expenses; these fees and expenses will significantly reduce the returns of an actual account due to compounding and other effects. The fees charged to individual accounts may vary depending on a number of factors, and information regarding the range of fees charged is included in Brigade's Form ADV part 2A, which should be carefully reviewed before making an investment. The Representative Account's net returns are net of all applicable fees and expenses. Both the gross returns and net returns reflect the reinvestment of all earnings and include both realized and unrealized gains and losses. The above returns were prepared by Brigade and are unaudited. As of April 1, 2023, the Representative Account had approximately $455 million in assets under management. The index information is included to show the general trend in the high yield markets in the periods indicated and is not intended to imply that the Representative Account's portfolio was similar to the index in composition, diversification, volatility or element of risk. Past performance should not be construed as an indicator of future performance and there can be no guarantee that an account's investment objective will be achieved or that an account will not suffer losses. In addition, there can be no assurance that the certain favorable market conditions reflected in the past performance will be as attractive in the future. Please contact Brigade for the performance information of all accounts that deploy the Strategy.
- As of April 1, 2023, the Representative Account had approximately $455 million in assets under management.
- eVestment Source: eVestment Analytics. Annualized gross returns and ranking within eVestment. U.S. High Yield Fixed Income universe based on monthly returns gross of fees. Ranking data was calculated on April 21, 2023 (as of March 31, 2023) and is subject to change as additional firms within the category submit data. The peer group ranking is prepared by eVestment and reflect the comparison of the relevant strategy of Brigade against its assigned peer group in eVestment, using monthly returns. Managers pay a fee to eVestment to be included in the database. Peer groups are established by eVestment based on the category of strategy reported by participating managers and accordingly do not represent the full universe of managers that manage products using such strategies, and the results may differ if additional or all managers within the relevant universe were to participate in the eVestment program. Brigade has not independently verified eVestment's results.
- HYG reflects iShares iBoxx High Yield Corporate Bond ETF. The ETF information is included to show the general trend in the high yield market in the periods indicated and is not intended to imply that the Representative Account's portfolio was similar to the ETF in composition, diversification, volatility or element of risk.

BRIGADE
CAPITAL MANAGEMENT

Disclaimer

THE DESCRIPTION OF BRIGADE CREDIT FUND II LTD.'S PAST TRADES IS PRESENTED FOR INFORMATIONAL PURPOSES IN ORDER TO PRESENT EXAMPLES OF BRIGADE'S ANALYTICAL METHODS AND INVESTMENT APPROACHES IN THIS STRATEGY. THIS INFORMATION SHOULD NOT BE CONSTRUED AS A PERFORMANCE RECORD OR AS AN INDICATOR OF FUTURE PERFORMANCE RESULTS. THE DESCRIPTION OF PAST TRADES SHOULD NOT BE CONSIDERED A RECOMMENDATION TO PURCHASE OR SELL ANY PARTICULAR SECURITY. THE SECURITIES DISCUSSED HEREIN DO NOT REPRESENT THE ENTIRE PORTFOLIO OF THE FUND AND IN THE AGGREGATE REPRESENT ONLY A SMALL PERCENTAGE OF OVERALL PORTFOLIO HOLDINGS THEREIN. PROSPECTIVE INVESTORS SHOULD NOT ASSUME THAT ANY OF THE SECURITIES DISCUSSED HEREIN HAVE BEEN OR WILL BE PROFITABLE, OR THAT RECOMMENDATIONS MADE IN THE FUTURE WILL BE PROFITABLE OR WILL EQUAL THE INVESTMENT PERFORMANCE OF THE SECURITIES DISCUSSED HEREIN. THE HISTORICAL PORTFOLIO CONSTRUCTION SHOULD NOT BE VIEWED AS AN INDICATION THAT FUTURE CONSTRUCTION WILL REMAIN THE SAME. THERE CAN BE NO ASSURANCE THAT A PARTICULAR PORTFOLIO WOULD HAVE TAKEN OR WILL TAKE POSITIONS SIMILAR TO THOSE TAKEN BY THE REPRESENTATIVE FUND. NO REPRESENTATION IS BEING MADE THAT A PORTFOLIO WILL OR IS LIKELY TO ACHIEVE PROFITS OR LOSSES SIMILAR TO THOSE SHOWN HEREIN.

ANY INDICES AND OTHER FINANCIAL BENCHMARKS SHOWN ARE PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY, ARE UNMANAGED, REFLECT REINVESTMENT OF INCOME AND DIVIDENDS AND DO NOT REFLECT THE IMPACT OF ADVISORY FEES. INVESTORS CANNOT INVEST DIRECTLY IN AN INDEX. COMPARISONS TO INDEXES HAVE LIMITATIONS BECAUSE INDEXES HAVE VOLATILITY AND OTHER MATERIAL CHARACTERISTICS THAT MAY DIFFER FROM A PARTICULAR HEDGE FUND. FOR EXAMPLE, A HEDGE FUND MAY TYPICALLY HOLD SUBSTANTIALLY FEWER SECURITIES THAN ARE CONTAINED IN AN INDEX. INDICES ALSO MAY CONTAIN SECURITIES OR TYPES OF SECURITIES THAT ARE NOT COMPARABLE TO THOSE TRADED BY A HEDGE FUND. THEREFORE, A HEDGE FUND'S PERFORMANCE MAY DIFFER SUBSTANTIALLY FROM THE PERFORMANCE OF AN INDEX. BECAUSE OF THESE DIFFERENCES, INDICES SHOULD NOT BE RELIED UPON AS AN ACCURATE MEASURE OF COMPARISON. IN ADDITION, DATA USED IN THE BENCHMARKS ARE OBTAINED FROM SOURCES CONSIDERED TO BE RELIABLE, BUT BRIGADE MAKES NO REPRESENTATIONS OR GUARANTEES WITH REGARD TO THE ACCURACY OF SUCH DATA.

BRIGADE CONSIDERS ESG FACTORS IN ITS RESEARCH PROCESS FOR CERTAIN BUT NOT ALL INVESTMENT OPPORTUNITIES. BRIGADE IS UNDER NO OBLIGATION TO CONSIDER ESG FACTORS FOR ANY INVESTMENT OPPORTUNITY. FURTHER, TO THE EXTENT BRIGADE DOES ASSESS ESG FACTORS IN CONNECTION WITH AN INVESTMENT OPPORTUNITY, THE SCOPE OF THE ASSESSMENT WILL VARY FROM CASE TO CASE, AND IN ANY EVENT BRIGADE'S ESG ASSESSMENT WILL NOT BE A DISPOSITIVE FACTOR FOR ANY INVESTMENT DECISION. CERTAIN INVESTMENT OPPORTUNITIES BRIGADE CONSIDERS DO NOT LEND THEMSELVES TO THE CONSIDERATION OF ESG FACTORS.

BRIGADE IS CURRENTLY IN THE PROCESS OF DEVELOPING INTERNAL POLICIES AND PROCEDURES TO FORMALIZE ITS ESG INTEGRATION PRACTICES AND PROPRIETARY SCORING SYSTEM (INCLUDING THE BRIGADE NEW ISSUE SCORE CARD). THE INFORMATION PRESENTED HEREIN IS INCLUDED MERELY TO SHOW CERTAIN ESG FACTORS THAT BRIGADE EXPECTS TO INCORPORATE INTO ITS ESG INTEGRATION POLICIES AND PROCEDURES ("ESG POLICY"). HOWEVER, THERE IS NO GUARANTEE THAT BRIGADE'S FINAL ESG POLICY WILL INCORPORATE THE INFORMATION PROVIDED HEREIN. THE INFORMATION PROVIDED HEREIN IS BASED ON MATTERS AND EXPECTATIONS AS THEY EXIST AS OF THE DATE OF PREPARATION AND NOT AS OF ANY FUTURE DATE AND WILL NOT BE UPDATED OR OTHERWISE REVISED TO REFLECT INFORMATION SUBSEQUENTLY DEVELOPED OR TO REFLECT BRIGADE'S FINAL ESG POLICY. IN INSTANCES WHERE ESG FACTORS ARE CONSIDERED IN MAKING INVESTMENT DECISIONS, ESG WILL BE ONE OF MANY FACTORS CONSIDERED AND WILL BE PART OF THE TOTAL MIX OF INFORMATION USED TO MAKE THE INVESTMENT DECISION.

TAKING ESG FACTORS INTO CONSIDERATION MAY NOT IMPROVE, AND MIGHT DETRACT FROM, INVESTMENT PERFORMANCE OVER ANY PERIOD OF TIME. BY CONSIDERING ESG FACTORS IN INVESTMENT DECISIONS, BRIGADE MAY INVEST IN A MANNER THAT IT WOULD NOT OTHERWISE HAVE DONE IF ESG FACTORS WERE NOT CONSIDERED. MOREOVER, THERE MAY BE SITUATIONS WHERE BRIGADE DETERMINES TO MAKE A PARTICULAR INVESTMENT EVEN THOUGH BRIGADE DETERMINED THAT THE INVESTMENT IS UNFAVORABLE FROM AN ESG PERSPECTIVE.

BRIGADE MAY USE, AND RELY UPON, THIRD-PARTY PROVIDERS OF ESG SCORES, DATA, REPORTS AND RATINGS (E.G., MSCI) IN ITS RESEARCH PROCESS. BRIGADE WILL ONLY WORK WITH PROVIDERS THAT BRIGADE BELIEVES GENERATE RELIABLE AND ACCURATE INFORMATION, BUT SUCH INFORMATION MAY NOT IN ALL CASES BE RELIABLE AND ACCURATE.

MONTHLY PERFORMANCE REPORT

MWRA EMPLOYEES' RETIREMENT SYSTEM

APRIL 30, 2023

GOALS & OBJECTIVES

Investment Return Objective

"Its primary goal is to provide promised benefits to participants and beneficiaries of the MWRA Employees' Retirement system. Plan assets should be equal to or greater than the present value of the projected benefit obligations ("fully funded"). When Plan assets are less than the present value of projected benefit obligations, a schedule will be established and a plan will be in place to meet a fully funded status. When achieving return objectives required to fully fund the system, the Board is intent on controlling risk. Consistency of returns and risk of loss are primary considerations. The Board has also determined that the annual performance of plan assets should not vary substantially from returns achieved by other public pension funds with similar goals and objectives."

Return Expectations

The investment growth should be maintained in such a manner that the minimum nominal rate of return does not cause a negative real rate of return over a full market cycle:

- **Time Horizon:** Return assumptions will be based on a ten-year time horizon with a detailed review and analysis to be made at least annually to monitor allocations and assumptions. Should a manager deviate from proscribed mandate or expected risk and return profile by a consequential degree, that manager may be reevaluated at any time.

- **Liquidity Needs:** Presently contributions exceed plan withdrawals to provide benefits, payouts, and/or plan expenses. Portfolio liquidity will be managed based on the cash flow needs of the System.

- **Regulatory Considerations**: Assets of this Fund shall be invested in a manner consistent with the fiduciary standards established under Code of Massachusetts Regulations 840 ("840 CMR"). The Board shall also use as precedent the Employee Retirement Income Security Act (ERISA).

EXECUTIVE SUMMARY

	Market Value ($)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Composite	**647,507,565**	**0.3**	**4.2**	**0.0**	**8.0**	**5.4**	**6.2**
Allocation Index		*0.5*	*3.8*	*0.1*	*8.0*	*5.8*	*6.6*
Policy Index		*0.5*	*4.0*	*0.1*	*8.9*	*6.4*	*6.8*

20 Years As of April 30, 2023				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Composite	**7.4**	**8.5**	**0.7**	**1.1**
Allocation Index	*6.8*	*7.9*	*0.7*	*1.0*
Policy Index	*7.2*	*8.5*	*0.7*	*1.0*

Performance

- The Composite had a preliminary return of 0.3% (net) for the month, underperforming both the Allocation Index and Policy Index (0.5%).
- In equities, the S&P 500 Index gained 1.6% in April, bolstered by better-than-expected earnings and continued outperformance by the mega-capitalization technology companies. Of the 269 companies within the S&P 500 that reported, over 70% of the companies posted a positive revenue surprise, while approximately 79% companies recorded a positive earnings surprise. In addition, the largest five companies contributed to approximately half of the broader index return. Outside of the U.S., the MSCI EAFE Index outperformed with gains of 2.8%, supported, in part, by a weaker U.S. dollar. The portfolio's Domestic Equity composite returned 0.7% (net) and the Non-US Equity composite was down -0.1% (net).
- In fixed income, the U.S. Treasury curve shifted slightly lower with the two- and 10-year yields down one and five basis points, respectively. Higher-carry assets outperformed with rates and spreads relatively flat. As a result, the Bloomberg U.S. High Yield Corporate Index was up 1% last month. The Fixed Income composite returned 0.6% (net) for the month while the Bloomberg Agg and the Bloomberg US HY returned 0.6% and 1.0%, respectively.
- This brings the total plan return for the trailing one-year period to 0.0% (net), while the Allocation Index and Policy Index both returned 0.1%, respectively.

Returns for 20 years Risk/Return and Statistics Summary are gross of fees.
Since inception return is 8.2% gross of fees. Prior to 1999, performance history does not capture separate net and gross returns.

MWRA Employees' Retirement System

April 30, 2023

TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value ($)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Composite	**647,507,565**	**100.0**	**100.0**	**0.3**	**4.2**	**0.0**	**8.0**	**5.4**	**6.2**	**6.7**	**Jan-86**
Allocation Index				*0.5*	*3.8*	*0.1*	*8.0*	*5.8*	*6.6*		
Policy Index				*0.5*	*4.0*	*0.1*	*8.9*	*6.4*	*6.8*		
Total Balanced	**5,075,131**	**0.8**	**0.0**	**0.7**	**4.4**	**-1.1**	**11.2**	**4.9**	**4.4**	**4.7**	**Dec-10**
PRIT Core Fund	5,075,131	0.8	0.0	0.7	4.4	-1.1	9.8	7.0	7.6	6.8	Apr-99
60% S&P 500 / 40% Bloomberg Aggregate				*1.2*	*6.9*	*1.7*	*7.4*	*7.6*	*8.0*	*6.1*	
Total Domestic Equity	**201,626,281**	**31.1**	**31.0**	**0.7**	**6.5**	**0.2**	**12.2**	**9.8**	**10.8**	**7.3**	**May-99**
Russell 3000 Index				*1.1*	*8.3*	*1.5*	*14.1*	*10.6*	*11.7*	*7.1*	
Large Cap	**156,843,039**	**24.2**	**24.0**	**1.2**	**7.5**	**0.1**	**11.2**	**10.8**	**11.3**	**12.0**	**Dec-10**
Rhumbline Advisors S&P 500 Index Fund	65,532,628	10.1	10.0	1.6	9.1	2.6	14.5	11.4	12.1	8.8	Apr-97
S&P 500 Index				*1.6*	*9.2*	*2.7*	*14.5*	*11.4*	*12.2*	*8.8*	
Coho Relative Value Equity	49,273,867	7.6	7.0	1.6	0.6	1.6	11.4	9.3		10.2	Mar-16
Russell 1000 Value Index				*1.5*	*2.5*	*1.2*	*14.4*	*7.7*		*10.1*	
Polen Focused Growth	42,036,544	6.5	7.0	0.1	14.3	-5.3	5.7	10.8		12.4	Feb-16
Russell 1000 Growth Index				*1.0*	*15.5*	*2.3*	*13.6*	*13.8*		*15.6*	
Small Cap	**44,783,242**	**6.9**	**7.0**	**-1.0**	**3.1**	**0.6**	**15.2**	**6.9**	**9.6**	**10.6**	**Dec-10**
Loomis Sayles Small Cap Growth	22,228,516	3.4	3.5	-0.2	4.4	3.3	11.4	8.0	11.0	6.6	Jan-97
Russell 2000 Growth Index				*-1.2*	*4.8*	*0.7*	*7.8*	*4.0*	*8.4*	*6.4*	
Mesirow Small Cap Value Equity CIT - Founders Class	22,554,725	3.5	3.5	-1.9						-1.9	Apr-23
Russell 2000 Value Index				*-2.5*						*-2.5*	
Total Non-US Equity	**108,617,155**	**16.8**	**19.0**	**-0.1**	**7.8**	**-0.8**	**5.7**	**0.1**	**2.9**	**3.8**	**Mar-99**
International Equity	**73,355,235**	**11.3**	**12.0**	**0.5**	**10.7**	**4.2**	**8.6**	**2.5**	**4.2**	**3.6**	**Sep-05**
SEG Baxter Street	30,807,899	4.8	5.0	0.7	9.7	2.7	6.5	3.3		6.5	May-16
MSCI AC World ex USA (Net)				*1.7*	*8.7*	*3.0*	*9.7*	*2.5*		*5.7*	
Schroder International Alpha Trust Class 1	28,531,052	4.4	4.0	1.1	11.4	5.2	13.5	6.0	6.3	6.6	Mar-12
MSCI AC World ex USA (Net)				*1.7*	*8.7*	*3.0*	*9.7*	*2.5*	*4.0*	*4.5*	
Baillie Gifford International Growth Fund Class K	14,016,285	2.2	3.0	-1.3	11.8	5.7				-8.2	Oct-20
MSCI AC World ex USA (Net)				*1.7*	*8.7*	*3.0*				*5.6*	

Since inception return is 8.2% gross of fees. Prior to 1999, performance history does not capture separate net and gross returns.
In November 2019, Loomis Sayles and Schroders transitioned from a mutual fund to a CIT structure. Performance prior to the transition to the CIT investment vehicle is linked to mutual fund performance history.
Preliminary performance is subject to change once finalized.

MWRA Employees’ Retirement System

April 30, 2023

TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value ($)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Emerging Markets Equity	**35,261,919**	**5.4**	**7.0**	**-1.3**	**2.2**	**-9.8**				**-15.3**	**Mar-21**
Axiom Emerging Markets Trust Class 2	16,212,986	2.5	7.0	-2.8	0.8	-14.3				-18.1	Mar-21
MSCI Emerging Markets (Net)				*-1.1*	*2.8*	*-6.5*				*-11.3*	
ABS Emerging Markets MA Fund	19,048,933	2.9		0.1	3.4	-5.6				-13.7	Dec-21
MSCI Emerging Markets (Net)				*-1.1*	*2.8*	*-6.5*				*-11.8*	
Total Fixed Income	**123,434,096**	**19.1**	**20.0**	**0.6**	**3.9**	**-0.4**	**-0.2**	**2.2**	**2.5**	**5.7**	**Mar-99**
Garcia Hamilton Fixed Income Aggregate	32,939,470	5.1	6.0	0.5	4.1	-0.5	-2.3	1.1		1.0	Apr-18
Blmbg. U.S. Aggregate Index				*0.6*	*3.6*	*-0.4*	*-3.1*	*1.2*		*1.0*	
Lord Abbett Core Fixed Income	35,576,891	5.5	4.0	0.6	3.8	-1.2	-2.2	1.4		1.2	Apr-18
Blmbg. U.S. Aggregate Index				*0.6*	*3.6*	*-0.4*	*-3.1*	*1.2*		*1.0*	
Loomis Sayles Multisector Full Discretion Trust	45,541,064	7.0	8.0	0.6	3.9	-0.2	0.7	2.5	2.9	6.8	Mar-99
Blmbg. U.S. Aggregate Index				*0.6*	*3.6*	*-0.4*	*-3.1*	*1.2*	*1.3*	*4.0*	
Blmbg. U.S. Corp: High Yield Index				*1.0*	*4.6*	*1.2*	*4.7*	*3.3*	*4.0*	*6.1*	
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	9,361,351	1.4	2.0	0.8	3.4	1.5	5.5			2.9	Aug-19
Credit Suisse Leveraged Loan				*0.9*	*4.1*	*2.9*	*7.2*			*3.5*	
Invesco Mortgage Recovery Loans Feeder Fund	15,320	0.0		0.0	0.0	0.1	-0.2	2.0	6.0	9.7	Apr-10
Blmbg. U.S. Aggregate Index				*0.6*	*3.6*	*-0.4*	*-3.1*	*1.2*	*1.3*	*2.3*	
Total Hedge Fund	**40,543,050**	**6.3**	**6.0**	**0.2**	**2.1**	**-0.9**	**6.9**	**3.8**	**3.3**	**3.4**	**Oct-06**
PRIM Portfolio Completion Strategies	13,293,236	2.1		0.3	2.0	0.1	7.0	3.2	3.9	3.7	Oct-06
Corbin Pinehurst Partners	12,954,931	2.0		0.3	2.9	-2.5	7.4			4.6	Nov-18
HFRI Fund of Funds Composite Index				*0.4*	*1.1*	*-0.3*	*6.1*			*4.1*	
UBS Neutral Alpha Strategies	14,239,653	2.2		0.0	1.6	4.6	8.3			6.5	Nov-18
HFRI Fund of Funds Composite Index				*0.4*	*1.1*	*-0.3*	*6.1*			*4.1*	
Entrust Peru Wind Down	55,230	0.0		-0.4	-16.6	-92.5	-58.0	-42.0		-39.7	Dec-17
HFRI Fund of Funds Composite Index				*0.4*	*1.1*	*-0.3*	*6.1*	*3.1*		*3.2*	
Other	**10,030,312**	**1.5**	**0.0**	**0.4**	**1.4**	**2.9**	**1.0**	**1.5**	**1.0**	**0.8**	**Dec-10**
Cash Account	10,030,312	1.5		0.4	1.4	2.9	1.0	1.5	1.0	1.8	Feb-00
90 Day U.S. Treasury Bill				*0.3*	*1.4*	*2.8*	*1.0*	*1.4*	*0.9*	*1.6*	

Importantly, all returns in this report, including those of the private markets managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.

Preliminary performance is subject to change once finalized.

MWRA Employees' Retirement System

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TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value ($)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Real Estate	**70,119,728**	**10.8**	**12.0**	**0.0**	**-0.5**	**1.4**	**11.1**	**9.5**	**10.4**	**8.3**	**Apr-99**
NCREIF Property Index				*0.0*	*-1.8*	*-1.6*	*7.2*	*6.7*	*8.3*	*8.5*	
Morgan Stanley Prime Property ($2.8m commitment in '95)	25,657,244	4.0		0.0	-1.2	-2.0	8.6	7.7	10.1	8.6	Sep-95
TA Realty Core Property Fund, LP ($15m commitment in '19)	26,506,164	4.1		0.0	0.0	0.6	13.6			11.9	Jun-19
Invesco Mortgage Recovery II ($3M commitment in '15)	886,190	0.1		0.0	0.0	-22.0	-25.5	-10.4		-4.4	Oct-15
Landmark VI ($2m commitment in '11)	6,057	0.0		0.0	0.0	-1.2	-6.8	-8.7	-0.5	2.0	Jul-11
Landmark VIII ($4m commitment in '17)	2,105,498	0.3		0.0	0.0	7.6	18.3	13.5		18.5	Nov-17
StepStone Real Estate Fund II ($2m commitment in '11)	367,525	0.1		0.0	0.0	-2.8	-0.2	-0.9	5.1	2.0	May-12
Cerberus Institutional Real Estate Partners III ($1.5m commitment in '12)	461,653	0.1		0.0	-2.1	-16.2	19.7	15.3	14.4	14.4	May-13
TA Realty Fund X LP ($3.5m commitment in '12)	3,889	0.0		0.0	0.0	16.0	5.5	7.6	8.8	8.8	May-13
TerraCap Partners III, LP ($2.6m commitment in '15)	1,610,352	0.2		0.0	0.0	19.4	9.6	7.6		10.8	Jul-15
TerraCap Partners IV, LP ($4m commitment in '17)	3,669,565	0.6		0.0	0.0	3.1	9.9	10.2		10.1	Nov-17
TerraCap Partners V, LP ($8m commitment in '22)	8,845,592	1.4		0.0	0.0					14.5	Jun-22
Total Private Equity and Debt	**88,061,814**	**13.6**	**12.0**	**0.0**	**0.3**	**-0.5**	**21.4**	**13.8**	**14.4**	**10.2**	**Apr-99**
C|A US All PE				*0.0*	*0.0*	*-2.1*	*23.0*	*15.4*	*14.3*	*13.0*	
NASDAQ W/O Income				*0.0*	*16.8*	*-0.9*	*11.2*	*11.6*	*13.9*	*6.9*	
PRIM Vintage Year 2008 ($3m commitment in '08)	856,358	0.1		0.0	8.8	3.2	16.8	14.9	18.6	10.3	Jun-08
PRIM Vintage Year 2009 ($1m commitment in '09)	61,222	0.0		-3.1	-11.8	-29.6	29.6	27.5	23.7	12.8	Nov-09
PRIM Vintage Year 2010 ($1m commitment in '10)	468,374	0.1		-0.2	4.1	-25.7	22.6	17.1	18.7	10.9	Jun-10
PRIM Vintage Year 2011 ($1.5m commitment in '11)	767,130	0.1		0.1	-1.9	-12.6	28.3	22.9	21.7	9.5	May-11
PRIM Vintage Year 2012 ($1m commitment in '12)	458,637	0.1		-0.4	-1.0	-23.1	9.9	12.1	12.7	-9.2	Jun-12
PRIM Vintage Year 2014 ($2m commitment in '14)	2,043,145	0.3		-2.0	-2.1	-9.9	20.5	21.4		7.9	Jun-14
PRIM Vintage Year 2017 ($2m commitment in '17)	2,608,270	0.4		0.6	2.5	1.3	24.5	17.1		15.8	May-17
PRIM Vintage Year 2020 ($5m commitment in '20)	3,956,172	0.6		0.4	0.0	-3.3	15.5			14.9	Mar-20
PRIM Vintage Year 2021 ($5m commitment in '21)	3,314,181	0.5		-0.2	2.0	-5.5				-0.1	Dec-20
PRIM Vintage Year 2022 ($7.5m commitment in '22)	1,288,193	0.2		1.2	2.2	-1.3				-3.4	Apr-22
PRIM Vintage Year 2023 ($10m commitment in '23)	66,462	0.0									May-23
Alcentra European DLF ($5m commitment in '14)	198,882	0.0		0.0	0.0	5.3	26.4	13.4		11.5	Jan-15
Ascent Fund IV-B ($1m commitment in '16)	20,526	0.0		0.0	0.0	-49.3	-30.8	-29.6		-22.3	Jul-16
Ascent Fund V ($2m commitment in '08)	1,262,271	0.2		0.0	0.0	-13.1	2.2	-2.1	2.1	3.8	Oct-08
Ascent VI ($3m commitment in '15)	3,257,757	0.5		0.0	0.0	-4.8	2.2	1.6		1.1	Dec-15
CVI Credit Value Fund IV A LP ($6m commitment in '17)	5,181,845	0.8		0.0	1.9	8.3	14.4	7.1		6.5	Dec-17
Invesco Fund VI ($5m commitment in '13)	837,127	0.1		0.0	0.0	-29.4	25.9	16.8		15.9	Jul-13

Importantly, all returns in this report, including those of the private real estate managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.
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MWRA Employees’ Retirement System

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TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value ($)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Kayne Energy Fund VII ($5m commitment in '15)	2,857,362	0.4		0.0	0.0	-6.8	20.6	-16.3		-4.1	Jan-16
Foundry 2007 ($3m commitment in '07)	206,491	0.0		0.0	-0.3	-58.4	-0.9	-14.2	2.5	12.9	Dec-07
Foundry 2010 ($3m commitment in '10)	5,881,916	0.9		0.0	-0.4	-1.4	34.3	21.5	13.9	13.7	Feb-11
Foundry 2010 Annex ($0.4m commitment in '15)	1,100,313	0.2		0.0	0.0	-1.3	89.4	63.2		39.8	Sep-15
Pinebridge PEP V ($6m commitment in '07)	449,779	0.1		0.0	0.0	-5.5	15.0	3.7	8.2	7.7	Dec-10
Pinebridge (AIG) PEP V Asia ($6m commitment in '07)	32,657	0.0		0.0	0.0	-8.7	-4.5			-13.2	Oct-18
Pinebridge (AIG) PEP V Co-Investment ($6m commitment in '07)	90,621	0.0		0.0	0.0	-6.0	17.8			5.8	Oct-18
Pinebridge (AIG) PEP V Europe ($6m commitment in '07)	16,190	0.0		0.0	0.0	-16.6	202.1			109.0	Oct-18
Pinebridge (AIG) PEP V Large Market US Buyout ($6m commitment in '07)	74,199	0.0		0.0	0.0	-13.1	23.1			5.6	Oct-18
Pinebridge (AIG) PEP V Preferred Participation Fund ($6m commitment in '07)	75,737	0.0		0.0	0.0	-18.9	6.1			-3.6	Oct-18
Pinebridge (AIG) PEP V Secondary ($6m commitment in '07)	23,017	0.0		0.0	0.0	-7.2	-10.6	-12.1		-9.7	Jan-17
Pinebridge (AIG) PEP V Small-Mid Market US Buyout ($6m commitment in '07)	90,000	0.0		0.0	0.0	-0.4	24.4			14.5	Oct-18
Pinebridge (AIG) PEP V US Venture ($6m commitment in '07)	47,358	0.0		0.0	0.0	-2.1	7.3			-2.5	Oct-18
Landmark XV ($3m commitment in '13)	644,797	0.1		0.0	0.0	-13.2	4.8	6.0		10.4	Nov-13
JFL Equity Investors IV, L.P. ($6m commitment in '16)	1,752,050	0.3		0.0	0.0	10.7	34.6	41.4		35.1	Jan-17
Private Advisors Small Co. Coinvestment Fund, LP ($4m commitment in '17)	4,695,956	0.7		0.0	0.0	-0.6	20.7	20.7		18.2	Feb-17
Park Square Credit Opportunities III ($3m commitment in ’17)	2,801,373	0.4		0.0	0.0	4.8	6.9	8.1		6.6	Feb-18
Ironsides Constitution Opportunities ($3m commitment in '18)	1,701,871	0.3		0.0	0.0	1.5	12.4			10.9	Oct-18
HarbourVest Dover Street X ($9m commitment in '20)	6,880,154	1.1		0.0	0.0	-0.9				55.9	Jun-20
Hamilton Lane Secondary Fund V LP ($9m commitment in '20)	7,691,693	1.2		0.0	0.0	2.1				30.1	Jul-20
Constitution Ironsides Co-Investment Fund VI ($12m commitment in '21)	13,080,344	2.0		0.0	0.0	-0.8				1.6	Nov-21
HarbourVest Co-Investment Fund VI ($8m commitment in '21)	2,785,749	0.4		0.0	0.0	-11.7					Jan-22
JFL Equity Investors V, L.P. ($9m commitment in '20)	8,885,413	1.4		0.0	0.0	18.2				5.8	Sep-20

Importantly, all returns in this report, including those of the private markets managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.

April 30, 2023

FEE SCHEDULE

Account Name	Fee Schedule	Market Value ($)	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
PRIT Core Fund	0.49 % of Assets	5,075,131	0.78	24,868	0.49
Rhumbline Advisors S&P 500 Index Fund	0.04 % of Assets	65,532,628	10.12	26,213	0.04
Coho Relative Value Equity	0.50 % of First $75 M 0.40 % of Next $75 M 0.35 % Thereafter	49,273,867	7.61	246,369	0.50
Polen Focused Growth	0.65 % of Assets	42,036,544	6.49	273,238	0.65
Boston Partners Small Cap Value	1.00 % of Assets	2	0.00		1.14
Loomis Sayles Small Cap Growth	0.45 % of Assets Minimum Fee: $45,000	22,228,516	3.43	100,028	0.45
SEG Baxter Street	1.00 % of Assets	30,807,899	4.76	308,079	1.00
Schroder International Alpha Trust Class 1	0.55 % of Assets	28,531,052	4.41	156,921	0.55
Baillie Gifford International Growth Fund Class K	0.60 % of Assets	14,016,285	2.16	84,098	0.60
Axiom Emerging Markets Trust Class 2	0.73 % of Assets	16,212,986	2.50	118,355	0.73
ABS Emerging Markets MA Fund	0.75 % of Assets	19,048,933	2.94	142,867	0.75
Garcia Hamilton Fixed Income Aggregate		32,939,470	5.09	41,174	0.13
Lord Abbett Core Fixed Income	0.19 % of Assets	35,576,891	5.49	67,596	0.19
Loomis Sayles Multisector Full Discretion Trust	0.50 % of First $20 M 0.40 % of Next $20 M 0.30 % Thereafter	45,541,064	7.03	196,623	0.43
Mesirow Small Cap Value Equity CIT - Founders Class	0.45 % of Assets	22,554,725	3.48	101,496	0.45
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	0.40 % of Assets	9,361,351	1.45	37,445	0.40
Invesco Mortgage Recovery Loans Feeder Fund		15,320	0.00		
PRIM Portfolio Completion Strategies		13,293,236	2.05		
Corbin Pinehurst Partners	0.85 % of Assets	12,954,931	2.00	110,117	0.85
UBS Neutral Alpha Strategies	0.90 % of Assets	14,239,653	2.20	128,157	0.90
Entrust Peru Wind Down	0.50 % of Assets	55,230	0.01	276	0.50
Cash Account		10,030,312	1.55		
Morgan Stanley Prime Property ($2.8m commitment in '95)		25,657,244	3.96		
TA Realty Core Property Fund, LP ($15m commitment in '19)		26,506,164	4.09		
Invesco Mortgage Recovery II ($3M commitment in '15)		886,190	0.14		
Landmark VI ($2m commitment in '11)		6,057	0.00		
Landmark VIII ($4m commitment in '17)		2,105,498	0.33		
StepStone Real Estate Fund II ($2m commitment in '11)		367,525	0.06		
Cerberus Institutional Real Estate Partners III ($1.5m commitment in '12)		461,653	0.07		

FEE SCHEDULE

Account Name	Fee Schedule	Market Value ($)	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
TA Realty Fund X LP ($3.5m commitment in '12)		3,889	0.00		
TerraCap Partners III, LP ($2.6m commitment in '15)		1,610,352	0.25		
TerraCap Partners IV, LP ($4m commitment in '17)		3,669,565	0.57		
TerraCap Partners V, LP ($8m commitment in '22)		8,845,592	1.37		
PRIM Vintage Year 2008 ($3m commitment in '08)		856,358	0.13		
PRIM Vintage Year 2009 ($1m commitment in '09)		61,222	0.01		
PRIM Vintage Year 2010 ($1m commitment in '10)		468,374	0.07		
PRIM Vintage Year 2011 ($1.5m commitment in '11)		767,130	0.12		
PRIM Vintage Year 2012 ($1m commitment in '12)		458,637	0.07		
PRIM Vintage Year 2014 ($2m commitment in '14)		2,043,145	0.32		
PRIM Vintage Year 2017 ($2m commitment in '17)		2,608,270	0.40		
PRIM Vintage Year 2020 ($5m commitment in '20)		3,956,172	0.61		
PRIM Vintage Year 2021 ($5m commitment in '21)		3,314,181	0.51		
PRIM Vintage Year 2022 ($7.5m commitment in '22)		1,288,193	0.20		
PRIM Vintage Year 2023 ($10m commitment in '23)		66,462	0.01		
Alcentra European DLF ($5m commitment in '14)		198,882	0.03		
Ascent Fund IV-B ($1m commitment in '16)		20,526	0.00		
Ascent Fund V ($2m commitment in '08)		1,262,271	0.19		
Ascent VI ($3m commitment in '15)		3,257,757	0.50		
CVI Credit Value Fund IV A LP ($6m commitment in '17)		5,181,845	0.80		
Invesco Fund VI ($5m commitment in '13)		837,127	0.13		
Kayne Energy Fund VII ($5m commitment in '15)		2,857,362	0.44		
Foundry 2007 ($3m commitment in '07)		206,491	0.03		
Foundry 2010 ($3m commitment in '10)		5,881,916	0.91		
Foundry 2010 Annex ($0.4m commitment in '15)		1,100,313	0.17		
Pinebridge (AIG) PEP V Asia ($6m commitment in '07)		32,657	0.01		
Pinebridge (AIG) PEP V Co-Investment ($6m commitment in '07)		90,621	0.01		
Pinebridge (AIG) PEP V Europe ($6m commitment in '07)		16,190	0.00		
Pinebridge (AIG) PEP V Large Market US Buyout ($6m commitment in '07)		74,199	0.01		
Pinebridge (AIG) PEP V Preferred Participation Fund ($6m commitment in '07)		75,737	0.01		
Pinebridge (AIG) PEP V Secondary ($6m commitment in '07)		23,017	0.00		
Pinebridge (AIG) PEP V Small-Mid Market US Buyout ($6m commitment in '07)		90,000	0.01		
Pinebridge (AIG) PEP V US Venture ($6m commitment in '07)		47,358	0.01		
Landmark XV ($3m commitment in '13)		644,797	0.10		

FEE SCHEDULE

April 30, 2023

Account Name	Fee Schedule	Market Value ($)	% of Portfolio	Estimated Annual Fee ($)	Estimated Annual Fee (%)
JFL Equity Investors IV, L.P. ($6m commitment in '16)		1,752,050	0.27		
Private Advisors Small Co. Coinvestment Fund, LP ($4m commitment in '17)		4,695,956	0.73		
Park Square Credit Opportunities III ($3m commitment in '17)		2,801,373	0.43		
Ironsides Constitution Opportunities ($3m commitment in '18)		1,701,871	0.26		
HarbourVest Dover Street X ($9m commitment in '20)		6,880,154	1.06		
Hamilton Lane Secondary Fund V LP ($9m commitment in '20)		7,691,693	1.19		
Constitution Ironsides Co-Investment Fund VI ($12m commitment in '21)		13,080,344	2.02		
JFL Equity Investors V, L.P. ($9m commitment in '20)		8,885,413	1.37		
HarbourVest Co-Investment Fund VI ($8m commitment in '21)		2,785,749	0.43		
Investment Management Fee		**647,507,565**	**100.00**	**2,163,921**	**0.33**

The estimated fee for private markets, inclusive of carried interest, is ~$3,541,145 annually, which brings the total expense ratio for privates to ~54 bps. This brings the total estimated expense ratio for MWRA to ~87 bps.

NOTES

1 - Results for periods longer than one year are annualized.

2 - Total Balances, Large Cap, Small Cap, and Other Composite performance starts 12/1/2010.

3 - Preliminary Total Composite net of fee since inception return is 6.7% for the current month.

4 - Preliminary Total Composite gross of fee since inception return is 8.2% for the current month.

5 - Targets, Allocation Index, and Policy Index have been updated to reflect new allocation of 02/01/2022.

6 - Policy Index changed from Nasdaq to Cambridge All PE to reflect as of 5/1/2012.

7 - Policy Index Consists of: 24% S&P 500, 7% Russell 2000, 12% MSCI ACWI IMI, 7% MSCI Emerging Markets, 12% Bloomberg US Aggregate TR, 8% Bloomberg US Universal TR, 6% HFRI Fund of Funds Composite Index, 12% NCREIF Property Index, 12% C|A US All PE.

8 - Allocation index consists of: Weighted index of underlying managers to their respective benchmark.

9 - All Private Market managers are final as of 12/31/22, except for Landmark VII, Landmark XV, StepStone II, Invesco VI, all Pinebridge funds, and Private Advisors which are final as of 9/30/22.

10 - CVI Credit Value IV, all Foundry funds, Cerberus and Morgan Stanley are final as of 3/31/2023.

11 - Boston Partners Residual value of $2 is included in the composites.

DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv

OPPORTUNISTIC CREDIT SEARCH REVIEW

MWRA RETIREMENT SYSTEM

APRIL 20, 2023

Sebastian Grzejka, CAIA, Partner
Kiley Fischer, Sr. Consulting Analyst

SUMMARY OF OPPORTUNISTIC CREDIT SEARCH

- **Target fund strategy**
  - Opportunistic Credit strategy
- **Advertised requirements for the search:**
  1. Candidates must have familiarity with and agree to comply (in writing) with Massachusetts G.L. Chapter 32 and Chapter 176 of the Acts of 2011. Additionally, candidates must have familiarity and agree to comply with the reporting and investment guidelines administered by PERAC.
  2. Candidates must read and agree to the attached side letter pertaining to mandatory contractual language, based on the guidelines above.
  3. Candidates must be registered with the SEC or Massachusetts Secretary of State.
  4. Preference will be given to candidates who have at least $500 million in assets in the fund that is being suggested, however, this is subject to the Board’s discretion.
  5. Preference will be given to Funds that have a live track record of at least three years, however, this is subject to the Board’s discretion
  6. Proposed strategy must have at least quarterly liquidity.
- **Responses were due on March 24, 2023 by 5:00 PM EST.**
  - A total of 15 managers responded

OPPORTUNISTIC CREDIT FINALISTS

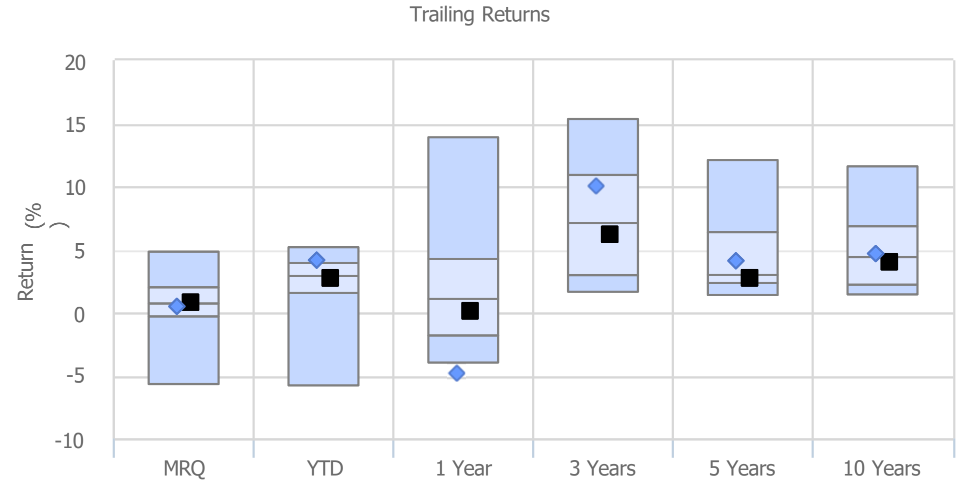
Firm	Fund	Fund AUM (MM)	Firm AUM (MM)	Track Record (Yrs)	Approach & Style	Liquidity Schedule For Contributions	Liquidity Schedule For Withdrawals	Proposed Fee Schedule	Agree to Side Letter Terms	MWRA Search Rating
Brigade Capital	Opportunistic Credit	$ 1,883	$25,680	14	Diversified Credit	Monthly	Quarterly 60-day notice	0.70%	Yes*	2
DSC Meridian	Credit Opportunities	$312	$694	4.8	Event Driven Corporate Credit	Monthly	Quarterly 1yr Soft Lock (5% penalty)	1.25% + 15% incentive fee	Yes	2
LMCG	Serenitas Credit Gamma Fund	$586	$3,786	10	Relative value corporate and mortgage credit	Monthly	Quarterly	1.5% + 20% perf. fee	Yes*	2
Waterfall	Waterfall Eden Fund	$2,150	$11,600	18	Asset-Backed Credit	Monthly	Quarterly	1.5% + 17% Incentive Fee	Yes*	2
Wellington	Opportunistic Fixed Income	$ 5,732	$1,1T	23	Diversified Credit	Daily	Daily	0.50% first $100M, 0.45% thereafter	Yes*	1

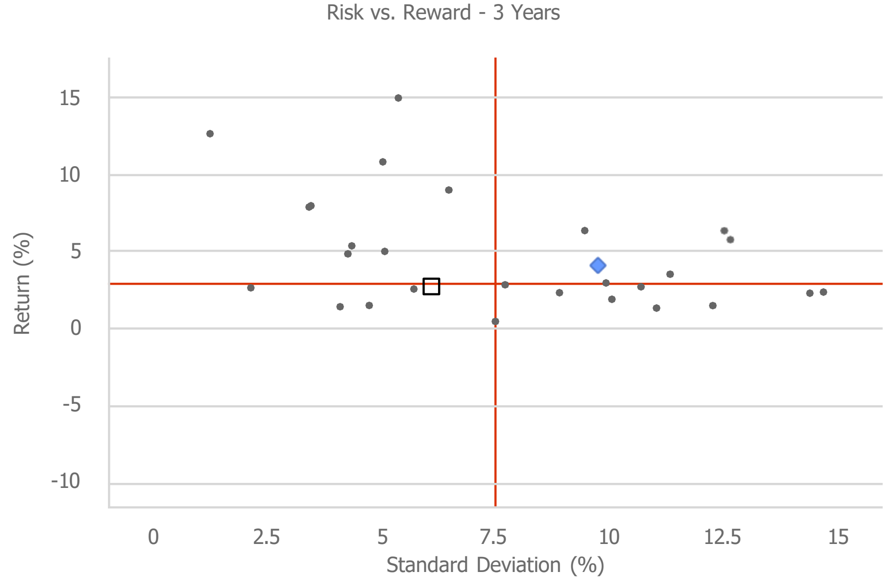
Yes* = Yes with Modifications

MANAGER REVIEWS

Brigade Capital Management, LP
Brigade Opportunistic Credit

Product Characteristics		Risk (5-Yrs.)	
Product Inception Date	03/01/2009	Standard Deviation 5 Years	9.75
Primary Equity Style Emphasis	---	Tracking Error 5 Years	4.38
Primary Investment Approach	Fundamental	Annualized Alpha 5 Years	0.11
Default Reporting Method	Gross of Fees	Beta 5 Years	1.52
Total AUM	---	Sharpe Ratio 5 Years	0.27
Total AUM	$25,322.58	Information Ratio 5 Years	0.31
		Upside Market Capture 5 Years	167.43
		Downside Market Capture 5 Years	161.20
		Max Drawdown 5 Years	17.61





	RM	Return (%)	Standard Deviation (%)
Brigade Opportunistic Credit	GF	4.10	9.75
HFN Fixed Income (non-arbitrage) Index	IX	2.75	6.09
Multi-Strategy Credit	---	2.97	7.53

	Brigade Opportunistic Credit	HFN Fixed Income (non-arbitrage) Index
Returns Month	1.2	0.9
Returns YTD	4.1	2.7
Returns 1 Year	-4.8	0.1
Returns 3 Years	10.0	6.2
Returns 5 Years	4.1	2.7
Returns 10 Years	4.7	4.0

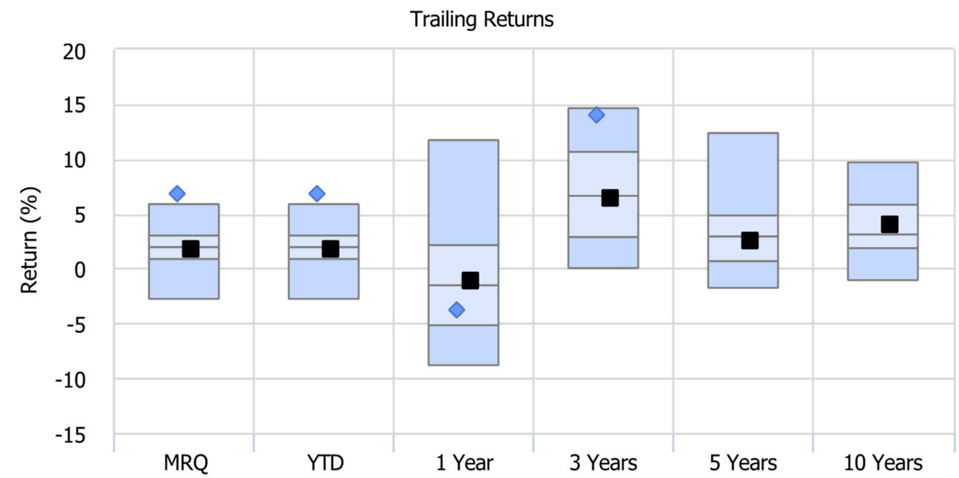
Calendar Year Returns

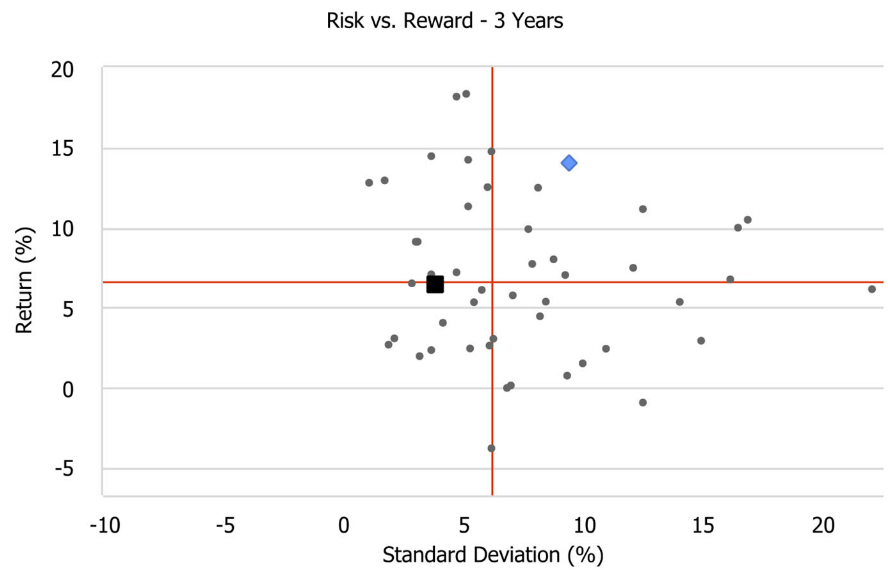
Product Name	Brigade Opportunistic Credit	HFN Fixed Income (non-arbitrage) Index
Returns 2016	23.6	8.1
Returns 2017	7.7	4.3
Returns 2018	-0.4	0.1
Returns 2019	10.7	6.3
Returns 2020	5.6	2.5
Returns 2021	14.3	6.6
Returns 2022	-10.4	-3.2

DSC Meridian Capital

DSC Meridian Credit Opportunities Master Fund LP

Product Characteristics		Risk (3-Yrs.)	
Product Inception Date	06/01/2018	Standard Deviation 3 Years	9.43
Primary Equity Style Emphasis	Distressed Credit	Tracking Error 3 Years	7.00
Primary Investment Approach	Discretionary	Annualized Alpha 3 Years	1.77
Default Reporting Method	Net of Fees	Beta 3 Years	1.87
Total AUM	$316.20	Sharpe Ratio 3 Years	1.39
Total AUM	$717.55	Information Ratio 3 Years	1.08
		Upside Market Capture 3 Years	210.92
		Downside Market Capture 3 Years	165.37
		Max Drawdown 3 Years	13.89





	RM	Return (%)	Standard Deviation (%)
DSC Meridian Credit Opportunities Master Fund LP	NF	14.02	9.43
HFN Fixed Income (non-arbitrage) Index	IX	6.44	3.81
Multi-Strategy Credit	---	6.63	6.21

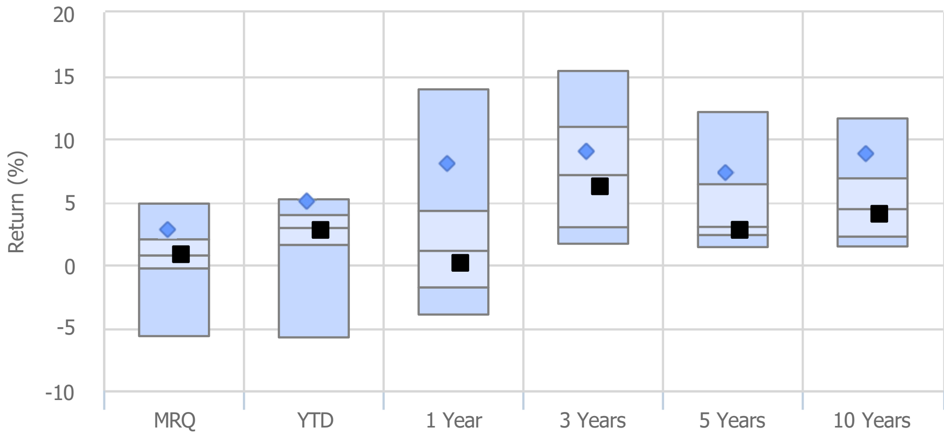
	DSC Meridian Credit Opportunities Master Fund LP	HFN Fixed Income (non-arbitrage) Index
Returns Month	0.6	-0.7
Returns YTD	6.8	1.8
Returns 1 Year	-3.8	-1.1
Returns 3 Years	14.0	6.4
Returns 5 Years	---	2.6
Returns 10 Years	---	4.0

Calendar Year Returns

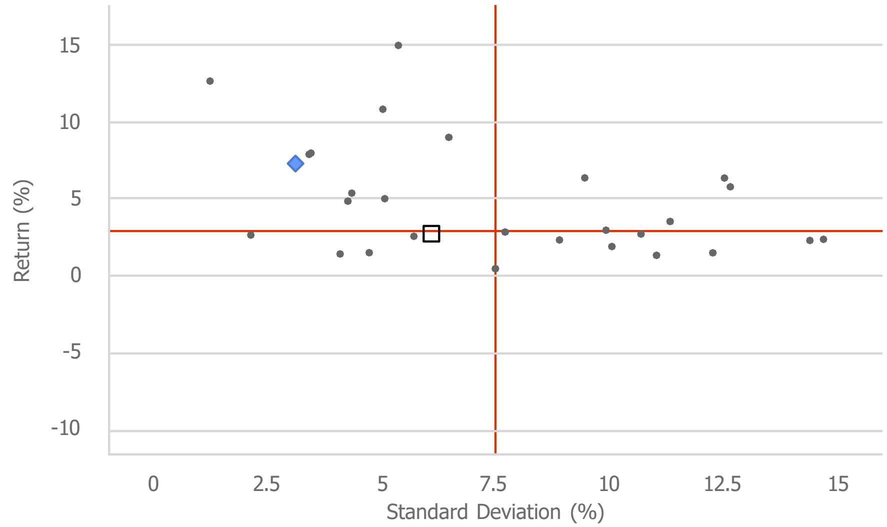
Product Name	DSC Meridian Credit Opportunities Master Fund LP	HFN Fixed Income (non-arbitrage) Index
Returns 2016	---	8.1
Returns 2017	---	4.3
Returns 2018	---	0.1
Returns 2019	5.1	6.3
Returns 2020	12.3	2.5
Returns 2021	19.7	6.6
Returns 2022	-9.2	-3.2

Product Characteristics		Risk (5-Yrs.)	
Product Inception Date	01/15/2013	Standard Deviation 5 Years	3.11
Primary Equity Style Emphasis	Structured Credit-Market Neutral	Tracking Error 5 Years	6.79
Primary Investment Approach	Discretionary	Annualized Alpha 5 Years	7.31
Default Reporting Method	Net of Fees	Beta 5 Years	0.01
Total AUM	---	Sharpe Ratio 5 Years	1.88
Total AUM	---	Information Ratio 5 Years	0.67
		Upside Market Capture 5 Years	80.83
		Downside Market Capture 5 Years	-31.77
		Max Drawdown 5 Years	1.74

Trailing Returns



Risk vs. Reward - 3 Years



	RM	Return (%)	Standard Deviation (%)
Serenitas Credit Gamma Master Fund	NF	7.29	3.11
HFN Fixed Income (non-arbitrage) Index	IX	2.75	6.09
Multi-Strategy Credit	---	2.97	7.53

	Serenitas Credit Gamma Master Fund	HFN Fixed Income (non- arbitrage) Index
Returns Month	1.6	0.9
Returns YTD	5.0	2.7
Returns 1 Year	8.0	0.1
Returns 3 Years	9.0	6.2
Returns 5 Years	7.3	2.7
Returns 10 Years	8.8	4.0

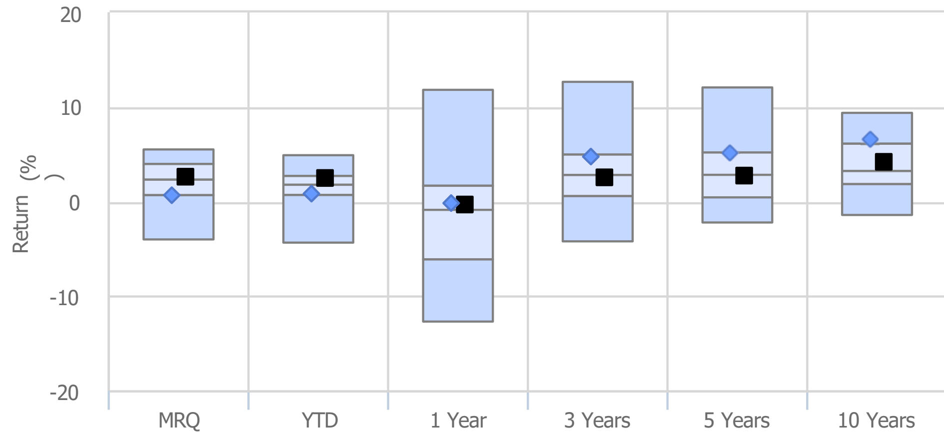
Calendar Year Returns

Product Name	Serenitas Credit Gamma Master Fund	HFN Fixed Income (non-arbitrage) Index
Returns 2016	8.0	8.1
Returns 2017	14.8	4.3
Returns 2018	10.5	0.1
Returns 2019	1.6	6.3
Returns 2020	16.8	2.5
Returns 2021	2.6	6.6
Returns 2022	7.4	-3.2

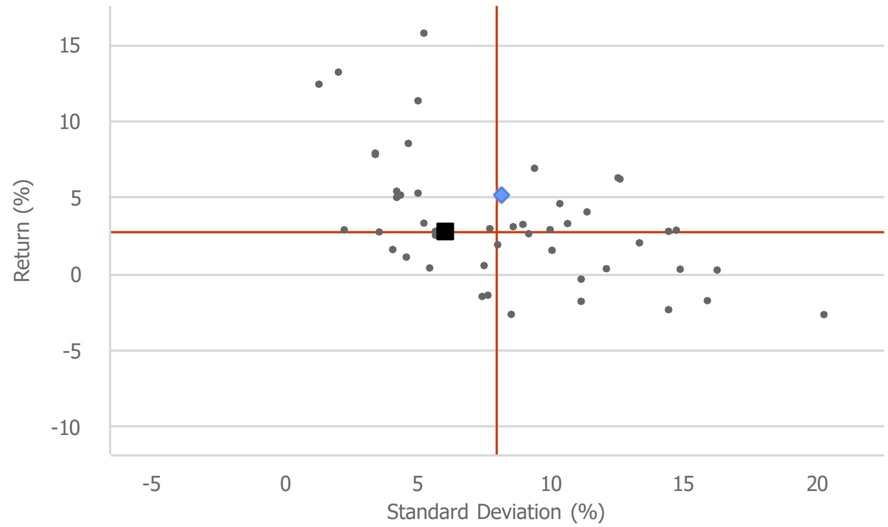
Waterfall Asset Management, LLC
Waterfall Eden Fund (High Yield ABS)

Product Characteristics		Risk (5-Yrs.)	
Product Inception Date	09/01/2005	Standard Deviation 5 Years	8.14
Primary Equity Style Emphasis	Structured Credit	Tracking Error 5 Years	3.96
Primary Investment Approach	Combined	Annualized Alpha 5 Years	1.95
Default Reporting Method	Net of Fees	Beta 5 Years	1.18
Total AUM	---	Sharpe Ratio 5 Years	0.46
Total AUM	---	Information Ratio 5 Years	0.60
		Upside Market Capture 5 Years	112.97
		Downside Market Capture 5 Years	68.35
		Max Drawdown 5 Years	16.31

Trailing Returns



Risk vs. Reward - 3 Years



	RM	Return (%)	Standard Deviation (%)
Waterfall Eden Fund (High Yield ABS)	NF	5.11	8.14
HFN Fixed Income (non-arbitrage) Index	IX	2.73	6.07
Multi-Strategy Credit	---	2.81	7.98

	Waterfall Eden Fund (High Yield ABS)	HFN Fixed Income (non- arbitrage) Index
Returns Month	0.6	0.5
Returns YTD	0.8	2.5
Returns 1 Year	-0.2	-0.3
Returns 3 Years	4.7	2.6
Returns 5 Years	5.1	2.7
Returns 10 Years	6.5	4.2

Calendar Year Returns

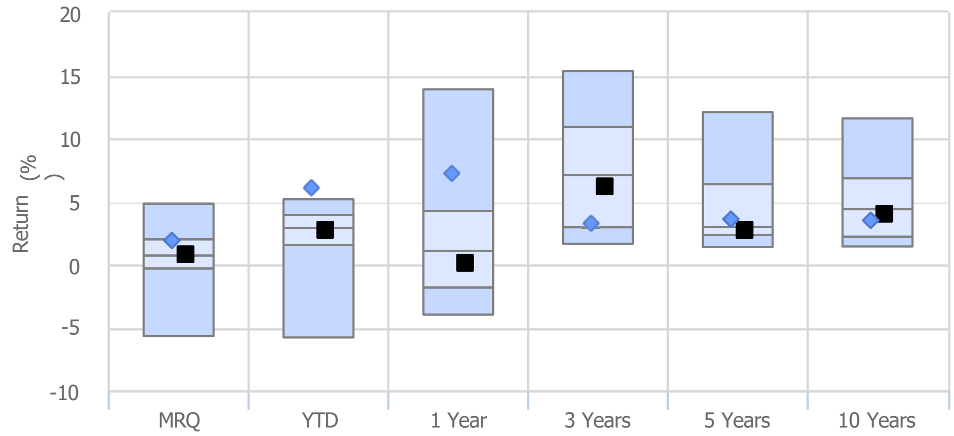
Product Name	Waterfall Eden Fund (High Yield ABS)	HFN Fixed Income (non- arbitrage) Index
Returns 2016	6.6	8.1
Returns 2017	11.2	4.3
Returns 2018	7.0	0.1
Returns 2019	5.8	6.3
Returns 2020	-4.0	2.5
Returns 2021	17.8	6.6
Returns 2022	1.5	-3.2

Wellington Management Company LLP

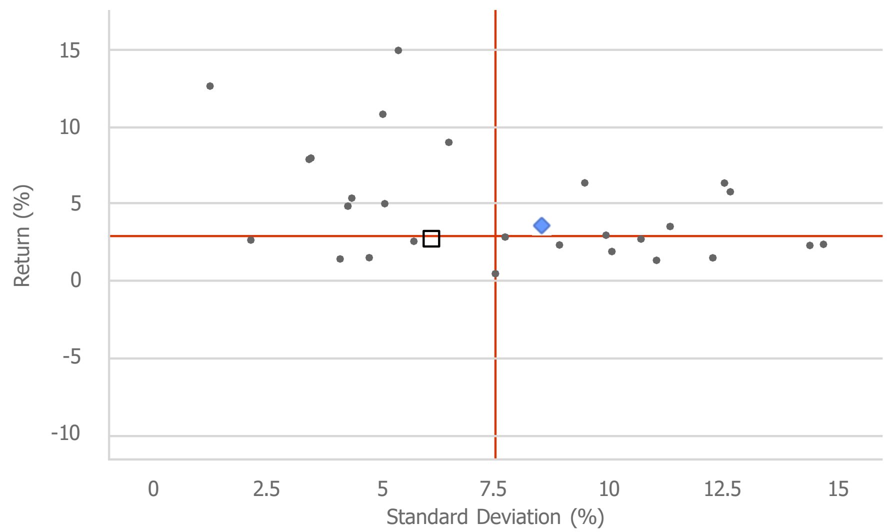
Opportunistic Fixed Income

Product Characteristics		Risk (5-Yrs.)	
Product Inception Date	02/29/2000	Standard Deviation 5 Years	8.53
Primary Equity Style Emphasis	---	Tracking Error 5 Years	5.80
Primary Investment Approach	Fundamental	Annualized Alpha 5 Years	0.92
Default Reporting Method	Gross of Fees	Beta 5 Years	1.03
Total AUM	---	Sharpe Ratio 5 Years	0.25
Total AUM	---	Information Ratio 5 Years	0.15
		Upside Market Capture 5 Years	103.28
		Downside Market Capture 5 Years	87.37
		Max Drawdown 5 Years	16.21

Trailing Returns



Risk vs. Reward - 3 Years



	RM	Return (%)	Standard Deviation (%)
Opportunistic Fixed Income	GF	3.59	8.53
HFN Fixed Income (non-arbitrage) Index	IX	2.75	6.09
Multi-Strategy Credit	---	2.97	7.53

	Opportunistic Fixed Income	HFN Fixed Income (non-arbitrage) Index
Returns Month	0.5	0.9
Returns YTD	6.1	2.7
Returns 1 Year	7.2	0.1
Returns 3 Years	3.3	6.2
Returns 5 Years	3.6	2.7
Returns 10 Years	3.5	4.0

Calendar Year Returns

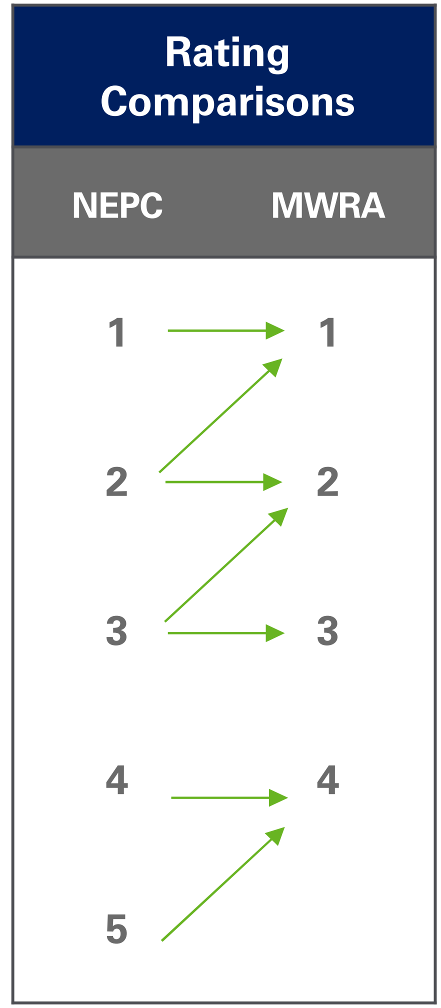
Product Name	Opportunistic Fixed Income	HFN Fixed Income (non-arbitrage) Index
Returns 2016	8.2	8.1
Returns 2017	6.3	4.3
Returns 2018	1.1	0.1
Returns 2019	11.1	6.3
Returns 2020	11.2	2.5
Returns 2021	-0.1	6.6
Returns 2022	-9.9	-3.2

APPENDIX

RATINGS SYSTEM COMPARISON

NEPC Research	
1	NEPC Research views 1-rated strategies as best ideas. The strategy has a clear investment thesis, and the manager is sufficiently resourced and incentivized to execute on the thesis. NEPC Research has high conviction that 1-rated strategies are positioned to deliver on a stated investment thesis and target return over a full investment cycle.
2	NEPC Research has a positive view of the strategy. The strategy has a clear investment thesis, and the manager is sufficiently resourced and incentivized to execute on the thesis. A single factor or mosaic of factors may lead to a 2 rating rather than a 1 rating.
3	NEPC Research has a constructive view of the strategy and believes the strategy can play an appropriate role in certain client portfolios. Through ongoing research, NEPC has not identified unreasonable risks from an organizational, process, operational or investment perspective.
4	NEPC has conducted a reasonable level of due diligence and has an unfavorable view of the strategy due to issues, weaknesses or risks that would challenge the manager's ability to execute on a stated investment thesis.
5	NEPC has conducted a reasonable level of due diligence and has significant concerns about the effectiveness or viability of the strategy. Through the due diligence process, NEPC has uncovered serious issues, weaknesses or risks that would challenge the manager's ability to execute on a stated investment thesis.

MWRA Searches (for PERAC)	
1	NEPC views these strategies as the best ideas and have high conviction in these firms and investment teams. These strategies meet all manager search requirements and are compatible with the client's portfolio.
2	Strategies that are positively viewed by NEPC and/or are existing managers for MWRA Retirement System. These strategies meet all search requirements.
3	NEPC has a positive or neutral view of these strategies. Client and search specific factors may result in a three rating.
4	Strategies that are not applicable for the current search. These strategies do not fit the search description or qualify based on the search guidelines. Strategies that demonstrate serious weaknesses or risks will also receive a 4 rating.



OPPORTUNISTIC CREDIT SEARCH RESPONSES

Firm	Fund	Vehicle	Fund AUM (MM)	Firm AUM (MM)	Track Record (Yrs)	Approach & Style	Liquidity Schedule For Contributions	Liquidity Schedule For Withdrawals	Proposed Fee Schedule	Agree to Side Letter Terms
ACRES Capital	ACRES Mortgage Fund	CF	$748.5	$3,437	3	Commercial Real Estate Loans	Monthly	Quarterly	Mgmt Fee: 2.0% Service Fee: 0.15%	Yes
Angelo Gordon	AG Mortgage Value Partners	CF	$2,600	$53,000	13.8	Residential and Consumer Debt Securities	Monthly	Quarterly On 1/31, 3/31, 6/30, 9/30	Mgmt Fee: 1.50% Incentive Fee: 20%	Yes*
Astra	Astra Specialist Credit Investments	CF	$ 157	$438	10	Structured and Credit Opportunities	Not Provided	Any Redemption Day (90-day notice)	0.125% of NAV (before deducting mgmt fee & accrued Perf. Fee)	Yes
Brigade Capital	Opportunistic Credit	CF	$ 1,883	$25,680	14	Diversified Credit	Monthly	Quarterly 60-day notice	0.70%	Yes*
Constitution Capital	Ironsides Opportunities Fund II	CF	$133	$4,913	0.8	Draw Down Strategy	~66.7%- 80% called in first 2 years	N/A	1.5% on invested; 20% incentive fee	Yes*
Corbin Capital	ERISA Opportunity Fund	CF	$2,155	$8,214	6.5	Diversified Credit	Monthly	Quarterly	Cl. A/B: 1.25% Cl. C/D: 0.85% + 5% incentive fee	Yes*
DSC Meridian	Credit Opportunities	CF	$312	$694	4.8	Event Driven Corporate Credit	Monthly	Quarterly 1yr Soft Lock (5% penalty)	1.25% + 15% incentive fee	Yes
Grantham, Mayo, Van Otterloo	Opportunistic Income	MF	$1,057	$57,627	12	Securitized Credit Opportunities	Daily	Daily	GMOHX: 0.59%	Yes

Yes* = Yes with Modifications

OPPORTUNISTIC CREDIT SEARCH RESPONSES

Firm	Fund	Vehicle	Fund AUM (MM)	Firm AUM (MM)	Track Record (Yrs)	Approach & Style	Liquidity Schedule For Contributions	Liquidity Schedule For Withdrawals	Proposed Fee Schedule	Agree to Side Letter Terms
LMCG	Serenitas Credit Gamma Fund	CF	$586	$3,786	10	Relative value corporate and mortgage credit	Monthly	Quarterly	1.5% + 20% perf. fee	Yes*
Palisade Capital	Short Duration Convertible Bonds	SMA	$163	$4,160	7	Short Duration Convertible Bonds	N/A	N/A	First $50M: 0.70%, Next $50M: 0.65%, Thereafter: 0.55%	Yes
PIMCO	PIMCO Flexible Credit Income	Interval Fund	$2,724	$1.74T	6	Diversified Credit	Daily	Quarterly Only through fund offers to repurchase	2.09% Total Annual Expenses: 2.54%	Requires review*
Prime Meridian	PM Special Opportunities	CF	$92.6	$230.3	4.5	Specialized Credit (Insurance linked, royalties)	Monthly	Quarterly	1% + 20% Performance Fee	Yes
Shenkman Capital	Opportunistic Credit Strategy	CF	$547	$28,842	5	Diversified Credit	Monthly	Quarterly	100 bps	Yes*
Waterfall	Waterfall Eden Fund	CF	$2,150	$11,600	18	Asset-Backed Credit	Monthly	Quarterly	1.5% + 17% Incentive Fee	Yes*
Wellington	Opportunistic Fixed Income	CF	$ 5,732	$1,1T	23	Diversified Credit	Daily	Daily	0.50% first $100M, 0.45% thereafter	Yes*

Yes* = Yes with Modifications

NEPC DISCLOSURES

Past performance is no guarantee of future results.

All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.

Some of the information presented herein has been obtained from external sources NEPC believes to be reliable. While NEPC has exercised reasonable professional care in preparing this content, we cannot guarantee the accuracy of all source information contained within.

The opinions presented herein represent the good faith views of NEPC as of the publication date and are subject to change at any time.

This presentation contains summary information regarding the investment management approaches described herein but is not a complete description of the investment objectives, portfolio management and research that supports these approaches. This analysis does not constitute a recommendation to implement any of the aforementioned approaches.

MWRA Employees' Retirement System

Asset Allocation Rebalance Summary

May 22, 2023

	Market Value	Weight in Fund	Target Weight	Recommendation	New Market Value	New Weight
Composite	**$645,587,013**	**100.0%**	**100.0%**	**$0**	**$645,587,013**	**100.0%**
Total Balanced	**$5,075,131**	**0.8%**	**0.0%**	**-$1,500,000**	**$3,575,131**	**0.6%**
PRIT Core Fund	$5,075,131	0.8%	0.0%	-$1,500,000	$3,575,131	0.6%
Total Domestic Equity	**$201,550,682**	**31.2%**	**31.0%**	**$0**	**$201,550,682**	**31.2%**
Rhumbline Advisors S&P 500 Index Fund	$65,991,356	10.2%	10.0%	$0	$65,991,356	10.2%
Coho Relative Value	$47,253,368	7.3%	7.0%	$0	$47,253,368	7.3%
Polen Focused Growth	$43,520,434	6.7%	7.0%	$0	$43,520,434	6.7%
Mesirow Smcall Cap Value	$22,712,608	3.5%	3.5%	$0	$22,712,608	3.5%
Loomis Sayles Small Cap Growth	$22,072,916	3.4%	3.5%	$0	$22,072,916	3.4%
Total International Equity	**$109,151,101**	**16.9%**	**19.0%**	**$0**	**$109,151,101**	**16.9%**
SEG - Baxter Street Fund	$30,807,899	4.8%	5.0%	$0	$30,807,899	4.8%
Schroders International Alpha	$28,847,746	4.5%	4.0%	$0	$28,847,746	4.5%
Baillie Gifford	$14,233,537	2.2%	3.0%	$0	$14,233,537	2.2%
Axiom Emerging Markets	$16,212,986	2.5%	3.5%	$0	$16,212,986	2.5%
ABS Emering Markets Strategic Portfolio	$19,048,933	3.0%	3.5%	$0	$19,048,933	3.0%
Total Equity	**$310,701,783**	**48.1%**	**50.0%**	**$0**	**$310,701,783**	**48.1%**
Total Fixed Income	**$121,151,515**	**18.8%**	**20.0%**	**$0**	**$121,151,515**	**18.8%**
Garcia Hamilton	$32,273,113	5.0%	6.0%	$0	$32,273,113	5.0%
Lord Abbett	$34,826,219	5.4%	6.0%	$0	$34,826,219	5.4%
Loomis Sayles Multi Sector Bonds	$44,675,784	6.9%	7.0%	$0	$44,675,784	6.9%
Octagon Senior Secured Loans	$9,361,351	1.5%	1.0%	$0	$9,361,351	1.5%
Invesco Mortgage Recovery	$15,048	0.0%	0.0%	$0	$15,048	0.0%
Total Hedge Fund	**$40,543,050**	**6.3%**	**6.0%**	**-$2,500,000**	**$38,043,050**	**5.9%**
PRIM Absolute Return Fund	$13,293,236	2.1%		-$1,000,000	$12,293,236	1.9%
Corbin Pinehurst Partners	$12,954,931	2.0%		$0	$12,954,931	2.0%
UBS Neutral Alpha Strategies	$14,239,653	2.2%		-$1,500,000	$12,739,653	2.0%
Entrust Peru Winddown	$55,230	0.0%		$0	$55,230	0.0%
Total Real Estate	**$70,119,728**	**10.9%**	**12.0%**	**$0**	**$70,119,728**	**10.9%**
TA Realty Core	$26,506,164	4.1%		$0	$26,506,164	4.1%
Morgan Stanley PPF	$25,657,244	4.0%		$0	$25,657,244	4.0%
Total Private Equity	**$88,061,814**	**13.6%**	**12.0%**	**$0**	**$88,061,814**	**13.6%**
Cash	**$9,933,992**	**1.5%**	**0.0%**	**$4,000,000**	**$13,933,992**	**2.2%**
Peoples United Cash	$9,933,992	1.5%	0.0%	$4,000,000	$13,933,992	2.2%